THE POLITICAL ECONOMY OF SINGAPORE'S INDUSTRIALISATION: STATE POLICY AND INTERNATIONAL CAPITAL INVESTMENT

This thesis is presented for the degree of
Doctor of Philosophy
of Murdoch University

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I declare that this thesis is my own account of my research. It contains as its main content work which has not previously been submitted for a degree at any university.

Garry Rodan
ABSTRACT

This thesis analyses the industrialisation of Singapore with special focus on the roles of the state and international capital. The interest in Singapore is due to its status as a newly-industrialising country (NIC) which has been successfully incorporated into a new international division of labour. This new structure has emerged in the last two decades, opening up opportunities for manufacturing production in the Third World. Since both Singapore and NICs in general have been promoted as models for other developing countries wishing to industrialise, it is essential we clarify the reasons for such success.

The argument of this thesis is that Singapore’s rapid industrialisation through incorporation into this new international division of labour has been facilitated by the state assuming a pervasive and decisive role, intervening at the social, economic and political levels. This intervention has helped shape Singapore’s comparative advantage as well as establish the necessary pre-conditions for the attraction of international capital. The capacity of the state to perform such functions should not be taken for granted: it derives from a convenient juncture of historical and social structural conditions.

To argue that the state has played a role in NIC, and in this case Singapore’s, industrialisation is not novel. Certainly there are accounts which ignore the state’s role. More commonly, however, neo-classical economists have acknowledged state intervention in the economic sphere but have emphasised market forces in explaining rapid industrialisation. Such an approach generally misrepresents the relationship between market and state. The relationship between the two is presented as dialectical in this thesis, and one which encompasses social and political, and not just economic, factors. Nevertheless, this thesis is not just at odds with such neo-classical analysis, it also challenges the voluntarism of rational-choice approaches and the determinism of dependency theory. So, not only does this thesis examine the various ways in which the state
influences the pattern of industrialisation, especially the pattern of investment by international capital, it also examines the reasons for the state's behaviour. It is here that we see the state's complexion is contingent upon a complex set of domestic and international relationships. In Singapore's case, domestic class formations have combined with fortuitous tendencies in international capital accumulation: in short, a relatively autonomous political state has emerged with sufficient need and will to exploit and contribute to this new international division of labour.

Divided into four parts, this thesis provides a chronological account of Singapore's industrialisation. After an introduction to the theoretical concerns of the study, Part I outlines the historical developments of colonial Singapore affecting the island's long-term economic and social structure. Part II looks at how historical and political developments after World War II gave rise to the People's Action Party (PAP) which, in turn, came to assume the status of a virtual 'state party'. In Part III we see how extensive state power was of primary importance not just to the implementation of the export-oriented industrialisation (EOD) programme which incorporated Singapore into the new international division of labour, but also to the ongoing management and modification of this relationship. This culminates in the late 1970s in various economic and social contradictions. Part IV examines the so-called 'Second Industrial Revolution', the government's policy response to these contradictions. This was designed to affect an accelerated transition to a more sophisticated technological base and represents the boldest attempt by any NIC government to test the objective limits to the state's ability to influence the pattern of private capital investment in industry.

In essence, this thesis attempts to redress the lack of serious analysis of the state's role in the industrialisation of Singapore and other NICs.
ACKNOWLEDGEMENTS

During the course of this thesis I have benefited from the encouragement, criticism, advice and support of various people, and invaluable practical assistance from others during necessary research trips. I am grateful therefore to the following people – listed alphabetically – for their direct and indirect contributions to this thesis: Peter Chapman, Chua Hock Choon, Robert Clifford, Wendy Edwards, Richard Higgott, Jeffrey Hwang, Ian McKenzie, Patrick Ong, Geoffrey Reeves, Jan Sinclair-Jones and Wong Tuan Wah. I am, however, especially indebted to Dick Robison, Kevin Hewison and Jane Tarrant. As my supervisor, Dick not only provided stimulating intellectual guidance but also the encouragement and support so critical to the completion of this thesis. Kevin’s timely and constructive suggestions have also helped in keeping the topic of this thesis manageable. In contrast with all other people who have in some way been involved with this thesis, Jane has been unable to insulate herself from the personal inconveniences and constant frustrations of my Ph.D. Her unwavering and unreserved moral support has been a source of inspiration and consolation throughout the period of this research. Finally, I express my gratitude to Jan Bide and Annette Ritchie for their expertise in the production of this thesis and their general encouragement.

Important as the above contributions have been to the completion of this thesis, I am solely responsible for the final product presented here.
### ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>ABC</td>
<td>American Business Council</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
</tr>
<tr>
<td>BS</td>
<td>Barisan Sosialis</td>
</tr>
<tr>
<td>CAS</td>
<td>Capital Assistance Scheme</td>
</tr>
<tr>
<td>CCC</td>
<td>Citizens’ Consultative Committee</td>
</tr>
<tr>
<td>COP</td>
<td>Committee on Productivity</td>
</tr>
<tr>
<td>CPF</td>
<td>Central Provident Fund</td>
</tr>
<tr>
<td>DBS</td>
<td>Development Bank of Singapore</td>
</tr>
<tr>
<td>EC</td>
<td>European Community</td>
</tr>
<tr>
<td>EDB</td>
<td>Economic Development Board</td>
</tr>
<tr>
<td>EOI</td>
<td>export-oriented industrialisation</td>
</tr>
<tr>
<td>GDP</td>
<td>gross domestic product</td>
</tr>
<tr>
<td>GSP</td>
<td>General System of Preferences</td>
</tr>
<tr>
<td>IM</td>
<td>Islamic Movement</td>
</tr>
<tr>
<td>HDB</td>
<td>Housing Development Board</td>
</tr>
<tr>
<td>INTRACO</td>
<td>International Trading Company</td>
</tr>
<tr>
<td>ISA</td>
<td>Internal Security Act</td>
</tr>
<tr>
<td>ISC</td>
<td>Internal Security Council</td>
</tr>
<tr>
<td>ISD</td>
<td>Internal Security Department</td>
</tr>
<tr>
<td>ISI</td>
<td>import-substitution industrialisation</td>
</tr>
<tr>
<td>JTC</td>
<td>Jurong Town Corporation</td>
</tr>
<tr>
<td>MAS</td>
<td>Monetary Authority of Singapore</td>
</tr>
<tr>
<td>MCA</td>
<td>Malaysian Chinese Association</td>
</tr>
<tr>
<td>MCP</td>
<td>Malayan Communist Party</td>
</tr>
<tr>
<td>MPs</td>
<td>members of parliament</td>
</tr>
<tr>
<td>NICs</td>
<td>newly-industrialising countries</td>
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<tr>
<td>NPB</td>
<td>National Productivity Board</td>
</tr>
<tr>
<td>NPC</td>
<td>National Productivity Council</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>--------------</td>
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</tr>
<tr>
<td>NTS</td>
<td>non-traditional source</td>
</tr>
<tr>
<td>NTUC</td>
<td>National Trades Union Congress</td>
</tr>
<tr>
<td>NWC</td>
<td>National Wages Council</td>
</tr>
<tr>
<td>PAP</td>
<td>People's Action Party</td>
</tr>
<tr>
<td>POSB</td>
<td>Post Office Savings Bank</td>
</tr>
<tr>
<td>PUB</td>
<td>Public Utilities Board</td>
</tr>
<tr>
<td>R &amp; D</td>
<td>research and development</td>
</tr>
<tr>
<td>SATU</td>
<td>Singapore Association of Trade Unions</td>
</tr>
<tr>
<td>SBWU</td>
<td>Singapore Bus Workers' Union</td>
</tr>
<tr>
<td>SCMSSU</td>
<td>Singapore Chinese Middle School Students' Union</td>
</tr>
<tr>
<td>SDP</td>
<td>Singapore Democratic Party</td>
</tr>
<tr>
<td>SFSWU</td>
<td>Singapore Factory and Shop Workers' Union</td>
</tr>
<tr>
<td>SFTU</td>
<td>Singapore Federation of Trade Unions</td>
</tr>
<tr>
<td>SIFS</td>
<td>Small Industries Finance Scheme</td>
</tr>
<tr>
<td>SILO</td>
<td>Singapore Industrial Labour Organisation</td>
</tr>
<tr>
<td>SISIR</td>
<td>Singapore Institute of Standards and Industrial Research</td>
</tr>
<tr>
<td>SJP</td>
<td>Singapore Justice Party</td>
</tr>
<tr>
<td>SMA</td>
<td>Singapore Manufacturers' Association</td>
</tr>
<tr>
<td>SMNO</td>
<td>Singapore Malay National Organisation</td>
</tr>
<tr>
<td>STUC</td>
<td>Singapore Trade Union Congress</td>
</tr>
<tr>
<td>SUF</td>
<td>Singapore United Front</td>
</tr>
<tr>
<td>TAB</td>
<td>Tariff Advisory Board</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>UMNO</td>
<td>United Malay National Organization</td>
</tr>
<tr>
<td>UPF</td>
<td>United People's Front</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>USSU</td>
<td>University of Singapore Students' Union</td>
</tr>
<tr>
<td>WP</td>
<td>Workers' Party</td>
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</table>
PREFATORY NOTES

Wherever possible sexist terminology has been avoided in this thesis. However, in cases where official titles are referred to, the original form has been retained.

Note also that the list of abbreviations at the front of this thesis is not exhaustive. It identifies only the more important and most commonly occurring abbreviations.
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FIGURE

PART I: THEORETICAL AND HISTORICAL CONTEXT

The two chapters comprising this section provide an essential background to the main body of discussion in this thesis. The central theoretical issues and debates largely implicit throughout the thesis are clarified here. Fundamental observations are also made about Singapore's early development which assist in understanding both the significance of the industrialisation programme to modern Singapore and the conditions helping to shape its form. We see here that the pressure for a high state profile in Singapore's industrialisation has its roots in specific social and economic structures encouraged by colonisation.
CHAPTER 1

THEORETICAL INTRODUCTION

The Scope of the Study

The inspiration for this thesis can be traced to an interest in a number of broad but related questions: the study of economic development and problems thereof in the Third World; the changing nature of the international division of labour in manufacturing production and the associated industrialisation of a select group of East Asian developing countries; the impact of international capital investment in the Third World; and the role of the state in the process of development.

In more specific terms, the thesis is a study of the industrialisation of Singapore. The aim is to describe and explain the pattern of industrialisation with particular focus on the role of, and relationship between, international capital and state policy. In less simple terms, the thesis aims to draw out the implications of Singapore's experience for the analysis of Third World development generally and question the popular view of Singapore, and indeed Taiwan, South Korea and Hong Kong, as development models which can and should be adopted elsewhere.

Close analysis of the state in the industrialisation of Singapore leads the thesis to directly challenge several important tenets of neo-classical economics and rational choice theory. Whereas these approaches tend to minimise the state's importance and stress the correctness of the policies adopted by the East Asian industrialisers, this thesis argues that Singapore's rapid industrialisation can only be understood in terms of broad socio-political as well as economic relations involving the state. (It is these relations, it will be argued, that have made it possible for the implementation of the policies emphasised by both neo-classical economists and rational choice theorists.) Without comparable relations, it is questionable whether a general adoption of the East Asian models is feasible.
As will be explained the Singapore state has played a central role in the industrialisation process. In the economic sphere it has not only undertaken direct investment but has intervened to shape the cost, supply and quality of labour and infrastructure. It has also provided fiscal incentives and subsidies in discriminatory fashion to promote particular forms of industrial activity. Apart from specifying and explaining this intervention, the thesis explores the many extra-economic activities of the state which provide a social and political environment conducive to Singapore's particular form of industrialisation. The capacity to implement these policies and the consequent success of them, however, is the product of a fortuitous co-incidence of factors. Not the least important of these is the peculiar domestic class structure which made it both possible and likely that the state would adopt a high profile in any effort to accelerate industrialisation. Without comparable circumstances, or rather circumstances producing a comparable effect, it would be utopian to expect industrial programmes of this type to have similar effects elsewhere.

The selection of Singapore as a case study is not intended to suggest that its experience is wholly representative of all East Asian industrialisers. As a city state without an agricultural hinterland, it is obviously in some respects different from all other cases but Hong Kong. This point notwithstanding, the methodology appropriate to understanding the pervasive state in Singapore is no less relevant to other NICs. In each case it is necessary to identify and explain the various historical, social structural and economic contingencies upon which such a state and its capacity to exploit external opportunities is reliant. Yet the selection of Singapore in this study was not random. Singapore's policy-makers have adopted the most conscious attempt, of any of these countries, to exploit the apparatus of the state in order to influence the pattern of industrialisation in general and international capital investment in particular. Hence, the analysis of the Singapore experience may offer some insight into the potential and limitations of similar industrial strategies where circumstances permit and encourage the adoption of such a model.
The thesis is structured chronologically, starting with pre-colonial Singapore and culminating in the analysis of the post-1979 period in which the Singapore government adopted an ambitious new industrial strategy, the 'Second Industrial Revolution'. Throughout, however, a number of questions will be pursued systematically: What form does industrialisation take and why? What industrial policies are pursued by the state and why? What is the nature of involvement by international capital in this industrialisation and what determines this involvement?

In addressing these questions, the thesis is obviously informed by existing theoretical literature which has attempted to develop suitable frameworks for such analysis. Much of the foregoing discussion examines this literature, the purpose being to clarify the points of divergence and convergence with this thesis. In short, I will be asking how helpful these different approaches are to an understanding of the sorts of analytical problems embodied in Singapore's rapid industrialisation.

Emergence of the NICs

Traditionally, the economies of the developing countries, the so-called Third World, have tended to play a specific and limited role in the international division of labour. Principally they have exported raw materials and agricultural products. Over recent decades this pattern has undergone significant change, so much so that it is widely contended that the emergence of a new international division of labour has begun.¹ Unlike the old structure, this new division involves the developing countries in manufacturing production, although predominantly in those aspects of production which are labour-intensive and relatively unskilled. Such a specialisation has become possible with technological advances which allow for the decomposition of the production process. This has facilitated a global optimisation in the exploitation and allocation of the factors of production, that is, 'worldwide sourcing'. A consequent relocation of some manufacturing
processes to developing countries is, and has been for some time, in train. The emerging new international division of labour has thus been affected by an unprecedented degree of mobility by international capital.2

The significance of this emerging structure for developing countries is, as will be elaborated below, the subject of some controversy. What must be emphasised at this point however is that a new pattern in international capital investment has begun, one which has prompted an expansion of manufactured exports from developing countries. Although the new international division of labour has opened up the way for manufactured exports from developing countries, the performance and degree of participation by developing countries in export production is remarkably uneven. For developing countries as a whole manufactured exports grew by 13.8% between 1960 and 1973 and by a further 11.0% up until 1980.3 This compared with 10.7% and 5.8% for the world as a whole. The bulk of the export expansion of developing countries is, however, accounted for by a handful of 'super exporters'. These are the so-called newly-industrialising countries (NICs) whose governments have, to differing degrees, adopted explicit strategies designed to facilitate incorporation into the new international division of labour. South Korea, Taiwan, Hong Kong, Singapore, Brazil and Mexico are the countries generally subsumed under this category. It is, however, the four Asian developing countries, those most completely committed to export-oriented industrialisation (EOD strategies, which have been the most outstanding. Collectively they accounted for 60% of the total manufactured exports of developing countries in 1976. In per capita terms the value of manufactured exports from the 'Gang of Four', as they are often referred to, was in excess of US$400 as against an average of US$8 for the remaining developing countries.4 Annual average growth rates in real GDP of approximately 9% were achieved in each of these four countries in the 1960s and, in all but Hong Kong, these rates were either improved or sustained in the 1970s while the reverse trend was occurring in the developed countries.5
In essence then, although this new international division of labour is still embryonic, a select group of economies most comprehensively incorporated into its structure have achieved impressive rates of industrial and economic growth. This raises a number of important and interesting questions, two of which are central to this thesis. First, what is the nature of this new international division of labour and what are the consequent opportunities and limits for developing countries? Second, what determines incorporation into the new international division of labour and what, to date, has been the ensuing rapid industrialisation? Both of these questions essentially ask how is it that the NICs have been able to achieve such rapid industrialisation whilst other developing countries continue to experience only modest, if not negligible, industrial growth?

Explanations of the contrasting experiences of developing countries and the significance of the new international division of labour can be grouped, for heuristic purposes, into two broad theoretical categories: neo-classical/rational choice and statist. These two categories are not discrete entities but a convenient division for our purposes here. As explained below, however, there are important distinctions to be made within both the neo-classical/rational choice and statist categories themselves.

**Neo-Classical/Rational Choice Approaches**

Neo-classical economists prescriptively embrace the emerging new international division of labour though they may not recognise it by this name. They welcome the increased specialisation of production and trade as a rational shift towards increased efficiency in the allocation of factors of production. The change in the division of labour in manufacturing has enabled individual economies to exploit more fully their comparative advantages. The industrial successes of the NICs are thus explained by the adoption of astute, but quite specific, public policies by governments. These policies primarily involve trade liberalisation, and a general reliance on market forces to determine factor prices, but invariably also include
exchange rate reform and export-incentives.\textsuperscript{8} Having got factor prices ‘right’, integration into the world economy through the adoption of EOI strategies is seen to have facilitated the realisation of comparative advantage and, consequently, extremely rapid industrialisation. For these theorists, a general adoption of this more rational division of labour would bring mutual benefits for developing and developed countries.\textsuperscript{9}

In the analysis of NICs, neo-classical theorists have underlined the correlation between rapid industrialisation and external orientation in manufacturing production. Indeed, there is a tendency to see this as a causal relationship. As early as 1967, Keesing argued the case for a general adoption of EOI strategies in the Third World after comparing such economies with those oriented primarily towards the domestic market.\textsuperscript{10} In addition, Krueger asserted, on the basis of a comparison of the industrial performances of developing countries, that the successes of the NICs demonstrated that "export promotion out-performs import substitution".\textsuperscript{11} Likewise, Little concluded from his study of Asia’s four NICs that:

\begin{quote}
The major lesson is that labour-intensive, export-oriented policies, which amounted to almost free trade conditions for exporters, were the prime cause of an extremely rapid and labour-intensive industrialisation ...\textsuperscript{12}
\end{quote}

The currency of this view gained considerably over time, and was quintessentially reflected in the revised position of the World Bank. In the early 1980s the previous basic needs approach was abandoned in favour of trade-led growth.\textsuperscript{13} The World Development Report 1981 called on developing countries to follow the model of South Korea in manufacturing.\textsuperscript{14} Of course, the World Bank has been in a position to make its loans conditional upon the adoption of an EOI strategy and the associated trade liberalisation and structural adjustment policies appropriate to such a strategy.\textsuperscript{15}

Although the neo-classical position maintains that an external orientation in production and trade, together with measures facilitating the realisation of comparative advantage, is the basis of NIC successes, how and why such
programmes have been adopted is explained in terms of policy-makers exercising rational choices. Those economies, to have experienced rapid industrialisation, are those in which policy-makers have chosen technically correct policies; other developing countries languish because policy-makers adopt technically incorrect or unsound policies. This interpretation explains the strong prescriptive component of the neo-classical position. Little epitomises this voluntaristic depiction of EOI strategy implementation when he contends that "... the success [of Asia's NICs] is almost entirely due to good policies and the ability of the people ..." 16 As is pointed out by Evans and Alizadeh, however, the major problem with this sort of analysis is that it plays down the social, political and historical factors which condition the opportunity and ability of policy-makers to adopt an EOI strategy and measures conducive to the realisation of comparative advantage. 17 In particular, it steers attention away from the important role of the state in the industrialisation of the NICs.

Neo-classical economists have not, however, totally ignored the state. In fundamental terms, the state here refers to the agencies of administration, force and law which co-exist with, but are separate from, civil society. As will be explained later in this chapter and demonstrated in the course of this thesis, however, such apparatus serves to maintain a particular system of production and circulation of goods. Ohlin, Kindleberger and Krueger have all attempted to accommodate the fact of state intervention in their respective theories of trade and comparative advantage. 18 In all cases, however, the authors concentrate their analysis on economic intervention and fail to take into account the crucial social and political, indeed ideological, functions performed by the state. Thus, although Krueger, for example, has developed a sophisticated model for quantifying the effects of state-imposed rents on the pattern of international trade, 19 she does not generally emphasise the interventionist nature of the NIC states. 20 State intervention, however, can be extra-economic in form yet have important economic effects. Social and political control of labour, for example,
has certainly influenced the cost of labour and, consequently, the comparative advantage of NICs.

Aside from the lack of analysis of the state's extra-economic activities, neo-classical economists have not adequately addressed the question of why 'rational' EOI strategies have been successfully introduced by some developing countries but not others. Riding on the back of neo-classical economics, a range of rational choice and public choice theorists have, however, attempted to fill part of this void. These studies have focused on the decisions and decision-making processes of politicians and bureaucrats in an endeavour to identify problems with policy and its implementation.\textsuperscript{21} Rothchild's and Curry's study of political decision-making in Central Africa represented one of the most influential of these analyses.\textsuperscript{22} The authors develop an elaborate model for decision-making which they claim is "usable in the sense that it provides a conceptual basis for analysing institutional structures and processes that a community might develop in order to decide on what to produce, how to produce, and for whom to produce".\textsuperscript{23} As Staniland points out, however, this approach leads to the consideration of policy choice in isolation from political constraints and even to the rationalisation of repressive political forms on the grounds of their utility to economic development.\textsuperscript{24} The naive apolitical aspect of this approach is highlighted by the assertion that there are five factors which condition governmental decision-making in Africa: information, values, beliefs, analytical capacity and bureaucratic organisation. There is no recognition of the influence of powerful interest and lobby groups and the internal political processes of government. Political processes are not seen as inherent to decision-making but rather as an obstacle to it. For the authors, the point of studying decision-making structures is, in effect, to ensure that technical rationality prevails over politics.

One rational-choice theorist who gives greater attention to the complexity of the decision-making process, and thus tries to minimise the above problems, is Bates who studies the failures of agricultural policies in post-colonial Africa.\textsuperscript{25}
He argues that there is both a political and economic rationality, the former exerting an influence over the latter. The market interventions of politicians, the deployment of patronage and the exercise of repression all shape the choices open to individual actors in the market place, in this case peasant farmers. The net result is that short-term political incentives operate as long-term disincentives for individual producers to invest in the much-needed food crops and exported cash-crops. The value of Bates's analysis is that he demonstrates how the rational choice of any individual peasant is circumscribed by the institution of politics. Having drawn attention to these institutional influences, however, is not necessarily to have explained them and this approach is still therefore inadequate.

More recent public policy studies of the Third World have gone further in developing observations about the relationship between the nature and degree of political power at the disposal of politicians and bureaucrats and the prospects of 'good' policy. Both Migdal and Grindle, for example, have examined policy implementation in various Third World countries and concluded that more effective policies would be enhanced by a concentration of public power with central authorities. In their own ways both authors have at least underlined the importance of the political context within which policies are implemented, that is, the constraints upon political actors in implementing policy. The analysis of this political context is, however, confined to the immediate problems of bureaucratic decision-making and overlooks the broader political constraints on actors. So whilst Grindle is justified in contending that "implementors need to be skilled in the art of politics and must understand well the environment in which they seek to realise public policies and programmes", it must also be emphasised that politics is not simply a technical process or an art to be mastered. Conflict is often unavoidable, no matter how skilful or astute the politician or bureaucrat.

In essence, then, neo-classical economists and those rational choice theorists who have looked more closely at the context of decision-making in developing countries have tended to emphasise the rationality of decision-makers or the
decision-making process in explaining the successful incorporation of NICs into the new international division of labour. It is this understanding which has led not just to the advocacy of a general adoption of the East Asian model of EOI by developing countries, but also the optimism that such a redirection is possible.\textsuperscript{30}

One objection which has been raised to this is that there are structural limits to how many exports can be absorbed by the markets of the developed countries.\textsuperscript{31}

For the purposes of this study, however, the fatal flaw of the neo-classical/rational choice position is that it attempts to disembody policy decisions from their social and political environments. Consequently, greater attention will be given to the question of whether social and political constraints render the EOI project viable. In particular, close analysis of the nature of the state and forms of state intervention affecting industrialisation will be pursued. The question of what inclines and enables Singapore's policy-makers to adopt the policies lauded by the advocates of a general adoption of the East Asian EOI model is addressed. To answer this we must look beyond the economic policies themselves and to the broad socio-political and ideological relationships which are linked to them.

Another weakness of the neo-classical and rational choice approaches which renders them less than suitable for this study is that they fail to specify the contribution of the state to comparative advantage itself. Indeed, comparative advantage takes on an existence outside the realms of the concrete; it is a condition or a law independent of actors themselves. According to this approach, actors can distort comparative advantage or help realise it, but they cannot actually create or define it. This position is rejected in this thesis. Rather it is argued that the state can and does play a major role in shaping comparative advantage - not just by including the cost of factors of production but also by conditioning the socio-political environment in which these costs are realised. Comparative advantage is not a neutral, exclusively abstract condition but a position in the market determined by a variety of empirical factors, some of which the state is able to define with positive results. The Singapore case clearly illustrates this.
Statist Approaches

Accounts of how the state influences the pattern of industrialisation vary considerably in focus. Some writers attribute analytical primacy to the nature of the political regime whilst others emphasise the sociological characteristics of the state's decision-makers. Some writers pay special attention to the specific forms of intervention in the economy by the state, either to critically examine the notion of comparative advantage or to examine the influence of state regulation and management of foreign direct investment. In each case, however, these writers operate on the assumption that, at the very least, the state is a major actor in the industrialisation process. The intention of the discussion below is not to provide a representative survey of all these different theories but rather to selectively examine those which raise questions of special relevance to this thesis.

Corporatism and the Bureaucratic Authoritarian State

Theories which examine the relationship between political processes of the state and industrialisation have attracted widespread interest in the study of development in the Third World. To a significant extent this interest has been prompted by curiosity with the correlation between repressive political regimes which intervene extensively in the social and political realms and integration with the new international division of labour. As would be expected, then, much of this literature is informed by corporatist theory. Though this debt is not always formally acknowledged, it is nonetheless quite real and deserved of elaboration.

There are many working definitions of corporatism but that by Schmitter is possibly the most commonly employed and detailed:

... a system of interest representation in which the constituent units are organized into a limited number of singular, compulsory, noncompetitive, hierarchically ordered and functionally differentiated categories, recognised or licensed (if not created) by the state and granted a deliberate representational monopoly within their respective categories in exchange for observing certain controls on their selection of leaders and articulation of demands and supports.
However, Schmitter draws a distinction between 'societal' and 'state' corporatism. The former is associated with "the post liberal, advanced capitalist, organized democratic welfare state" while the latter is a "defining element of, if not structural necessity for, the antiliberal, delayed capitalist, authoritarian, neo-mercantilist state". The form that corporatism takes, whether societal or state, is considered by Schmitter to be a function of the "basic imperatives or needs of capitalism to reproduce the conditions for its existence and continually to accumulate further resources". State corporatism, argues Schmitter, develops where these basic imperatives cannot be met by co-opting and incorporating, but instead by repression and the exclusion of representation of subordinate classes. This tends to occur where the domestic bourgeoisie is either externally-dependent and/or too weak and divided to meet these basic imperatives legitimately, that is, within a liberal framework. In essence state corporatism is seen as a structurally-imposed condition generated by "delayed, dependent capitalist development and nonhegemonic class relations".

Schmitter pursued this corporatist model in his analysis of authoritarian rule in post-1964 Brazil and similar sorts of analyses were formulated in the early 1970s by Cotter and Malloy in the case of Peru, Linz in the cases of Spain and Brazil and, later on, by Drake in the study of Chile and Stauffer on the Philippines.

Probably the most explicit and influential refinement of corporatist theory in the study of Third World industrialisation has been by O'Donnell. He was particularly concerned about the rise of military regimes in Latin America and how this might be linked to industrialisation. Based primarily on his studies of Brazil and Argentina, O'Donnell generalised his observations to contend that the emergence of repressive political regimes in Latin America is causally linked with a new stage of industrialisation. He identifies three separate development stages in the history of these societies, each characterised by a distinct form of political process.
In the first stage, during which the primary export sector predominates, there is an 'oligarchic' state which affords only elite representation from this sector. The second stage, the 'populist' stage, involves the early and relatively easy stage of import substitution industrialisation of the 1940s and 1950s in which a new industrial elite, involving the national bourgeoisie, enters into a political alliance with the urban proletariat which provides the market for manufactured goods. A coalition of urban workers and the national bourgeoisie thus provides the basis for the rise of various populist regimes: Vargas in Brazil, the Popular Front in Chile and Peron in Argentina, for example. The third stage is characterised by a 'bureaucratic authoritarian' state. This is reached where the opportunities for small-scale investment in light industry have diminished. To solve this crisis of accumulation large-scale investment in intermediate and capitalist goods is required. This 'deepening' or vertical integration necessitates a relaxation of industry protection, the promotion of exports and the attraction of international capital. The size of the new investments, the gestation periods involved, and the technological and marketing requirements of this production is beyond the capacity of most nationally-based companies. Thus, not only is the national bourgeoisie edged out of the commanding heights of the economy, but a host of unpopular fiscal austerity and labour disciplinary measures are introduced to finance the new programme and attract capital. In these circumstances, the basis of political populism is undermined and a new alliance is formed between the military, civilian technocrats and the 'upper bourgeoisie', a highly oligopolised and transnationally-oriented fraction of capital. All three are committed to carrying forward their increased integration of the economy with the international division of labour. The political pre-eminence of the military is justified in terms of its utility for this new stage of industrialisation. Technical efficiency supercedes the consent of the governed as the basis of elite legitimacy. According to O'Donnell, however, the inherently exclusive nature of this regime, barring all popular representation, means that repression necessarily replaces legitimacy as the means of its survival.
The importance of O'Donnell's thesis lay in the attempt to show that a specific form of industrialisation implied a specific role for the state in Latin America. In so doing, O'Donnell specified a particular pattern of political alliances necessary for industrialisation. The relationship O'Donnell was exploring certainly demanded explanation, but his thesis contained various flaws.

A number of critical but sympathetic studies were subsequently conducted to test O'Donnell's bureaucratic authoritarian model. A compilation edited by Collier entitled *The New Authoritarianism in Latin America*, including a revised statement by O'Donnell, contains such studies in which O'Donnell's thesis is challenged though not totally rejected. Kaufman argues, for example, that populist regimes are not as neatly associated with the easy stage of import-substitution industrialisation as claimed by O'Donnell. He also questions whether the necessity of industrial deepening or vertical integration accounts for the emergence of bureaucratic authoritarianism. Serra's examination of the Brazilian case emphasises that during the first decade of the military regime, it was not deepening so much as the 'undeepening' of the economy which was characteristic. Kaufman also contends that there were alternative strategies to deepening, including the export of manufactured goods or primary products or income redistribution to generate stronger internal demand for consumer goods, which could have been pursued. There was, according to Kaufman, no structural necessity about deepening. Moreover, none of the possible strategies themselves necessitate repression. Just the same, though, he argues that the transition among different phases of industrialisation has facilitated a "narrowing of the coalitional choices and institutional alternatives to political and economic elites". Hirschman also rejects as "unpromising" the pursuit of a "single, specific structural economic difficulty underlying the mix of authoritarianism in Latin America". He suggests that O'Donnell's project should not be abandoned but widened to include an analysis of the ideological influences shaping the policies of the regime. This is intended to add to the specification of the differences between the pluralist and authoritarian regimes of Latin America.
Hirschman's point is a good one. Ideological influences are particularly important in explaining policy formation in Singapore, especially in view of the degree of relative political autonomy enjoyed by state actors. Relating concrete policy stances to ideological perspectives is, however, always difficult. The problem is compounded in the case of Singapore where it is extremely rare for a researcher to have access to such materials as cabinet papers, party records or the private correspondence of ministers.

In so many different ways, the contributors to The New Authoritarianism in Latin America implicitly criticise the bureaucratic authoritarian state model for its economic determinism. In short, Hirschman, Serra, and Kaufman all maintain that O'Donnell's original thesis presents the structural constraints on political behaviour in too rigid a manner. Cardoso goes so far as to insist that bureaucratic authoritarianism refers "not to a form of state as such, but to a type of political regime". Cardoso points out that the dependent captialist state, even in circumstances of global economic crisis and consequent difficulties with import-substitution industrialisation, has successfully coexisted with a variety of political regimes; he specifies such examples as nonmilitary corporatist (Mexico), inclusionary military (Peru), exclusionary military (Argentina, Brazil, Chile, Uruguay) and democratic (Venezula, or Brazil for the term of Kubitschek). O'Donnell's critics alerted us to the complexity and variety of social formations in the Third World. This is not to suggest that the relationship between political repression and the pattern of industrialisation does not warrant close attention. It does suggest, however, that other factors may be responsible for mediating this relationship. It is towards an appreciation of these other factors that we must look to more fully understand the political interventions of the state in the industrialisation process.

**Dependency Theory**

Although the observation applies with differing degrees of accuracy, the bureaucratic-authoritarian model, and the subsequent attempts to modify it, bear
a close relationship to dependency theory. This body of theory which sees the lack of economic and political autonomy as the root cause of Third World economic problems was first popularised in the English-speaking world by Frank. He argued that the incorporation of Latin America into the global economy was characterised by structural dependency and grossly unfavourable exchange relations. This has, according to Frank, resulted in the expropriation of surplus-value created by Latin American producers. Indeed, the world is seen as a successive chain of exploitative exchange relations, expressed internationally in surplus exteraction by the ‘metropoles’ (advanced capitalist countries) at the expense of the ‘satellites’ or ‘periphery’ (the developing countries). For Frank, then, development of the periphery was not possible in the context of the international capitalist economy – the process was a zero sum game in which the metropoles developed by ‘underdeveloping’ the periphery. Only through withdrawal from the global economy and the establishment of an economy responsive to internal and not external needs could development occur.

Frank's emphasis on the conditioning influence of metropolitan capital on the Third World was of course picked up by advocates of the bureaucratic authoritarian model. They linked the emergence of this state to the nature of integration with metropolitan capital. However, the nature and significance of this integration (especially for the analysis of the peripheral state) has been the subject of considerable controversy within the dependency school itself, as well as the focus of considerable criticism from outside the school.

Although Frank's emphasis on the externally-imposed constraints on the Third World was theoretically insightful, the conclusions he drew from this were rather crude and in time required modification. Frank had discounted industrialisation in the periphery but, belatedly, he had to concede the reality of the NICs. Other dependency theorists were less stubborn. Cardoso, for instance, acknowledged the possibility of development in the periphery, but made important qualifications about its form:
The idea that there occurs a kind of development of underdevelopment, apart from a play on words, is not helpful. In fact, **dependency**, **monopoly capitalism** and **development** are not contradictory terms: there occurs a kind of **dependent capitalist development** in the sectors of the Third World integrated into the new forms of monopolistic expansion.  

Cardoso was to later refer to this as ‘associated dependent development’ when elaborating on the Brazilian case, arguing that the manufacturing sector was still dependent upon the technology provided by corporations from the advanced capitalist countries and, hence, the pattern of capital accumulation remained externally conditioned.  

Cardoso also argued that political repression was a function of this sort of development and clearly it is this relationship which O'Donnell and others were exploring.

Aside from Frank's reluctance to recognise Third World industrialisation, he paid little attention to internal political developments in the periphery. The reason for this is that Frank viewed such developments as largely derivative of external forces. In particular, the actions of the peripheral state were, for Frank, determined primarily by the imperialist bourgeoisie of the metropolis and not indigenous classes:

Indeed, this dependent, and in this sense **weak**, character of state in the Third World - dependent financially, technologically, institutionally, ideologically, militarily, in a word politically, on the international bourgeoisie(s) and their metropolitan states - may be regarded as the fundamental characteristic of the Third World state.  

It is this sort of reasoning which inspired charges of economic determinism. In fairness to the dependency school, however, not all its adherents have been quite so dismissive of the significance of indigenous class developments to an understanding of either the state or the form of industrialisation which prevails. To demonstrate the point let us examine briefly the work of Cardoso and Faletto. Their work, particularly Cardoso's, represents the earliest and possibly the most influential attempt to reconcile the analytical primacy of external factors with domestic political factors in the periphery from within the dependency school.
Cardoso's and Faletto's intentions in *Dependency and Development in Latin America* are quite clearly to provide a more sophisticated account of peripheral class formations than Frank. Their project is to specify the alliances of domestic classes and groups which are produced by the interaction of foreign and domestic capital and to explain how such alliances endeavour to obtain and exercise state power to secure their interests. They see these class relationships as more differentiated and complex than Frank.

We conceive the relationship between external and internal forces as forming a complex whole whose structural links are not based on more external forms of exploitation and coercion, but are rooted in coincidences of interests between local dominant classes and international ones, and, on the other side, are challenged by local dominated groups and classes.\(^{58}\)

What Cardoso and Faletto argue is that the internal histories of each individual peripheral society contain their own particular class struggles. Hence, the development of capitalism and the consequence of this development have not been identical in different societies. There is a variety of 'dependency situations' in the periphery rather than a uniform pattern of dependent capital accumulation. Such differences are, according to the authors, understood as the product of different historical junctures when "local classes allied or clashed with foreign interest, organized different forms of state, sustained distinct ideologies, or tried to implement various policies or defined alternative strategies to cope with imperialist challenges".\(^{59}\) In the course of their concrete comparative study of the histories of different Latin American countries, Cardoso and Faletto make a distinction between societies in which the export sector was in the hands of international capital and those in which the national bourgeoisie was in command of this sector. The different responses to external pressures are attributed to these different alliances which shape the actions of the individual peripheral states. What this sort of analysis attempts to do then is counter Frank's instrumentalist view of the peripheral state in the explanation of Latin American development. This attempt, however, has attracted criticisms.
In spite of the sincere attempt to transcend the determinism of Frank, Cardoso and Faletto lapse into the same error. As Smith points out, the Hegelian assumption that the whole is more than the sum of its parts is the root cause of structural determination in their analysis.\textsuperscript{60} This exonerates the authors from specifying in any genuinely dialectical way the dynamism between internal and external factors in the periphery. So, even in the Preface to \textit{Dependency and Development in Latin America}, Cardoso and Faletto assert that "it seems senseless to search for 'laws of movement' specific to situations that are \textit{dependent}, that is, that have their main features determined by the phases and trends of expansion of capitalism on a world scale".\textsuperscript{61} Analytically, then, the separate histories of the different peripheral societies are still secondary to international capitalism. This leads Smith to view the distinction between Cardoso and Faletto and Frank as less significant than the similarity.

In short, while Cardoso and Faletto repeatedly insist that different countries will have different reactions to capitalist imperialism ... they maintain the central assumption of all dependency theory, that economic forces generated by capitalist imperialism emanating from the United States, Western Europe, and Japan remain the \textit{primum mobile} of historical change in the periphery.\textsuperscript{62}

Carnoy points out that the implications of this for the comprehension of the local state are quite serious: local hegemony of this state is tied to metropolitan capital and "crises in the metropole capital-directed world economic system."\textsuperscript{63} This takes us back towards the Frankian notion of the state in the periphery as an instrument of the metropole-based international bourgeoisie and denies the autonomy of local classes and, hence, the local state. This is not helpful in explaining the various forms of state in the Third World nor the special features of the NIC states in particular.

Evans provides another dependency attempt to link internal and external factors.\textsuperscript{64} Like Cardoso and Faletto, Evans acknowledges the emergence of the NICs and tries to explain how such countries can be simultaneously dependent and developing. Brazil, he argues, has moved out of 'classic dependency' into 'dependent development', a transition he also argues is now affecting Nigeria and
Mexico. Also like Cardoso and Faletto, Evans's study of Brazil attributes an important role to local classes and the state in the development process. He focuses on the relations between multinationals, the local state and the domestic bourgeoisie, arguing that all three form an alliance which establishes the social structural conditions appropriate for industrialisation. He argues that multinationals have not simply been able to takeover domestic capital but have had, to some extent, to accommodate the structures it has created and creates. Nevertheless this does not, by any means, imply that foreign capital is restricted to complementing local capital. Evans argues rather that "the relation between foreign and local capital has encompassed both denationalization and 'simultaneous and differentiated expansion'". Indeed, there are conflicts of interest and differences in the relative power and location of domestic and foreign capital.

Evans points out that local capital is strongest in small industries with low rates of growth while successful large Brazilian-based corporations are engaged primarily in commercial and marketing aspects rather than the higher value-added areas of product development, innovation and research. So even where Brazilian-based corporations are successful in breaking into the oligopolistic, high-technology, high-profit areas, the highest value-added areas remain under the control of multinational firms based in the centre. The basic message is that the presence of foreign capital constrains the activities of local actors and, furthermore, despite some conflicts of interest between domestic and foreign (international) capital, these are overshadowed by the more fundamental structural necessity of co-operation - hence the tripartite alliance.

Like Cardoso and Faletto, Evans too has been criticised for unwittingly underestimating the significance of domestic politics. Despite the importance attached to the local state and bourgeoisie, ultimately this is explained in terms of the functions and needs of capital in the advanced capitalist countries. The rise of the NICs is thus attributed to the "centripetal logic of strategies for growth coming out of multinational headquarters".
Although at one level Evans's study did certainly re-affirm the primacy of external constraints on the periphery, he did introduce a new element to the dependency analysis of the peripheral state and the dynamics of it. For Evans, the bargaining power of the peripheral state, whilst still constrained, had been enhanced by the tendency towards a greater geographical spread of investment resulting from the internationalisation of production and a tendency towards the dispersion of origins of direct foreign investment in the periphery. These changes have, according to Evans, given the Brazilian state and NICs in general "increased manouvring room". This is reinforced by a weakening of relations between multinationals and home states which results from the internationalisation of production and consequent transfer of capital from the metropolitan centre which undermines the national identity of capital.

New Dependency Theory

It has been argued thus far that the early dependency theory of Frank suffered from a structural determinism which negated any need to analyse the specific domestic social structures of the periphery. A more sophisticated and less deterministic form of dependency theory was, however, forwarded by Cardoso and Faletto who not only acknowledged the reality of development in the periphery, notably the emergence of the Latin American NICs, but also stressed the importance of specific domestic social structures in defining the forms and nature of industrial development. Despite their efforts, these authors still failed to clarify the precise link between domestic and international forces. Evans also failed in this respect, but he did further break with Frank's determinism in suggesting a new degree of bargaining power by the peripheral state vis-a-vis international capital. In a gradual but nonetheless real sense, this shift in focus had at least raised the question, hitherto alien to dependency theory, of just how much autonomy the peripheral state enjoyed from international capital. Though Evans concludes that this autonomy is only marginal, his work did set in train a number
of studies pursuing this question. Haggard refers to these studies as a "'new wave' of theorizing on dependent development". Such authors as Gereffi, Newfarmer, and Bennett and Sharpe have joined Evans as the most significant of this 'new wave'. Looking at specific industries, they have attempted to clarify just how far the peripheral state can affect industrialization through its management and regulation of foreign (international) capital. These authors ask: what is the power of the peripheral state and how is this power derived? Clearly this is quite different from Frank's supposition that the peripheral state has little or no power at all vis-à-vis international capital. This question opens up the theoretical possibility of distinguishing the states of NICs like Singapore from those of other developing countries.

Gereffi's major study is of the pharmaceutical industry in Mexico. He analyses the state's unsuccessful attempt to generate a fully integrated steroid hormone industry in spite of justified optimism in the 1950s that this could be achieved. Instead of forward integration and the harnessing of the industry to meet national development objectives, Gereffi argues that transnational corporations increased their control of Mexico's steroid hormone industry, resulting in serious domestic policy constraints. The expanded role of the Mexican state, through the state instrumentality Proquivemex, inadvertently served to increase reliance on international markets and the marketing channels of the transnationals.

Gereffi offers two major explanations for the policy failure. One relates to the internal conflicts of the Mexican state which eroded the commitment to clearly-defined national priorities, a problem further compounded by a deficient administrative capacity to regulate the activities of transnational corporations. The lack of support for Proquivemex's initiatives at the top levels of the administration highlights the endogenous political factors. The second explanation relates to heightened technological dependence associated with the industry's development. During the period in which the Mexican state attempted to shape
the industry's development, reliances upon innovation for growth afforded greater control to those firms engaged in research and development as well as marketing. The emphasis on such knowledge-based activities favoured larger firms, invariably transnational in character, and based in the centre.76 Consequently, efforts to promote the higher value-added forms of production only resulted in a displacement of local manufacturers by international capital, a 'denationalization'.77

Although Gereffi's main observation is that the organisational and technological characteristics of the industry weakened the bargaining power of the state vis-a-vis local and, in particular, international capital, he does maintain that, in contrast to the earlier work of Stepan,78 the power of the state over international capital is likely to be greatest at the beginning of an investment in import-substitution industrialisation when it is able to determine the conditions of access to the local market. Thereafter, as seen in the hormone steroid case, the power of the transnational is enhanced by the mobilisation of domestic allies in the elite, the deployment of advertising and, of course, the growing technological dependence of the host country.79

Certainly Gereffi's observation that the technological features of a particular industry help explain the capacity of the state to bargain with firms is deserved of serious examination and promises to contribute to the understanding of the nature of 'dependence'. However, as Haggard seems to suggest, to extend observations about a sector of industry to the country per se, as a case of 'dependent development', is a gigantic theoretical step.80 Furthermore, though Gereffi does identify domestic class reasons in accounting for the Mexican state's weakened bargaining position, his comparative study of the pharmaceutical industry in fourteen Third World countries sees him lapse into the tendency to deduce 'state strength' from the individual countries' position in the international system.81
The primary study by Newfarmer is of the Brazilian electrical industry.\textsuperscript{82} He analyses the consequences and implications of the international oligopoly in this industry for Brazil's development. The policy prescriptions and conclusions he draws are founded on the observation that the market behaviour of multinationals differs significantly from that of national Brazilian-based firms, notably in ways counter-productive for Brazilian development priorities. They tend towards a higher level of industrial concentration, have greater capital intensity and are more tightly bound to the international trading system owing to a heavier import reliance. Profit is the result of industrial concentration, product differentiation and vertical integration and not necessarily increased efficiency. According to Newfarmer these concentrations shape the structure and performance of the industry.

For Newfarmer, the only way this control by multinationals can be addressed is by the state, and even then only within certain limitations. He categorises the policies which might increase the scope for Brazilian gains from foreign investment as follows: countervailing programmes, regulatory policies, and those policies which chip away at the power base of multinationals.\textsuperscript{83}

Newfarmer's guarded optimism that the state has the potential to shape industry structure is based on the understanding of the electrical industry's development as contradictory. On the one hand, economic dependence is unaltered when compared with the 1960s; the most advanced products are still imported from outside and local production of them requires the continued direction, management and supply of imports from the advanced capitalist countries. On the other hand, the physical transformation of the industry has been such that most products are now manufactured in Brazil with locally-mastered technology, Brazilian labour and inputs, under the supervision of Brazilians. Hence, the expansion of Brazilian industry, under foreign leadership, creates the potential to dispense with that leadership.\textsuperscript{84}
The ability to exploit this contradiction, however, derives largely from the state's direct and indirect controls over demand which affect perceived profit opportunities. In attempting to influence the market behaviour of multinationals this ability is highly conditional since foreign investors are not compelled to respond to perceived market opportunities. The degree of market competition is, according to Newfarmer, a key variable in determining the response of foreign firms: "At an industry level, the absence of intense international competition strengthens their collective position in confronting a demanding host government or in co-ordinating responses to a common economic situation". The bargaining power of the state therefore is enhanced by the playing of one oligopoly against another.

In the final analysis, Newfarmer does, despite pointing to various forms of successful state intervention by the Brazilian state, emphasise the superiority of multinationals and confirms the dependency thesis. Multinational control of the international and internal Brazilian market affords these corporations a power which substantially constrains policy options. State policy operates within externally-imposed parameters, parameters defined by the nature of the linkage of the dependent economy to the international system.

Another study to conclude that the bargaining power of multinationals prevails over developing country states is that by Bennett and Sharpe of the Mexican automobile industry. The Mexican automobile industry was targeted for special promotion in the early 1960s as part of an import-substitition industrialisation growth strategy. The Lopez Mateos government thus intervened and sought to compel the local manufacture of a substantial portion of each vehicle and the reduction in the number of firms to achieve economies of scale. Negotiations involved the state in a complex bargaining struggle with multinational firms. Bennett and Sharpe point out that whilst the state did succeed on some issues, for example on the stipulation that 60% of each vehicle be manufactured in Mexico, proposals for the rationalisation of the industry
were unsuccessful in such important areas as the number of firms, the ownership of the terminal industry and product differentiation. Indeed, they argue that the multinationals actually improved their bargaining position over time so that, ultimately, they came out of negotiations better than before they began. Bennett and Sharpe therefore posed a challenge to the Stepan thesis even before Gereffi.

The explanation by Bennett and Sharpe for the failure of the Mexican state's policy attempts rests on two points: the mobilisation of corporate power and the organisational constraints on the exercise of state power. The first point refers to the ability of multinationals to form effective political ties with local Mexican actors (suppliers, distributors, labour and consumers) who were used against the government as well as pressure on behalf of the multinationals by developed country governments. The second point refers to reasons internal to the Mexican state which prevented 'political power' from being realised as 'actual power'.

There was a lack of unity in pursuing government policy. The primary cause of the state's impotence vis-a-vis the multinationals was, however, the fact of integration with, and dependence on, international capital. This is, according to Bennett and Sharpe, unavoidable in a high technology, consumer goods manufacturing sector such as the automobile industry.

Because such manufacturing enterprises are integrated into the local economy to a far higher degree than resource extractors, they establish relationships within the host country which significantly enhance their bargaining power, both by reinforcing the host country's needs for their kind of production and products and by being able to mobilize domestic allies. And so long as the industry is dependent upon external sources of technology, the possibility of nationalization by the host country is not a credible threat.

The bargaining power of the state was thus undermined by the political and economic relations associated with dependent development.

We have seen above, then, in the industry studies of Gereffi, Newfarmer and Bennett and Sharpe, that the 'new wave' dependency theorists see multinationals enjoying decided bargaining advantages over Third World states. They do not discount some bargaining power on the part of the Third World state to influence
the pattern of industrialisation, but this relates to secondary issues. The major
decisions which affect the nature and direction of industrialisation are still made
by multinationals. Hence, the degree and character of industrialisation remains
essentially a question decided in the headquarters of multinationals outside the
developing countries themselves. Even where growth occurs, the basic lack of
autonomy in the Third World prevails.

So despite the apparent refinement to dependency theory, the fundamental
determinism remains. We are still left wondering why some developing countries,
like Singapore, have proved a far more attractive site for the location of
production facilities. Even if such peripheral states may not have achieved ideal
results in their bargaining with multinationals, they have certainly achieved
significant results.

*Bargaining School and Critics of New Dependency Theory*

In developing their thesis, the 'new wave' dependency theorists have thrown out a
challenge to a quite substantial and influential body of liberal theory, the
bargaining school.94 According to this school's understanding of relations between
the states of developing countries and multinationals, the balance of power shifts
in favour of the host country over time as the government learns how to
effectively harness contact with the multinational for local development.95 Not
surprisingly, then, in the wake of the 'new wave' of dependency theory a direct
response was forthcoming from the bargaining school.

Grieco's study of the Indian computer industry represents one major such
response. He points out that by the mid-1960s, the Indian government had
identified three important objectives relating to the computer industry. It wanted
Indian participation in the ownership and control of foreign computer subsidiaries
in the country. It wanted wholly Indian producers to provide for the bulk of the
country's computer needs by the late 1960s. Finally, it was the aim that India
have access to and participation in the manufacture of the most technologically
sophisticated systems available.\textsuperscript{96} According to Grieco, by the 1970s a number of developments favoured the realisation of such objectives. First, the emergence of mini-computers and microcomputers brought down the cost of systems. Second, the components for these systems became more readily available. Third, the range of alternative foreign firms increased greatly, thereby making it possible for the selective continuation of linkages with the international computer industry at the same time as a national industry was being created. These opportunities were exploited by the adoption of astute policies, starting with the strategy to encourage the use and manufacture of small systems. The government also provided funds for the wholly Indian-controlled Electronics Corporation of India Limited (ECIL), made foreign systems less available, attracted Burroughs to India in a joint venture with the local Tata Enterprise and, through equity demands, successfully pressured IBM to leave India. Key personnel changes in the bureaucracies also secured commitment to the policies. The result was, according to Grieco, that over time the government and wholly indigenous enterprises were able to improve bargaining power and, at the end of the 1970s, locally-owned manufacturing operations of small systems were thriving. The conclusion Grieco draws is that such an 'assertive' strategy demonstrates that developing countries are not faced with an extreme choice between autonomy and domination. Rather it is possible to achieve "national self-direction and economic development within the context of active participation in the international economy".\textsuperscript{97}

Clearly Grieco's case study represents a serious challenge to the 'new wave' dependency position. What is left unexplained by Grieco, however, is just why the Indian state was so 'assertive'. In his conclusion he compares this model with the 'relatively accommodating regimes' of East Asia. He claims that "assertive upper tier developing countries" (India, Brazil and Mexico at present and Colombia, Indonesia, Nigeria and Venezuela in the future possibly) could gain much from a study of India.\textsuperscript{98} So long as he is not implying the possibility of emulation without account of indigenous social structural considerations this observation has merit.
We should not forget the criticisms levelled earlier, however, at the voluntarism of the rational choice approach.

Grieco's thesis has recently found support from Adler who examined the computer industry in Brazil.\textsuperscript{99} He too argues that state intervention has resulted in reduced industrial and technological dependence.\textsuperscript{100} Above all else, however, Adler attributes the success of the domestic computer industry to the efforts of a group of ideologically motivated scientists, technologists and technocrats who persistently and successfully pushed ideas about technological autonomy within the bureaucracy. He refers to these actors as 'pragmatic antidependency guerrillas'. Adler argues that the internalisation of this subversive elite's ideology by the bureaucracy and the country's leaders explains the assertive institutional action in support of the domestic computer industry. Again, though, as important as ideological influences no doubt are, they too do not develop in a social and political vacuum. Although Adler acknowledges this he provides no account of such circumstances.

In sum, then, the bargaining school has provided an important empirical critique of the 'new wave' dependency work, but it lacks the theoretical sophistication necessary for an understanding of the complexity and differentiation of Third World societies.

Whilst 'new wave' dependency theory represents one neo-Marxist reaction to the crude determinism of Frank, it is not the only one. There are neo-Marxists such as Becker who remain uneasy about the way in which even the more refined dependency theory analyses classes in the Third World.\textsuperscript{101} Becker's objections to dependency theory include the failure to locate the 'taproot of dependency' in the class practices of Third World societies and the persistent and uncritical association of autarchy with development and vice versa. For Becker:

\begin{quote}
The real test of dependency can only be the existence of a 'dominant' class which exercises proximate control over the society and profits from the political and economic decisions adopted by the local state, but which has minimal real influence over the externally imposed choice of development strategies and cannot control more than details of their implementation.\textsuperscript{102}
\end{quote}
Becker believes these shortcomings of dependency theory have been obviated by changes in the 'international capitalist order', notably the internationalisation of production and associated changes in class interests and relations. In his case study of Peru he identifies the emergence of a new bourgeois class, the 'corporate national bourgeoisie', which he claims to be generally but exclusively emerging in the Third World. In contrast with the comprador bourgeoisie, this 'dominant class strata' has an interest in national development which is compatible with playing the junior partner to the international bourgeoisie. Integration with the metropolitan centre is, according to Becker, imposed indirectly through the diffusion of transnational ideology which occurs in the process of the pursuit of self-interest by local elites. The corporate national bourgeoisie therefore, whilst being both nationalist and developmentalist, is also professional and organisational in character and espouses universalistic values of technocracy and managerialism. It is, argues Becker, the most international of all Third World classes.103

Becker's observations about the simultaneous nationalist and internationalist character of the dominant bourgeoisie allows him to explain the documented cases of the Peruvian state imposing controls on international mining companies as an exercise in furthering the economic interests of the corporate national bourgeoisie promoted by technocrats recruited from this very class. This he refers to as 'state-guided bonanza development'.104 At the same time, he points out that organised labour has also been integrated into the state and this imposes some limits on the state's promotion of private capital. In short, he argues that, in contrast with dependency theory, 'the new Peruvian state is relatively autonomous in the Marxian meaning'.105 This dominance of the corporate national bourgeoisie derives not from control of the state as such but from the universality of its values and the ideology of national developmentalism. However, whilst this state-guided bonanza development model avoids the authoritarianism that O'Donnell sees as consequent to integration with the
international system, its survival is reliant upon management of the contradiction between the popular economic claims it arouses and the absence of ideological means for restraining these within objective limits.106

Like Grieco and Adler, then, Becker challenges the notion that incorporation into the international system automatically imposes dependency. Clearly his work introduces a new degree of sophistication to the analysis of relations between Third World states and international capital, notably through recognition of domestic class factors and ideological influences on local actors. The problem, however, is that Becker is a bit hasty in depicting the emergence of corporate national bourgeoisies generally in the Third World as if domestic factors in one Third World country neatly mirror those of another. He is correct to point out, however, that the internationalisation of production has required specific class relations in the periphery, a point which will be more fully considered below.

The Significance of Global Capitalism

A thematic criticism made of dependency theory above is that it tends to pay inadequate attention to endogenous factors, explaining the role of the state in terms of externally-imposed pressures associated with incorporation into the international economy. Before exploring where such criticism leads us, however, it should be recognised that some writers inspired by this approach have provided illuminating analyses of the exogenous factors shaping industrialisation in the Third World. Indeed, their contribution to the understanding of how and why the new international division of labour has begun to emerge, whilst incomplete, is fundamental. They have pointed to the new historical conditions of international capital accumulation characterising the rapid industrialisation of Third World economies and the emergence of a new international division of labour.

Of these radical scholars, the first writer to emphasise that the rapid industrialisation of certain Third World countries was part of a broader process involving the re-organisation of international capital investment was Adam.107
He pointed out that since the late 1960s there had been a substantial and growing trend towards the establishment of subsidiaries by international companies abroad with the intention of exporting production back to the home country of the parent company. Adam explained the rationale behind this process which was most extensive in Asia: the international corporation contributes the capital, technical knowledge, global commercial intelligence and marketing expertise; the developing country contributes low cost and 'teachable' labour. Those industries in which labour comprised a sizeable component of production costs, such as textiles, clothing, leather products, electrical parts and assemblies, obviously lent themselves to this process. Significantly, production did not always involve the complete manufactured product, often only the most labour-intensive aspect. Though this process had been initiated largely by US-based companies, Adam pointed out that many European and Japanese-based firms had by the early 1970s begun relocating production to the Third World. For their part, the Asian governments were actively encouraging this with the establishment of export processing zones, or free trade zones, special industrial areas affording various privileges and incentives to foreign-owned companies engaging in export production.

Adam's prediction of an inevitable escalation of worldwide sourcing proved correct. Just two years after Adam's contribution, Turner further documented the flight of 'runaway industries'. Subsequently writers of various theoretical perspectives detailed the forms and mechanisms associated with international subcontracting and sourcing, with special emphasis on the role of international capital in the rapid expansion of manufactured exports from the Third World. It was, however, the work of Frobel, Heinrichs and Kreye which provided the most comprehensive and influential study of the internationalisation of production. It was also the first work to make some endeavour to ascertain the extent of this process or clarify how this process was facilitating a new international division of labour.
Frobel, Heinrichs and Kreye provided detailed case studies of the German textile and garment industry and its flight to lower cost production sites, relating such developments to the broader international pattern within the industry. They also outlined the attractive investment conditions available in the free trade zones and other sites of relocation, emphasising not only the considerable savings to capital in labour and other costs, but the additional attraction of a politically repressed and subjugated labour force. The emergence of the new international division of labour, however, is explained by the authors as the realisation of three preconditions. These have given rise to a qualitatively new phase in international capital accumulation. The preconditions include: the development of a world-wide reservoir of potential labour power, or reserve army of labour, made possible by the introduction of capitalist agricultural production techniques in the periphery; the decomposition of complex production processes into separate and simple units of production, leading to the deskilling of the labour process; and the technological development of transport and communications systems which freed industrial production from constraints on geographical location. It was, therefore, not the desire to maximise profits alone which accounted for this new international division of labour but the existence of certain historically unprecedented objective conditions.\textsuperscript{114}

Although Frobel, Heinrichs and Kreye quite importantly brought into much sharper focus the social and technical organisation of production and the impact of it on the Third World, they tended to see the dynamics of this new international division of labour as primarily external to the Third World and, thereby, opened themselves up to the sorts of criticisms of dependency theory already examined. As Jenkins points out, policies in the Third World to promote exports or attract international capital investment are interpreted as outcomes of the imposed 'needs' of capital at the centre, not outcomes of local class struggles.\textsuperscript{115} Frobel, Heinrichs and Kreye put it thus:
This new international division of labour is an 'institutional' innovation of capital itself, necessitated by changed conditions, and not the result of changed development strategies by individual countries or options freely decided upon by so-called multinational companies. It is a consequence and not a cause of these new conditions that various countries and companies have to tailor their policies and profit-maximising strategies to these new conditions (that is, to the requirements of the world market for industrial sites).\textsuperscript{116}

The specific historical juncture of global capital accumulation warrants close consideration. This point has been fruitfully pursued by Caporoso who contends that the historical context within which NICs have industrialised has involved a more competitive environment and, as a result, more limited niches available in the international division of labour. This, he argues, has placed considerable pressure on Third World states to intervene.\textsuperscript{117} It remains, however, that some states are able to do this whilst others are not. This differentiation in response to the objective conditions of the international system continues to be a thorn in the side of dependency theory. It is, as has been suggested in earlier criticisms, towards a more sophisticated and less deterministic comprehension of the endogenous factors of the NICs that we must look if we are to explain their successful incorporation into the new international division of labour and make best use of the work of people such as Frobel, Heinrichs and Kreye. In particular, this involves an understanding of the indigenous classes and the nature and extent of the local state's relative autonomy from classes in general.

\textit{Indigenous Classes and State Autonomy}

Attempts to account for the incorporation of specific Third World countries (the NICs) into the new international division of labour which examine domestic class formations and the character of the state owe a theoretical debt to earlier Marxist critiques of dependency theory by such writers as Leys, Cowan and Swainson.\textsuperscript{118} Like the bargaining school theorists, these writers document cases of peripheral states adopting aggressive and successful policy measures to promote capital accumulation and industrialisation by the domestic bourgeoisie. However, they explained this in less voluntaristic terms, relating such
developments to internal class struggles and social and political structures in
general. This insight has been instructive in a number of recent studies of Asian
NICs.

Hamilton's comparative study of the four Asian NICs represents the most
concerted attempt so far to isolate the domestic class factors facilitating
incorporation into the new international division of labour. He points out that
the process by which class structures were transformed to enable industrial
capital to emerge as the dominant economic force was unique to each society. In
each case, however, the state was required to take measures to secure this
transformation. In Korea and Taiwan, for example, the state encouraged rural
migration and provided cheap food for city workers. This generated the
availability of low cost wage labour which was subject to tight controls. This and
other forms of intervention led Hamilton to maintain that: "The state - in the
shape of the government, its individual members, its statutory bodies and public
corporations - was intimately involved at all levels of primitive
accumulation." In the 1950s, the foundation for the subsequent EOI strategy
was laid by this transformation of capital into industrial form. US aid funds also
assisted the process of industrial capital accumulation in this period.

Hamilton argues that the British colonial purpose and affect in Hong Kong
and Singapore differed from that of the Japanese in Taiwan and Korea. Here the
British colonialists did not deliberately constrain the development of local capital
but, rather, tended to encourage investment complementary to British trading
interests. Hong Kong also benefitted from the exodus of capital from China after
the communist and popular forces took control in 1949. However, whereas local
capital was primarily based in entrepot trade in Singapore, in Hong Kong
circumstances forced a far greater degree of domestic manufacturing. The
closing of trade with China was the major factor for this. Whereas local finance
capital was supportive of this form of economic activity in Hong Kong, this was
not so in Singapore where indigenous capital never gained any serious foothold in
manufacturing.
These various class developments were to have important implications. When the opportunities of the new international division of labour availed themselves, indigenous capital was poised to enter the stage in all societies but Singapore. World markets provided an excellent opportunity for expanded capital accumulation for indigenous industrial capital and this, argues Hamilton, was fundamental to the adoption of EOI strategies. The Singapore case was different in this respect but the pressure to industrialise was such that the state still supported such a strategy but through the virtually exclusive agency of international capital.122

Hamilton emphasises that the spaces in the new international division of labour which local capital could fill were conditioned by its size. Lacking the technological and organisational capacity of larger, international capital, it was confined to specific industries in the new international division of labour, notably textiles, clothing, leather, footwear and to a much lesser extent electronics. He claims that, with the exception of Singapore, it was not foreign capital which initiated incorporation into the new international division of labour but indigenous capital. Certainly substantial international capital has flowed into South Korea, Taiwan and Hong Kong, but only after and not before the EOI strategy was underway.123 Significantly, the bulk of this foreign investment has tended to be in electronic and electrical assembly, certain areas of engineering and (in Singapore) petroleum refining. These are areas involving greater capital-intensity but still reliant upon low-cost labour. Foreign investment in the industries favoured by local capital also took place, but characteristically by smaller capitals from the developed countries. Hamilton expresses reservations about the potential for indigenous capital in these countries to diversify into the traditional domain of international capital, not so much for lack of technology as the difficulty of forcing international capital out of a relatively fixed space in the new international division of labour.124
Hamilton therefore directly challenges the idea that the incorporation of the Asian NICs into the new international division of labour was primarily determined by external forces. Certainly the expansion in world trade and the reorganisation of production made possible by technological changes created opportunities for domestic classes. However, the motivation for incorporation and the provision of conditions conducive to incorporation must be understood in terms of the historical class developments peculiar to each society. At the same time, he sees limitations in the position occupied by local classes in this new international division of labour which are, in part, a consequence of indigenous historical developments which constrain the accumulation of industrial capital but which are also a consequence of the nature of this division of labour itself.

Barone’s study of South Korea lends support to the general position of Hamilton. He too emphasises the emergence of a domestic industrial bourgeoisie but elaborates more fully on the role of the state in this development. He makes the point that after World War II and the end of Japanese occupation in 1946, Korea was left with both a collapsed economic system and no clear ruling class. In the struggle that followed, right wing conservative, liberal moderate and left wing radical forces contested for power. Given the long history of a highly centralised superstructure in Korea, however, even the conservatives were not opposed in principal to public enterprises. With not a little help from the United States, argues Barone, the right wing Rhee government triumphed. This government employed terrorism and repression in attempting to liquidate the left. It was, however, unsuccessful in providing the basis of expanded reproduction of capital. The reasons for this were many. Attempts to foster private enterprise failed, including the distribution and sale of government enterprises inherited from the Japanese. The absence of a dynamic and capable bourgeoisie combined with corrupt and inefficient management of public and semi-public enterprises, the heavy costs of financing war with the North and the inadequate provision of infrastructure for capital accumulation all contributed to
the inability of the Rhee government to provide the conditions for expanded reproduction of capital. It was not until the Third Republic under the leadership of Park that these conditions were provided.

The capacity of the Park regime to preside over a far greater development of the forces of production is explained by Barone as the consequence of the state providing considerable economic direction and an efficient and ruthless centralised political leadership. In the absence of an effective bourgeoisie, the Park regime 'force fed' the development of South Korean capitalism. Through state planning, state monopoly of financial institutions, state enterprises in infrastructure as well as industry, and the patronage of private enterprise, a new domestic industrial bourgeoisie did emerge. It was one which has remained, however, subservient to the state bureaucratic elite. Barone concurs with Hamilton that this development took place prior to the influx of substantial foreign investment.

The pervasive state has not waned either. Apart from the continued repression of labour and the student movement, the state retains substantial control over the major economic institutions, including: a monopoly of banking and therefore control over interest rates, credit and the allocation of financial capital; control over foreign exchange; centralised planning and supportive administrative apparatus; public enterprises in both general infrastructure and advanced sectors of industry earmarked for development.

Barone concedes that foreign dependency, especially vis-a-vis the United States, has influenced South Korean development but it has not, he argues, prevented successful capitalism. He contends that "South Korea is not unduly dependent on foreign trade, that production is both diversified and linked to domestic consumption, and that although dependent on foreign capital and technology Korea has been able to control and direct both to its advantage". As we have seen, this success is related to historically-specific domestic class formations and the associated political relationships which evolved - most especially the form of state.
Staying with the South Korean case, Haggard and Moon add to the analyses of Hamilton and Barone by elaborating on the way in which the state promoted EOI and incorporation into the new international division of labour.132 Their central thesis is that the South Korean state is neither liberal nor dependent but might instead be understood more as mercantilist, such has been the centrality of the state to South Korea's development. It is precisely because this state enjoys a significant degree of relative autonomy from either domestic or international forces that it has been able to provide the political and economic conditions responsible for the success of the EOI strategy.

The state's role in providing the political pre-requisites for the EOI strategy has been, and remains, fundamental according to Haggard and Moon. Following the military coup of 1961 and on the eve of the EOI strategy measures were taken to further weaken the labour movement, through a government-directed reorganisation of unions, and political opposition, through the creation of the Korean Central Intelligence Agency. This gave the state an added capacity to insulate itself from the unpopular policies of the EOI strategy which, although produced economic results, neglected agriculture, generated a large class of urban squatters who had migrated to the cities and imposed repression on labour. This disaffection with the government reflected in the narrow and controversial presidential victory to Park in 1971 and heightened student and labour opposition thereafter. However, the state's effective if repressive measures to quell opposition ensured that the unpopular policies were never threatened and prevented any serious debate of alternative, more inward-looking development strategies.133

At the same time, the implementation of the EOI strategy involved considerable institutional support and direction at the economic level. Policies such as exchange rate reform and the removal of import restrictions went hand in hand with substantial state intervention in other areas of the economy. The government promoted exports by indirect subsidies channelled through the
financial system by way of differential interest rates. Military control over the Bank of Korea also gave the state an important influence, particularly after 1964 when the Bank was granted the authority to give preferential treatment to designated sectors. Haggard and Moon argue that control over credits afforded the state three mutually supportive functions: a tool of microeconomic control; the subsidisation of initial entry by firms into foreign markets; and the building of political support from domestic business. The third of these functions has been skilfully manipulated by the South Korean state to foster a degree of complementarity between foreign and domestic firms. In the process the state has been instrumental in nurturing the domestic industrial bourgeoisie.

In explaining the state's nurturing of the domestic bourgeoisie, Haggard and Moon emphasise this as an unintended consequence rather than a reflection of the state's political subordinance to capital. Decision-making, they argue, has been in the hands of 'managerial' forces of the military centralised in the executive and cabinet who have formed an alliance with younger technocrats to whom Park became heavily reliant upon for advice. The support for domestic capital was for these people a technical rather than political consideration. At the same time, the government's liberalisation policies did serve to politically strengthen the government domestically and, indeed, internationally. So the temptation to view the liberalisation reforms as a reflection of the subservience of the South Korean state to the whims of US capital and its political representatives clamouring for such reforms should be resisted. The possibility that these reforms would bring sustained growth and foreign exchange to supplant US aid dependence was important to considerations of national security and development by the South Korean government. They also argue that attempts to restructure certain heavy and chemical industries in the 1970s demonstrated that, even where technological reliance on private capital exists, "the state can develop a significant range of manoeuvre from both domestic and international forces." Where domestic firms were found to be inefficient, the government sought foreign investors, using the
level of market access as a bargaining tool. The relative autonomy of the state to stand above any class interest has, then, been a feature of the South Korean state. Again, though, Haggard and Moon echo the point that such a state "may not be easily transferable". The reasons for this have to do with the points already made by Hamilton and Barone.

The challenge to both the neo-classical and dependency position posed by Barone and Haggard and Moon in the case of South Korea is developed by Wynn and Amsden in the case of Taiwan. Wynn debunks popular myths of Taiwan's industrial development. The idea that development has been generated in a climate of minimal state involvement is rejected, Wynn arguing that "a battery of micro- and macro- economic policies is designed to reduce private (and public) investment into selected brands of production and into exports". Furthermore, these exports are also subject to cartelisation, marketing arrangements and other forms of interference. Wynn also argues that whilst foreign investment is very important in Taiwan, it does not control the economy. Key manufacturing sectors remain under state control and others, such as food processing, are retained by the indigenous bourgeoisie. Third, Wynn opposes the notion that Taiwan's industrialisation remains superficial because it is limited to light manufactures.

Similarly, Amsden explains Taiwan's ability to exploit the international market as "the forceful manipulation of Taiwan's political economy by the state". She also turns her attention though to the apparent contradictions of a security-conscious military regime pursuing economic policies which render Taiwan vulnerable to foreign supply and demand and more dependent on foreign-owned firms. The complex answer touches on the dynamic and dialetic relationship between the state apparatus and the economic structure. The thinking of the military has been influenced by the expanded opportunities offered through increased reliance on international markets and capital. This compared favourably with the declining growth potential offered by "a continued fixation on geopolitical struggle".
In short, Wynn and Amsden reiterate the point that successful incorporation into the new international division of labour has been contingent upon domestic social and political factors belonging to a unique historical juncture. As Hamilton has argued, it happens that the respective histories of the Asian NICs have precipitated political states which have played dominant roles in facilitating this incorporation.

All of the above studies illucidate the historical, social and political contexts within which the state has intervened to facilitate integration into the evolving new international division of labour. However, studies which examine these contexts in explaining why other states have not been so facilitative are equally instructive. Recent work by Hewison and Robison makes an especially important contribution in this respect.

Hewison's study of capitalist development and the state in Thailand contends that an economically and politically powerful domestic capitalist class has been a feature of the modern Thai political economy. He traces the emergence of this class to the overthrow of the absolute monarchy in 1932 and the rise of an interventionist state committed to economic growth. This state has proved particularly responsive to the needs of the domestic bourgeoisie, playing a vital role in opening up opportunities to expand its accumulative base. Hewison shows how banking capital has especially benefited from state intervention and explains how this powerful fraction of capital has been a major force accounting for the emergence of Thai corporate capitalism. In this case, the interventionist state, whilst certainly attempting to attract foreign capital, has done so selectively and generally with a view to accommodating the domestic political pressures upon it. Since the opportunities for expansion by the domestic bourgeoisie remain mainly in the domestic market, the Thai state has not embraced the new international division of labour in the way that NIC states have.

Robison's considerable and theoretically sophisticated work on state/capital relationships in Indonesia cannot possibly be summarised here. Thematic to his
analyses, however, is the argument that Indonesia's persistence with an ISI strategy must be understood in terms of the interests of state politico-bureaucrats and the major domestic corporate groups on the one hand, and the ideological strength of economic nationalism on the other. The fusion of political, bureaucratic and economic power is, Robison argues, the definitive feature of the Indonesian political economy. Indeed, Indonesia's major public and private corporate conglomerates owe their emergence to the interventionist policies of these politico-bureaucrats.

The point that Robison emphasises in his recent work is that much of this intervention, involving the state in sizeable outlays and concessions, has been underwritten by the revenue gained by the state from oil exports. The collapse of oil prices in 1981/82 and then, more substantially, in 1986 has, however, posed serious challenges for the existing power structure and re-opened the question of Indonesia's position in the international division of labour. Since the World Bank Report on Indonesia published in 1981, the Indonesian government has been under growing international pressure to abandon its plans for an integrated national industrial base in favour of 'allocative efficiency' and 'comparative advantage', that is, to adopt an EOI strategy and wind back the state's involvement in the economy. As Robison points out, the Indonesian government is to some extent attracted by the EOI model, but only in so far as it is consistent with the planned development of backward and forward linkages which will provide a basis for expanded reproduction by domestic interests. So far talk of the virtues of the free market has struck no accord with Indonesian officials, and not surprisingly.

Promises of long-term, abstract benefits, which the IBRD economists suggest will flow from a freeing of the market, are no consolation to those groups which have attained their present position precisely through the imposition of political constraints upon the market.

Robison's point, however, is that, as a result of the state's diminished capacity to finance and subsidise a domestic-oriented strategy, the state is now less capable of resisting pressures to increase Indonesia's integration into the new international
division of labour. To succumb to such pressure, of course, would threaten the basis of the relationship which merges the state, domestic private capital and the politico-bureaucrats. To avoid such integration, the state must extract more investment and revenue from private domestic capital. Either way, major changes in Indonesia's political economy are likely.

At the risk of simplification, Robison's analysis highlights the inseparability of economic policy and industrial strategy from political power. As his work explains, neither the persistence with ISI nor the possible move towards EOI and greater integration with the new international division of labour have been or will be dealt with on the basis of technical considerations about comparative advantage.

**Implications for this Thesis: Central Propositions**

Having engaged in a survey of the different theoretical approaches to the analysis of Third World industrialisation, what are the useful insights on which we can draw? What propositions might usefully direct our study of Singapore?

It should be clear from the above that approaches which play down or obscure the role of the state are limited in their capacity to provide adequate theoretical frameworks for the analysis of industrialisation. As we saw above, the neo-classical and rational choice approaches both fail to take seriously the task of clarifying the social and political conditions within which industrial policy is developed. This omission allows neo-classical economists to conceptualise comparative advantage as an immutable law rather than a concrete process which encompasses state activity. The political controls and restrictions on organised labour, and indeed capital too, are no less significant than the economic intervention of the state in shaping comparative advantage. It was in search of a greater appreciation of the state's influence over industrialisation, and the factors accounting for that capacity and inclination to shape the pattern of industrialisation, that the above discussion turned to other theories.
As was explained, the attempts by writers belonging to the corporatist and dependency schools to explain the state's role in industrialisation have tended to be deterministic. Political repression is seen as a functional necessity for rapid industrialisation by some writers whilst others see the state's behaviour as largely prescribed by the needs of international capital. As the various critiques highlighted however, such approaches have the effect of reducing the considerable complexity of the industrialisation process to a single fundamental relationship. The diversity of responses from the various Third World societies to similar international circumstances is never adequately explained.

What work then from the literature review is instructive? In the first place, and despite the dependency theory roots of such authors, theories pertaining to the internationalisation of production and the emergence of a new international division of labour are helpful. Here I refer particularly to the work of Frobel, Heinrichs and Kreye. They provide a broad framework enabling us to comprehend historically new potentialities for Third World industrialisation. We really do need to take into account the changing motivations and enhanced global mobility of international capital, and industrial capital in particular, if we are to understand the successful industrialisation of the NICs. Without the changes identified by Frobel, Heinrichs and Kreye, this rapid EOI would not have been possible.

Although radical theories of the new international division of labour provide a much more sophisticated analysis of the logic of international capital accumulation than that provided by earlier dependency writers, they are similarly deterministic in accounting for incorporation into this emerging structure. As we saw, they grossly under-rate the significance of circumstances prevailing in an individual peripheral society and their contribution to successful incorporation into the new international division of labour. Analyses which pay far greater attention to the configurations of class and power relationships in the individual peripheral society have much to offer in the way of guidance for this thesis.
Analyses which belong to this category include those works by Robison, Hewison, Hamilton, Barone, Haggard and Moon, Wynn and Amsden. To differing degrees they have attempted to show how the social and political relationships peculiar to specific Third World societies have determined or shaped shifts in economic policy. They have also examined how such relationships have served to define the state's ability to exercise a degree of relative political autonomy from vested interests. Further, they have endeavoured to explain the process by which certain Third World states have been able to secure the necessary resources to play a significant, if not decisive, role in terms of economic intervention, whether through the extensive provision of infrastructure or direct investment. In short, they have not only attempted to specify the ways in which the state influences the pattern of industrialisation and incorporation into the new international division of labour, they have also tried to specify the historically specific socio-political circumstances facilitating this role by the state. This sort of analysis is the necessary complement to the study of changing patterns in international capital accumulation. The point is that potentialities opened up by the emergence of a new international division of labour have not been universally realised throughout the Third World – only where conducive socio-political conditions have prevailed.

Developing the above observations in more precise form, this thesis is informed by the following theoretical propositions which will be demonstrated in the course of the study of Singapore's industrialisation:

(i) The opportunity to industrialise rapidly was presented to Singapore by fundamental changes in the pattern of international capital accumulation. It was fortuitous for Singapore's policy-makers that this co-incided with the failure of merger with Malaysia and the desperate need for a new economic strategy.

(ii) The ability and inclination to exploit this opportunity was governed by various factors. At the general level, the nature of the colonial experience which had already tied Singapore into networks of international capital and
generated a suitable workforce, coupled with Singapore's general strategic location, were contributing factors. At the more specific level though, successful incorporation into the new international division of labour was governed by domestic class factors, notably the absence of an economically or politically powerful domestic industrial bourgeoisie capable of frustrating a shift to EOI, and a peculiar political state which enjoyed a substantial degree of relative political autonomy from both capital and labour. This latter condition was skilfully exploited by the PAP which successfully legitimised its corporatist behaviour on the basis of a technocratic ideology.

(iii) This relatively autonomous PAP state has played a decisive role in ensuring a social and political context appropriate to the specific and changing needs of international capital which has largely defined the structure and pace of Singapore's industrialisation. Not only has the PAP destroyed the independent labour movement and replaced it with its own institutionalised control, it has also systematically restricted the possibility of effective constitutional or non-constitutional opposition to PAP rule. This has ensured political stability and investor confidence as well as a labour force which is responsive to government policy directives. Given the dynamics of the new international division of labour, this flexibility open to government has proved important.

(iv) Singapore's comparative advantage in the new international division of labour has been shaped in part by the intervention of the PAP state. As will be seen this influence is the product of the social and political environment referred to above. After all, the freedom of labour (as a factor of production) to operate in the market has been deliberately conditioned and curtailed by the PAP, thereby affecting labour's bargaining power. More conspicuously, however, the PAP has directly intervened in the labour market to determine wage levels and the supply of labour
(immigration policy). In addition, the PAP state has provided capital with various forms of direct and indirect subsidisation in the areas of social and physical infrastructure and generous fiscal incentives and below market rate finance. In short, the PAP has consistently cushioned the costs of certain forms of production to facilitate incorporation into the new international division of labour. At times too, the PAP has imposed special burdens on forms of production it considers inconsistent with official development objectives.

(v) Though the high profile of the state has been fundamental to Singapore's successful industrialisation, in the period of the 'Second Industrial Revolution', it has also begun to pose political problems. The priority afforded development expenditure has resulted in the government initiating moves to minimise its welfare responsibilities. Thus, in trying to avoid fiscal difficulties, the PAP risks a loss in electoral popularity.

(vi) Although the PAP state has intervened to help define Singapore's comparative advantage, it has confronted objective limits in this process. First, even though there have been some significant increases in the sophistication of the technology employed by international capital in Singapore since 1979, Singapore's distance from markets and its small size renders it an unattractive site for many forms of sophisticated production, notably that involving research and development (R & D) work. Second, though we can point to a general increase in higher value added production, the involvement by international capitals in this has been quite differentiated. Japanese-based capital has been far more reticent to move into higher value added production than US-based capital. The strong Japanese trading position in the international economy has sparked fears of protectionism amongst Japanese investors who have thus shown a tendency to make investments in higher value added production in the countries constituting the major markets. This alerts us to the complexity and
diversity of concrete conditions of investors, no less than host countries, in the international division of labour.

The Singapore Literature

There is already in existence a body of literature on the subject of industrialisation in Singapore. The question therefore emerges: why yet another study? The problem, to be explained in the following pages, is that existing studies are primarily descriptive and embody, often unconsciously, theoretical assumptions which I have argued are fundamentally inadequate. As will be detailed below, the dominant features of this literature are a general indifference or ignorance of the bulk of the theoretical literature outlined above and a strong preference for descriptive rather than analytical accounts of Singapore's industrialisation. There are some exceptions to this, but for the most part the propositions mentioned above either lie outside the dominant frameworks or outrightly contradict the more widely accepted wisdom on Singapore.

A major reason for the above-cited pattern is that most accounts of Singapore's industrialisation have come from positivist economists. Few of these authors have consciously expounded an explicit theoretical statement about the process of industrialisation, but their implicit theoretical sympathies nonetheless rest clearly with the neo-classical and rational choice approaches identified earlier. This is not to suggest that they ignore the role of the state for it is universally recognised by Singapore scholars, if not by others,\textsuperscript{151} that state intervention has been sizeable in Singapore. However, criticisms similar to those levelled above at neo-classical and rational choice theory apply to most of these accounts.

In particular, these authors have tended to interpret government intervention only in terms of facilitation or distortion of the market. The assumption is that comparative advantage is something which, though dynamic, exists and awaits realisation. It is not something which governments can actively help define. This leads to some interesting attempts at reconciliation.
In Lim Chong Yah's introduction to the edited collection entitled *Singapore: Twenty-five Years of Development*, he goes so far as to make the contradictory claim that Singapore's economic success is a function of a free enterprise system which has been moulded by state intervention:

Singapore has been able to grow so spectacularly in the economic field throughout the period because it has allowed a free enterprise system to flourish with government support and intervention where necessary.

In their treatment of Singapore in *Export-Oriented Industrialisation: The ASEAN Experience*, Ariff and Hill submit a similar interpretation but they do not idealise the situation by referring to 'free' enterprise (rather than private enterprise). They argue that state intervention has been non-distortionary in that it has provided incentives and inducements to assist the market rather than confront it. So whilst intervention has been extensive it has been consistent with a comparative advantage determined independently of this intervention. Ariff and Hill are of course in a no-lose position with such a formulation: if intervention coincides with positive results then it must be market-facilitative; if it coincides with negative results it must be market-distortionary. The possibility of market intervention coinciding with positive results cannot be investigated within this framework. An earlier empiricist study by Nyaw Mee-kau, *Industrial Growth and Export Expansion in Singapore*, concluded that Singapore's resources were allocated in line with its changing comparative advantage, but here also the above consideration is theoretically discounted. So whilst he claims "Singapore's successful industrialisation was achieved through active management of the economy while at the same time relying on decentralised private (both local and foreign) initiatives", he does not really evaluate 'active management' in its various forms.

In conjunction with the dominance of the neo-classical interpretation, there is a very strong subscription to the assumptions of national choice theory in the published work on Singapore. Not only economists and other scholars, but commentators in general underline the judicious policies of the PAP and its
rational rather than political approach to development. Little or no account is taken of the socio-political and historical content within which the PAP's character and capacity to implement policy has been determined. This view of policy formation as essentially a technical process is reflected in the contributions of Lim Chong Yah and Peter Chen in the latter's edited work *Singapore Development Policies and Trends*. Lim refers to a "correct development policy" whilst Chen attributes great importance to "an effective government". Without any account of circumstances generating "effective government", Chen can claim that "the experience of Singapore's growth strategies provide a useful model for rapid growth for both developing and developed countries". This emphasis on institutional efficiency and 'good government' to the exclusion of any analysis of class or social structure is also found in earlier studies by Lee Soo Ann in 1973, and in 1977 by Goh Keng Swee, the architect of much official policy. John Drysdale's recent book, *Singapore: Struggle for Success*, also isolates the quality of the PAP leadership as the single-most important factor behind Singapore's industrialisation but provides no serious analysis of the factors making such a leadership possible.

The above-cited studies of Singapore's industrialisation are of course at odds with most of the propositions thematic to this thesis. There are, however, some studies which, whilst not very detailed, have elements of consistency with these propositions. Pang Eng Fong and Linda Lim have devoted particular attention to emphasising the interventionist nature of the PAP state and its influence on the allocation of the factors of production. For them the state's role has been central, and not secondary, as is stated or implied by other economists. For them, "... initial advantages and fortuitous market opportunities would have come to little without an explicit and appropriate government development strategy". Elsewhere, however, the same authors express reservations about the value of such a high state profile in a modernised economy and advocate greater institutional flexibility to enable rapid responses to market changes.
these authors seem to revert to neo-classical prescriptions and their position vis-
a-vis state intervention becomes unclear. For Lim, however, the matter is
subsequently clarified in an article attacking Milton Friedman's attribution of
Singapore's success to economic liberalism and the free market.\textsuperscript{165} She argues
that "state interventions have given Singapore a comparative advantage in export
manufacturing which it would not have if free market forces alone
prevailed".\textsuperscript{166} She sees little prospect of the state's presence and influence being
wound down, although it may be expressed differently in the future:

\begin{quote}
While the forms of state intervention in Singapore may change, their
essence remains: the manipulation of polity, society, and economy to
build and maintain a peculiar, and peculiarly successful, brand of
state-dependent capitalism.\textsuperscript{167}
\end{quote}

In keeping with the argument of this thesis then, Lim contends that comparative
advantage has been shaped by the Singapore state. This argument has also been
forwarded by Rodan who focuses on the case of Singapore as part of a more
general critique of comparative advantage trade theory.\textsuperscript{168}

Certainly the study to most directly address the political economy of
Singapore's incorporation into the new international division of labour is that by
Frederic Deyo. As the title of this book suggests, \textit{Dependent Development and
Industrial Order} is atuned to the theoretical debates outlined earlier and
sympathetic to the bureaucratic authoritarian model and the dependency
approach.\textsuperscript{169} Deyo emphasises the corporatist nature of the Singapore state and
the centrality of this to incorporation into the new international division of labour
(or what he refers to as 'world market oriented industrialisation'). The
institutionalised subordination and co-option of labour is detailed by Deyo and
explained as a necessary pre-requisite for this incorporation. However, for Deyo,
the PAP state's facilitation of international capital is not a function of
multinational pressure, as in classical dependency analysis, but based on relatively
autonomous public policy considerations. Indeed, he sees a diminution of
multinational influence over time, due to growing competition and diversification
in the nationalities of capital.\textsuperscript{170} He also sees increased economic gains to the
working class and reduced economic inequalities in Singapore. Just the same, Deyo sees a number of less attractive consequences to engagement in world market industrialisation.

It has undercut the vitality and economic independence of local business classes which in other societies have tended to challenge authoritarian political rule, and it has disrupted local community structures which might have provided the leadership and social support for challenges to corporatist control of unions. Finally, it has led to the emergence of a highly atomistic industrial labor force that lacks the solidarity and commitment to organize against union and government domination.\footnote{171}

In short, world market-oriented industrialisation is seen to consolidate political authoritarianism. So whilst Deyo revises the classical dependency interpretation in the case of Singapore, he still sees important external impositions on Singapore's political economy.

The value of Deyo's contribution to the study of Singapore’s industrialisation is two-fold. First, he has introduced a new level of theoretical sophistication to the area by pursuing various questions about the nature of the Singapore state and its relationship to a specific form of industrialisation. His observations about the pattern of foreign investment are particularly stimulating when ranked alongside the earlier, descriptive work of Yoshihara and Lee Soo Ann, and more recently Chia Siow Yue.\footnote{172} Second, and more precisely, he has specified various socio-political relationships which enabled the PAP to successfully pursue such industrialisation, notably in the area of labour control. These quesitons have recently received attention from Heyzer too.\footnote{173} The fundamentality of these relationships is confirmed and elaborated in this thesis which, as already stated, maintains that the peculiar corporatist nature of the PAP is definitive of the so-called Singapore model.

Conclusion

Essentially then, this thesis addresses the problem of how we explain the emergence of the NICs, in this particular instance Singapore. Though Singapore is not in any sense presented here as representative of NICs in general, it does
provide an opportunity to critically examine competing approaches to the study of this question. At the same time, there is a conspicuous lack of detailed studies of Singapore's industrialisation which detail the role of the state in its various social, political and economic dimensions. These are the respects in which this thesis makes a contribution.
FOOTNOTES


9. The theoretical roots of this approach can be traced to Smith's work on specialisation, Ricardo's comparative cost theory and, more recently, to the factor-proportion theory of Heckscher and Ohlin.


12. I.M.D. Little, "The Experience and Causes of Rapid Labour-Intensive Development in Korea, Taiwan Province, Hong Kong and Singapore; and the Possibilities of Emulation", in Lee (editor), 1981, p.42.


19. Krueger's analysis of state intervention is criticised by Evans and Alizadeh, 1984, p.39, on the grounds that the only forms of intervention analysed are those at the level of the circulation of capital (import quotas, regulation of taxes, minimum wage legislation, interest rate ceilings, and capital gains taxes). No account of the role of the state in facilitating capitalist relations of production is provided by Krueger. State controls in this area of conflict is considered by Evans and Alizadeh to be important to the general analysis of state intervention and, hence, comparative advantage and the pattern of trade.


29. An interesting study of Brazilian public policy has been conducted by Denis Goulet in which he argues that development requires compatibility between three different rationalities: technological, political and ethical. Though Goulet heightens an awareness of the complexity of the public policy process, his analysis is based on the assumption that conflict can be avoided if decision-makers are sufficiently aware of the relationship between these different 'rationalities'. See Denis Goulet, "Three Rationalities in Development Decision-Making", World Development, 14(2), 1986, pp.301-317.


33. Schmitter, 1979, p.22.

34. ibid., p.24.

35. ibid., p.25.


38. O'Donnell identifies eight principal characteristics of the bureaucratic-authoritarian state: its social base is provided by the upper bourgeoisie; specialists in coercion and technocrats enjoy institutional dominance; it is a system of political exclusion of the popular sector; this exclusion involves the elimination of the institutions of political democracy and a denial of 'lo popular'; it is also a system which excludes the popular sector from the economy in that capital accumulation heavily favours large oligopolistic units of private capital and some state enterprises; it promotes transnationalisation of the economy; it endeavours to 'depoliticize' social issues by employing a technical rationality; political representation is limited to large private and public organisations, notably the armed forces and large obligopolistic enterprises. See O'Donnell, 1979, pp.292-293.
39. The high profile of the technocrats, both civilian and military, is intended to transcend the social and political divisions in society. Though this involves intervention in social, political and economic spheres by the technocrats, their actions are justified in terms of necessary depoliticisation which is a prerequisite for economic growth. See O'Donnell, 1973, p.154.


42. O'Donnell argues that political society is traditionally comprised of the forces of domination and consensus but that the bureaucratic-authoritarian state excludes consensus, this largely being the consequence of efforts to attract foreign capital. However, the neglect and erosion of the symbols associated with consensus politics leads to tensions and contradictions which ultimately can only be resolved through a return to democracy. This article thus develops a political theory addressing the dynamics of authoritarian rule not evident in O'Donnell's earlier work.


44. Jose Sera, "Three Mistaken Theses Regarding the Connection between Industrialization and Authoritarian Regimes" in Collier (editor), 1979, p.118.

45. Kaufman, 1979, p.248. In addition to these criticisms, Alfred Stepan in The State and Society: Peru in Comparative Perspective, Princeton: Princeton University Press, 1978, also argues that urgent political necessity, notably the challenge to elite hegemony by popular movements, is the factor which accounts for the exclusive nature of corporatist regimes and not the crisis of import-substitution. William Crowther also lends support to Kaufman's argument in his study of the Philippines in which he contends that "the composition of both the import-substituting and the authoritarian coalitions depends more on the timing of import substitution and on pre-existing national political conditions than the original version of the bureaucratic-authoritarian model would imply". See William Crowther, "Philippine Authoritarianism and the International Economy", Comparative Politics, 18(3), 1986, p.354.

46. Albert Hirschman, "The Turn to Authoritarianism in Latin America and the Search for Its Economic Determinants" in Collier (editor), 1979, pp.81-82.


49. ibid., p.51.

50. The list of such publications is quite phenomenal and, therefore, an appreciation of the various dependency theories is most readily available through the reviews. See, for example, Gabriel di Palma, "Dependency: A Formal Theory of Underdevelopment or a Methodology for the Analysis of


57. See Staniland, 1985, pp.121-123.

58. Cardoso and Faletto, 1979, p.xvi.

59. Ibid., p.xv.


65. Ibid., pp.297-314.

66. Ibid., p.103.


69. Evans, 1979, p.12.

70. Ibid., p.83.

71. Ibid.


74. At this time, argues Gereffi, 1983, p.154, the Brazilian industry enjoyed such advantages as: exclusive access to barbasco, the most efficient and versatile raw material of the industry; Syntex, a local firm, led the world in both the output and technology of the steroid industry; and the Mexican state had adopted a supportive role towards local producers.

75. This instrumentality was established in January 1975. See Gereffi, 1983, p.132.


77. See ibid., pp.95-131.


81. ibid.


83. Countervailing government policies refer to such measures as financing debt and risk capital for Brazilian firms, encouraging local technological development and the use of public enterprises. Regulatory policy options involve stipulations at the point of entry of foreign investment, intervention to merge domestic firms, closer checking of restrictive trade practices, improvement in accounting practices, strengthening price control mechanisms, and the adoption of tighter import controls. Policies to reduce the power bases of multinationals include the encouragement of competition, 'renationalisation', and seeking co-operation from such international bodies as OECD and UNCTAD to curb restrictive practices. See ibid., pp.330-336.

84. ibid., p.355.

85. ibid., p.356.


88. See footnote 73.

89. In addition, approved foreign firms were to be limited to the machining of the motor and the final assembly of vehicles.

90. Bennett and Sharpe, 1979b, p.83.

91. ibid., p.87.

92. This was reflected in three respects: the two ministries centrally concerned with industrial policy failed to co-ordinate policy and were even at
loggerheads for much of the planning period; there were also serious
divisions internal to the Ministry of Industry and Commerce; and the
President himself failed to provide the degree of strong leadership required
to carry the programme through. See ibid., pp.80-86.

93. ibid., p.87.

94. For examples of literature from this school see works by Raymond Vernon
which include Storm Over the Multinationals: The Real Issues, Cambridge:
Harvard University Press, 1977, pp.139-74, 194-199; "The Power of
Multinational Enterprises in Developing Countries", in Carl Madden
(editor), The Case for the Multinational Corporation, New York: Praeger,
1975, pp.151-183; Sovereignty at Bay: The Multinational Spread of U.S.
"Foreign-Owned Enterprises in the Developing Countries", Public Policy,
Number 15, 1966, pp.361-380. Important discussions by Theodore Moran
include "Multinational Corporations and Dependency: A Dialogue for
Dependentistas and Non-Dependentistas", in James A. Caporaso (editor),
Dependence and Dependency in the Global System, special issue of
International Organization, 32, Winter 1978, pp.170-200; and Multinational
Corporations and the Politics of Dependence: Copper in Chile, Princeton:
Princeton University Press, 1974. See also Charles Kindleberger, American
Business Abroad: Six Lectures on Direct Investment, New Haven: Yale
University Press, 1969, pp.147-59; and C. Fred Bergsten, Thomas Horst and
Theodore Moran, American Multinationals and American Interests,

95. Joseph M. Grieco, Between Dependency and Autonomy: India's Experience
with the International Computer Industry, Berkeley: University of
California Press, 1984; and "Between Dependency and Autonomy: India's
Experience with the International Computer Industry", International


97. ibid., p.632.

98. ibid.

99. Emmanuel Adler, 'Ideological 'Guerrilas' and the Quest for Technological
Autonomy: Brazil's Domestic Computer Industry", International

100. ibid., p.704.

101. David G. Becker, The New Bourgeoisie and the Limits of Dependency:
Mining, Class, and Power in 'Revolutionary' Peru, Princeton: Princeton
University Press, 1983.

102. ibid., p.12.

103. ibid., pp.330-335.

104. ibid., p.334.

105. ibid., p.335.

106. ibid., p.339.


110. ibid., pp.354-356.


112. For other works on the role of international capital in subcontracting see footnote 2.


114. ibid., pp.2-15.


120. ibid., p.49.

121. ibid., p.47.

122. ibid., pp.62-64.

123. ibid., p.59.

124. ibid., pp.67-69.


126. ibid., p.59.

127. ibid., p.61.
128. ibid.
129. ibid., p.61.
130. ibid., p.50.

131. The extent to which this contribution challenges radical analysis can be gauged by the exchanges between Barone and Martin Hart-Landsberg. See Martin Hart-Landsberg, "Capitalism and Third World Economic Development: A Critical Look at the South Korean 'Miracle'", Review of Radical Political Economies, 16(2/3), 1984, pp.181-193 and Barone's reply in pp.195-197 of the same source.


133. ibid., pp.141-147.
134. ibid., pp.148-149.
135. ibid., p.152.
136. ibid., pp.154-155.
137. ibid., p.182.
138. ibid., p.183.
139. ibid., p.185.

140. It should be noted that Sam Wynn is a pseudonym for "an economist who lives in the United States". Wynn's analysis closely resembles that of Amsden who, possibly not coincidentally, is also an economist who lives in the United States. See Sam Wynn, "The Taiwanese Economic Miracle", Monthly Review, 34(1), 1982, pp.30-40; Alice Amsden, "The State and Taiwan's Economic Development", in Peter B. Evans, Dietrich Rueschemeyer and Theda Skocpol (editors), Bringing the State Back In, New York: Cambridge University Press, 1985, pp.78-106. For another work on Taiwan which examines domestic factors see Stephan Haggard, "The Politics of Industrialization in Korea and Taiwan", Paper prepared for conference, "Explaining the Success of Industrialization in East Asia", School of Pacific Studies, Australian National University, 9-12 September 1985.

141. Wynn, 1982, pp.36-37.
142. ibid., pp.36-38.

144. ibid., p.101.


150. ibid., p.388.

151. See, for example, Milton Friedman, The Invisible Hand in Economics and Politics, Inaugural Singapore Lecture, Singapore: Institute of Southeast Asian Studies, 1981. Friedman was addressing a disbelieving audience of business people in Singapore on how the free market had produced Singapore's success. A similar message was given by President Ronald Reagan when he welcomed Lee Kuan Yew to the White House in October 1985 as the champion of free enterprise. See "Singapore's Lee Is Well Received by Reagan During Visit to U.S.", Asian Wall Street Journal, 17 October 1985.


153. ibid., p.6


156. ibid., p.152.


166. ibid., p.757.

167. ibid., p.762.


170. ibid., p.115.

171. ibid., pp.115-116.


CHAPTER 2

PRE-INDUSTRIAL SINGAPORE: GENERAL STRUCTURAL DEVELOPMENTS UP UNTIL 1959

Economic Foundations and Colonisation

The long delay in the development of manufacturing industry in Singapore was no historic accident. On the contrary, the incorporation of this island into the British colonial umbrella arose out of a very specific historical struggle between imperial powers for access to and control over Oriental trade. This had very definite implications for the structure of the economy which developed in Singapore. In view of the considerable strategic advantages Singapore offered in the contest for commercial superiority, from the outset the British intended specific economic functions to be performed there. Though there were some modifications over time in the nature of Singapore’s trading role, these were invariably linked to the logic and dynamism of British colonialism and capital. The various other economic activities of any significance which developed in Singapore also derived in one way or another from the trade which passed through its port. This trade-based economy soon became intricately related with the commerce of the region in such a way that opportunities for capital accumulation perpetuated the basic economic structure imposed by British colonialism.

The earliest history of Singapore is not altogether clear. According to Turnbull, the first indisputable evidence of a settlement on the island dates from the fourteenth century.¹ This settlement, known as Temasek, probably represented the most significant inhabitation of Singapore prior to Raffles. Even so, Turnbull contends that this settlement was at the most only a small outpost of the Malay empire of Srivijaya, with its people dependent upon the sea for their livelihood. Certainly reports from travellers passing the island around that time emphasised the dangers of piracy. In any case, the settlement suffered a brief and violent history, culminating in its near-obliteration in 1398 after being attacked
by Thais. Subsequently, Singapore became a Thai vassal state in the early
fifteenth century and, in turn, passed into the control of a Malacca sultanate.
When the Portuguese gained Malacca in 1511, Singapore was briefly employed as
an outpost for the Malay sultan's new capital of Johor Lama. Johor Lama was
itself destroyed in 1587 by the Portuguese and, according to Turnbull, from about
1613 Singapore's significance as a settlement was minimal.²

The next major settlement at Singapore did not come until 1811 when about
one hundred Malays from Johore were led by their Temenggong (chief) to the
mouth of the Singapore River.³ The Temenggong established an overlord
structure whereby 'tribes' of the surrounding Riau-Lingga archipelago were
afforded protection in return for duties to Malay overlords. A division of labour
developed under which some tribes acted as private armadas and others as
boatpeople and suppliers of fish to the Temenggong.⁴ Other inhabitants of the
island at that time included the Orang Seletar and the Biduanda Orang Kellang
who were indigenous to the island. These people were essentially boat dwellers
who relied on fish and jungle produce for their existence. They were not engaged
in agriculture. The only agriculture carried out was by a small group of Chinese
who had planted gambier and pepper.⁵ Thus, when Sir Stamford Raffles founded
Singapore in 1819, the island comprised a small group of about one thousand
inhabitants whose notoriety derived more from piracy than agriculture or
extensive trading activities.⁶ Following Raffles, however, drastic change was to
come.

The British interest in Singapore stemmed from a number of
considerations. The primary concern was that the Dutch presence in Malacca
represented a potential threat to the security of passage through the Straits of
Malacca and Sunda, and thus the East India Company's trade with China. The
Company was heavily dependent upon this trade for its profits. Britain thus
needed, according to the Governor-General of India, Lord Hastings, "the
establishment of a station beyond Malacca, such as may command the southern
Raffles, who was at the time an officer of the East India Company, had been commissioned to find just such a station. On January 29, 1819 Singapore, being strategically placed astride the sea routes from Europe and India to China and Japan, was occupied for this purpose.

Owing to the priority the British government placed on securing more satisfactory Anglo-Dutch relations in the East, no immediate decision was made by London over the Singapore discovery. Soon enough, however, the full commercial implications of Singapore were being grasped and the political pressure upon the government from commercial interests intensified. Raffles' vision of Singapore as a counter to Dutch monopolisation of the Malay Archipelago trade had been embraced by private traders, manufacturers and shipping interests in Britain who all anticipated a substantial boost to commercial activity with the Archipelago and surrounding areas. This outward-looking stance was undoubtedly fueled by the economic depression in Britain at the time and the effects of rising protectionism in Europe. Private mercantile, shipping and manufacturing interests increasingly demanded an end to the East India Company's monopoly and the right to trade in smaller vessels east of the Cape. These considerations aside, it had simply become very expensive for the British government to conduct trade with the Archipelago through Batavia because of high differential duties imposed by the Dutch.

By the early 1820s then, there was pressure for a British commercial and military base in Southeast Asia. By 1824, the British had formally secured Dutch recognition of the occupation of Singapore. As a means of luring traders to the port of Singapore, and thereby countering Dutch monopolisation of Archipelago trade as well as advances by other European nations, the British established Singapore as a free port. This policy was enhanced by the capacity of Britain to administer the port through India, whose resources offset the immediate loss in revenue from Singapore. Under conditions of free trade, British manufacturers and traders were confident of faring more favourably in the Archipelago and adjoining region.
Even before the establishment of the free port of Singapore British traders had carried out trade with the region. Private traders had been supplying inhabitants of the Archipelago with manufactures which had been brought from India and Bombay, and had also successfully challenged traders based in India in the Archipelago trade. However, with the advent of Raffles' founding of Singapore there was a remarkable surge in trade, most of which was entrepot in nature, that is, trade in goods that are imported from one country and exported to another. Singapore was a convenient location for the exchange of merchandise and produce from Europe, India, China and Japan for the produce of the Malay Archipelago and the surrounding states of Siam, Cochin-China and Cambodia. The major imports from Britain at this time were arms and ammunition, iron and iron ore, copper, lead, and cotton and woollen piece goods. Singapore was the chief outlet for British cotton and woollen manufactures intended for regional consumption. The Straits produce which was exchanged for such goods included spices, palm oil and coconut oil. Between 1818 and 1824, the export branch of Singapore trade emanating from the Archipelago increased four-fold.

During the first fifty years entrepot trade increased eight-fold despite the Dutch Treaty of 1824 which restricted Singapore's trade with Java, Sumatra and other islands.

Over time the sorts of entrepot trade conducted through Singapore, and the origins and destinations of such trade, underwent change. Most notably, the importance of the Malay Peninsula to Singapore was to considerably increase. It was not until the 1840s when the Chinese developed tin mining in the west coast Malay states and gambier and pepper cultivation in Johore that any very significant volume of trade from the Malay Peninsula passed through Singapore. However, the most significant change occurred after Malaya was brought under British control in the 1870s facilitating greater exploitation of its natural resources and bolstering commerce.
Table 1: Principal Commodity Imports and Exports To and From Singapore, by Principal Country of Origin and Destination, Year Ending 30 April 1836

<table>
<thead>
<tr>
<th>Imports into Singapore</th>
<th>Principal place of origin</th>
<th>Value in Spanish $000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold dust</td>
<td>East side of Malay P'sula and Borneo</td>
<td>320</td>
</tr>
<tr>
<td>Opium</td>
<td>Calcutta and Bombay</td>
<td>1,083</td>
</tr>
<tr>
<td>Piece goods:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>European</td>
<td>Britain and Java</td>
<td>954</td>
</tr>
<tr>
<td>Indian</td>
<td>Calcutta and Madras</td>
<td>288</td>
</tr>
<tr>
<td>Rice</td>
<td>Java, Siam, and Bali</td>
<td>226</td>
</tr>
<tr>
<td>Sugar</td>
<td>Siam and Cochin China</td>
<td>189</td>
</tr>
<tr>
<td>Tin</td>
<td>Java, Malay Peninsula, nearby islands</td>
<td>313</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exports out of Singapore</th>
<th>Principal Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birds' nests</td>
<td>China</td>
</tr>
<tr>
<td>Gold dust</td>
<td>Calcutta and Bombay</td>
</tr>
<tr>
<td>Opium</td>
<td>China, Malay Peninsula, and Java</td>
</tr>
<tr>
<td>Pepper</td>
<td>Britain, China, and Calcutta</td>
</tr>
<tr>
<td>Piece goods:</td>
<td></td>
</tr>
<tr>
<td>European</td>
<td>Manilla, Siam, and Celebes</td>
</tr>
<tr>
<td>Indian</td>
<td>Java, Borneo, Celebes, and Sumatra</td>
</tr>
<tr>
<td>Raw silk</td>
<td>Britain, Java, and Celebes</td>
</tr>
<tr>
<td>Sugar</td>
<td>Britain, North America, and Bombay</td>
</tr>
<tr>
<td>Tin</td>
<td>China, Britain, and Calcutta</td>
</tr>
</tbody>
</table>


The first five years of the Federated Malay States (1895-1900) saw Malayan trade nearly double, the most important increases being in tin and rubber. Apart from greatly enhancing British interests, notably those of the big agency houses such as Guthries, this change was to promote a greater volume of import-export
trade between Singapore and Malaya. Buchanan points out that in 1836 the categories of food, drink, tobacco, opium and textile piece goods accounted for 74.1% of imports and 67.8% of exports; in 1936 the categories of tin ore (concentrates and plate), rubber and liquid fuel accounted for 79.8% of exports. The trading economy of Singapore was to generally develop a close interrelationship with Malaya's export economy, not only as an outlet for Malayan primary exports, but also as the channel through which imports of manufactured goods, capital, enterprise and labour would pass en route to the Malayan hinterland.

The traditional trade between China and India, and among the countries of Southeast Asia, had largely been replaced by specialisation between raw material producers and manufactured goods importers. Singapore's transhipment functions reflected the change in this composition of goods traded (see Table 1). It now collected raw materials, principally tin and rubber, from the Malay mainland and the Archipelago for shipping to the rest of the world, and in the course of this activity undertook some of the preliminary sorting and processing. The service and maintenance needs of the growing port, building and construction activity, and increased consumer demand also began to stimulate manufacturing activities. Clearly though, trade still dominated the economy.

Although the establishment of Singapore may not have given rise to as dramatic an increase in the sale of British manufactures as had been hoped, the strategic and commercial success of Singapore had clearly vindicated Raffles' choice. By the turn of the century Singapore had become the regional centre for a whole range of enterprises including import-export firms, agency houses, banks, shipping firms, insurance companies and numerous other services. The successful development of Singapore, however, had been contingent upon the establishment of important structural relationships which were absent in 1819. In particular, the rapid expansion of trade was facilitated by the evolution of an intricate network of relationships between European traders and Asian intermediaries.
Class Structure

Though the port of Singapore displayed the necessary physical features to more than adequately fill the role sought of it by the British, its tiny population at the time of its founding as a British settlement meant that a considerable intake of immigrants would be required. More precisely, specific classes of people had to be attracted. Apart from the need for some wage labour, the British were conscious of the importance of attracting the experienced and knowledgeable merchants operating in the region so that links could be established with the various producers and merchants in the Archipelago and beyond. European business firms were understandably ill-equipped to either identify markets or communicate with producers and traders. John Crawfurd, who took over the Singapore Residency from Raffles in 1823, proposed that this problem be resolved by trading through "an intermediary class in whom both (Asian traders and European firms) can repose confidence". Such an intermediary class had in fact already been developed in the region and these people were quick to see in Singapore the scope for playing such a link role between the Europeans and indigenes of the region.

The successful attraction of the requisite Malayan and Chinese traders to Singapore was in no small way due to the free port status of the island. A port free of monopolies, steep duties or restrictions of some kind, as was typical of European ports, or the uncertainties of Malaysian ports was quite novel for the East.

Chinese commercial intermediaries were quick to move to Singapore. Chinese who had settled throughout the region, not just as traders but as farmers and miners, were already engaged in a network of commerce in Riau, Malacca, Penang, Bangkok, Manila, Batavia and other Javanese ports. These contacts were to be exploited from Singapore. Of the initial Chinese immigrants to Singapore, those coming from Riau and Malacca were predominant. Many of the Malaccan-born Chinese had actually been educated at the Anglo-Chinese colleges
at Malacca and had even been employed for a time in the British colonial administration. For the most part, these Chinese immigrants concentrated their commercial and trading activities in the nearby Asian ports of Bangkok, Saigon, Sumatra, the Riau-Lingga Archipelago, Bali, Borneo and the islands of the Malay Peninsula. Chinese pukats (large row-boats which were equipped to also employ a sail) were also important in trade with the Straits of Malacca and the east coast of the Malay Peninsula.

The importance of Chinese traders to the prosperity of Singapore and indeed the Malay Peninsula extended to the supply of labour. Singapore functioned as a distribution centre for Chinese labour en route to the tin mines of the Peninsula as well as the Netherlands East Indies. The demand for labour in the Archipelago by the early nineteenth century coincided with severe hardship for Chinese in the provinces of Kwantung and Fukien in particular. This gave rise to a preparedness by Chinese to emigrate. In view of both the low population of Singapore and the revenue benefits from a larger population, British authorities welcomed this trade in labour. Although some passages were paid for by the immigrants themselves, the majority of these people were too poor to pay their fares. Consequently, a virtual slave trade developed under the auspices of Chinese entrepreneurs. Trade in these labourers, or sinkhehs, quickly assumed a speculative nature. This labour trade, however, was not totally confined to Chinese traders. From the 1840s Singapore became the distribution centre for Indian labourers brought by planters from Ceylon.

Of the non-Chinese merchants, the most important to Singapore in the early years were the Bugis. These people were from the south-west of the Celebes but had come to occupy the territory between Macassar and Mandar. They were invaluable to the Archipelago trade since they formed the distributive link between European manufacturers and merchants and the people of the most remote, and otherwise inaccessible, regions of the Archipelago (particularly in the east). The Bugis merchants generally operated through Chinese intermediaries.
in Singapore. Their initial importance, however, waned as they came to feel the pressures of competition, especially from the Chinese.29

Aside from the Bugis and Chinese traders, Singapore also attracted merchants from Sumatra, mainly Malays. Like the Bugis, these people purchased from the Europeans through the Chinese traders. Opium and British and Indian piece goods were exchanged for local produce from the Sumatran coast such as rattans, gutta-percha and camphor.30 There were also some Indian merchants in Singapore who had come from the large Indian commercial community of Penang.31

European merchants, notably British, dominated the entrepot trade. Starting as partnerships or owners of merchant houses, these groups evolved into the powerful managing agency houses towards the end of the nineteenth century. In 1845, of the 46 merchant houses in Singapore, 20 were British, six Jewish, five Chinese, five Arab, two Armenian, two German and one Portuguese.32 This representation was to change over time, with a strong challenge to British dominance coming in the 1860s in particular.33 Expanding beyond the exportation of raw materials and the importation of manufactured goods, these houses moved into direct control of tin mines and plantations, with a concomitant venture into the wholesale and retail trade of manufactured goods.34 These European traders enjoyed import–export advantages over their Chinese counterparts due to their control over raw materials, and of course in imports they held the upper hand since most manufactured goods invariably came from Europe.

Buchanan argues that by the 1920s it was possible to delineate a clear complementary structure of ownership and control in which European investments controlled primary production and the trade associated with it (through the large agency houses), whilst the local Chinese merchants operated an intricate network of domestic commerce of small-scale collection, distribution and retailing.35 Even by Buchanan's own admission, the above schema is a simplification. There were local Chinese, for example, who were either directly engaged in commerce
or who even employed wage labour. For the most part, however, the larger commercial and financial services associated with Singapore's entrepot trade were provided by British-owned commercial houses and banks. Hughes explained the extent to which European domination affected the structure of Chinese business as thus:

The division between European and Chinese traders was reflected in the establishment of a separate Chinese Chamber of Commerce in 1906, and Chinese merchants and bankers were by and large merely able to fill the interstices of Singapore's entrepot activities.

The circumscription of Chinese business activities by European capital was clearly evidenced in the European penetration into the rubber and tin industries of the Malay States. Tin mining had actually been pioneered by the Chinese hundreds of years before the first investment by Europeans. By 1929, however, European companies were producing 61% of Malaya's tin, a position largely attributable to the superior capital and organisational resources of the European companies. Investments in Malay tin mines had been one avenue for direct productive investments by Singapore-based Chinese. Puthucheary argues that capital investment by Chinese in Malay tin mines was stunted because of the presence of European capital. This is not to deny that many Singapore-based Chinese, being heavily integrated through family capital networks, continued to reap significant profits from direct investments in the mines. However, owing to the superiority of European-based capital, especially following the innovation of the dredge in 1907, the majority of Chinese investments were concentrated in mines often considered by the Europeans as too small to be of concern.

Direct productive investments in rubber by Singapore Chinese were also curtailed by the domination of European firms, led by Guthries. More than in the tin industry of Malaya, the position of Chinese capital suffered for lack of access to sufficient finance. Following the planting, it takes five to seven years before rubber can be tapped, and a further few years before the full crop is realised. Thus, a large supply of capital is essential. For this reason, Chinese investors from Malaya and Singapore could not compete with the agency houses, since the
former were hamstrung by the small level of capital accumulation in general as well as the absence of capital mobility from one industry to another.41

Although opportunities for direct foreign investment in rubber and tin by Chinese capital based in Singapore were restricted, Singapore merchants were nevertheless to do well out of this trade. The Singapore Chinese played a comprador role, acting as go-betweens or commission merchants. They provided financial guarantees to Western firms and personal credit to Chinese traders. In return, these compradores received a salary from the European firm which employed them and commissions from both the firms and the Chinese traders.42 Therefore, despite the restrictions on productive investments, many Singapore Chinese not only welcomed the expansion of European capital but actually became dependent upon it. Certainly the fortunes of a large number of Chinese traders based in Singapore were fundamentally enmeshed with those of the mainly foreign-owned estates and mines of Malaya.43 Additionally, demand for consumption goods rose with the growth of wage labour in these enterprises.44 Understandably then, locally-based merchants viewed favourably the stability in administration associated with British colonisation.

The perils of the heavy dependence of Chinese capital on western business interests was demonstrated during the severe slump of the Great Depression. The price of rubber fell from an average of 34 cents per picul in 1928 to 4.95 cents in June 1932. Tin prices also dropped dramatically. Unemployed rubber planters and tin miners came to Singapore in search of work, but only joined scores of others who had been affected by the downturn.45 Turnbull argues that this obvious and susceptible reliance on the trade of primary products prompted the more capable Singapore Chinese to explore both secondary industries and banking. Some Chinese, for example, actually set up their own rubber factories in Sumatra and Dutch Borneo.46 The trend towards greater diversification of interests, however, had actually begun before the crash, but was no doubt strengthened as a result of it. By the late 1920s, Chinese merchants in Singapore had already moved into
banking and had even begun to challenge European control over entrepôt goods. The broad structure of the economy at this time, however, still basically conformed with the generalisations made by Hughes and Buchanan.

Trade Versus Manufacturing

The very basis of Singapore's trading success was, at the same time, a major explanation for the failure to develop any significant manufacturing. From the outset, the free port status of the island, which provided the attraction for trade and merchants, meant there was little incentive for local manufacturing. That is not to say there were not arguments in favour of removing or modifying free port status. Some colonial administrators saw in the imposition of duties a means of redressing the colony's tax imbalance and achieving a balanced budget. The political weight of the British merchants, however, was sufficient to cancel out this pressure.

Although investment was concentrated in the tertiary sectors, some small-scale, light industries were nevertheless developed. By the early 1930s there was food production (including biscuits, sweets, cooking oil), simple manufactures (shoes, clothing, tyres), the manufacture of construction materials (flooring tiles, wire, nails), pineapple-canning, tanneries, dye-works, and a small motor-car assembly plant. Primary processing of rubber and tin had also developed as a complement to Singapore's role as a port for the export of these commodities.

In the early 1930s, the opportunity existed for a re-evaluation of the importance of manufacturing to Singapore's economic development. In the wake of the Great Depression and the devastating effects of this on Singapore's entrepôt trade, Sir Cecil Clementi, the Straits Governor-General and High Commissioner of the Malay States (1930-34), appointed two committees to examine the possibility of a joint customs union between the Straits Settlements and the Malay States. Of course, a customs union would have been to the advantage of manufacture in Singapore since it would have afforded important
protection, especially for industries in infancy. It was largely accepted that without protection no significant development of manufacturing industry was possible. Even so, according to the 1933-34 Commission, Singapore's relatively high labour costs placed doubt on the likely effectiveness of protection. Both committees, however, rejected the customs union proposal in the belief that the negative impact on entrepot trade due to protection far outweighed the prospective gains of such a policy for the manufacturing sector. This view prevailed.

Although the idea of a customs union was rejected, the British government decided in 1932 to impose the principle of imperial preference on Singapore (and other Straits ports) on the condition that it did not adversely affect entrepot trade. This measure was intended to defend imperial manufactures, produce and foodstuffs by means of duties. Quotas were also imposed on the importation of foreign, notably Japanese, textiles in 1934, representing a further incursion on free trade. Overall though, the idea of government intervention to foster the development of indigenous manufactures was rejected and the politically weak manufacturing interests could do little to effectively challenge the conclusions of the Reports.

The importance of the early structural relationships in the Singapore economy to its long-term development cannot be over-emphasised. Whilst there were important changes in the activities undertaken within the different sectors of the economy, during the period 1900-1960 the structure of the Singapore economy displayed remarkable continuity. During this period, between 70% and 75% of the workforce was employed in the tertiary sector, from which 80% to 85% of Singapore's income was generated. By contrast, the proportion of the workforce employed in manufacturing during the same period ranged from 10% to 15%, with this sector's contribution to domestic income varying between 5% and 10%.
Puthucheary, and later Buchanan, have argued that the 'biased' economic structure of Malaya and Singapore was in large part the consequence of the 'structural immobility' of capital. Since so much domestic capital formation took place within foreign-owned companies, the use to which the profits of these companies were put was crucial. According to Puthucheary, however, the dominant characteristic of foreign capital was its inability to filter from one sector of the economy to another. This tendency was explained partly by the fact that many of these companies simply specialised in primary production, and partly by the 'homing instinct' of foreign capital. Profits of these firms had to be exported back to the country of origin before they could be reinvested; a problem which, for lack of a capital market in Malaya, could not be circumvented. Owing to the inertia created by previous developments, opportunities to reinvest these profits in manufacturing industries did not exist anyway. More attractive opportunities were available in other countries. The offshoot of this structural immobility of foreign capital was, according to Puthucheary, that local capital investment tended therefore to be complementary to this pattern. It was both logical and profitable to follow the path set by foreign capital.

It is not possible at this point to engage in a detailed critique of Puthucheary's analysis of capital investment in Singapore and Malaya. Nevertheless, the basic point which he makes, that there were structural impediments to the diversification of capital investment, is justified. Singapore was from the outset a very specialised economy and the pattern of capital investment by international capital in the formative years reflected a broader international division of labour which largely discounted major investment in secondary industry in either Malaya or Singapore. Added to this, however, is the consideration that the business practices of the Singapore Chinese themselves placed some constraint on the development of secondary industry. In the first place, Chinese capital accumulation was, with some exceptions, generally very
modest. This must have constituted an objective limit on the horizons of many investors. Furthermore, especially in the early days, much of the accumulated wealth was expatriated to family in China.

Post-Depression Developments

Towards the end of the 1920s, and beyond, various developments raised questions about the wisdom of the heavy dependence of Singapore upon trade. It became increasingly apparent that whilst this dependence had made possible dramatic economic growth, it also rendered the Singapore economy susceptible to equally dramatic downturns in economic fortunes. The crash in commodity prices and generally falling demand of the Great Depression naturally had severe implications for Singapore. More than this though, emerging economic nationalism began to pose a threat to Singapore's trade.

In 1928, the French colonial tariff of 1892 was amended, removing the previous most-favoured-nation treatment enjoyed by Singapore and other products of British colonies which kept duties at minimum rates. The result was a significant decline in Singapore's trade with French Indo-China. A more significant decline in trade was that with the Dutch East Indies. During the 1930s the Dutch discarded free trade in response both to the Great Depression and the general pressure for economic nationalism. This change in policy was intended to stifle the inflow of Japanese goods (notably textiles), promote self-sufficiency for the colony in food, and to develop light labour-intensive industries as a way of checking unemployment.

In spite of the setback posed by the new Dutch policy, Singapore continued to play a key role as an entrepot for Dutch colonial produce – primarily as the port for Outer Provinces. However, Singapore's portion of the colony's import trade did fall significantly, particularly as Singapore was increasingly being bypassed in favour of direct trade with the West (especially in the area of industrial goods and manufactures). The trend towards economic nationalism, expressed in self-
sufficiency in food production and industrialisation, was becoming generalised in
the region. It was not confined to French Indo-China and the Dutch East Indies.

Singapore's trade also suffered due to the tendency towards greater direct
trade within Southeast Asia. It was noted by the 1933-34 Trade Commission that
Archipelago trade in shells, sharks' fins, ivory, edible birds' nests and other goods
was to a growing extent bypassing Singapore for Hong Kong and the Treaty Ports,
while Burmese, Thai and Indo-Chinese rice and dried fish were being directly
shipped in greater amounts to those Southeast Asian countries in which they were
being consumed. The expansion of direct trade within the region owed much to
the development of shipping goods under a system known as 'bill of landing'.
Under this arrangement the merchant or producer was able to sell produce in the
outport and ship it to its destination with merely transhipment at Singapore.
Whilst Singapore lost out in the distributive and processing trade as a result of this
arrangement, it did receive some benefits in stevedoring and warehousing. The
general conclusion of the Trade Commission was that the losses owing to direct
trade were more than offset by the gains made by Singapore resulting from the
general expansion of production in the region stimulated by this direct trade.

Despite the Commission's conclusion that Singapore's reliance on entrepot
trade still provided the basis for Singapore's economic expansion, and its rejection
of positive discrimination in favour of manufacturing industries, it was apparent
that Singapore's trading future would not be without problems of adjustment. In
the immediate future, these problems were to be alleviated as a consequence of
World War II. Its role as an entrepot for the Dutch East Indies was aided by the
fall of Holland and the increase of American purchases of tin and rubber for
stockpiling purposes. Singapore thus resumed its smelting of tin ores for the
Dutch East Indies. The war had also given rise to a boom trade in foodstuffs and
essential raw materials, particularly with the US, though not enough to prevent
the general hardship which the war brought with it for Singapore. However, with
the conclusion of World War II, during which time Singapore was occupied by
Japanese forces, this unusual trade pattern was discontinued.
At a glance, little differed in the immediate post-war period in the pattern of Singapore's trade when compared with the pre-war pattern. The most important trade partner continued to be the Malay Peninsula. In 1949, 71% of Malay's imports and 67% of its exports passed through Singapore, representing about one-third of Singapore's total trade. However, whilst entrepot trade continued to lead Singapore's expansion, there were some important changes in its composition following the war which were to a large extent inspired by emerging nationalist movements throughout the region precipitated by Japanese imperialism. In particular, the traditional Straits produce trade, with the exception of rubber, steadily declined in the post-war years as a result of both the trend towards economic nationalism amongst Singapore's neighbours and the ambition of these countries to conserve their scarce foreign exchange. Fortunately for Singapore, this trend was handsomely compensated for by a significant growth in the volume of trade in such manufactured goods as textiles and machinery, as well as foodstuffs such as canned fish, condensed milk, cigarettes and beverages. The post-war years also witnessed a rapid expansion in the trade of petroleum. Singapore came to assume the role of storage and distribution centre for petroleum refineries of the Middle East.

Once again then, Singapore's heavy dependence upon entrepot trade appeared to have undergone sufficient modification to counter the problems of economic nationalism. However, in the decades to follow the war it also became apparent that the biased economic structure of the economy, so heavily weighted in favour of trade, presented other problems. These could not be addressed simply by modifying the composition of entrepot trade.

The chief problem in the post-war period was unemployment. In the pre-war period unemployment was of no real consequence. This was to a considerable extent due to the tremendous mobility and transience of the Singapore population. Prior to the war, economic downturns had simply prompted a flow of emigrants out of the country and, in more prosperous times, the reverse.
Immigration restrictions introduced in the 1930s, combined with the social dislocation resulting from the war, had, however, produced a more stable population. The Chinese in particular had become more settled. Whereas, according to the 1931 Census, 36% of Singapore Chinese were Straits-born in 1931, by 1947 the proportion was up to 60% and by the mid-1950s as high as 70%. The spectre of unemployment was also heightened by the age structure of Singapore's more stable post-war population. According to the 1947 Census, 36% of the population was below 15 years of age. With the economy so dependent upon a sector so subject to fluctuating commodity prices, there seemed little certainty in the capacity of the economy to provide sufficient opportunities for future entrants to the workforce.

As had been the case in the past, major decisions about whether, and by what means, the heavy reliance upon trade might be corrected were spared by circumstance in the 1950s. In fact, with the advent of the Korean War primary commodity prices soared and the total trade of Singapore rose from $2.4 billion in 1949 to $4.6 billion in 1950. It peaked at $7.6 billion in 1951 but subsequently dropped to $5.4 billion in 1952 and then to $4.3 billion in 1953. As Cheng points out, the short-lived prosperity of the boom actually served to highlight the fundamental instability of the economy in view of the heavy dependence upon commodity trading. It certainly did not obscure the structural problem of Singapore's economy.

**First Attempts at Industrialisation**

In view of the inevitable social and political problems which would stem from high unemployment, examining ways of developing the manufacturing sector became less a choice and more an imperative as Singapore entered the 1950s. This process was stimulated by moves towards independence. The struggle which ensued, both between the people of Singapore and the colonialists and amongst the competing successors, ultimately overshadowed and certainly conditioned the approach to the
question of industrialisation. Although some initial steps were taken during the 1950s these were tentative and exploratory moves, major decisions about an industrial strategy being delayed until self-government.

Table 2: Employment By Industry, 1947 and 1957 Censuses

<table>
<thead>
<tr>
<th>Industry</th>
<th>1947</th>
<th>1957</th>
<th>Change from 1947 to 1957</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>357,535</td>
<td>100.00</td>
<td>471,918</td>
</tr>
<tr>
<td>Agriculture, Forestry, Hunting &amp; Fishing</td>
<td>25,457</td>
<td>7.12</td>
<td>29,278</td>
</tr>
<tr>
<td>Rubber, Oil Palm &amp; Coconut</td>
<td>3,629</td>
<td>1.02</td>
<td>3,146</td>
</tr>
<tr>
<td>Mining &amp; Quarrying</td>
<td>1,247</td>
<td>0.35</td>
<td>1,598</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>58,922</td>
<td>16.48</td>
<td>76,837</td>
</tr>
<tr>
<td>Building &amp; Construction</td>
<td>9,375</td>
<td>2.62</td>
<td>22,028</td>
</tr>
<tr>
<td>Electricity, Gas &amp; Water</td>
<td>750</td>
<td>0.21</td>
<td>4,038</td>
</tr>
<tr>
<td>Commerce</td>
<td>83,049</td>
<td>23.23</td>
<td>135,157</td>
</tr>
<tr>
<td>Transport, Storage &amp; Communication</td>
<td>52,976</td>
<td>14.82</td>
<td>49,434</td>
</tr>
<tr>
<td>Services</td>
<td>110,374</td>
<td>30.87</td>
<td>148,306</td>
</tr>
<tr>
<td>Others</td>
<td>11,756</td>
<td>3.29</td>
<td>2,096</td>
</tr>
</tbody>
</table>


According to data for 1947, the amount of employment provided by the manufacturing sector at the time was modest. As shown in Table 2, only 16.5% of the total employed workforce was engaged in this sector. The majority of these workers were employed in industries making use of raw materials from the region, especially rubber products, and those which had sprung up owing to the natural protection afforded them, such as food and beverages. A smaller number of workers were engaged in engineering and machinery work servicing the tin, rubber
and oil industries. Indeed, consistent with the early structure outlined above, the small manufacturing sector was primarily geared towards meeting limited needs of the domestic market and to a significant degree was based on complementing Singapore's entrepot role. There was, therefore, presumably considerable scope for expansion within the sector.

Despite the theoretical possibilities for the expansion of Singapore's manufacturing sector, the experience of the 1950s suggested that any growth potential the sector might have would not occur without a concerted attempt by authorities to nurture and develop industry. Although the value of output of manufacturing industries was estimated to be approximately $420 million in 1956, detailed data from which GDP rates could be calculated were not collected until 1959. Again, then, we are reliant upon employment data to ascertain the extent and nature of economic growth in the build-up to self-government. Though this method has obvious limitations, we do nevertheless get some idea of the general trends between 1947 and 1957, the year of Singapore's next census of population. The data from the two censuses reveal, for example, that although employment provided by the manufacturing sector was 17,915 higher in 1957, the sector's contribution to total employment had fallen from 16.5% to 16.3% (see Table 2). The greatest employment gains came from the commerce sector which employed 52,108 or 45.56% more people in 1957 than in 1947. This sector's share of total employment thus rose from 23.2% to 28.7% in this period. In 1957 then, the Singapore economy appeared more rather than less structurally dependent upon entrepot trade for expansion.

Of the employment gains made within the manufacturing sector, the most significant came from footwear and wearing apparel, paper products and printing and publishing, food, and non-metalic mineral products industries. All these industries were leading employers in 1947 so their gains did not suggest any qualitatively new developments in manufacturing.

The first serious re-examination of the structure of the Singapore economy was embodied in a report compiled in 1955 by the International Bank for
Reconstruction and Development (IBRD). This was done at the request of the governments of Singapore, the Federation of Malaya and Britain. The IBRD mission drew attention to the "...age pattern and increasingly settled character of the population" and the consequent likelihood of an increasing labour force growth rate.\(^7\) Industrialisation was underlined as the panacea, especially since Singapore lacked any significant agricultural sector, or the possibility of one. A national market for Singapore and Malaya in which there would be a movement from naturally sheltered industries to those competing with imports, as well as a shift from small to large-scale enterprises were advocated in the report.\(^7\)

In the closing stages of colonial government in Singapore, some measures were adopted as a result of the IBRD Mission Report. In 1957 an Industrial Promotion Board was created,\(^8\) and in 1959 legislation providing tax relief for pioneer industries was introduced.\(^9\) The Industrial Promotion Board was unable to achieve results in attracting investment. The absence of necessary funds and staff to carry out the all-encompassing responsibilities entrusted it through the legislation curbed any potential the Board might have had.\(^10\) The government simply lacked the political will to seriously carry forward the industrialisation programme. Its immediate concerns at this point were not so much economic as political. Singapore's strategic location was still of importance to Britain's general security interests and energy was devoted to safeguarding these after colonisation.

In 1958, the then Minister for Commerce and Industry in the Labour Front-UMNO coalition government of Malaya, J.M. Jumabhoy, approached a Colombo Plan Industrial Advisor, F.J. Lyle, to compile a report on the possible industrial direction open to Singapore. The report, tabled in the Legislative Assembly on 15 January, 1959, emphasised unification with Malaya as fundamental to the prospects of Singapore's industry.\(^11\) A common market, identical tariff protection and inducements to industry were all argued as essential.\(^12\) In keeping with the IBRD Report, Lyle stressed the importance of the provision of capital funds to industry.
The concern in both reports with the formation of a common domestic market, and the measures appropriate to its exploitation, were grounded on the assumption that only through an import-substitution industrialisation strategy could significant industrialisation take place.

Even though no major decisions had been made by this time, it was evident on the eve of the People's Action Party election success in 1959 that there was already considerable awareness of, and desire for, industrialisation in Singapore. With the PAP having heavily campaigned on a platform which included the creation of a 'united Malayan nation', there had also evolved a certain context within which Singapore's industrial strategy would be decided.

Conclusion

We have seen in this discussion how Singapore's peculiar historical circumstances gave rise to an economy heavily dependent upon entrepot trade and related services. Though there have been important changes to the economy since the time of Raffles, by 1959 the basic structure of the economy still reflected this legacy. Trade alone still accounted for as much as one-third of the Gross Domestic Product (at factor cost). The heavy dependence upon trade, however, had facilitated very rapid economic growth and also promoted the development of a wide range of tertiary industries. In spite of these positive achievements, circumstances following World War II in particular necessitated a re-examination of the island's development strategy. With a more stable and younger Singapore population emerging, it was apparent that almost exclusive reliance upon entrepot trade would involve serious social and political consequences. The need to generate secure employment became a matter of urgent consideration.

Recognising the need to restructure an economy is of course no guarantee of the capacity to do it. Apart from the distraction of Singapore's political struggle for Independence, which came to be correctly viewed both by the British and the Singaporeans as primary to any restructuring, there were other constraints on
immediate action to generate industrialisation. In support and in consequence of Singapore’s economic history a specific class structure had evolved which featured a well-developed and diversified range of merchant classes, both domestic and foreign. Domestic classes had for the most part developed patterns of capital accumulation which, whether in fields of trade or finance, were basically similar to and complementary with international capital. This was not necessarily due to any logical compulsion stemming from the universal character of international capital. However, given the historical role assumed by Singapore in the Southeast Asian region on behalf of British and European capital, the most profitable opportunities for Chinese capital tended to lay outside the manufacturing sector. Domestic-based capital did invest more heavily in this sector after World War II, and has successfully competed with international capital in banking and finance. The fact nevertheless was that as Singapore approached self government it lacked a strong industrial bourgeoisie, either of domestic or foreign origin. This would unavoidably have important implications for any government which was to assume power in 1959. Steps would have to be taken to nurture such a class and/or the state would be required to adopt public policies to compensate for the lack of an industrial bourgeoisie. Certainly the state would in all likelihood have an important role to play in any strategy for industrialisation.
FOOTNOTES


2. ibid., p.4.


4. The Orang Gallang were organised into pirate armadas and the Orang Gelam as boatpeople and suppliers of fish. See Turnbull, 1982, p.5.


6. This number was made up of about 500 Orang Kallang, 200 Orang Seletar, 150 Orang Gelam, other Orang Laut, 20-30 Malays in the Temenggong's entourage, and about 20-30 Chinese. See C.M. Turnbull, 1982, p.5.


9. ibid., p.31.

10. This was embodied in the Dutch Treaty 1824.


13. Initially, owing to Raffles' dislike of Americans, trade with America was conducted at Riau or at Batam. In 1840 the merchants of Singapore were, however, finally successful in having American trade formally admitted to Singapore. See Singapore International Chamber of Commerce, From Early Days, Singapore: Fong & Sons Printers for Singapore International Chamber of Commerce, 1979, p.23.


15. ibid., p.159.

16. Iain Buchanan, Singapore in Southeast Asia, London: G. Bell & Sons, 1972, p.28. Buchanan points out that although Archipelago trade expanded absolutely, its relative contribution declined from 39% in 1824 to 32% in 1870.


23. Mainly as cashiers and clerks.
24. Wong, 1960, p.84.
26. ibid., p.7.
28. Wong points out that most British piece goods were sold at Singapore and consumed by inhabitants rarely, if ever, seen by Europeans. See ibid., p.76.
29. Bugis merchants numbered 1,851 out of a total population of 10,683 in 1824. In 1828, they numbered 1,252 out of a total population of 14,885. In 1860, the Bugis population had dropped to just 906. See ibid., pp.74-75.
30. ibid., p.77.
36. There was some American and European participation in the commercial houses of Singapore, but these and the banks were predominantly British-owned. See Hughes in Hughes and You (editors), 1969, p.9.
37. ibid.
39. ibid., p.82.
40. ibid., p.40.
41. Puthucheary points out that where any capital mobility at all existed between sectors it was from mining to commerce. This is explained with reference to the fact that many miners had previously been traders and that the mining industry had brought many miners into commerce through wage payment in kind. See ibid., p.40.
42. Turnbull, 1982, p.139.
43. In 1908 Singapore firms began to sell rubber locally rather than through London. During World War I this trade became much more significant and
rose sharply from then on. See Hughes in Hughes and You (editors), 1969, p.8.

44. Puthucheary, 1960, p.53.


46. ibid., p.139.

47. The following Chinese banks had been established by the time of the Great Depression: Kwong Yik Bank Company Ltd. (1903); Sze Hai Tong Banking and Insurance Company Ltd. (1907); Chinese Commercial Bank Ltd. (1912); The Ho Hong Bank Ltd. (1917); Overseas–Chinese Bank Ltd. (1919); Lee Wah Bank, Ltd. (1920); Ban Hin Lee Bank, Ltd. (1920). See Tan Ee Leong, "The Chinese Banks Incorporated in Singapore and The Federation of Malaya", in T.H. Silcock (editor), Readings in Malayan Economics, Singapore: Eastern Universities Press, 1961, pp.454-479.

48. Wong 1960, p.178. It was pointed out by Sir Harry Ord in 1868 that eight-tenths of the revenue of Singapore was paid by the Asian population and, in 1869, a subsequent analysis of the colony's tax structure again showed that the major share was coming from the Asian, especially Chinese, segment of the population. According to this second analysis, Europeans were paying just one-tenth of the tax revenue. See ibid., p.193.


50. ibid., p.75-76.

51. ibid., p.77.

52. Buchanan, 1972, p.35.


54. ibid., p.157.

55. ibid., p.xxi.

56. This was no doubt in part due to the tendency of the Chinese to engage in enterprises on a private individual or small partnership basis.

57. In 1925, Singapore's trade with French Indo-China was $24.6 million, compared with $8.4 million in 1895. However, in 1937 it was just $11.8 million. See Wong, 1978, p.78.

58. By the early 1930s, Singapore had assumed the position of chief distribution point for Japanese goods in Malaya, Thailand and the Dutch East Indies. See ibid., p.77.

59. ibid., p.79.

60. ibid.

61. ibid.

62. ibid., p.74.
63. ibid.
64. ibid.
65. ibid., p.79.
67. ibid., p.83.
70. ibid., p.234.
72. ibid.
73. ibid.
74. This figure was arrived at by adding estimates of capital formation and domestic manufactures by the Statistics Department with Dr F.C. Benham's estimate of personal consumption of domestic manufactures. See Ministry of Finance, Development Plan 1961-1964, Singapore: Government Printer, 1964, p.15.
75. As from 1959, annual censuses of industrial production were held by the Department of Statistics for establishments which employed at least 10 people.
76. Apart from the problem that employment generation does not have the same relationship to output in all industries, there are some problems in comparing the data on employment for 1947 census with those of 1957. First, there was no complete correspondence between the industrial classification adopted in the two census years. Data therefore had to be regrouped for purposes of comparison. As a result, there was a large residual of workers in the 1947 classification where activities were "not adequately described". Second, it was not possible in this regrouping to exclude the unemployed persons and persons between 10 and 14 years of age who were economically active from the 1957 industrial classifications, categories which were not included in the 1947 data collection. See S.C. Chua, Chief Statistician and Superintendent of Census, Report on the Census of Population 1957, Singapore: Government Printer, 1964, p.83.
77. What did not come out in the comparison of data from the two censuses but is suggested by data cited by Nyaw is that most of the employment gains which did occur after 1947 had slowed by 1954. Employing data from the United Nations, The Growth of World Industry 1938-1961, (National Tables), New York 1963, Nyaw points out that whereas manufacturing employment growth was 5.8% between 1952 and 1954, the rate subsequently declined so that for the period 1952-1959 the per annum change was -1.6%. See Nyaw Mee-kau, Industrial Growth and Export Expansion in Singapore, Hong Kong: Kingsway International Publications, 1979, pp.26-27, 185-186.
80. It was officially constituted on 21 March, 1957. The Board was entrusted
with the task of promoting and assisting in the financing, establishment
and/or management of: (i) new undertakings; (ii) schemes to facilitate
improved organisation and modernisation of any undertaking; and (iii)
research into the Colony's industrial prospects. See Lee, 1973, p.22. Lee
also provides details of the five loans made by the Board in its first year
(see page 23).
81. E.L. Wheelwright Industrialisation in Malaysia, Melbourne: Melbourne
82. The Board had at its disposal just a $1 million revolving fund with which to
conduct all these activities.
84. Hughes in Hughes and You (editors), 1969, p.20.
PART II: ESTABLISHING THE POLITICAL PRE-CONDITIONS

The way in which historical and political developments unfolded after World War II was to have a profound and lasting impact on Singapore's attempts to industrialise. The failure of bourgeois political forces to acknowledge and accommodate the depth of anti-colonial sentiment of the masses provided the opportunity for more radical elements to emerge triumphant during colonial disengagement. The People's Action Party (PAP), a convenient marriage of the left wing labour movement and, in British eyes, a more respectable group of middle class professionals, thus overwhelmed their opponents in the 1959 elections.

Despite the resounding electoral success of the PAP, serious differences underlay the alliance which characterised this Party. These were not contained for long after the PAP came to government. In the ensuing struggle for executive control, Prime Minister Lee Kuan Yew and his middle class cohorts exploited the Party's formal commitment to political merger with Malaya to force a showdown with the left. This precipitated the left's exodus and the formation in 1963 of a separate political party, the Barisan Sosialis (Socialist Front).

Executive power was subsequently employed by the PAP to extend its influence to all spheres of social activity, enabling it to establish control over all political groups. A virtual 'state party' emerged which not only entrenched the PAP, it also conditioned economic and industrial policy which, by this time, was closely tied with the fortunes of political merger. The PAP's import-substitution strategy was to a significant extent premised on access to Malaya's markets and the PAP had co-ordinated the apparatus of the state to support this programme.

The exodus of the left from the PAP meant that as well as being relatively independent of direct political pressure from capital, the PAP was also unconstrained now by the demands of the labour movement. Ultimately, of course, the Party could not disregard the aspirations of the masses and, indeed, at
no time did it abandon its commitment to fundamental social reforms in housing and education. With this relative separation from both labour and capital, however, the PAP defined for itself the means by which social reforms would be achieved and exercised state power to support and justify that definition. This included the dissemination of a coherent ideology, one which reflected the PAP's objective need to derive its political legitimacy from its absence of close identification with any particular political force. It also reflected the world view of the leadership which, by virtue of its middle class and largely professional background, tended to view the art of good government as at least as much a technical as a political one.

Successful as the PAP may have been in dealing with the question of its own political survival following the formal Party split in 1963, these circumstances had also led to heavy reliance upon merger with the Federation of Malaysia to solve Singapore's economic problems. By 1965, however, the merger proved untenable for a host of political reasons and it was evident that Lee's vision of industrial expansion through access to a common market had little prospect of fruition. The consequent separation thus not only posed new domestic political challenges for the PAP, it also undermined the import-substitution strategy.
CHAPTER 3

THE SOCIAL AND POLITICAL BACKGROUND TO SELF-GOVERNMENT AND INDUSTRIALISATION

Introduction

By the late 1950s, broad structural changes to the Singapore economy rendered a policy of industrialisation desirable. A decade later this policy had brought remarkable results. The explanation for this, however, is not simply that the government made technically correct economic choices. Such an interpretation takes for granted a variety of specific political processes and struggles which were necessary precursors of the economic policies enacted by the Lee government in the 1960s. In particular, these processes and struggles led to the formation of a special form of technocratic capitalist state. The PAP, which ultimately became a state party, was not in any sense a typical bourgeois party. Rather, owing to the peculiar class structure of colonial Singapore and the contradictions characterising colonial disengagement, the PAP state which emerged was capable of submitting both labour and capital to a broad social and economic plan.

The roots of the political struggles which produced this technocratic capitalist state were formed well before self-government. Especially following World War II, the labour movement in Singapore asserted itself as a fundamental force in the island's politics. The radical leadership of this movement, the product of a harsh colonial regime, did much to organise and inspire anti-colonial sentiment and working class consciousness even though it operated outside formal political processes until the formation of the PAP in 1954. The PAP represented a working relationship between the radically-led labour movement and a group of middle class nationalists. Historical circumstances brought these quite different
social forces together in a joint effort to secure office in a self-governing Singapore. The political weakness of the domestic bourgeois classes and their total inability to acknowledge the strength of anti-colonial sentiment had contributed to the merging of these forces. From the outset, therefore, there were certain contradictions inherent in the PAP.

Though the PAP's alliance of forces was sufficiently solid in the period 1954-1959 to ensure a resounding electoral success, significant internal Party developments already under way were to have serious implications for post-1959 Singapore. A battle for control of the Party's executive resulted in favour of the Lee Kuan Yew-led group of middleclass professionals. This afforded the group important tactical advantages in the inevitable post-1959 build-up of intra-Party tension and conflict. The delicate and tenuous balance of power in favour of Lee's group was eventually converted into supreme Party and state power.

Although united in the commitment to a programme of industrialisation, the form that this would take and the associated implications for labour proved contentious issues for the PAP government. Questions about wage levels and the degree and nature of government intervention in the industrialisation process highlighted the Party's internal divisions. Differences over industrial policy, however, were but one area of dispute.

The point to emphasise is that the political path taken by the victors in this internal power struggle had direct implications for industrial policy. Lee and his colleagues did not share the left's commitment to an industrial programme involving a transfer of economic and political power to labour. Instead, they held to the notion that economic and industrial policy was essentially a rational rather than political process, best decided in isolation from sectional or class considerations. As a result, whilst the PAP introduced extensive social programmes in housing and education on the one hand, on the other its labour and industrial policies were much less in keeping with the Party's broad commitments of 1959. The capacity to carry out such policies however was only due to the
Post–World War II Rise and Fall of the Labour Movement

Radical and nationalist sentiments were present in Singapore even before World War II although admittedly in a very embryonic form. Nevertheless, it was during this period that roots were laid for a radically-led anti-colonial force. Communist presence within the labour movement actually dates from 1925 with activists from the Main School, a Hainanese night school formed by agents of the Chinese Communist Party (CCP) to promote anti-colonial and anti-capitalist propaganda. However, it was not until after the adoption in 1934 of a united front policy based on worker support by the Malayan Communist Party (MCP), formed in 1930, that organised labour asserted a real influence. From this point on, the Singapore labour movement and the MCP played an increasingly important, if occasionally interrupted, role in domestic politics.

Being outlawed, the MCP sought to tap dissent and dissatisfaction amongst the working class under cover of various leftist and nationalist organisations. In the 1930s the MCP was particularly successful in getting a foot in the door of the student movement and from the beginning sought to link the labour and student movements.

In the labour movement, the MCP operated through the Malayan General Labour Union (GLU). By 1941 the Singapore GLU, by far the strongest branch of the Malayan GLU, boasted a membership of 70 unions compared to a total of 51 registered unions in Singapore. Membership, however, was concentrated in small workshops engaged in unskilled and semi-skilled work. The most significant sectors of the economy were not under GLU control. Importantly though, as with the student movement, organisational links had been established which would provide a foundation for MCP penetration.
Arresting the labour movement in general and the influence of the MCP on the labour movement in particular was a top priority of the Singapore authorities. By 1940, however, it had become apparent that banishment and imprisonment of union officials was insufficient to curtail these developments. Institutional control over unions was thus legislated under the Trade Unions Ordinance of 1940, a measure intended to create less politicised unions by outlawing non-economic functions and regulating worker-employee relations. Before the legislation could be tested, however, Singapore was under Japanese occupation and organised labour was completely dismantled.

The force of international opinion against colonialism and the different mood of Singapore's more stable population after the war could not be ignored by the British. In 1946, under the Malay Union Scheme, Singapore was separated from Malaya and declared a Crown Colony. In part, this decision reflected British awareness of Malay fears that Singapore represented a challenge to Malay political ascendancy. The decision to separate Singapore also reflected the special strategic and geopolitical importance of the island to British military and commercial interests. Concern for such interests accounts for the cautious and drawn-out process of constitutional change by which Singapore arrived at self-government.

Following recommendations from the Provisional Advisory Council set up after the war, a Legislative Council was inaugurated in 1948. This comprised six elected seats and 16 ex-officio and nominated seats. In the subsequent elections of 1951, the number of elected seats was increased to nine out of a total of 25. It was not until 1955 when 25 of the 32 seats for a new Legislative Assembly were elected that Singapore effectively ceased to be a Crown Colony. Even so, actual self-government did not eventuate until 1959. Although this constitutional process did promote the formation of political parties, those that contested the first two elections were never interested in or capable of representing the interests and aspirations of the Singapore masses. This early constitutional
process and the parties involved in it were remote from such concerns. The Singapore capitalist class was unable to form a party of any substance largely because of its close economic integration with colonial capital. It saw its future, as its past, tied to the fortunes of colonial trade and associated activities. This perception discounted any enthusiasm for a swift transfer of political power to Singapore. Consequently, the most significant political developments after the war occurred outside the formal political system, notably within the labour movement. Though government and employers were able to temporarily suppress such a tendency through harsh institutional means, the radicalisation of the labour force was ensured by the continued failure of the authorities to introduce necessary reforms.

Circumstances after the war enabled the MCP to play a crucial role in the revival of the labour movement. Conditions for the working class, already miserable, further deteriorated: wage levels were reduced in real terms due to steep inflationary price rises on nearly all consumer goods; unemployment was high; clothing and food shortages were widespread; housing was overcrowded and filthy; the health of workers was poor. The basis for working class discontent was therefore very concrete. At the same time, the MCP's prestige amongst the masses was high due to its role in leading the resistance to Japanese occupation. The British Military Administration (BMA), temporarily established to restore normality to the colony, actually required the cooperation of the MCP to effectively re-establish British rule. The British were still concerned about the MCP/labour relationship, but the extent to which either labour or the MCP could be repressed was conditioned, initially, by the fear of insurrection and, to a lesser extent, the sheer popularity of workers' demands. When it could though, the BMA acted with vigour to curb labour and the MCP. The subsequent civilian government, set up in 1946, perceived both the opportunity and necessity to act even more vigorously.
On 25 October 1945 the Singapore GLU was formally re-established under the leadership of the MCP. Almost immediately strikes involving seamen, dockers and employees of the Singapore Traction Company took place. Although gains from these particular strikes were meagre, this was an omen for government and capital. A new phase of militancy was under way. In contrast with the pre-war position, the Singapore GLU was now capable of disrupting the key sectors of the economy, a fact underlined in 1947 with the virtual crippling of industry. At the time, the GLU claimed control of three-quarters of Singapore's entire organised labour force. Militancy was not confined to the Chinese proletariat either; it characterised wage and salary earners generally. The Singapore Clerical Union, for example, submitted a comprehensive list of demands in September 1946 for better conditions.

Up until early 1947, labour militancy had succeeded in restoring wages to pre-war levels and brought about improved conditions of employment. Thereafter, however, the labour movement found itself on the defensive, fighting to retain these gains. An increased government determination to destroy the labour movement was prompted by two factors. First, in the wake of massive disruptions to industry in February, employer agitation for stronger measures mounted. Second, the government itself became more concerned about the threat which organised labour constituted to its political control.

Measures adopted in 1947 by the government to control labour included the application of the 1940 Trade Unions Ordinance. From March, the government began registering unions and asserting control over the use of union funds. By the end of 1947 this supervision had proven a serious problem for the Singapore Federation of Trade Unions (SFTU), as the SGLU was now known, invariably curtailing union capacity to co-ordinate and support strike action. The government also encouraged the development of unions independent of the SFTU in an effort to break its hold. These measures were backed up by an intensification of intimidatory tactics, notably through arrest and banishment of
union activists. The government's strategy of encouraging open confrontation and conflict with the labour movement, however, was yet to be given its fullest expression.

The hardened position of employers from early 1947 was reflected in the fact that of the 29 strikes which occurred in Singapore for the last nine months of 1947, 13 were for the re-establishment of dismissed workers, six were in opposition to wage cuts and only five were for wage increases. Employers were re-asserting discipline, not just cutting wages. Employers also appeared to have improved their position vis-a-vis the government too. This was demonstrated by, amongst other things, the successful agitation for the removal of S.P. Garrett in June as the Assistant Trade Union Advisor because of his labour sympathies.

The government/employer offensive was motivated by a coincidence of interests, the former concerned about the political hegemony of labour and the latter about the economic effects of wage gains and stoppages. Primarily through the legal system, however, a number of significant blows were dealt to the union movement. As a result, the average number of days lost due to strikes in 1947 was down to 4% per person, compared with 10% per person for 1946. Total man-days lost were down from 1,173,000 to 205,000. The weakened capacity of the SFTU to support strike action in turn limited the capacity of individual unions to successfully strike. This, combined with the official intimidation in industrial stoppages, undermined the will of workers, especially when strikes were more directly concerned with SFTU hegemony per se than wage levels and employment conditions. Sensing a declining morale amongst workers, the government's provocation of open conflict with the labour movement was increased in 1948. With the labour movement in disarray, the final assault was delivered when Trade Union Ordinance Amendments were passed on 31 May which in effect banned the PMFTU, the SFTU and the state federations. The SFTU and the MCP thus went underground and in June the Singapore and Malaya governments had declared states of Emergency following an
outbreak of armed revolt within Malaya. The options of the MCP had been so curtailed that by now it had abandoned peaceful agitation in favour of an armed rural strategy.

The rise and fall of the SFTU and the MCP in Singapore in the immediate post-war years demonstrated two crucial points. First, the working class was capable of militant action provided it had strong leadership. Second, the determination of the government to destroy this leadership and prevent a militant labour force was absolute. What the government would eventually discover, however, was that the radicalisation of the labour movement was not just the instigation of communist agitators but the result of concrete conditions. In its close alignment with capital the government was unable and/or unwilling to ameliorate these underlying conditions.

1948–1953: Increased Repression and the Failure of Constitutional Reform

The Emergency period involved more than just an attempt to suppress communism. Leftist and nationalist organisations generally were attacked. Almost all political activities, save those of the Legislative Council, were outlawed or discouraged. Political meetings other than those for the Legislative Council elections were banned, left wing parties were proscribed and union meetings and leaders were subject to harassment by the Special Branch. Arrests certainly were not confined to communists. Between 1948 and 1953 approximately 1,200 Singaporeans were arrested under Emergency regulations.

For employers, the Emergency regulations gave further impetus to their already initiated offensive against labour. With most of the SFTU affiliates out of the way by 1950, and the government uncompromising in its opposition to labour militance, employers were able to cut wages in many industries, withdraw previously granted privileges and use the threat of redundancy to intimidate workers. Thus, as employers enjoyed boom conditions arising from the Korean war, workers actually suffered a deterioration in living standards.
During the Emergency period, the government did allow the formation of labour unions but it made sure that such organisations would not only be incapable of affecting increased wages or improved conditions but they would be depoliticised too. In fact, the government encouraged the formation of a new central labour organisation as a means of safeguarding against any effective and politicised labour movement. On 20 May 1951 the Singapore Trade Union Congress (STUC) was established with 24 affiliates and an estimated membership of 25,000, support coming mainly from Army Civil Services' Union (ACSU) and the Naval Base Labour Union (NBLU). The leadership of this Congress came mainly from English-speaking Indian clerical workers who had similar objectives to the Singapore Labour Party (SLP). Government influence was sufficient, however, to render the STUC a co-ordinating body and to delete references in its list of objectives to the right to call strikes or lock-outs. The government also insisted that STUC officials could not hold executive positions in any political organisation and refused to allow government employees to come under the STUC. The STUC was never able to effectively represent labour. In the first place, by agreeing to premise activities on the acceptance of the existing employment system, the Congress was certain to be more institutionally bound than the SFTU was. Second, partly due to the preparedness of the STUC to collaborate with the government in such a way, and partly because of the seemingly opportunistic nature of much of the STUC leadership, the bulk of Singapore's non-English speaking workers never took the Congress seriously. Third, as an organisation, the STUC was inefficient and without a strong financial base. Finally, the STUC was totally unsuccessful in improving wages or conditions for its members. As a result, the majority of Singapore's workers remained either poorly or totally unorganised before 1954. What little support the STUC did enjoy was soon alienated as the Congress became the battle field for competing factions of the SLP. By mid-1953 these self-destructive internal dynamics had negated whatever marginal significance the STUC may ever have had for the labour movement. For the working class the political vacuum remained.
Whilst outright repression of the labour movement was the British tactic in the short term, the longer term plan was to promote a two-party parliamentary system with a gradual transfer of power to a trustworthy successor. The restrictive nature of the early elections had the effect, however, of producing parties which were so divorced from the masses that only in a superficial sense were they playing the role expected of them. Automatic registration was not introduced until 1955 and compulsory voting in 1959. Before this, it was possible for parties to enjoy electoral success in spite of being aloof from the masses. This did little to develop channels by which discontent could be effectively managed by the authorities.

Singapore's first political party was the Malayan Democratic Union (MDU) which was inaugurated on 21 December 1945. The MDU was a leftist, anti-colonial party which initially sought its objective of a united Singapore and Malaya through constitutional means. This was abandoned after events suggested the government was insincere in affecting a quick transfer of power. The MDU comprised essentially of middle class, intellectual support, though it also had a close association with the co-operative and labour movements. It voluntarily dissolved itself on 24 June 1948 in anticipation of government harassment owing to the Emergency.

The first political party to be represented in the Legislative Council was the Singapore Progressive Party (PP). The PP was formed in 1947 by the leaders of the Straits Chinese British Association and the Singapore Association to protect mercantile interests. In contrast with the MDU, the PP was opposed to immediate merger with Malaya, a position related to its fear of Malay political dominance. The leaders of this political party were also predominantly English-educated, many graduates of British universities. Unlike the MDU leaders, however, these people were not anxious for the demise of colonialism. The close association of the Party with Westernised professional-mercantile interests negated any militant anti-colonialism. Due to the limited size and
representativeness of the electorates this didn’t matter. The PP won three of the six elected seats in 1943 and six of the nine in 1951. The Party actually enjoyed no appeal outside the immediate interest groups it was established to represent. If the transparent sectional interest base of the Party did not set it apart from the rest of the community, the close collaboration that its leaders had traditionally conducted with the colonial authorities certainly did. To the bulk of the population, the PP was simply a party of colonial stooges.

This inability to build a broader social base was a function of the historic integration of British and Singapore capital. The absence of any economically independent domestic bourgeoisie fostered a high degree of political and cultural affinity with the British amongst the privileged classes of Singapore.

By the time of the 1951 Legislative Council elections, the PP was challenged by the Singapore Labour Party (SLP). The SLP was inaugurated on 1 September 1948 and led primarily by English-speaking Indians who were inspired by the British Labour Party model of social democracy. The Party had links with various white-collar unions and its expressed intention was to develop a base in the labour movement. Its platform called for independence through merger with Malaya and included such pro-labour policies as a minimum wage, unemployment insurance and amendments to the Trade Unions Ordinance so that unions could participate in politics. The relationship between this party and the labour movement was nevertheless a tenuous one; its English-educated leaders were closely associated with the British attempts to sponsor apolitical unions as an alternative to the SFTU, despite the Party platform. Its union base was very narrow.

Although the SLP enjoyed some success at the 1951 City Council elections, by December 1952 intense personality-based faction fighting had effectively destroyed the Party. The SLP was a decidedly opportunistic party with ideology or policy playing little part in its divisions. It failed to get any real foothold in the labour movement.
Clearly neither the PP nor the SLP were genuinely nationalist since they did not represent or articulate the cause for independence. Instead, they devoted their energies almost exclusively to the electoral process, never attempting to develop broadly-based membership or support. Both parties were content to operate within the strict confines of debate and constitutional change determined by the British. Owing to the narrow social bases characterising these parties, neither could have survived in the longer term.\textsuperscript{59}

In these elections, the government's experiment had failed to attract either public interest or to encourage genuine political parties which could represent or ascertain the aspirations of the masses. Organisational links with them were absent and understandably the Chinese-educated, as well as a minority of English-educated, simply regarded the Legislative Council elections as irrelevant. Thus, although the colonial government succeeded between 1948 and 1953 in quelling opposition, it failed to build a political framework to include the real, potential centres of social power in Singapore. As a result, there were no sustainable institutional safeguards against radical politics.

\textbf{The Re-Emergence of Radical Politics and the Formation of the PAP}

The effectiveness of the authorities' campaign after 1948 to wipe out left wing leadership and the unchallenging nature of the political parties to have gained representation in the Legislative Council gave Singapore the superficial appearance of political calm by 1953. By this time, the Federation government had also clearly gained the ascendency over the MCP in the jungle war. It was under these circumstances that political repression was relaxed somewhat and a number of political detainees released in 1953. The British government was also keen to allow greater freedom for 'legitimate' trade union activity, probably in recognition that suppression of this had contributed to the failure of the political experiment to reproduce a two-party system akin to the British. In 1954 the authorities also accepted the recommendations of the Rendel Report which called
for a more significant transfer of power from the colonial government to a Legislative Assembly. These new conditions were to give expression to a new era of radical politics in Singapore which had been fomenting between 1948 and 1953 beneath the appearance of political calm. Strong and effective leadership quickly emerged in the traditional arenas of radical politics, the student and labour organizations. This provided the basis of support for what would become Singapore's first genuine nationalist, mass political party, the People's Action Party (PAP).

Just as the British had come to a re-assessment by 1953, the defeats in the jungles had also necessitated a reconsideration of strategy by the MCP. More thought was given to subversion in the cities. The imminence of self-government with the acceptance of the Rendel Constitutional Commission Report on 22 February and the relaxation of restrictions on trade union activities announced in the Report further convinced the MCP that an urban strategy of peaceful agitation was now an appropriate response to the changed objective conditions.

As explained earlier, the influence of the MCP within the Chinese schools was founded on deep, historical roots. Although much of this leadership was removed between 1948 and 1953, these roots were simply too extensive to totally erase. In any case, the systematic discrimination against Chinese culture and education facilitated an atmosphere of discontent and rebellion in Chinese schools. The 1949 victory of the CCP also increased Chinese pride and consciousness within Singapore, weakened the influence of the KMT supporters within Chinese schools and generally raised anti-colonial feeling.

The depth of popular opposition within the Chinese schools to government policy, and the extent to which this could be mobilised, was first demonstrated in 1954. The government's decision to force 2,500 Singapore youths to engage in part-time National Service provoked widespread protest. This culminated in the so called May 13 Incident in which violence erupted between protesting students occupying the Chinese High School and the Chung Cheng High School and the Riot
Squad.66 In the wake of this incident the government rounded up 28 suspected MCP front leaders, including eight students.67 This was followed by unsuccessful attempts to pressure the Chinese School Management Committees to assert greater discipline over students and closer political screening of teachers.68 No closures were attempted because the government feared that this would be interpreted by the public as an attack on Chinese education per se.69

Although the students failed to force the government to reverse its decision over National Service, the May 13 incident achieved a great deal for the student movement and also represented the first major act of public defiance since 1948. Out of the struggle which ensued, an inter-school union, the Singapore Chinese Middle School Student Unions (SCMSSU), was formed which would facilitate greater co-ordination within the student movement. Furthermore, contacts between Chinese school students and English-educated undergraduates from the University of Malaya Socialist Club and the Federation of Pan-Malayan Students were strengthened.70 This represented an important broadening of the anti-colonial base within the student movement, and indeed, from this point on, the student movement came to assume a central place in Singapore's politics. Most important, the student movement contributed greatly to the interpretation of the struggle against capital as inseparable from the struggle against colonialism.71

Simultaneous with the resurgence of the student movement during 1953-4, radical leadership within the trade unions was also being rebuilt. A new generation of young Chinese-educated militants, many of whom were MCP cadres, quickly welded the labour movement into a strong and radical force. Two Chinese-educated leaders were particularly prominent in this process - Fong Swee Suan and Lim Chin Siong. Fong, who had been expelled from the Chinese High School in 1952 because of his political activities, had risen from the position of bus conductor to be General-Secretary of the Singapore Bus Workers' Union (SBWU) by 1954. By 1955, the diligent Fong and his associates had brought all the 10,000 workers in the six Chinese bus companies under the SBWU wing.72 Lim,
also formerly active within the student movement, became Secretary-General in May 1954 of the Singapore Factory and Shop Workers’ Unions (SFSWU) which had been formed just a month earlier. Within 10 months of its founding, SFSWU membership rose from 200 to more than 30,000.

Though the SFSWU and SBWU were two of the most significant radically-led unions to emerge between 1954 and 1955, they were not the only ones. Rather, a whole group of unions came together to form what was known as the ‘Middle Road Group’ which met informally on the premises of the SFSWU in Middle Road. The Middle Road Group soon came to control unions in many complete sectors of industry and the public services. By 1955, the SFSWU, which came to be the pivot of the Middle Road Group, included 30 affiliated unions. Success in building up membership was due to the demonstrated ability of unions to bring immediate and tangible improvements in wages and conditions for members through strike action. But as with the SFTU, the Middle Road Group viewed its struggle for better conditions as part of the wider and more fundamental task of liberation from colonial rule in Singapore and Malaya.

An important feature of the new association of unions belonging to the Middle Road Group was that it included both Chinese and English-educated militants on its 12-person executive committee. Though the latter was clearly a minority force, this new alignment signified the broadening of the anti-colonial movement in terms of social class and ethnic composition.

As was intended, a number of new conservative and moderate reformist groups also sprang up in this climate. Most important of such forces was a small group of English-educated intellectuals whose earliest political roots can be traced to a 1949 discussion club of Malayan students in London known as the Malayan Forum. Through the Malayan Forum, Lee Kuan Yew, Goh Keng Swee, Toh Chin Chye and K.M. Byrne met and exchanged views. This group believed it could play a vital and necessary role in Singapore’s political future. In a 1950 address to his fellow Malayans, Lee Kuan Yew enunciated the necessity of an elite core of middle class leaders:
... If we, who can become the most privileged part of the local population under British rule, openly declare that British imperialism must go, the effect will be immediate. But if we do not give leadership, it will come from the other ranks of society, and if these leaders attain power, as they will with the support of the masses, we shall find that we, as a class, have merely changed masters ... (But) our trump-card is that responsible British leaders realize that independence must and will come to Malaya and that therefore, it will be better to hand Malaya to leaders sympathetic to the British Commonwealth, and what is more important, willing to remain in the sterling area.81

Lee evidenced quite early then not just his repugnance for communism,82 but also an uncanny appreciation of the scope that would exist to exploit the political realities of Singapore.

Upon Lee's return to Singapore he soon became involved in politics. In 1951 he aided J. Laycock and C.C. Tan in canvassing votes for the PP candidates in the Legislative election.83 Lee was not long in discarding the PP in searching for a more solid social base for political support. Through his work as a legal advisor to English-speaking government employees, Lee started building up support within trade unions. As legal advisor to the Postal and Telecommunication Uniformed Staff Union, which went out on strike in May 1952, Lee was able to win support at the expense of SLP associates and also came into contact with S. Rajaratnam, President of the Singapore Union of Journalists.84 Lee's union work also exposed him to the grievances of the Malayan public servants whose resentment of colonial racial discrimination was further fueled in 1952 when the government decided to pay special expatriation allowances to European officials. Lee, Goh and Byrne formed a Council of Joint Action (CJA) comprising representatives from 21 government unions which successfully pressured the authorities to make major concessions to low-paid local employees.85 Lee's influence and exposure was further widened during the May 13 Incident in which he acted as legal representative for arrested students. This brought Lee into contact with C.V. Devan Nair of the Singapore Teachers' Union (STU) and thus opened the way for him to meet Singapore's most radical Chinese student leaders and develop an appreciation of the organisational depth and political potential of leftist forces.
With the government's granting of concessions to low-paid local civil servants, Lee Kuan Yew and his group of English-educated, middle class colleagues enjoyed a new high in union support and gave serious consideration to the formation of a new political party. The nationalist and labour-oriented views of this group had already been outlined in the CJA memorandum to the Rendel Commission in November 1953 in which immediate self-government was called for. The newly-formed Labour Front Party, created by former SLP members Lim Yew Hock and Francis Thomas and led by David Marshall, made overtures to Lee's group to join with this social democratic party. By this time, however, Lee was convinced that the only feasible alliance with another group would be one which could muster the support of the Chinese-educated masses. The mass of predominantly low socio-economic Chinese people would be eligible to vote with the introduction of automatic voluntary registration. Lee, through his recently-developed contacts with the radical elements of the student and labour movements, had come to appreciate that only leftists such as Lim Chin Siong and Fong Swee Suan could offer the desired alliance.

Whilst Lee's group and leftists such as Lim and Fong harboured significant differences in ideology and objectives, a genuine case of mutual convenience existed: Lee's group could offer the leftists political security with the shelter of middle class respectability and in exchange it would gain access to a mass political base, obviously an electoral necessity for any aspirant successor to the British. This mutual convenience gave rise to the formation of the People's Action Party (PAP) on 21 November 1954, with Lee Kuan Yew Secretary-General. Eight of the 14 convenors of the Party's inaugural meeting were trade unionists, five of which belonged to government unions in close association with Lee Kuan Yew and the CJA.

The fundamental objective of the PAP was immediate independence and merger with Malaya. The Party was also committed to the abolishment of "the unjust inequalities of wealth and opportunity inherent in the present political
By the time the PAP was to contest the Rendel Constitution General Elections of 2 April 1955, these nationalist and reformist objectives were given more concrete expression in the Party platform. Important nationalist policies included the Malayanisation of the Civil Service, complete control of foreign trade, and the encouragement of local industry through tariffs and subsidies. The PAP also called for such reforms as the introduction of free, compulsory education for children up to 16 years, legalisation of political funds for trade unions, and a Workers' Charter to provide for minimum wages and maximum hours, equal pay for women for equal work, unemployment benefits and workers' compensation. The policies being advocated by the PAP clearly defined the Party as one representing the interests of the lower socio-economic classes, precisely the group which had thus far been ignored by the formal political process.

From the outset, the PAP comprised two distinct and rival factions. One was led by Lee Kuan Yew, the so-called moderates, made up of English-educated nationalists representing the middle class. People such as Toh Chin Chye, Goh Keng Swee and S. Rajaratnam belonged to this group. The other faction was led by Lim Chin Siong and comprised radical Chinese-educated nationalists and socialists representing the worker-based mass movement. This latter group included some MCP supporters and sympathisers. Fong Swee Suan and Chan Chiau Thor were two of Lim's closest colleagues from this faction. Within the PAP executive, the Lee faction enjoyed superior numbers and influence, a fact which the radicals were quite prepared to tolerate for the first two years of the PAP since this low profile permitted "greater freedom of action in the field of trade union agitation".

That the alliance of forces which made up the PAP included MCP supporters and sympathisers may appear to contradict the anti-communist posture so clearly articulated by Lee during his time with the Malayan Forum. However, Lee's exposure to MCP cadre in the union, student and cultural organisations led him to
believe that "Any man in Singapore who wants to carry the Chinese speaking people with him cannot afford to be anti-communist". There was, however, no illusion about this anti-colonial front being anything more than a temporary calm between the protagonists. As Lee commented:

We never forgot that once the British were out of the way, there would be trouble between us and the Communists as to what kind of Malaya we wanted to have in place of the old British colonial Malaya.

Indeed there was to be trouble between the two factions within the PAP following self-government, and not simply between Lee's group and communists. Evidence of the tension internal to the Party, however, could be seen long before self-government. A power struggle was unfolding in which the competing factions attempted to create conditions favourable for their respective dominance when self-government arrived.

1955 Elections

With 80% of Singapore's population being Chinese, much of which was of low socio-economic status, the PAP's policies were quick to strike appeal. By the end of 1955 the Party boasted 2,000 members and had 10 branches, Chinese school activists and trade unionists forming the backbone of support. The 1955 elections, with a voting electorate six-fold that of 1951, underlined this appeal and the capacity of the Party to mobilise the masses in its support.

In view of the considerable powers retained by the British under the Rendel Constitution, the PAP strategy in 1955 was not to win but to selectively contest the election. The idea was to test the ground and exploit the electoral process. Four candidates were fielded, three of which were returned - Lee Kuan Yew, Lim Chin Siong and Goh Chew Chua. As it turned out, although the PAP won just 8.7% of the total vote, it secured 55.7% of the vote in the four electorates it contested.

The results of the 1955 elections were contrary to British hopes because the party which had been groomed for office, the PP, performed dismally, taking just
four of the 25 seats. Government was actually formed by the Labour Front (LF), which won 10 seats, and the Alliance Party, which won three. To a significant but not determinant extent, the poor PP showing was the consequence of vote splitting between it and the other conservative party, the DP. There were, however, more fundamental reasons. The PP was so aloof from the realities of mass politics that it persisted with policies which disregarded the feverish anti-colonialism of the day and which perpetuated the discrimination against Chinese education.

The strategy of the PAP in the 1955 elections to render selective support to the LF and the Alliance in order to defeat the PP was affected primarily by trade unionists and students. The Labour Front itself enjoyed significant support from the 30,000 strong Singapore Trades Union Council (STUC). However, the support of the PAP, notably Chinese students, was significant and this, combined with the PAP's own direct electoral success, underlined the arrival of mass politics and the demise of the PP and DP or any other party incapable of developing a broad social base.

The victorious Labour Front coalition, led by David Marshall, found itself in an invidious position. On the one hand, the Labour Front endeavoured to represent the aspirations of the Singapore masses, yet on the other hand it had inadequate constitutional means to do so. To appease the British it also had to keep the left in line, but this only opened the government to charges of being a colonial lackey. With the Labour Front in such a predicament, the PAP would be able to proclaim itself the only genuine, untainted anti-colonial political party.

The PAP Under the Marshall Labour Front Government

Following the 1955 general elections, the situation for the left improved with the conditions for trade unions relaxed and intimidatory police powers reduced under the Marshall government. As a result, heightened student and labour activity was conducted in confrontation with colonialists, government and capital. The left's
intention was to make life as difficult as possible for the LF and prepare the way for a more radical alternative once the constitutional anomalies were sorted out. This invariably strained internal PAP relations. The Lee faction feared excessive extra-parliamentary activity would invite the proscription of the PAP. Of course, it was only by conducting the struggle for power within the constitutional process that the Lee faction stood any chance of leading the masses. In the ensuing activity then, this faction would have occasion to distance itself from the tactics, if not the objectives, of the left.\textsuperscript{109}

The increased militancy of the Middle Road Group-led labour movement in 1955 was reflected in the number and nature of strikes that year. Nearly 300 strikes occurred, of which only one-third related to wage claims.\textsuperscript{110} The most significant of these strikes involved the SBWU in a rostering dispute with the Hock Lee Bus Company. This culminated in riots in May involving 1,000 people in battles with police. Four people died.\textsuperscript{111} The government reacted by reversing its relaxations of the Emergency Regulations and re-introducing the power of the Commissioner of Police to order curfews.\textsuperscript{112} The riots also posed problems for the PAP in the Assembly. Its opponents condemned the PAP for its policy of co-operation with the MCP which was implicated in the rioting. Understandably, the PAP moderates disassociated themselves and the Party from the violence.\textsuperscript{113}

Further labour militancy continued throughout the year, especially following the introduction of the Preservation of Public Security Act which restored police powers of search and curfew and roadblock imposition.\textsuperscript{114} Then in November, under Fong Swee Suan's leadership, the SBWU brought all Singapore's bus companies to a halt. This strike was, however, heading for an unsatisfactory conclusion from the union's point of view until Lee Kuan Yew proposed a public examination of the bus companies' books. Upon this the employers weakened to union demands.\textsuperscript{115}

Lee's rescue operation on behalf of the SBWU was motivated by his concern that continued disputation might provoke further British retaliation and jeopardise
the PAP. There can be little doubt that the militancy of labour and the left in general caused the Lee faction anxiety, a point which was probably emphasised privately. The disposition of this faction was such, however, that it had to adopt quite a different public posture on such matters. The preservation of the PAP, and Lee's control of it, was the fundamental consideration for Lee and his faction. With control of the PAP and access to the masses through the left's co-operation, Lee could tolerate, though not necessarily approve, the left's militancy. Should this control be challenged, however, Lee's tolerance would be fully tested.

1956 Constitutional Talks and PAP Factional Relations Under the Lim Government

Whilst the Marshall government had introduced some significant reforms in its first year of government, it presided over turbulent times and was hamstrung by constitutional limitations.116 This latter problem was a source of considerable frustration for Marshall who had avowed to the electorate to bring immediate self-government to Singapore. The April 1956 All-Party Constitutional Talks in London were seen by Marshall as vital to the retention of popular support for his government. The result of the talks would also have serious implications for the PAP. The left, especially that associated with the MCP, had a particular interest in a further transfer of power to Singapore so that the harassment by the British would cease to be so immediate a threat.

The London talks of April-May 1956 ended without an agreement. Differences over the composition of a Defence and Security Council proved too great an obstacle.117 The reluctance of the British to hand over control of internal security stemmed from the fear that insufficient control of the left would result. In this regard, the British had little faith in Marshall.118 Interestingly, Lee Kuan Yew was initially keen on accepting the British proposals which were rejected primarily because Marshall and Lim Chin Siong resolutely opposed them.119 Lee's willingness to accept the proposals was instructive. It showed
that he wanted to develop within the cocoon of the labour movement but also to enjoy British containment of the movement's left wing.

The failed 1956 talks prompted a disappointed Marshall to resign as leader of the Labour Front in June 1956. He was succeeded by the then Minister for Labour and Deputy Chief Minister, Lim Yew Hock. Lim was a character of less liberal mentality than Marshall, his earlier political career owing much to British patronage. This leadership change represented an unfavourable turn for the left who had also been disillusioned with the constitutional talks and less trusting of Lee Kuan Yew in view of his position at the talks. This latter point was crucial. By now the anti-colonial mass movement had gained in strength and the left was concerned about the prospect of Lee’s faction affecting a drift to the right by the PAP. As a result, the left's strategy altered and a move was made to capture greater direct control of the Party. Timely interventions by the authorities were, however, to thwart the left's takeover attempts. These events aroused the left's suspicions of complicity between Lee and the British.120

In the wake of the 1956 London talks, the left decided to redress the total dominance of the Lee group on the PAP executive. Thus, whereas in 1955 the left fielded no candidates for the Central Executive Committee (CEC), in July 1956 the left captured four of the 12 seats.121 This was followed by attempts to have the Party constitution altered to give greater power to the branches and enable the branch committees to nominate members to the CEC.122 Naturally this would pave the way for left domination of the CEC since it was in the branches that the superior mass support of the left was expressed. Understandably, Lee's group was determined to defeat such a redrafting of the constitution. It was able to do this with help from the authorities.

Following the failure of the 1956 London talks, British authorities had expected that heightened nationalist and leftist agitation would prevail. From July 1956 then, extensive preparations were made to deal with any disturbances. These preparations involved a new Internal Security Plan, known as "Operation
which was jointly prepared by the Commissioner of Police and the General Officer Commanding the Singapore Base District. The plan involved very detailed and extensive strategic deployments, including 40 continuous police radio car patrols, working co-jointly with army roadblocks and patrols and supported by RAF helicopters. The plan also involved the deployment to Singapore of more than 30% of the entire infantry then in Malaya. Clearly the British expected action.

With the British security preparations complete, the Lim Yew Hock government went about its dealings with the left with greater aggression. The first attacks were on various cultural and social organisations in which the left was influential. This was followed by the banning of the SCMSSU on 24 September on the grounds that it had reneged on its agreement to abstain from political involvement. SCMSSU Secretary-General, Soon Loh Boon, was amongst a group of people arrested, two Chinese schools were closed and 142 Middle School students expelled as part of this campaign against what the government saw as subversion. The sequel to this was a series of public demonstrations and protests, including classroom protest meetings by 15,000 Middle School students. The Middle Road group of unions also expressed solidarity with the students. Eventually students were forcibly dislodged from their sit-in on 26 October, with one student death at the Chung Cheng High School in the process. The police attacks on the schools precipitated riots which lasted for several days and resulted in the deaths of 15 people and over 100 injured.

As is well documented by Clutterbuck, the British response to the riots was swift and effective. The single most important move by the authorities was a series of co-ordinated raids by the Special Branch over 26–27 October in which almost the entire leadership of the left was detained. Six separate meetings, mostly involving the SFSWU and its affiliates, were simultaneously raided and 234 people were detained. These included the so-called ‘Big Six’ leaders of the Left – Lim Chin Siong, Fong Swee Suan, S.T. Bani, Jamit Singh, Sandra Woodhull and James Puthucheary.
The detentions and general clamp down on the left had crucial implications for the PAP. Amongst those detained were three of the four recently-elected left CEC members. With the left leadership removed, the Lee group would thus be able to defeat the attempt to give greater power to the Party's branch committees. It was also afforded important breathing space to consolidate its regained dominance of the Party. Without the arrests, the Lee group would have invariably been swamped by the left once the constitutional change was affected. Another implication of the arrests was that Lee would have a freer hand in the approaching Constitutional Conference in London in 1957.

Though the arrests amounted to the salvation of Lee's group, Lee managed to minimise the embarrassment of benefiting from the intervention of the authorities. Lee astutely exploited these arrests, publicly condemning them and championing the cause of the left. He distinguished himself as a virulent opponent of the undemocratic provisions which made the arrests possible.

With 15 PAP office holders under detention, including Lim Chín Siong, and its student and labour base depleted of leadership as well, the left faced an uphill battle to regain a position of influence on the Party executive. However, fortunately for the left, the Lim Yew Hock government's repression was not so prolonged in its severity as to prevent a relatively swift comeback within the left's traditional spheres. The newly-formed Nanyang University quickly assumed the role previously played by the Chinese Middle Schools. Students from the banned SCMSSU formed the Nanyang University Students' Union (NUSU) and the political mobilisation of students was resumed. Workers also wasted little time in re-organising. In December 1956 a Singapore General Employees' Union (SGEU) was formed to succeed the banned SSWFU. By mid-1957 the SGEU had gained considerable strength and had begun to challenge the pro-Labour Front STUC. By August 1957, the SGEU was to have 32 affiliated unions.

With a severe clamp down on the left already affected, the position of Lim Yew Hock was strengthened at the March 1957 Constitutional talks. He could
argue for a transfer of power on the basis that the communist threat was being dealt with. Of more significance, however, was the room to manouvre afforded Lee Kuan Yew as a member of the All-Party delegation. With the left unrepresented on this five-member delegation, it was now possible to negotiate a deal which the left was powerless to oppose.

British proposals at these talks were almost identical to those rejected a year earlier. This time, though, neither Marshall nor Lim Chin Siong were present to contest the principle of control over security. The outcome of the negotiations was agreement that the Constitution provide for an Internal Security Council comprised of three British, three Singaporean and one Federation member, with the Federation member exercising a casting vote. It was also agreed that Singapore's independence be achieved through merger with the Federation of Malaya. These proposals were anathema to the left who realised that the then right wing Federation government could, and probably would, harass its leaders under the widescale powers of arbitrary arrest and detention of the Internal Security Council (ISC). For similar reasons, merger represented an equal threat to the left's survival.

Lee Kuan Yew's stance in accepting the above proposals at London naturally raised deeper suspicions amongst the left as to his allegiances. What the left did not know at the time, but which was later divulged by Lim Yew Hock, was that Lee himself was instrumental in the ISC formula. Lee was to subsequently explain his support for the ISC as a necessary pre-requisite for merger:

> Until there is independence through merger, the Internal Security Council has to be accepted, not because we want to protect British interests in Singapore, but because we must agree to allow the Federation to protect itself from being undermined from Singapore.

At the time of the 1957 talks, however, Lee was aware that the left opposed merger. Lee's real intention behind the ISC related to his attempt to create the preconditions for the left's destruction and the cementing of his own group's leadership in the PAP. Now convinced that Lee was actively working to its
detriment, the left realised that its survival was dependent upon capturing the leadership of the PAP to prevent the merger and abolish the ISC.

The above developments prompted the left to make an all-out attempt to capture control of the PAP executive at the 3rd Annual Conference of the Party in August 1957. Aware of the strength of the challenge being made, and the implications, Lee attempted to persuade voters at the meeting by naming seven candidates whom he wanted elected to the CEC. To Lee's disappointment, the left was successful in gaining six of the CEC seats and thereby ending the control previously enjoyed by the Lee group.142 Lee and Rajaratnam later asserted that the left victory was aided by the admission of non-Party members being issued with PAP admission cards.143 In any case, Lee and his group had no intention of taking their places on a CEC in which they would be unable to control the left.144

The PAP's new CEC was short-lived. Just 10 days after the elections, the Labour Front initiated another 'communist purge'. In all, 35 alleged communists were arrested, including five of the six newly-elected left CEC members, 11 PAP branch officials, as well as student and labour leaders.145 Lim Yew Hock's motivation for the arrests was two-pronged. On the one hand, he was particularly concerned about inroads made by the left through the SGEU and the threat this posed for his own political base in the labour movement through the STUC.146 On the other hand, Lim also asserted that he was not prepared to sit idly by while the PAP failed to defeat its own threat of communist infiltration.147

Once again, publicly Lee adopted the posture of defending the detainees and condemning the government for its actions.148 It was obvious by now, however, that any further apparent rescue jobs by the police on Lee's behalf would be politically unwise. The problem was that the left's greater numbers at branch level would always threaten Lee's dominance. Determined to prevent a repeat of the 1957 CEC elections, or worse, Lee consequently embarked on changes to the Party's structure which would cancel out the branch support of the left.
Lee's move was to divide the PAP into four membership categories: probationary, ordinary, probationary cadre and cadre. Only cadre members were able to vote for the CEC. People who had "contributed substantially to the good of the Party" could become full cadres, and their membership had to be approved by the CEC. Cadres also had to be literate Singapore citizens, over 21 years of age. This necessarily ruled out most students and many Chinese-born working class members, precisely the group forming the basis of the left's support. Cadres therefore comprised a very small percentage of total membership. The new structure simply amounted to the existing leadership selecting an elite band of cadres who in turn elected the leadership.

Whilst recent events had tested the tolerance of the left within the PAP, the overriding concern remained that of ensuring the PAP won office. Despite its mounting short-comings, it still was the most progressive of the major political parties. Clearly the ISC and merger issues would have to be defeated but the left calculated that this could best be done within government, not outside it. The inevitable showdown of left and right was postponed and the underlying mutual convenience of the alliance prevailed. The left still needed the cloak of respectability and acceptability to the British offered by Lee's group, and the latter still needed the support of the student and labour movements for electoral success.

For all the apparent British complicity to secure Lee's control over the PAP and the essentially opportunistic nature of his relationship with the left, Lee was not simply a 'capitalist mole' in a socialist camp. To be sure, Lee did have a non-communist socialist vision of sorts. He was committed to a range of social reforms which would transform the material conditions of the poor. He also had some vague but nevertheless real conception of merger with Malaya providing the political and economic basis for a more equitable distribution of wealth. Lee's vision did not, however, entertain any notion of direct transfer of political power to the working class.
1959 Elections: PAP to Government

The 3rd All-Party Constitutional Talks in London in 1958 concluded a final agreement on self-government. The Singapore state would control all domestic affairs, foreign affairs and defence would be retained by the British, and internal security would be in the hands of the ISC. The State of Singapore Act, passed in August, also provided for a fifty-one-member legislative assembly to be elected on the basis of compulsory adult suffrage in May 1959. The Act ruled out the possibility of 'known subversives' contesting this election, a point which naturally aroused condemnation from the left.¹⁵²

The PAP's internal problems had some negative impact on its preparation for the 1959 election. During 1957 the Party contested the City Council elections to gauge its electoral popularity but owing to its internal problems could field only 14 candidates. Nevertheless, it secured all but one seat it contested, campaigning on the need to eradicate corruption and ensure that the Council deployed its funds more usefully and efficiently. The PAP did not enjoy an absolute majority on the Council after the elections, but due to the fragmentation of its opponents a PAP member, Ong Eng Guan, was elected Mayor.¹⁵³ Over the next two years, the PAP established a reputation for dedication and results in its Council responsibilities, going a long way towards establishing credibility in its claim to be the genuine expression of the masses and the only party capable of challenging vested interests.¹⁵⁴

With the Lee group back in control of the CEC, PAP policy statements continued to reflect that group's commitment to merger with Malaya. In 1958, the Party's executive underlined this commitment in "The New Phase After Merdeka - Our Tasks and Policy".¹⁵⁵ Merger, it was argued, was a necessary prerequisite for socialism, but it was necessary to impress upon a fearful Federation government that it was a socialist and not a communist Malaya which the PAP envisaged.¹⁵⁶ This point of distinction was not appreciated by some of the Party's left.
After some initial apprehension over whether to contest the 1959 election, or whether to leave its bid until full independence, the PAP decided to seek government in the elections. The electoral manifesto was contained in *The Tasks Ahead*, a reasonably detailed statement of proposed economic and social reforms. It was explained that only after merger with Malaya, however, could this objective be realised:

It is obvious that the existing conditions are not favourable to the immediate attainment of a socialist society and that a fully-developed socialist economy cannot be achieved as long as Singapore is separated from the mainland. Until such time as there is a merger of Singapore and the Federation and the appearance of conditions favourable to socialist construction we are only in a period of transition. In this period of transition, nevertheless, we have the important task of preparing the ground, step by step, for the transformation of a feudalistic and conservative outlook to a progressive socialist outlook and so prepare the preliminary ground work for a future socialist society.

As would be expected, the rhetoric of socialism was an important means by which the Lee faction fostered the identification of the left with the Party. Though both factions shared this rhetoric, there were basic ideological differences concealed by this practice. For many of Lee's faction, socialism was seen as an outcome, a result, that is, of improved material conditions for working people. The actual process by which such results were achieved, whether by private or public control of the means of production, was by implication a technical rather than a political or ideological consideration.

The backbone of the PAP's proposed economic policies was its programme for Singapore's industrialisation. It was explained in the Party's manifesto that only through the promotion of manufacturing could Singapore's existing and prospective unemployment be addressed. The PAP was in no doubt about the fundamental economic, social and political importance of unemployment and the remedy for it:

The main economic problem that faces Singapore today is to provide increasing opportunities for employment. Singapore's population is increasing at the fastest rate known to have been achieved by mankind in its long history ...
... If a large number of young people looking for work do not get work and remain unemployed, there can be no peace and stability in this country ... Indeed it is unlikely that the democratic system can survive the tribulations which a rapidly growing unemployed population will bring about.

While Singapore could survive in the past mainly on its trade, there is no guarantee whatever that expansion of trade will be fast enough to provide work for our growing population. Other means of economic expansion must therefore be examined. In the absence of large tracts of agricultural land, the only alternative is for Singapore to expand her manufacturing industries.159

The development of manufacturing industries, however, was in turn dependent upon a large enough market for Singapore's manufactures. This was the economic basis for the commitment to merger with Malaya which was expected to provide a common market, free of import duties.160

As the elections approached, the likelihood of a PAP victory increased. Lee had cunningly laid down the condition of the release of all political detainees upon taking office, a stance which not only reduced alienation of the left but actually put him in the light of its public champion. The Party had other things going for it. The PAP's record in the City Council had earned it a reputation for efficiency and honesty. Its electoral programmes were also the most detailed and coherent, reflecting popular concerns and aspirations. Furthermore, organisationally, the PAP was best equipped to mobilise support in Singapore's first compulsory election. Finally, the PAP did an excellent job of exposing its opponents, especially the Lim Yew Hock government and his newly-formed Singapore People's Alliance (SPA).161 The Party benefited especially from the disclosure that the SPA had received $500,000 from American sources.162

Though the PAP was expected to win the election, the size of its majority was not anticipated. It won 43 of the 51 legislative seats, gaining 53.4% of the total vote.163 Despite this great win, a period of turmoil and conflict lay ahead for the Party. The merger issue was bound to lead to an uneasy relationship between left and right. In the course of this struggle it would become clearer too that the ideological differences between the two factions were deeper than first imagined.
Conclusion

We have seen in this chapter how colonial rule contributed to the radicalisation of the masses in Singapore. We have also seen that the domestic bourgeoisie was economically too integrated with colonial capital to provide any leadership in the anti-colonial struggle. This paved the way for the emergence of a group of middle class professionals to form a successful political coalition with the working class. Though there were some serious contradictions in this alliance, their resolution was to be dealt with after and not before self-government. These political conditions would invariably place economic policy making in a quite specific context. Indeed, the ultimate resolution of the PAP's internal contradictions would produce a technocratic capitalist state which would come to assume paramount importance to the definition of Singapore's industrial path.
FOOTNOTES


2. ibid., p.204.

3. Such front organisations as the Singapore Students' Federation and the Singapore Chinese Middle School Teachers' Federation were important in the early 1930s. However, following a MCP conference in Johore in 1936, the MCP deliberately set about to deepen its penetration amongst the Chinese intelligentsia, teachers and students. Such front organisations as the Malayan Proletarian Writers' Association, Local Young Men's Literary Research Society, Romanized Chinese Research Society and the Reading Club were formed and worked closely with the Singapore Students' Federation in circulating a large volume of communist literature. The MCP also infiltrated the Nanyang National Chinese Salvation Movement, formed by patriotic Chinese to, amongst other things, generate support for a Kuomintang-CCP united front against the Japanese. When the Sino-Japanese War broke out in 1937, this movement was succeeded by the Anti-Enemy Backing-Up Society (AEBUS) and through this Chinese school students were engaged in a 'save China' campaign. See ibid., p.183.

4. In May 1926, the Nanyang General Labour Union (GLU) was formed by the Hainanese activist teachers. In 1930 its name was changed to the Malayan General Labour Union (GLU) and was affiliated to the Pan-Pacific Trade Union Secretariat, a branch of the Comintern, in the wake of the MCP's formation. See ibid., p.204.

5. Workers in key sectors such as those employed by the Singapore Harbour Board, as well as the Naval Base, Municipality, Public Works, Railways and other governmental departments, the Singapore Traction Company and many large commercial enterprises were all outside the MCP sphere of influence.

6. Strikes and lockouts, for example, were defined as illegal if not conducted "in the furtherance of a trade dispute" or were "designed or calculated to coerce the government either directly or indirectly by inflicting hardship upon the community". See Pang Eng Fong, "Changing Patterns of Industrial Relations in Singapore", in Peter S.J. Chen and Hans-Dieter Evers (editors), Studies in ASEAN Sociology, Singapore: Chopmen, 1978, p.423.


8. Actually, the British had pledged as early as 1943 to foster the growth of "Malaya's capacity for self-government within the British Empire". See House of Commons Parliamentary Debates, 39, 1943, p.384. What this implied for Singapore, however, was not exactly clear.


13. Some of the limited rice available found its way onto the black market at prices beyond workers' capacity to pay. The shortages were so bad that in April 1946 the weekly ration of 4 pounds (per adult male) was reduced to 3 pounds and in mid-August down to 1 2/3 pounds. See Michael Morgan, "The Rise and Fall of Trade Unionism, 1945-50", in Amin and Caldwell (editors), 1977, p.161.

14. Morgan in Amin and Caldwell (editors), 1977, pp.159-60, quotes the Annual Report of the Colony of Singapore for 1947, pp.79-80: "... there are large areas within Municipal limits which are occupied by the large houses and spacious grounds of former and present commercial magnates while most of the poorer classes live within 1,000 acres in the heart of the city. There are rows and rows of back-to-back houses crammed to the physical limit. Conditions are indescribably bad. Rooms contain several separate families. Densities of from 300 to 500 per acre are common, and in some blocks the figure rises to 1,000. Those who cannot share rooms live underneath stairways or in cubicles which are in complete darkness at all hours of the day and without direct contact with the air ... The dirt and stench are appalling and the effect on the morale and physique of a generation born and bred in such conditions can easily be imagined. A tuberculosis rate of 323 per 100,000 as compared with one of 79 for England and Wales is only one instance of the results. There is further an overflow of about 130,000 persons who cannot find room even under such conditions of overcrowding".

15. It was noted in the Annual Report of the Colony of Singapore for 1946, p.37 that "... an important section of the really poor is more undernourished and in poorer health than before the war". As quoted in Morgan in Amin and Caldwell (editors), 1977, p.161.


17. Although the MCP had handed in some, though probably not all, its arms after the war, the British could not be sure that armed revolution had been discounted by the MCP. Indeed, the debate within the MCP over strategy was quite fluid. Although the MCP had apparently decided in favour of building a united front movement as a prelude to a direct attack on the colonial political system, this was subject to periodic reassessment. For some brief accounts of the Party's strategy see ibid., pp.208-224 and Richard Clutterbuck, Riot and Revolution in Singapore and Malaya, 1945-1963, London: Faber and Faber, 1973, pp.45-57.

18. In February 1946, for example, the MCP tried to hold a procession to celebrate the British surrender to the Japanese. The BMA refused a permit and on the eve of the planned procession arrested 27 MCP leaders, banishing 10 of them without trial. See C.M. Turnbull, A History of Singapore, 1819-1975, Kuala Lumpur: Oxford University Press, 1982, p.229.


21. At this time, the transport system of Singapore was totally inoperative. See Yeo, 1973, pp.215-6.
25. Employers had been agitating for the application of this as early as April 1946 when the civil administration took over from the BMA. See Morgan in Amin and Caldwell (editors), 1977, p.175.
26. In February 1946, all the unions incorporated in the General Labour Unions of Singapore and Malaya formed the Pan-Malayan Federation of Trade Unions. The Singapore Federation of Trade Unions was a constituent of the PMFTU.
30. ibid., p.177.
31. Garrett was a British unionist who had been appointed to the job in 1946 primarily to advise and assist in the formation of non-communist unions. He was forced to resign in 1947. Other indications of a more receptive government ear to employers included the acceptance by the government of employer resistance to significant income tax and constitutional proposals of the All-Malayan Council of Joint Action, and the registration of the SFTU in June 1947 after some initial hesitation. See Morgan in Amin and Caldwell (editors), 1977, p.180 and Yeo, 1973, p.218.
34. See Yeo, 1973, p.222.
35. Starting in mid-May, various incidents in rubber estates and tin mines in Malaya involved rugged clashes between workers and authorities. Twelve managers and foremen were killed and police killed seven and injured 23 strikers from 17 May to 7 June. See Clutterbuck, 1973, p.167.
36. A popular interpretation of events is that the MCP had been instructed by the Conference of the World Federation of New Democratic Youth League to take to armed struggle. The conference met in Calcutta and Australian communist Lawrence Sharkey is alleged to have conveyed this message during a stopover at Singapore in February 1948. Yeo Kim Wah, however, raises some interesting points which suggest that no such call for immediate insurrection appears to have been made. Yeo contends that insurrection would more likely be preceded by a period of economic dislocation effected through the SFTU. The government, however, appears to have been aware of this strategy and precipitated an early showdown. See Yeo, 1973, pp.221-2.
37. During this time, the MCP had turned most of its attention to the mainland but in Singapore the Singapore City Committee operated secretly and in 1949 organised an Anti-British League and a Singapore Students’ Anti-
British league with cells in Chinese middle schools. With its wide-ranging powers to search and close suspected infiltrated schools, however, by 1950 the Special Branch had managed to pick up most of the Singapore City Committee. During this time the Anti-British league was also effectively smashed. See Turnbull, 1982, p.247.


39. Morgan in Amin and Caldwell (editors), 1977, p.188.

40. What the government actually envisaged was a body to advise the former SFTU affiliates on how to obey government legislation and to generally assist in making labour compliant. This, of course, was not exactly what the STUC had in mind but after the government successfully pressured the STUC to change its platform, it was sufficiently confident that the STUC posed no threat. See Yeo, 1973, pp.231-2.

41. The ACSU was 11,000 strong and the NBL 8,000. See ibid., p.233.

42. ibid., p.233.

43. ibid., pp.234-5.

44. Many of the office bearers in the STUC were using this position as a means of getting exposure for the purposes of winning candidature for legislative and city council elections. See Yeo, ibid., p.235.


46. This was particularly the case for those areas of industry in which non-English-speaking workers were dominant - quarry, building, transport, rubber, manufacturing and lowly-paid white-collar areas. See Yeo, 1973, p.235.

47. See ibid., p.237-8.

48. Eligible voters for the 1948 and 1951 elections consisted of British subjects with a minimum of one year residence in Singapore and British protected subjects born in the Federation, Sarawak, British North Borneo and Brunei. Registration of voters was voluntary. Out of a total electorate of 22,395 in 1948, 60% exercised their votes while 48,155 or 52% did so in 1951. If all the people who were eligible to register had have done so then the electorates would have been in excess of 250,000 for both these elections. See ibid., p.255 and Yeo Kim Wah, "A Study of Three Early Political Parties in Singapore, 1945-1955", Journal of Southeast Asian History, X(1), 1969, p.116.

49. Yeo, 1969, p.120.

50. Yeo, 1969, pp.118-20, cites various indications that the MDU was in the first instance hopeful that the government would be receptive to calls for more far-reaching constitutional reforms. The MDU's memoranda accepting both the Malayan Union Scheme and its citizenship proposals, provided that Singapore be included in the Malayan Union Scheme and that citizenship be more clearly defined, is one such indication. The MDU also submitted proposed constitutional reforms to the Reconstitution Committee in 1946 in which it only recommended a minimum of 11 elected representatives in the colony's 22-member legislature. Despite the obvious
compromise and moderation of the MDU proposals, they were largely ignored by the government. From this point on, the MDU drew the conclusion that the government had no genuine intention of acting on public consultations. After December 1946, the MDU turned its attention to the Pan-Malayan Council of Joint Action and advocated far more radical proposals. It boycotted the 1948 Elections.

51. MDU's vice-president, J. Eber, was not only active in the co-operative movement but also defended workers (he was a lawyer) in court charged in relation to strike action and other offences. Another party leader, Lim Kean Chye, formed the Singapore Co-operative Store in 1946 and P.V. Sharma and D.E. Siddons led the militant Singapore Teachers' Union and the Singapore Municipal Workers' Union. In 1947, the MDU also initiated the formation of the Federation of Government and Municipal Services' Union in an attempt to broaden its social base. See Yeo, 1969, pp.124-5.

52. ibid., p.128.

53. The PP proposed an alternative confederation consisting of Singapore, the Federation and the British Borneo Territories.

54. Yeo, 1969, p.130.

55. Ironically, Indians comprised as much as 45% of the registered voters in 1948 and Chinese only 25%. See Yeo, 1973, p.255.

56. Yeo, 1969, p.133.

57. It won three of the six seats.


59. ibid., p.140.

60. The Assembly contained 32 members of whom 25 were elected. The remaining seven consisted of three British officials holding ministerial appointments and four unofficial members nominated by the Governor. The Executive consisted of a Council of Ministers over which the Governor presided. Of the nine Ministers, six were from the 25 elected members of the Assembly and the remaining three were British officials. See Clutterbuck, 1973, p.101 for details on the portfolios.

61. ibid., p.82.

62. The Singapore Students' Anti-British League was the subject of particular Special Branch attention.


65. First, students from the Chinese High School and the Chung Cheng High School boycotted the registration teams which visited them in May. A
petition, supported by mass rallies, was then sent to the acting Governor, William Goode, who agreed to meet a student delegation on 13 May. In moral support of the delegation, about 900 students arrived in 20 lorries and queued up nearby the location of the proposed meeting between Goode and the delegation. See Yeo, 1973, p.191.

66. This happened when the Riot Squad moved in to arrest and disperse the students whose gathering contravened the Emergency Regulations. See ibid.

67. ibid., p.194.

68. By this time, however, the degree of control of such committees had weakened considerably due to the declining influence of KMT supporters and the Chinese business community on such committees, as well as the widening support and assertiveness of the younger, emergent radical student leaders. For examples of the extent to which school management committee power had been usurped by radical student activists, see ibid., pp.195-196.

69. Yeo, 1973, p.194, argues that the government's fear of such an interpretation testified to the success of the student leaders in linking student politics to the broader and sensitive issue of Chinese education.

70. ibid., p.193.

71. The student movement was also active amongst the rural population too. See ibid., pp.197-8.

72. ibid., p.239.

73. ibid.

74. Pang in Chen and Evers (editors), 1978, p.424.


77. Yeo, 1973, p.242, refers to a government estimate that in 1955 the average income of manual workers rose by more than 11%. The SFSWU claimed to have increased wages for its members by 30%.


79. The Malayan Forum was formed by Goh Keng Swee, Maurice Baker, Abdul Razak, Mohamed Sopiee, Philip Hoalim (Junior) and F. Arulanandum. See Yeo, 1973, p.117.

80. ibid., p.118.


82. Caldwell, 1979, p.6, quotes Lee from a 1950 speech in which he refers to communism as "... the biggest threat to the newly established national governments of Asia".
85. ibid., p.252.
86. Yeo, 1973, p.120.
87. For details of the CJA memorandum, see ibid., pp.120-21.
88. At the time Marshall was 47 years old and was a prominent lawyer who had openly expressed opposition to colonial rule and a sympathy for the underprivileged. He was strongly inspired by the British model of parliamentary democracy.
89. Rajaratnam was to later explain that the Lee group was most unimpressed with the calibre of the Labour Front leadership, dismissing them as "a bunch of clowns". See Pang Cheng Lian, "The People's Action Party, 1954-1963", Journal of Southeast Asian History, X(1), 1969, pp.142-3.
90. ibid., p.143.
91. The 14 convenors of the Party's inaugural meeting were: Lee Kuan Yew, Dr Toh Chin Chye, S. Rajaratnam, C.V. Devan Nair, P. Govindaswamy, Ismail Rahim, Lee Gek Seng, Fong Swee Suan, A.K. Kurippiah, Mofradi b Hj Mohd Noor, Tann Wee Keng, Tan Wee Tiong, Chan Chian Thor and Abdul Samad. See Yeo, 1973, p.124 and Fong Sip Chee, The PAP Story - The Pioneering Years, Singapore: Times Periodicals for Chai Chee Branch, People's Action Party, 1979, p.11.
92. Lee Kuan Yew, as quoted in ibid., p.12.
94. Lim himself never publically admitted to be a member of the MCP but Lee Kuan Yew seemed to take this for granted. It is significant too that many writers have adopted the nomenclature employed by the PAP in referring to leftists as 'pro-communists'. The implication seems to be that those to the Left of the Lee group were 'essentially communist'. This categorisation implicitly plays down the extent to which non-communist left-wing forces existed.
96. Straits Times (Editorial), 28/6/55.
100. At first, the Left had favoured boycotting the elections to concentrate on building up an anti-colonial movement since the Rendel Constitution did not provide for a full transfer of power to Singaporeans. The British still retained ministerial control over finance, external affairs, internal security, defence, public relations, broadcasting and the civil service. Lee's group, however, subscribed to the view that: "A party committed to constitutional methods of change would be signing its death warrant if it stood outside the constitutional arena and merely protest (sic) with words and rude gestures". (As quoted in Yeo, 1973, p.126.) This view prevailed.

101. Another PAP member, Ahmad Ibrahim, also successfully stood as an Independent so the PAP effectively had four representatives in the Assembly. See Fong, 1979, p.27.


103. For a fuller breakdown of the 1955 election results see Yeo, 1973, pp.266-77.

104. Thus, whereas the LF polled just 27% of the total vote, it captured 40% of the seats; the PP-DP, however, polled 44% of the total vote but won only 24% of the total seats. See ibid., 1973, p.275.

105. ibid., p.272.

106. See ibid., pp.270-71


109. Whilst recognising the political necessity of identifying with the essence of the anti-colonial and anti-capital struggle of the Left outside the Assembly, the Lee faction was also aware of the party's need to retain respectability in the eyes of the British.


111. For details see Clutterbuck, 1973, p.109.

112. ibid., p.110.

113. ibid.

114. The three PAP representatives and the one Independent voted against the bill; there were also seven abstentions. See ibid., p.111.

115. ibid.

116. Marshall's government had passed a Labour Ordinance in December 1955 to restrict hours of labour; drew up proposals for a single Singapore citizenship; appointed all-party committees to examine Chinese education and Malayanisation; succeeded in securing the appointment of more ministers than the British originally deemed acceptable. See Turnbull, 1982, p.263.
117. Marshall contended that a British majority vote on the Defence and Security Council was unacceptable. He saw internal security as the exclusive responsibility of the Singapore government. He also found the British retention of the power to appoint the Commissioner of Police unacceptable, especially since this position afforded direct access to the British High Commissioner, and hence Special Branch information; this was denied the popularly elected ministers. According to Marshall, the reserve powers of the High Commissioner also cancelled out the supposed freedom available to the Singapore government under the proposed Constitution. In an attempt to salvage something from the talks, Marshall proposed acceptance of the overriding legislative power of the British so long as the Defence and Security Council were composed of equal British and Singaporean representation, with a Malayan Chairman appointed by the Federation government. This was rejected by the British, as was the subsequent request that such legislative powers be phased out within two years. See Clutterbuck, 1973, pp.113-14.

118. The British Secretary of State, Lennox-Boyd stated that the British would not tolerate a situation in which "... the essential defence bases ... would assuredly be crippled in times of emergency by strikes or sabotage". As quoted in Sweeney in Amin and Caldwell (editors), 1977, p.209.

119. ibid.

120. Sweeney argues that following the 1955 Assembly elections, the British had decided that the right wing of the PAP, under Lee's leadership, was the best equipped group to safeguard British interests in the long-term. See George Sweeney, 1977, pp.212-13. Whether the British had drawn such a perceptive conclusion so early is, of course, difficult to ascertain. Certainly, however, Lee seemed to be determined to win British confidence soon after the elections - a point made by T.S. George in Lee Kuan Yew's Singapore, London: Andre Deutsch, 1973, pp.44-5. To win their confidence Lee had to distinguish his group as political moderates. It is quite likely that Lee grasped the opportunity during the 1956 constitutional talks to privately push the line of distinction between his group and the Left within the PAP. As Lee was to subsequently explain, the then British Chief Secretary and later Governor of Singapore, Sir William Goode, came to be particularly receptive to Lee's point of distinction: "... And Lim Yew Hock wanted to scrub the lot of us out. And he (Goode) said 'No'. I'm sure he must have said 'No', because otherwise it was easier for Lim Yew Hock ... for the PAP not to contest the elections in 1959. But Bill Goode was calculating in terms of twenty, thirty, forty years of trying to get a group of people to emerge who can hold the situation. He knew that if we took power and the communists wanted that power, either we had to go along with the communists, or we would have to fight the communists. It was a calculated risk". (Lee as quoted in ibid., George, 1973, pp.163-164.)

Obviously any collusion between the British and Lee would of necessity been private. Over time though, suggestions of some informal understanding surfaced. Bellows, 1970, p.35, observes that for at least twelve months before the May 1959 elections, "Goode had maintained close contact with Lee Kuan Yew". But even before this, the timely arrests of leading leftists appeared all too fortuitous for the Lee group to have been co-incidental. George, 1973, p.40, goes so far as to interpret these events as the result of the Lee group persuading and assisting the authorities to clamp down on the Left. It should be remembered though that the Lim Yew Hock government was important in these fortuitous events. Lim's confrontationist approach to the Left and willingness to co-operate with the British were necessary ingredients in any possible collusion.
The four Left members were Lim Chin Siong, Devan Nair, Chia Ek Tian and Goh Boon Toh.


This name was a pun on FOTO – Failure of Talks Operation.


On 18 and 19 September, the Council of Ministers ordered the banning of two alleged MCP front organisations, the Singapore Women's Association and the Chinese Musical Gong Society. See Clutterbuck, 1973, p.118.

ibid.


A Civil Rights Convention was also formed on 28 September to protest against the dissolution of the two alleged front organisations and the SCMSSU. See Clutterbuck, 1973, p.118.

Bus employees provided barricaded students with food and other assistance, repaying the help extended them when the Hock Lee strike was on. See ibid., p.120.


See ibid., pp.130-31 for details.

Sweeney in Amin and Caldwell (editors), 1977, p.211.


Ong, 1979, p.57.


For details of the agreement, see ibid., p.145.

Lim Yew Hock was to divulge this in a 1959 Assembly debate. See George, 1973, p.44.


The six successful candidates were Tan Chang Kin, Tan Hong Guan, Chan Say Jame, Goh Boon Toh, Ong Chye Ann and T.T. Rajah. See Fong, 1979, pp.56-7 for details of the election results.

Both Lee Kuan Yew and S. Rajaratnam later asserted that the Left had been aided in the elections by the issue of PAP admission cards to non-Party members. See Pang Cheng Lian, Singapore's People's Action Party, Kuala Lumpur: Oxford University Press, 1971, p.4.
146. ibid., p.266.
150. Turnbull, 1982, p.266.
151. This can be 3% or lower, depending upon the size of the membership. See Pang, 1971, pp.23-4.
154. See ibid., pp.5-6 and Willard A. Hanna, "Fireworks in City Hall: The Record of Singapore's City Council", American Universities Field Staff, Southeast Asia, VII(4), 1959.
156. It was also advocated that Malay be the national language of a merged Singapore and Malaya.
160. Private capital was expected to play a crucial role, the common market providing the stimulus for such investment.
161. The SPA comprised the old Labour Front leadership and a few Liberal Socialist allies. It had been formed specifically to contest the 1959 elections. See Turnbull, 1982, p.269.
163. Lim Yew Hock's SPA held just four seats, with the UMNO/MCA alliance taking three seats and one going to an Independent. For an analysis of the actual election and further details of the results, see Ong Chit Chung, "The 1959 General Election", Journal of Southeast Asian Studies, VI(4), 1975, pp.61-84.
CHAPTER 4

FROM SELF-GOVERNMENT TO MERGER: THE BASIS OF SINGAPORE'S IMPORT-SUBSTITUTION PHASE

Introduction

It has been explained in the previous chapter that the PAP was characterised by fundamental internal contradictions from the beginning. Upon coming to office though, Lee's group could no longer rely on rhetoric to conceal the important ideological differences between the two factions.

For a number of reasons, it took some years after taking office for the PAP's general commitment to an industrial programme to materialise as a detailed plan of action. Most of these reasons related to Lee's political problems in advancing the aim of merger with Malaya and creating an investment environment conducive to the attraction of private capital. Both objectives were central to Lee's favoured economic path and also an unavoidable source of conflict with the Party's left wing. In each case these objectives represented real or potential attacks on the political strength of the left, which goes a long way towards explaining Lee's commitment to them. Inevitably, an escalation in faction fighting occurred. The result was a formal split and the left forming its own party. Rather than marking the end of the bitter struggle, this only heralded increased efforts by the PAP to wipe the left out. Such a move was calculated primarily to secure the PAP's political hegemony but was also considered fundamental to the success of the industrial strategy which was important to the material improvement of the working class and the PAP's electoral survival.

The period following the split thus witnessed a radical integration of state and Party. In one respect this was necessitated by the PAP's void of grassroots political structures due to the left's exodus. To compensate, the PAP employed the state bureaucracy to perform many functions traditionally assigned to the Party, notably those intended to mobilise political support. In other respects,
however, state institutions were exercised to frustrate the constitutional activities of the PAP's opponents. The general pattern was for state power to be extended into all spheres of social activity, asserting state (PAP) dominance over all political groups. Top priority in this process was given to the defeat of organised labour as a means of reducing the effectiveness of its political opponents.

As we see in the final section of this chapter, the government's success in attracting international capital was modest during the 1959-1963 period. In view of the political turmoil and uncertainty during these years this is understandable. Nonetheless, the foundations of the import-substitution industrialisation strategy were laid. State intervention had significantly raised the standard and supply of infrastructure. The prospect of a common market was also quite real by 1963. By this time the PAP had also asserted its political dominance and thereby reduced the militance of labour. An upturn in investment commitments in 1963 by international capital suggested that capital was itself beginning to share the government's optimism about Singapore's industrial future.

Initial Period of Government and Factional Relations

Upon coming to office, Lee held elections for the PAP's CEC to ensure the existing committee would be unchallenged for the next two years.1 With this done, he released some, but not all, of the political detainees of the Lim Yew Hock government. Those released were: Lim Chin Siong, C.V. Devan Nair, James Puthucheary, Sandra Woodhull, Fong Swee Suan and Chan Chian Thor.2 These people had of course been unable to contest the general elections but Lee appointed Lim and Fong political secretaries to the Ministry of Finance and the Ministry of Labour respectively.3 Despite this apparent show of solidarity, neither Fong nor Swee could exert any real power in these positions. Furthermore, none of the released prisoners were able to obtain cadre membership of the PAP. Lee's group had no intention of sharing power with the left until the
left had demonstrated unqualified support for the existing PAP leadership. The left was to find the leadership's policies an obstacle to maintaining such support.

One of the early moves by the PAP government was to disband all management committees of community centres. Community centres had been set up in the early 1950s with the intention of encouraging the development of spontaneous and grassroots participation in community developments. Although the Department of Social Welfare was responsible for the implementation of these centres, it tended to favour decentralisation of decision-making for community activities so that they could develop into the mass movements intended. Thus, community centres were relatively autonomous throughout the 1950s and were run by management committees elected by participants in the centres' activities. The result was that political activists, mostly opponents of the PAP, came to control these centres. Once in office, Lee abolished all management committees of the community centres and placed all community organisations under the direct control of the Department of Social Welfare, pending further reorganisation. There were a number of motivations for this move but the vision of these centres, under a new structure, serving to mobilise support for the PAP leadership was an important consideration.

After the government re-asserted control over these centres, a Bill was introduced in July 1960 under which a new statutory body, the People's Association, would control the affairs of community centres. Centralised direction over the People's Association would more likely ensure that community centres did not deviate from, and were receptive to, the objectives of the PAP leadership. The primary political purpose of the People's Association was underlined by the composition of its Board of Management. Of its 14 members, nine persons were appointed by the Prime Minister who was also Chairman of the People's Association. With this structure in place, the PAP set about expanding the number of community centres in the hope of spreading the influence of the Party leadership and preparing the conditions for mobilising support for its
policies. The government explained these changes in quite different terms but, in time, the control being established over these centres would assume considerable importance in its struggle with the left. At the time, such implications were less clear to the left which still harboured aspirations of eventually taking control of the PAP. Under such circumstances, this reorganisation of community centres was not perceived as such a threat.

Though the above changes were affected without any internal PAP controversy, reforms dealing with industrial relations were more closely scrutinised by the Party's left and the labour movement. Even before the PAP came to office, the leadership's declared commitment to "industrial peace with justice" was viewed with suspicion by the left.

The government's first major initiative in industrial relations was the enactment of the Industrial Relations Ordinance in 1960. This provided for a far greater role for the state in regulating industrial relations, specifying rules for collective bargaining between employers and unions and the setting up of an Industrial Arbitration Court (IAC). These changes were not intended to undermine private collective bargaining, but to provide new procedures for conflict resolution. Under these procedures, however, a strike was defined as illegal once the IAC had taken cognizance of it, that is, once a joint application for arbitration had been submitted by the concerned parties or the Labour Minister had directed that the case be heard by the IAC. Such a provision virtually ensured that compulsory or voluntary arbitration would be resorted to. The overriding concern of the legislation was to create a climate of industrial peace.

The unification of the labour movement had been a stated objective of the PAP in its 1959 platform. As was soon evidenced, however, the process by which this should be achieved and the function of the unification was a point of disagreement within the Party. Through the Trade Union Bill, proposed by the government in 1960, unification would take place under the aegis of a National
Trades Union Congress (NTUC) to which all unions would be affiliated and confer with before taking strike action. The NTUC would be closely linked with the government and would co-operate with it. The government also proposed that trade unions be reorganised on a craft basis to replace the prevailing arrangement whereby no specialist pre-requisite existed for membership to various general and splinter unions. The PAP leadership viewed the existing structure as too vulnerable to infiltration and subversion.\textsuperscript{10}

The obvious intention of the Trade Union Bill was to limit the control of the left within the labour movement. However, after predictable condemnation from the left, the Bill was eventually withdrawn by the government.\textsuperscript{11} Amongst other considerations, the government had come to fear the possibility of a left-dominated NTUC which, of course, would be counter-productive for Lee and his group.\textsuperscript{12} Despite withdrawal of the Bill, friction within the Party had been heightened and was no longer concealed behind Party doors. Towards the end of 1960, for example, Fong Swee Suan's public criticism of Lee's stance on industrial relations led to Fong's transfer to the Deputy Prime Minister's Department.\textsuperscript{13}

Apart from the transparent political motives behind the attempted reorganisation of trade unions, the left was irritated by the government's constant calls for wage restraint and industrial peace.\textsuperscript{14} The left suspected that the Party leadership was more concerned with 'industrial peace' than 'justice'. STUC Secretary (Administration), S.T. Bani, thus responded to the government's appeal with the assertion that:

No honest and decent socialist can support industrial peace at the inordinate price of the workers' legitimate claims. Industrial peace brought alone by enforcing law and order is unjust to the workers and must be rejected. And this is particularly so if the laws are not in favour of the workers.\textsuperscript{15}

Not only was Bani expressing discontent with the nature of the PAP's legislative efforts to date, he was also echoing the concern of the left that the government had continually failed to revoke such anti-labour legislation as the Criminal Law Ordinance and the Public Security Ordinance Number 25 (1955).
The early experience of the left under the PAP government had been one of antagonism. Apart from the practical implications of the government's labour relations policies, there was an important philosophical question being raised which was not lost on the left. The notion that workers' interests should be dependent upon, and secondary to, a favourable climate for private capital investment was an uncomfortable one for the left. It began to appear as though at best the PAP had divided class loyalties. There were also other grievances developing in 1960 which indicated mounting internal friction and disillusionment with Party leadership. The government's policy on Chinese education, the continued detention of political prisoners of the Lim Yew Hock government and an amendment to the Citizenship Bill which deprived some left leaders of their citizenship had all contributed to this disillusionment. Nevertheless, for the time being anyway, the left continued to publically declare its support for the government. Presumably the left's hope to eventually capture leadership, or at least sufficiently influence proceedings to correct the present course, dissuaded it from any other action. The soon to be announced industrial plan of the government, however, would be a further cause for the left's discontent and disillusionment with the government.

State Development Plan, 1961–1964

When the PAP leadership did come to more closely examine the question of industrialisation, it called on the World Bank to provide the technical basis for more detailed policies. The consequent United Nations Industrial Survey Mission, headed by Dr Albert Winsemius, made the first of its two visits to Singapore between October and December 1960. The Winsemius Report, as it became known, confirmed the government's fears that the traditional backbone of the economy, entrepot trade and banking, would be unable to provide sufficient job opportunities for Singapore's expanding workforce. In view of the projected population increases for the decade, Winsemius estimated that to achieve full
employment, 214,000 new jobs would have to be created between 1961 and 1970. For such a target to be realised, 98,000 new jobs would have to come from the manufacturing sector - an average of 9,800 per year. It was argued in the Report that the best option for Singapore to achieve the necessary growth would be through the adoption of an industrial strategy based on import substitution. Since Singapore had the highest per capita income in the region, its domestic market was considered sufficient for manufactures in spite of its small population size. Anticipated population growth and further increases in per capita income were expected to bolster this market. The possibility of a common market with Malaya would also provide impetus for the strategy.

A significant feature of the Winsemius Report was that it envisaged private capital playing the leading role in direct investment in industry. Further, owing to the dearth of local industrial know-how and the structural immobility of locally-based capital, it also envisaged the major portion of capital, entrepreneurial and technical skills would come from foreign investment. However, to render Singapore suitably attractive to such investors, a series of recommendations were submitted. These included: control over labour and holding wage levels down; the provision of various industrial estates; the upgrading of technical training; the provision of tax incentives; and free remittance of capital. In one way or another most of these recommendations implied a key role for the state in support of private capital. The Report contained no apology for this, arguing that in view of Singapore's relatively late start in the effort to attract industrial capital, combined with its high wage levels, state intervention was essential if Singapore was to successfully compete with other countries in the region for investment.

The long-awaited State Development Plan, 1961-1964 was finally announced in early 1961 and closely mirrored the Winsemius Report, constantly drawing on it to substantiate and clarify policies. Most importantly, the Plan embraced the thesis that positive institutional and financial intervention by the state could form the basis for a fast-growing import-substitution programme led by private
investment. The Plan shared the assumption of the Winsemius Report that the pending economic unification with Malaya, important as it was, was no guarantee of Singapore’s industrialisation. Therefore, Singapore needed to be an attractive investment site in itself.20

Under the State Development Plan, 1961-1964, a total expenditure of M$871 million was allocated for investment in the public sector. This represented a 120% increase over that spent on public sector capital investment during 1955-1969. Of this sum, M$508 million, or 58%, was earmarked for economic development and a further M$350 million, or 40%, for social development. It was expected that M$591 million of the finance for the Plan would come from domestic revenue, reserves and borrowing. The balance was to come from loans and grants from the UK and the World Bank.21 Drawing on the Winsemius Report, it was estimated in the Plan that 83,600 jobs would be required between 1961 and 1964 but that without additional stimulation only 40,000 new jobs could be expected for the period. It was hoped, however, that through the Plan conditions of ‘maximum acceleration’ might generate a further 30,000 new jobs. The government was working on the assumption of a ratio of M$20,000 of private investment to each job created.22 Even under optimum conditions then, the unemployment problem would not be solved in the period of the Plan.

As represented in Table 3, the majority of the planned expenditure on economic development was for industry and commerce, the largest single allocation being for the Economic Development Board (EDB). Having been recommended in the Winsemius Report to spearhead the government’s industrial programme, this statutory body was to promote the expansion of existing industry and the establishment of new industrial enterprises. A sum of M$100 million had been set aside for the EDB’s activities for the four year period.
### Table 3: Summary of Development Plan Capital Expenditure Estimates, 1961-1964

<table>
<thead>
<tr>
<th>Description</th>
<th>$ million</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Economic development</td>
<td></td>
</tr>
<tr>
<td>a. Land and agriculture</td>
<td>53.27</td>
</tr>
<tr>
<td>b. Industry and commerce</td>
<td></td>
</tr>
<tr>
<td>i. E.D.B.</td>
<td>100.00</td>
</tr>
<tr>
<td>ii. Kallang project</td>
<td>40.00</td>
</tr>
<tr>
<td>iii. Jurong project</td>
<td>45.00</td>
</tr>
<tr>
<td>iv. Land acquisition, etc.</td>
<td>5.60</td>
</tr>
<tr>
<td>v. Electricity</td>
<td>78.50</td>
</tr>
<tr>
<td>vi. Water</td>
<td>54.23</td>
</tr>
<tr>
<td>vii. Gas</td>
<td>14.03</td>
</tr>
<tr>
<td>c. Transport and communications</td>
<td>117.32</td>
</tr>
<tr>
<td></td>
<td>507.95</td>
</tr>
<tr>
<td>2. Social development</td>
<td></td>
</tr>
<tr>
<td>a. Health</td>
<td>35.80</td>
</tr>
<tr>
<td>b. Education</td>
<td>94.48</td>
</tr>
<tr>
<td>c. Social welfare</td>
<td>1.77</td>
</tr>
<tr>
<td>d. Housing</td>
<td>153.60</td>
</tr>
<tr>
<td>e. Sewerage</td>
<td>47.36</td>
</tr>
<tr>
<td>f. Community services and culture</td>
<td>16.87</td>
</tr>
<tr>
<td></td>
<td>349.88</td>
</tr>
<tr>
<td>3. Public administration</td>
<td>13.19</td>
</tr>
<tr>
<td>Total</td>
<td>871.02</td>
</tr>
</tbody>
</table>


In keeping with the Plan, the government duly established the EDB in August 1961, entrusting it with various tasks. It was empowered to: underwrite the issue of stocks and bonds of industrial enterprises; guarantee industrial loans; invest in and give loans to industrial enterprises; develop industrial estates; and provide technical assistance and advice to industrial enterprises. Some of the above functions were intended to circumvent the structural immobility and lack of industrial expertise of domestic capital. Other functions, however, were intended to lower the establishment and operational costs to capital. Medium and long term loans, for example, were offered by the EDB at below market interest rates.
for up to 50% of fixed assets. Moreover, the EDB was expected to facilitate a high degree of cohesion in the industrial programme by virtue of its substantial organisational resources and close liaison with government. This would enhance and simplify the task of attracting and accommodating industrial capital.

One of the most imaginative and ambitious aspects of the Plan was the government's designs for industrial estates. It was urged in the Winsemius Report that the construction of such estates, in which factories would be centralised around transportation, water, sewerage, power and communications requirements of industry in close proximity to a sizeable labour force, be given urgent priority. Such convenient sites would represent a cost saving to capital since rents for factory space would not take account of total expenditure involved in their development. Special attention was paid to the development of industrial estates for at least two considerations. First, with the highest wage levels in the region, the government had to examine other cost-cutting attractions to capital. Second, with Malaya's recently-established industrial town of Petaling Jaya, Singapore needed to provide at least similar, and probably better, conveniences to industry if some of the investment in the region was to be redirected Singapore's way.

Numerous industrial estates were proposed under the Plan, each to be zoned according to the form of industrial activity desired and to encompass or adjoin a satellite town built by the recently established statutory body, the Housing Development Board (HDB). By far the most important estate was the proposed Jurong estate for which a provisional M$45 million had been directly allocated by the government. Jurong would involve the preparation of 1,500 acres of land in the first project but, as Minister for Finance Goh Keng Swee announced in late 1961, would eventually comprise 9,000 acres. Mangrove swamp and undulating terrain needed to be reclaimed under the project. Jurong would also offer 8,500 feet of deep water wharfage and would be connected to Malaya by rail. Not only would Jurong be Singapore's prime site for heavy industry, it would also
include zones for light industry as well as park, recreational, business and residential facilities such as schools, shops and community centres to service 200,000 residents. Industrial estates in general, and Jurong in particular, symbolised the government's commitment to resourcefully addressing itself to the needs of the private sector.

The government's intention of significantly improving and expanding physical infrastructure was not confined to industrial estates. As indicated in Table 3, allocations for the development of public utilities amounted to M$147 million for the period 1961-1964, of which M$78 million would be required for electricity, M$54 million for water and M$14 million for gas. A sum of M$117 million would also be invested in transport and communications. Much of this expenditure would be directed towards a general improvement throughout the island in its infrastructural base.

Of the M$350 million proposed for social development, projects for housing and education assumed greatest significance. Under the Plan, more than 51,000 low-cost housing units would be constructed at a cost of M$153.6 million between 1961 and 1964. The education plan, involving an estimated M$94 million, was aimed to provide Singaporeans with at least two years post-primary education with a vocational base and provide more schools with a technical and science base. An estimated average of 19 schools per year would need to be built between 1961 and 1964. Obviously the educational base would be central to Singapore's long term industrialisation. These outlays, however, cannot simply be explained in terms of their utility to the industrial programme. Lee and his group were always looking to extend the social base of their faction's support beyond the middle class.

Although the Plan did not specify in any detail the industries in which Singapore was expected to concentrate, the Winsemius Report identified the following areas as suitable: the expansion of ship-building and ship-repairing; expansion of metal engineering; establishment of an electrical equipment and
appliances industry; and improvement of the quality chemicals industries. The EDB would also be conducting feasibility studies to ascertain the possibilities in greater detail. Lee himself had in 1960 expressed a desire for Singapore to establish an iron and steel mill of 500,000 tons annual capacity but the response from capital was one of total disinterest. Lee subsequently requested the feasibility of the proposal to be investigated by the United Nations Industrial Survey Mission which was due to report on the matter in mid-1961.

After two years of indecision and inactivity on its industrial programme then, in early 1961 the government had finally announced a clear plan and strategy for industry and job creation. In the process, a special role had been carved out for the state which not only committed it to considerable outlays of public expenditure in the service of capitalism, it also involved the state, especially through the EDB, in fusing physical and social infrastructure in the most cost-effective and attractive way to private investors. This involved a certain degree of abstract thought and projection beyond the inclination or capacity of individual capitalist investors. The government was not defensive about such intervention, contending that Singapore simply could not afford a laissez-faire economy if it was to be restructured towards greater manufacturing emphasis. Not surprisingly, the accent on assisting private capital in preference to a more direct role for government investment in industrial enterprises prompted criticism from the PAP's left. Before the Plan had reached even the first stages of implementation, however, other grievances of the left came to the fore. Soon, the PAP was again pre-occupied with urgent political questions which temporarily over-shadowed the industrial programme.

Lee's Defeat of the Left within the PAP and the Subsequent Split

Despite the rapid deterioration in relations between Lee's faction and the left of the PAP following government in 1959, the first major post-election challenge to the leadership did not come from the left. Rather, it was the Minister for
National Development and ISC and CEC member Ong Eng Guan who first confronted Lee. Ong had long been a leading Party figure whose support amongst the Chinese chauvinists and long service to the Party had probably made it difficult to accept being assigned the relatively insignificant Ministry of National Development. Ong’s pride would have been further dented when Lee subsequently removed local government and Harbour Board affairs from his ministerial portfolio on the grounds of Ong’s poor administrative performance.33

Ong’s challenge was mounted in June 1960 at a two-day meeting of the CEC, PAP Assembly people and branch executives held to review the Party’s performance in government. On behalf of his Hong Lim electorate, Ong introduced ‘Sixteen Resolutions’ intended to rectify the PAP’s mistakes in government.34 Amongst other things, these resolutions charged that the Party had moved ideologically to the right and that it lacked intra-party democracy, specifically attacking the cadre system of membership. Ong also claimed that the Party had lost its anti-colonial essence and called for the release of those detained under the Preservation of Public Security Act before 1959.35

Given the nature of the resolutions forwarded by Ong, it may seem surprising that they did not arouse the support of the left. However, the left saw these resolutions as cynically calculated to muster its support so that Ong could advance his own personal leadership ambitions. To the left it was a personality clash between Ong and Lee. Ong was viewed as an opportunist over whom the left was not prepared to confront the Party leadership, however much appeal the resolutions may have had.36 The left thus joined with the PAP leadership in condemning Ong.37 The Party’s CEC duly dismissed Ong’s charges as "red herrings" to cover his "anti-party activities" and in July he was removed from the Ministry and expelled from the PAP, as were his two supporters from the Assembly.38 Ong was also subjected to a ruthless personal attack by Lee, not just out of Lee’s vindictiveness, real as it was, but as an example of what lay in store for those who dared to challenge the Party leadership.39
Though lacking support within the Party, Ong’s support within the Hong Lim electorate remained loyal and considerable. He was thus able to successfully contest the by-election for that electorate in April 1961 necessitated by his earlier resignation from the Assembly. Ong campaigned around issues related to Chinese chauvinism and anti-colonialism, demanding immediate and unconditional independence from Britain. His landslide victory over the PAP’s Jek Yuen Thong, Lee’s Political secretary, was a severe blow for Lee and the PAP. So bitterly disappointed with the apparent show of no confidence were the PAP leaders that they are even reported to have considered resigning from the Assembly but were reassured by their left colleagues that such a move would be unwise. The left feared that resignation by the moderates might give rise to a harshly repressive coalition.

Though the results of the Hong Lim by-election painted a gloomy picture for the future of Lee’s group, they soon prompted a fortuitous twist for Lee. Hitherto uninterested in merger with Singapore because of fears of a racial imbalance in favour of the Chinese and the existence of a strong left wing in Singapore, the prospect of resignation by the PAP moderates sparked a re-evaluation by the Malayan Prime Minister, Tunku Abdul Rahman. He was extremely concerned about the possibility of a left wing government forming in the wake of resignation by the current leaders. This would mean the end of the ISC and Malayan control over Singapore’s internal security. From Lee’s perspective, merger was very attractive politically. He knew that conservative elements in Kuala Lumpur would not tolerate the communists within the PAP. Merger offered the prospect of the elimination of his major opponents without Lee having to do the job himself and also promised to provide the economic foundation for the ISI programme. The formation of a common market for manufactures would offer economies of scale likely to attract international capital.

The Tunku first publically mooted merger on 27 May 1961, proposing a Federation of Malaysia which would include Singapore, Sabah, Sarawak, Brunei and
Malaya. The Tunku's new perspective on merger was to have a profound impact on the PAP. Up until now the left had been consoled that despite the PAP leadership's aspirations for merger it was evidently an unlikely event. With a real prospect of merger now looming, a whole range of issues which had been fomenting since the Party came to office combined to set the two factions of the PAP on a collision path and irreversible separation.

Lee's commitment to merger had thus been enhanced rather than weakened by the Hong Lim by-election result. He apparently calculated that now was the time to move before the left could capitalise. At the 1961 May Day Rally of the STUC he reiterated PAP merger policy and invited those not beholding to it to leave the Party. Both the PAP leadership and the left knew that a break between them was always a possibility. Evidently Lee felt that the merger issue was the one most likely to render popular support for his group and was happy for the struggle between factions to centre around it.

The left was not long in reacting to the perceived threat of the merger proposals. On 2 June 1961, the 'Big Six' trade union leaders and the Party's left issued a statement of support for the PAP in the forthcoming Anson by-election. The statement also included demands for genuine self-government for Singapore and the abolishment of the ISC. A total of 42 trade unions came out in support of these demands. The PAP leadership, through Party Chairman Toh Chin Chye, responded on 9 June that the Party's objective was to seek "complete independence through merger with the Federation or a larger federation". On 12 June the 'Big Six' widened their attack on the PAP leadership and listed a series of demands which related to grievances additional to the merger question. These included: the failure of the government's representatives on the ISC to secure the release of political detainees arrested before 1959; the abuse of civil liberties, such as freedom of speech and the press, through the Preservation of Public Security Ordinance; the failure of the government to unify the trade union movement; the deprivation of citizenship rights for left wing anti-colonialists; the
restrictions on Chinese education; the PAP's attempts to control the STUC; and
the absence of intra-party democracy within the PAP. It was implied that
unless the left's demands relating to these grievances were met, support for the
PAP in the Anson by-election would be withdrawn. The Party leadership stood
firm, however, and C.V. Devan Nair, who since his prison release had closely
aligned himself with Lee, asserted that the left were reneging on fundamental
PAP policy:

Lim Chin Siong and his friends have used the detainees issue to
distract public attention from their fundamental deviation from the
PAP's basic principles and policies, and its fundamental aim of
merger with the Federation.

In the wake of the publically declared differences, eight PAP members of
the Assembly came out in support of the 'Big Six's' demands and called for a
conference of the executives of the 51 Party branches to be held post haste to
discuss the current role of the PAP and the political circumstances surrounding
it. Understandably, PAP supporters were by now in some confusion as to what
constituted the loyal course of action in the by-election. This was compounded
when at the last moment the left came out in support of the Workers' Party's
David Marshall who was contesting the by-election on a platform of total political
independence, the abolition of the ISC, and the dismantling of the British Naval
bases. The by-election, held on 15 July, resulted in a narrow win for Marshall
over his PAP opponent, Mahmud Awang.

Following the Anson defeat, Lee took steps to finally force the merger issue
with the Party's left. Realising that his numbers were relatively stronger in the
Assembly than in the Party at large, and hoping to extract maximum public
support for his struggle, Lee moved a motion of confidence in his own government
in the Assembly. This gave him the opportunity to discredit the left, going so far
as to make the fantastic allegation that the left was plotting with the British to
overthrow the PAP government. Lee, of course, did not believe such an
absurdity but he was desperate to whip up sentiment for his group in the invariable
Party split. In the all-night Assembly debate on the question of merger Lee
effectively forced the left to make a challenge for Party leadership and survived the vote by the narrowist of margins, with 26 of the 51 votes, to hold government.\textsuperscript{55}

Following the Assembly debate, the 13 PAP Assembly members who had abstained from the vote were expelled from the Party.\textsuperscript{56} Additionally, 14 PAP district secretaries were dismissed and charged with disloyalty to the Party. On 26 July the 13 Assembly people, the ‘Big Six’ trade unionists and their supporters formed a new party, the Barisan Sosialis (Socialist Front), with Lim Chin Siong as Secretary-General. This prompted a massive defection from the PAP, both of intermediate level leadership as well as the branches. The left had always dominated the branches and the second level leadership positions, providing the organisational links with the masses which the moderate-controlled CEC lacked. With the founding of the Barisan Sosialis (BS), 35 PAP branch committees resigned; 19 of the 23 paid organising secretaries of the Party defected; large numbers of cadres resigned; and many branches all but collapsed, 11 having less than 25 remaining members each and one with only 10.\textsuperscript{57} In 1962 only 20\% of the Party’s former members paid their subscriptions.\textsuperscript{58} Thus, although Lee held a precarious parliamentary majority, his Party was reduced to a mere shell of what it had been prior to the split. He would now have to contend with the left under radically changed circumstances. No longer could he rely on the elitist Party structure to insulate him from leftist forces. From here on it would be an open political struggle for state power. The problem for the left was that at the time of the split it was Lee’s group which retained that power, a fact which would prove decisive in the struggle.

**Implications of the Split for Government**

One of the immediate implications of the split for the PAP government was that the State Development Plan, 1961-1964 suddenly assumed even more importance than it already had. Lee’s government would be heavily reliant upon the Plan to
take effect and thereby increase his government’s electoral appeal. Not coincidently, from mid-1961 the implementation of the Plan rapidly gained momentum. After a very slow start in the first half of the year, by the end of 1961 M$85.78 million of the M$118.84 million, or 72%, provided for economic development for the year had actually been invested.59 The EDB had also been established in August and wasted no time in assuming its intended role.

A significant economic initiative taken by the government in the wake of the split was quick action on the advice of the United Nations Technical Advice Bureau’s inquiry submitted in mid-1961 into the feasibility of an iron and steel mill. The report recommended a more modest project than that initially mooted by Lee Kuan Yew, suggesting the establishment of a M$12 million, 60,000 tons annual capacity iron and steel mill. When overseas investors still shied away from the proposal, the government persuaded local merchants and bankers to raise 80% of the required capital, originally estimated at M$6.25 million, with the government putting up the remaining 20%. The resulting company, The National Iron and Steel Mill Ltd, was incorporated on 12 August 1961.60 This was the government’s first major direct investment in industry but it planned to take further initiatives in the future to get things moving. Another initiative taken by the government in mid 1961 was to advance a big, easy-term loan, at just 2.5% interest, to local shipbreaking company Sim Lim and Company equivalent to 80% of the price of buying the necessary vessels to begin breaking.61 It soon became apparent to National Iron and Steel Mill Ltd, that it could feasibly set up its own shipbreaking yard and it soon established the wholly-owned subsidiary National Shipbreakers.62

At the same time as the government set about to stimulate economic activity, industrial militance picked up dramatically. The split of the left from the PAP had the immediate effect of intensifying the struggle between it and the PAP leadership for control of the trade unions. By this time, the STUC Secretariat was divided between the Devan Nair-led group which was pro-PAP and the Lim Chin Siong-led group, with the latter in the ascendance.63
In an attempt to counter the left's dominance of organised labour, the PAP government de-registered the STUC and fostered the formation of the National Trades Union Congress (NTUC) to supersede it. The left broke away to form a separate Singapore Association of Trade Unions (SATU). The political struggle for control of the labour movement thereafter became intense, with both the left and the Devan-Nair-led factions liberally employing strike action as a means of demonstrating strength to attract membership. In 1961, there were 113 strikes and four lockouts involving 43,764 workers, the highest number since 1955.

The formation of the BS had important implications for the PAP's social base and ideology as well as for industrial relations. With the bulk of the Chinese working class, students and intellectuals joining the BS en masse, the electoral viability of the PAP was fragile. Not only had the Party lost much of its traditional support, the PAP had also shed those elements which had been the driving force behind the Party's formal ideological commitment to socialism. This was to prove important as the PAP envisaged using the state apparatus to help build support among the working class. The civil service's upper echelons were dominated by the relatively privileged English-educated who were hostile towards socialism and suspicious of the PAP. Dropping the pretense of socialism would do no harm in gaining their co-operation.

Upon taking office in 1959, the PAP abolished variable allowances for civil servants; introduced 'voluntary' weekend country project work for civil servants; imposed new disciplinary measures; and required senior civil servants to attend the Political Study Centre where they were educated about the government's objectives and plans. After the split, however, the PAP fully restored the variable allowances, in September 1961, in an attempt to improve its standing with civil servants. Since 1959, however, the understanding of the civil service of the PAP's policies, and hence sympathy for them, had been aided by the propaganda sessions of the Political Study Centre. Civil servants had also come to appreciate the political moderation of Lee's group within the PAP itself. Fur-
thermore, the government's policies had significantly enhanced the role of the bureaucracy in Singapore society by this time. First, the dissolution of the City Council had contributed to a transfer of power to the civil service. Second, the establishment of various parastatal bodies such as the HDB, EDB and the Public Utilities Board (PUB), which drew on the expertise of both public and private bureaucracies, afforded considerable power to bureaucrats. These bodies also adopted profit motive management principles which ideologically appealed to conservative civil servants. At the time of the split then, civil servants were already more favourably disposed to the Lee faction of the PAP.

The increased power of the public bureaucracy was accentuated in the years ahead. This was the consequence both of further state intervention in the economic sphere as well as the assumption of greater political functions by the bureaucracy. This latter tendency was in part the response of the PAP government to the fact of Party organisation being all but totally destroyed by the split. With few active Party members remaining after the split, and the PAP wary of entrusting newcomers with any responsibility, the machinery of government was entrusted with traditional Party functions. Hereafter, the Party organisation would exist to assist in the enactment of policy, the formation of which would be the exclusive domain of the government. The government was no longer to be responsible to the Party but the Party responsible to the government. The government itself would become indistinguishable from the state. Over the years, the Party would develop an elitist and authoritarian ideology to justify this separation of Party and state from open public accountability.

Referendum for Merger

Following the PAP split and the formation of the BS, the political fortunes of the PAP became even more dependent on satisfactorily negotiating merger. As already explained, the PAP was quite happy to keep the fighting with the BS
focused on this issue. On 24 August 1961, Lee and the Malayan Prime Minister, Tunku Abdul Rahman, reached a broad general agreement over the terms of Singapore's incorporation into the Federation. Accepting that in all likelihood merger would take place, the BS Secretary-General, Lim Chin Siong, declared at the Party's inaugural meeting on 17 September its unequivical support for a "... full and complete merger ..." and the party's desire to" ... join the Federation as equal fellow citizens ..." The statement amounted to an acceptance of the principle of merger but a rejection of the arrangement agreed to by Lee and the Tunku whereby Singapore citizens were denied the right to vote or stand in elections held in other states of the Federation. Objection was also being raised to the number of seats offered to Singapore in the Federal Parliament. The conditions agreed to reflected the concern of Malays in the Federation about possible Chinese political ascendancy. The BS argued that in so trying to appease the Federation government, the PAP had sold out on Singapore's interests.

Although the BS's criticism of the number of seats proposed for Singapore in the Federal Parliament aroused support from other parties (Ong Eng Guan's UPP and David Marshall's Workers' Party), its acceptance of the principle of merger and demand for Singapore to be incorporated on an equal basis with other non-Malay states, Penang and Malacca, was a political mistake. The PAP was quick to exploit the contradictions inherent in such a proposal. It pointed out that under Federation law, by which Singapore would be bound, as many as half of Singapore's voters (who were not born in Singapore) would be ineligible for citizenship and full political rights if 'complete merger' were effected. The BS soon withdrew its proposal that Singapore enter the Federation on the same basis as Penang and Malacca and replaced this with the demand for equal and automatic citizenship for Singaporeans. The likelihood of this was very remote, suggesting that the BS was not sincerely advocating merger but attempting to expose the PAP's position and generally frustrate the PAP's merger attempts.
The BS's original statement posed other problems for it in the ensuing debate. Only four days after the initial BS declaration of support for the principle of merger, Goh Keng Swee proposed a national referendum to settle the issue over the exact terms of Singapore's entry into the Federation. All debate thereafter was premised on the acceptance in principle of merger, thereby legitimising the concept itself, an effect not intended by the BS in the original statement. The government was able to argue in the Assembly on 16 March 1962 that since all parties agreed in principle to the idea of merger, Goh's proposed merger referendum need only include choices over the terms of merger, not its desirability. Following further public debate, on 6 July 1962, the Singapore National Referendum Bill was passed in the Assembly. This provided electors with a choice of three types of merger:

(a) The constitutional arrangements set out in Command Paper 33 of 1961 giving Singapore autonomy in labour and education.

(b) A complete and unconditional merger as a state on an equal basis with the other eleven states in accordance with the constitutional documents of the Federation of Malaya.

(c) Entry into Malaysia on terms no less favourable than the terms for the Borneo territories.

The government contended that choice 'A' reflected the PAP's position and choice 'B' the position of the BS. Choice 'C' was included at the request of the SPA. The choices were framed in such a way that there was little real alternative to proposal 'A'. The 'C' choice was not realistic since the terms for Borneo had not yet been worked out. The 'B' choice, originally mooted by the BS, had even come to be disowned by them because of the loss of citizenship and political rights implicated. The referendum was thus heavily loaded in favour of a resounding pro-PAP result.

In the lead-up to the referendum of 1 September 1962, the government conducted a remarkably comprehensive campaign. In view of the recent political
defeats and defections, a victory in the referendum was crucial to the
government's credibility. The government fully exploited the privileges of office
to saturate Singapore with propaganda in favour of proposal 'A'. With the press
already tamed to a significant extent, the government also dominated the
airwaves through the state-owned Radio Singapore, including a series of 12 nightly
broadcasts by Lee Kuan Yew between 13 September and 9 October 1961.80 Lee
divulged details of internal PAP struggles of the 1950s to whip up fear of the
existence and extent of the MCP threat in Singapore in an effort to discredit the
BS and enhance an 'A' vote. The Minister of Culture also pumped out volumes of
propaganda on the PAP's behalf. The campaign style of Lee in the referendum,
mirrored the future: popular support would be mobilised by the state rather than
the Party. As one PAP Minister reflected on the referendum campaign and
subsequent exercises: "In many ways, the PAP and the government machinery
have become one and the same".81

Predictably, the referendum produced an overwhelming vote of 71% in
favour of the White Paper proposal, choice 'A'.82 Given the nature of the
referendum and the way it was conducted, it is difficult to draw unqualified
conclusions about the government's popularity at the time. The subjective effects
on the government were clearly discernable however. Tactically the government
had outpointed the BS. The process by which public support had been mustered
held important lessons for the PAP which were not to be forgotten. The
referendum result injected new enthusiasm and confidence in the PAP - not just
confidence in negotiating with the Tunku now that the Party had the demonstrable
support of the electorate to affect a merger acceptable to the Federation
government, but confidence in its capacity to deal with the BS at home. Probably
for the first time the PAP felt it was genuinely making ground in the battle of
ideas. If this was so, it owed much to the PAP's bold exercise of state power for
Party objectives.
Lee Moves Against the Left

Lee wasted no time in spelling out the implications of the referendum result for the BS and the left. Just three days after the referendum he stated on radio:

Before September 1st, firmness would have been misinterpreted as fascist repression. After September 1st, I'm sure you will want me to do what is right for the security and well-being of all in Singapore and Malaysia.83

Subsequent to this statement, heightened repression of the left occurred. Though obviously pleased with the fact of the referendum victory, Lee was under no illusion that the PAP had surpassed the BS in electoral appeal.

The first major measure to curb the activities of the left after the referendum was to ban a proposed SATU conference. The proposed conference had been organised with the intention to formulate a programme "to consolidate and strengthen the left wing trade union movement in the State".84 Although there was no suggestion that the conference would be conducted outside constitutionally acceptable procedure, on 10 October the ISC declared that the conference could not take place. Amidst protests by the BS that legitimate opposition was being suppressed by undemocratic means, on 14 October Lee explained that the ban was necessary because the conference would be completely unacceptable to the Federation government. The PAP argued that it did not necessarily want to see the ban, but it was hamstrung by the priority of merger.85 Conveniently, the composition of the ISC afforded Lee the opportunity to distance himself from the ban. The extent to which the move reflected Lee's domestic political interests seemed, however, more than co-incidental.

Apart from the motive of repressing the BS, the above move was related to the government's general attempt to harass the SATU and promote the NTUC. Already on 26 October the government had initiated legal action against the SHBSA under the Trades Union Ordinance to "... show how a small but active group of Communist cadres and sympathisers were able to manipulate thousands of good and politically innocent workers through trade unions".86 At the same time, the PAP was granting legal recognition to unions which accepted or sought
government co-operation and assistance. The government boosted the organising strength of such unions through financial aid and manpower support to the NTUC, including the secondment of civil servants to the NTUC to help in the preparation of wage claims and negotiations.87

A more severe attack on the left was delivered by the PAP in early 1963 following fears that domestic opposition to merger might be enhanced by the position adopted by the Indonesian government. The Sukarno-led government, strongly influenced by the Communist Party of Indonesia (PKI), objected to the inclusion of the Borneo states in the Federation of Malaysia. Indonesian opposition to Borneo's incorporation escalated and on 20 January 1963 the policy of 'Confrontasi' (Confrontation) with Malaysia was officially announced.88 Understandably, this new context of the merger presented political opportunities for the PAP's opponents to exploit. For one thing, the trade embargo which would follow would bring hardship to Singapore. Lee's government, however, did not intend to tolerate any re-evaluation of the merger and took immediate steps to ensure that the political consequences for the PAP resulting from Indonesia's policy were minimised. This was simplified by the Malaysian government's interpretation of Singapore's domestic politics as now of the utmost importance to Malaysia's security.

The Tunku and Lee were particularly sensitive to any possibility of PKI/MCP collaboration, fearing that disturbances in Singapore could be whipped up in the event of Indonesian intervention in Northern Borneo. This, of course, would undermine the capacity of the British to retaliate due to extra pressure on security forces. The fact that the Naval Base and the harbour were dominated by BS-controlled unions was also seen as a potential threat to any British military response from Singapore.89 The policy of Confrontation had thus deemed Singapore's domestic politics a matter of external security for the Malayan government. This provided the PAP with the pretext to consolidate its own political position by purging its opponents. Starting on 2 February 1963, the ISC
ordered the arrest of 111 persons in Singapore by the Special Branch in Operation Cold Store. The arrests cut a swathe through the BS's top level leadership. Those arrested included 24 executives of the BS; seven people belonging to parties associated with the BS; 50 executives of 13 SATU trade unions; five left wing journalists; and 11 students from the Nanyang University. Amongst those detained were Lim Chin Siong, Sandra Woodhull, James and Dominic Puthucheary and Fong Swee Suan. It was not long before even the Party's second-echelon leaders were detained. On 22 March 1963, BS nominal Chairman Dr Lee led a protest march against the February detentions. This resulted in the arrest of 12 more people who were not brought to trial until 29 August.

The obliteration of the BS's leadership had precisely the desired effect. Tension in Singapore over the impending merger soon waned. Moreover, Lee's improved domestic political position strengthened his negotiating position in the final merger talks. The result was that, amongst other things, Lee succeeded in getting agreement to a common market written into the Malaysia Agreement. Singapore would also be allowed to retain considerable control over finance, labour and education. Lee's negotiating strength, in turn, obviously had positive implications for the PAP's domestic popularity.

Despite the setbacks suffered by the BS, it had not totally given up hope of frustrating the merger. On 25 July, the government's motion in the Assembly to elect 15 members to represent Singapore in the Malaysian Parliament was blocked by the BS. The BS argued that State Elections should be held prior to sending representatives to the Federal Parliament, obviously hoping that the electoral defeat of the PAP would see an end to merger. Lee was, understandably, not receptive to the BS's request but instead declared de facto Independence for Singapore on 31 August 1963. On 16 September Malaysia was officially promulgated. Meanwhile, on 12 September, the PAP declared that a General Election would be held on 21 September, in just nine days' time. Significantly, this would be after, and not before, the fact of merger.
The 1963 Election

PAP attempts to obstruct the BS's election effort were extensive. Apart from the extremely short notice of the election, the government ordered festivities during the nine-day period before the election to mark the proclamation of Malaysia. This thereby reduced the effective electioneering days for the BS to just four and a half. There were other impediments however. Printing services were busy with orders for the Malaysia festivities and had also been subjected to government pressure not to publish BS literature. By contrast, the PAP had all its literature ready for circulation.97 The BS also had problems in obtaining public licenses for street banners and public meetings due to uncharacteristic bureaucratic delays.98 Whereas the BS had been caught on the hop with the early election and subsequently frustrated in its limited campaign, Lee had been exploiting his office to conduct tours of all 51 constituencies from November 1962 up until September 1963 under the guise of government business. These tours were blatant attempts to drum up support for the PAP.99

Not prone to complacency, on the eve of the election the government took further steps to incapacitate its opponents. On 28 August, deregistration notices were served on seven unions on the alleged grounds that funds were being channelled to political activities.100 Then, on 9 September, just three days before nomination day, the bank accounts of the three largest left unions were frozen by the Registrar of Trade Unions to ensure that their funds could not be used by the BS in the election.101

The 1963 election resulted in victory for the PAP. It won 37 seats to the BS's 13, though the PAP had secured only 46.9% of the total vote compared to the BS's 33.3%.102 The BS's defeat was the product of various factors. Without question, the PAP's systematic attack on the labour movement since the split and the wholesale obliteration of BS leadership impaired the Party's electoral performance. PAP control of state machinery also gave the government a considerable advantage in the dissemination of propaganda. The government's
opponents also compounded their problems through vote splitting.\textsuperscript{103} However these factors alone do not account for the magnitude of the PAP victory. With its markedly changed image, the PAP had not only wooed the English-educated who had previously supported the SPA and the Malays who had backed UMNO,\textsuperscript{104} but it had obviously achieved significant success in its appeal to the Chinese-educated since the BS vote was down considerably. By September 1963 the government had chalked up some positive achievements which probably accounted for a good part of its electoral success, especially amongst the Chinese-educated working class.

Most impressive of the government's achievements by the 1963 election was the spectacular construction of public housing. The HDB had completed 22,336 new apartments in just three years, providing accommodation for approximately 100,000 people.\textsuperscript{105} Increased expenditure on education had also brought positive results so that by 1963 there were sufficient schools to provide a place at primary school for every child in Singapore.\textsuperscript{106} The PAP's economic management record in reversing a significant Treasury deficit in 1959 into a M$400 million surplus by 1963 was impressive. In terms of the State Development Plan, 1961-1964, rapid progress had been made in boosting infrastructure, especially on the Jurong project which provided a visible demonstration of the government's commitment to industrial development. Finally, the achievement of merger by the Lee government represented a major political victory, one which enhanced the PAP's standing in the electorate. It also represented a fillip to the government's industrial plans in view of the provisions for a common market which Lee had drawn into the merger agreement.

\textbf{Aftermath of the 1963 Election}

Assured of office for five years, the PAP acted with renewed vigour and confidence in dealing with the left after the 1963 election. The student and labour movements quickly came under pressure. The intent, of course, was to cripple the BS even further to cement the PAP in government, not just for the
next five years but well beyond. Shortly after the election, the government revoked the citizenship of Tan Lark Sye, the founder of the Nanyang University and contributor of substantial funds to the BS election campaign in 1963. Students from the Nanyang University, whose guild of graduates had also supported the BS campaign, were soon harassed too.\[107\]

Moves against left-controlled unions followed in early October when SATU attempted to challenge the government’s notices served on seven unions to show cause why they should not be deregistered. On 8 October, a two-day national strike was called which was to involve 30 SATU unions. The government threatened strong action against any strike or student support of union militance. Response to SATU’s call was disappointing. However, regardless of the limited effect of the strike, Lee was in no mood to tolerate dissent. Following Lee’s contention that recent civil disturbances amounted to a "communist plot to create tension and unrest in the state",\[108\] 17 SATU union leaders were arrested under the Preservation of Public Security Ordinance.\[109\] Those arrested included three key BS Assembly people, the Party’s Organising Secretary and the editor of the BS newspaper, Plebian.\[110\] Deregistration of the seven unions thus proceeded.\[111\] The PAP also dissolved the BS-dominated rural associations and hawker organisations, deregistered more SATU unions and encouraged employers to dismiss BS trade union cadres.\[112\] Within just weeks of the 1963 election then, the PAP had practically destroyed the last vestiges of BS leadership. It had gone a long way towards denying the BS any possibility of constitutionally challenging the PAP’s supremacy. The PAP objective was crystal clear by now – the creation of a state in which only one party would ever enjoy the right to govern, that is, the PAP. This would be arrived at by systematically merging state and Party in such a way that both would ensure mutual reinforcement and identification. This would not only involve further concrete changes to the Party’s organisation but the promotion of an ideological acceptance of the paternalism and authoritarianism characterising such changes.
In line with the government's intention of merging Party and state, in December 1963 the PAP announced that Citizens' Consultative Committees (CCCs) would be established in each of Singapore's 51 constituencies. Comprised of representatives of the various non-elected Street Committees within the constituencies, these CCCs were supposedly of dual purpose: to clarify and explain government policy and to receive grassroots complaints and requests. Whilst the stated objectives of the CCCs were praiseworthy, the fact that Street Committee members would not be elected but appointed by the Permanent Secretary in the Prime Minister's Office raised doubts about the sincerity of the government's receipt of complaints. More likely, the intention of the CCCs was to ensure that political dissent was neutralised or minimised: first, by favourably presenting government policy; and second, by directing dissent through the PAP-controlled state. This direct link with the masses, without the partisan stigma of Party identification (yet certainly with PAP influence and control) had the potential to further circumvent the capacity of other political parties to harness the dissent of interest groups. Though the first of these CCCs did not become operational until January 1965, the announcement in December 1963 signified a new degree of sophistication in the PAP's approach to the task of securing its continued reproduction as the sole party of government. Whilst these and other measures did little to enhance Singapore's international reputation as a political democracy, they had a positive effect in attracting capital to Singapore. This was to increasingly become the rationale for the government's quelling of political opposition and its own entrenchment.

Manufacturing Development, 1959-1963

Having outlined the unfolding of the political struggle in the early years of self-government and establishing the significance of such developments for Singapore's industrial strategy, it remains to examine the accompanied concrete changes in industry. Here we see how investors responded to the government's industrial
strategy and gain an insight into some of the constraints and opportunities perceived by investors as a result of government policy and the general dynamics of Singapore's political economy. The discussion below also identifies some of the more important government initiatives adopted in reaction to these perceptions.

Whilst the period 1959-1963 was one of great political turmoil and activity, actual progress in the manufacturing sector was less dynamic. From a very small base, gross output increased from $398.9 million to $829.9 million, or 107.8%, and value-added rose by $102.6 million or 95.2%, from $142.8 million to $245.4 million. Probably of most significance, the level of employment provided by the sector rose only marginally from 25,607 in 1959 to 41,220 in 1963, an increase of 15,613. This fell well short of the estimated requirement of 9,800 per year until 1970 to achieve full employment. The consolation was that at least Singapore's population growth had dropped to 2.5% by 1963 after being 4% in 1959. Even so, at the end of 1963 Singapore's unemployment rate had risen to 14.0% after being 13.2% in 1959 (see Table 1 in Appendix).

Despite the failure of the manufacturing sector to provide the sort of ambitious growth hoped for, this sector did undergo some significant structural changes between 1959 and 1963. Some of those industries which were dominant contributors to total manufacturing output and value-added in 1959 were either joined or surpassed by a new group of industries. The dominant industries in 1959 included food, beverages, printing and publishing, and electrical machinery, collectively accounting for 40.2% of gross manufacturing output and 49.5% of total manufacturing value-added. By the end of 1963, however, these shares had dropped to 32.7% and 34.7% respectively. A group of industries had emerged: tobacco, wood and cork products, metal products, and chemicals and petroleum products. Their collective share of gross manufacturing output rose from 32.4% to 42.6% and their share of total manufacturing value-added from 21.9% to 42.6% between 1959 and 1963.
The growth of the tobacco industry owed much to the indirect protection it enjoyed following the introduction in 1960 of differential import duties on tobacco and cigarettes. The metal products industry and the wood and cork products industry expanded mainly due to the capital investment programmes of the HDB and EDB which boosted building and construction. All these industries were primarily driven by the demands of domestic markets. The chemicals, chemical and petroleum products industry, which increased its share of gross output and value-added from 14.1% to 26.4% and 6.6% to 13.4% respectively, had also based its growth on the domestic market though its exports were significant too. The world's leading petroleum refining companies had invested in Singapore because of its strategic position in a region which comprised rapidly expanding markets. The fast growth of this industry was the high point of Singapore's industrial expansion between 1959 and 1963 but, owing to its characteristically high capital-intensity and low labour-intensity, it was not surprising that the manufacturing sector could boast only modest increased employment opportunities.

Despite the failure of the manufacturing sector to achieve the desired growth, Singapore's policy makers were nevertheless encouraged by the trend of private capital investment in 1963, particularly that of pioneer companies. Through the special incentives offered in 1959, pioneer companies were expected to provide the impetus required to broaden the base and increase the level of manufacturing activity. Initial response by capital had been very poor, however. By the end of 1962, pioneer status had been granted to just 24 projects with a subscribed capital of $68 million employing 2,261. In 1963, however, things began to pick up. By June 1963 the number of new industrial projects had increased to 42, involving an estimated subscribed capital of $163 million. By the end of 1963, the number of pioneer firms had risen dramatically to 113 with an estimated subscribed capital of $233 million, of which about 56% was to come from locally-based capital. This sharp increase in investment commitments in
the second half of 1963 reflected the expectation of a common market which was written into the merger agreement between Singapore and Malaya. It also reflected the greater degree of business confidence in view of the PAP's resounding electoral victory in September and the Party's clear commitment to curbing labour militance and wage rises.

Table 4: Relative Shares of Local and Foreign Capital in Pioneer Firms in Production at end of 1963 ($'000)

<table>
<thead>
<tr>
<th>Industry Group</th>
<th>Total Subscribed Capital</th>
<th>Local</th>
<th>Foreign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food &amp; Beverages</td>
<td>7,462</td>
<td>5,613</td>
<td>1,849</td>
</tr>
<tr>
<td>Textiles, Garments &amp; Leather</td>
<td>2,164</td>
<td>535</td>
<td>1,629</td>
</tr>
<tr>
<td>Wood &amp; Paper Products</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rubber Products</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Chemicals &amp; Chemical Products</td>
<td>990</td>
<td>666</td>
<td>324</td>
</tr>
<tr>
<td>Petroleum &amp; Petroleum Products</td>
<td>24,500</td>
<td>5,500</td>
<td>19,000</td>
</tr>
<tr>
<td>Non-Metallic Mineral Products</td>
<td>3,600</td>
<td>1,200</td>
<td>2,400</td>
</tr>
<tr>
<td>Metals &amp; Engineering</td>
<td>12,058</td>
<td>10,266</td>
<td>1,792</td>
</tr>
<tr>
<td>Electrical Products</td>
<td>200</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>600</td>
<td>510</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>51,574</strong></td>
<td><strong>24,290</strong></td>
<td><strong>27,284</strong></td>
</tr>
</tbody>
</table>

Percentage of Local Capital

All Pioneer Firms in Production 47.1%
Excluding Petroleum & Petroleum Products 69.4%


As is indicated in Table 4 above, foreign-based capital accounted for a greater percentage than locally-based capital of the total capital invested in pioneer firms actually in production at the end of 1963, with 52.9% compared to 47.1%. As is also pointed out, however, if the heavily foreign-dominated
petroleum and petroleum products industry is excluded, then locally-based capital provided as much as 69.4% of total subscribed capital of firms in production. Foreign-based capital was also dominant in those firms engaged in textiles, garments and leather and the non-metallic mineral products industries (as well as the very small electrical products industry). In the remaining industry groups locally-based capital was relatively strongly represented. Overall, then, by the end of 1963 the development of pioneer industries had involved roughly equal participation from domestic-based and foreign-based capital.

Table 5: Foreign Investment in Pioneer Industries at end of 1963

<table>
<thead>
<tr>
<th>Country of Origin</th>
<th>No. of Firms</th>
<th>Capital Subscribed ($'000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>6</td>
<td>2,320</td>
</tr>
<tr>
<td>Hongkong</td>
<td>19</td>
<td>8,000</td>
</tr>
<tr>
<td>Italy</td>
<td>1</td>
<td>370</td>
</tr>
<tr>
<td>Japan</td>
<td>22</td>
<td>27,230</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>2</td>
<td>2,500</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1</td>
<td>250</td>
</tr>
<tr>
<td>Sweden</td>
<td>1</td>
<td>3,200</td>
</tr>
<tr>
<td>Switzerland</td>
<td>3</td>
<td>5,300</td>
</tr>
<tr>
<td>Taiwan</td>
<td>4</td>
<td>2,210</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>5</td>
<td>3,680</td>
</tr>
<tr>
<td>United States</td>
<td>3</td>
<td>18,300</td>
</tr>
<tr>
<td>International</td>
<td>3</td>
<td>15,200</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
<td><strong>88,560</strong></td>
</tr>
</tbody>
</table>


Data on foreign investment in those firms granted pioneer status (see Table 5 above) indicate that by the end of 1963 there was a large number of different foreign investors in Singapore. The leading investor, however, was Japanese-based capital with 22 pioneer firms and a subscribed capital of $27,230,000. These
investments, many of which were joint ventures with locally-based capital, ranged across many industry groups including food, ferrous and non-ferrous metals, chemical products, rubber products, transport equipment and paper products. The relatively high level of Japanese-based capital was primarily motivated by the desire to retain markets already established in Singapore which the Japanese saw as threatened by Singapore's import substitution plans and associated tariff barriers. The proposed common market also offered new expansion possibilities. More than any other group of investors, the Japanese gave the PAP confidence that the lure of a common market would be the basis for a successful and rapid industrialisation programme.

Of the remaining investors, United States-based capital was the next most significant subscriber with $18,000,000 from just three firms. This reflected the heavy commitment by Mobil to refine petroleum in Singapore. Hong Kong-based capital followed with a subscription of $8,000,000 from 19 different firms, mainly small labour-intensive operations, especially in textiles.

By the end of 1963, capital had been subscribed to a range of manufacturing operations such as oil refining, a steel mill, cement plants, textile mills, plywood and veneer factories, a modern shipyard and a number of light industrial products, most of which were heavily geared towards production for the Singapore and Malaysia markets. It was hoped that herein lay the foundation of the import-substitution strategy in keeping with the objectives of the State Development Plan, 1961-1964. The problem in the short term, however, was that the number of pioneer firms actually engaged in production was still very low, being 29 at the end of 1963 (see Table 6 below). At this stage, pioneer firms accounted for just 12% of all manufacturing value-added, 10% of output and just 6% of all employment for the sector. It was estimated, however, that when all 113 pioneer firms were in production, direct employment would increase to 18,000 (see Table 6).
Table 6: Pioneer Firms by Industry Groups as on 31 December 1963.

<table>
<thead>
<tr>
<th>Industry Group</th>
<th>No. of Firms that have Commenced Production</th>
<th>Total No. of Firms in Production in 1963</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Pioneer Firms</td>
<td>Firms in Production by 1962</td>
</tr>
<tr>
<td>Food &amp; Beverages</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>Textiles, Garments &amp; Leather</td>
<td>24</td>
<td>-</td>
</tr>
<tr>
<td>Wool &amp; Paper Products</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Rubber Products</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Chemicals &amp; Chemical Products</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>Petroleum &amp; Petroleum Products</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Non-Metallic Mineral Products</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Metals &amp; Engineering</td>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>Electrical Products</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>14</td>
</tr>
</tbody>
</table>


Significant progress was also made towards the implementation of the State Development Plan, 1961–1964. As Table 7 shows, total public expenditure under the Plan for the three years was $480.32 million, representing 73.8% of the original target for the period. Given the slow start in implementing the Plan, this was quite impressive. Expenditure on economic development represented 74.9% of the target. Actual expenditure on electricity and the Jurong project exceeded original estimates and all of the $100 million provided for the EDB had been utilised. Progress on the Jurong project was such that by the end of 1963, 1,800 acres of land had been prepared, 24 million cubic yards being moved in the process. At that time, sites had been given to 47 industrial projects, of which only two were in production.
### Table 7: Development Expenditure, 1961–1963

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Development</td>
<td>118.84</td>
<td>85.78</td>
<td>122.69</td>
<td>88.73</td>
<td>140.11</td>
<td>111.52</td>
<td>381.94</td>
<td>286.03</td>
<td>74.9</td>
</tr>
<tr>
<td>Social Development</td>
<td>84.09</td>
<td>48.45</td>
<td>93.84</td>
<td>63.60</td>
<td>80.47</td>
<td>72.06</td>
<td>258.40</td>
<td>184.11</td>
<td>71.3</td>
</tr>
<tr>
<td>Public Administration</td>
<td>3.93</td>
<td>1.74</td>
<td>3.97</td>
<td>1.94</td>
<td>2.78</td>
<td>6.50</td>
<td>10.68</td>
<td>10.18</td>
<td>93.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>206.86</strong></td>
<td><strong>135.97</strong></td>
<td><strong>220.50</strong></td>
<td><strong>154.27</strong></td>
<td><strong>223.66</strong></td>
<td><strong>190.08</strong></td>
<td><strong>651.02</strong></td>
<td><strong>480.32</strong></td>
<td><strong>73.8</strong></td>
</tr>
</tbody>
</table>

Actual expenditure only exceeded Plan provisions for housing in the Services Sector between 1961 and 1963. This, however, was by far the largest portion of estimated expenditure anyway. A total of $118.30 million was channelled into housing during the period, enabling the HDB to build 29,635 units, against the target of 26,521.122

### Table 8: Public Investments in Manufacturing in 1963

<table>
<thead>
<tr>
<th>Company</th>
<th>Govt.</th>
<th>Foreign</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar Industry of Singapore Ltd</td>
<td>40.0%</td>
<td>23.5%</td>
<td>36.5%</td>
</tr>
<tr>
<td>National Grain Elevator Ltd</td>
<td>69.2%</td>
<td>10.8%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Singapore Textile Industries Ltd</td>
<td>14.1%</td>
<td>17.9%</td>
<td>68.0%</td>
</tr>
<tr>
<td>United Industrial Corporation Ltd</td>
<td>16.5%</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Singapore Polymer Corporation Pte Ltd</td>
<td>37.0%</td>
<td>20.1%</td>
<td>42.9%</td>
</tr>
<tr>
<td>Jurong Shipyard Ltd</td>
<td>10.2%</td>
<td>12.7%</td>
<td>77.1%</td>
</tr>
<tr>
<td>Ceramics (M) Pte. Ltd</td>
<td>14.9%</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>


Apart from the infrastructural improvements, the Singapore government also increased its direct stake in the industrial sector by the end of 1963. In April 1963, the Jurong Shipyard was incorporated. This was a joint-venture of the Singapore government (49%) and the Japanese-based Ishikawajima-Harima Heavy Industries Company Ltd. (51%). Initial authorised capital for the project was $30 million.123 The purpose of the government's involvement was to stimulate the shipbuilding and shiprepairing industry, one with large overheads and long gestation periods and therefore, unlikely to develop spontaneously out of local capital. This industry was also important to Singapore's development as an entrepot port and promised good growth prospects. Before long, this company would become sufficiently profitable to be an important source of government
revenue and an example of the scope for public investment in Singapore's industrialisation. In all, seven public enterprises in manufacturing were established in 1963, essentially out of anticipation of a large home market. Table 8 above details these investments. These seven investments took the government's total to 11 by the end of 1963. This represented the start of an important trend and reflected the government's thinking that the question of industrial structure should not be left solely to the market - especially given the absence of a domestic industrial bourgeoisie of any consequence.

Conclusion

The period between 1959 and September 1963 when Singapore entered the Federation of Malaysia was marked by profound changes. None was more profound than the political change which in turn decisively influenced the direction of social and economic change. Not only did the PAP split, and thereafter have to contend with the BS opposition, but a whole new state structure emerged through which the PAP attempted to institutionalise its own dominance and reproduction. As we have seen, this involved more than the blatant repression of political opposition and the labour movement. It also involved the merging of state and Party. Such a relationship was expected to generate ideological justification for the repression of opposition and the PAP's dominance. In the future it would also provide the government with the capacity to implement its industrial programme with great co-ordination of the factors of production and minimal opposition from organised labour.

As has been explained, the industrial programme initiated by the PAP was in response to urgent social problems. Once the PAP split, however, the programme assumed greater political significance and various measures were adopted to accelerate the programme's implementation. Given that by now the PAP had successfully secured its electoral survival by a combination of labour control and improved material conditions for the working class, the basis for the emergence of
a paternalistic authoritarian state had been laid. As Singapore entered Malaysia, there was some evidence to suggest that industrial capital was increasingly appreciative of the nature of the Singapore state and optimistic about the prospects of a common market. There were, of course, many unsolved political and economic questions to be faced, but for the first time in Singapore's history there was a real possibility of the establishment of a significant industrial sector.
FOOTNOTES


2. Release was conditional on signed statements of disassociation with the Malayan Communist Party.


5. ibid., p.16.

6. This control was consolidated in 1957 following the Labour Front coalition government's decision to establish the Community Recreation Division to supervise the centres' recreational activities. This severed the Department of Social Welfare's links with community centres. See ibid., p.17.

7. ibid., p.21.

8. The main function of the IAC, of which there were two by 1962, were to register and certify collective agreements, to interpret collective agreements or awards, to vary the terms outlined in collective agreements or awards, to play a conciliatory role and to refer disputes arising from the administration of collective agreements to referees. See Pang Eng Fong, "Changing Patterns of Industrial Relations in Singapore", in Peter S.J. Chen and Hans-Dieter Evers (editors), *Studies in ASEAN Sociology*, Singapore: Chopmen Enterprises, 1978, pp. 425-426.


11. Although the Bill passed the Legislative Assembly, it did not receive the assent of the Head of State. This conveniently defused the issue.


14. For example, see "Warning To Labour", *Far Eastern Economic Review*, 17.11.60, pp.339-340.

15. ibid., p.340.


22. ibid., p.21.


25. This would make Singapore's factory space cheaper than that of comparable industrial space in Japan, Hong Kong, Taiwan or the Philippines. See Joseph Z. Reday, "What Does Singapore Offer Investors?" Far Eastern Economic Review, 22.11.62, p.419.

26. It was created in 1960 to build low-cost public housing and carry out slum clearance and urban renewal.

27. This was later raised to M$200 million. See Willard A. Hanna, "Go-Ahead At Goh's Folly", American Universities Field Staff Report, Southeast Asia Series, XII (10), 1964, p.1.


35. ibid.


37. A joint statement signed by Lim Chin Siong, Fong Swee Suan and Sandra Woodhull declared: "The PAP has a very considerable task before it, and its policies as set out in its election manifesto are fundamentally correct". As quoted in ibid.

38. They were S.V. Lingam and Ng Teng Kian.


40. Ong won 7,747 votes and Jek Yuen Thong (PAP) just 2,820.

41. See Pang 1971, pp.9-10.

42. Shee 1971, p.47.

43. ibid., p.11.

44. The Tunku was addressing the Foreign Correspondents' Association in Singapore. See Milton E. Osborne, *Singapore and Malaysia*, Data Paper Number 53, Southeast Asia Program, Department of Asian Studies, Cornell University, Ithaca, New York, July 1974, p.15.

45. Lee contended that the BS's argument about how the ISC represented an attack on democratic rights was of no concern to voters in the Hong Lim by-election. Rather, they were concerned about jobs and better and cheaper housing. See Lee Kuan Yew, *Battle For Merger*, Singapore, 1961, pp.60-61.

46. The 'Trade Union Six' or 'Big Six' comprised Lim Chin Siong, Fong Swee Suan, Sandra Woodhull, Dominic Puthucheary, S.T. Bani and Jamit Singh.


49. Pang, 1971, p.11.

50. ibid., p.12.

51. On the same day, 14 July, three political secretaries who opposed merger challenged Lee Kuan Yew to sack them. This Lee did the following day. See ibid.

52. ibid.

53. Marshall won by 546 votes, with 3,598 votes compared to Awang's 3,052.


56. The 13 included five party secretaries. See ibid.


58. See ibid., p.14.


61. ibid., pp.9-10.

62. ibid., p.10.


64. C.V. Devan Nair and Che' Awang, the former STUC and PAP candidate for the Anson by-election, were the leaders of the NTUC. See Pang, 1971, p.16.


68. Leifer, 1964, p.110.

69. Therefore, the PAP's 26 Assembly members were appointed chairmen of their respective Party branches. See Pang, 1971, p.15.


71. Pang, 1971, p.16.


73. Singapore was being offered 15 of the 159 seats although its population should have entitled it to about 30 seats. See Nancy McHenry Fletcher, The Separation of Singapore From Malaysia, Southeast Asia Program, Department of Asian Studies, Cornell University, Ithaca, New York, Data Paper: Number 53, July 1969, p.29. The BS was joined by the UPP and the Workers' Party in condemning the lack of proportional representation. See Leifer, 1964, p.110.

74. See Osborne, 1964, p.1 where he discusses the political significance of Singapore's predominantly Chinese population for merger.

75. BS Chairman, Dr Lee Siew Choh, stated: "Our stand is that every Singapore citizen should automatically become a Federal citizen on merger. That is on merger, all 624,000 Singapore citizens, irrespective of whether they were born in Singapore, India, China or Timbuctoo, will automatically (sic) become 624,000 Federal citizens". As quoted in Shee, 1971, p.64.
76. Leifer, 1964, p.111 suggests that the BS's objections to merger were designed to sabotage and not improve it.


78. Pang, 1971, p.16.

79. The PAP exploited this 'complete merger' proposal to the fullest in attempting to discredit the BS. It argued that other drawbacks which would follow from a 'Penang-type merger' included the introduction of the Federation's discriminatory four-to-one ratio in the civil service and a number of other measures would negatively affect English-educated civil servants as well as Chinese educationalists and business people. See Mohamed Noordin Sopiee, *From Malayan Union to Singapore Separation*, Kuala Lumpur: Penerbit Universiti Malay, 1974, p.162.

80. See Lee, 1961, which comprises the transcripts of the radio talks.


82. 561,599 (90%) of the 624,000 registered electors voted. Of these, 397,626 voted for 'A', 9,422 for 'B', 7,911 for 'C', and 144,077 cast blank votes. See Pang, 1971, p.16.


85. ibid.


90. Between 2 February and 8 February, 115 people were arrested. See ibid., p.349.

91. ibid. Also see Fong, 1980, p.128.


95. The vote was locked at 23 to 23. See Fong, 1980, p.133.

96. ibid., p.134.

97. According to the BS, the PAP's foreknowledge of an early election enabled it to have its material published in Hong Kong three months earlier. See Pang 1971, p.17.

99. Lee rationalised these tours as necessary "to ensure that the performance of the Singapore Government is kept up to the best possible level of achievement". See Pang, 1971, p.17.

100. Fong 1980, p.144.


102. For a full account of election results see Fong, 1980, pp.208-213.

103. The United People's Party (UPP), led by Ong Eng Guan, whilst winning just one of the 46 seats it contested and securing just 8% of the total vote, was indirectly responsible for the PAP winning seats in seven constituencies against serious BS challenges. See Leifer, 1964, p.116. Pang, 1969, p.154 argues that some sort of alliance or arrangement between the UPP and the BS would have served both parties well since in 21 of the 51 constituencies the combined UPP/BS vote exceeded that of the PAP.

104. The Singapore Alliance, an electoral amalgamation of the SPA, UMNO, MCA and MIC, obtained just 8% of the total vote and failed to win a single seat. In only three constituencies did the Singapore Alliance indirectly account for the PAP losing seats. See Leifer, 1964, pp.115-116.


111. See Fong, 1980, p.144.


114. ibid.

115. As calculated from Tables 3 and 4 in Appendix.

116. As calculated from Tables 3 and 4 in Appendix.


CHAPTER 5


Introduction

With the long-standing PAP objective of political merger with Malaya realised, the Singapore government looked forward to the economic union of the Malaysian states. The prospect of a market of 11 million people and the likelihood of greater political stability was expected to provide additional attraction to capital investing in Singapore, a site by now boasting quality social and physical infrastructure. Merger, however, failed to fulfil the expectations of either the Singapore or Malaysia governments. Instead, a series of political conflicts culminated in Singapore's separation from Malaysia in August 1965, leading to a fundamental change in the direction of its industrial policies.

The collapse of merger between Singapore and Malaya was the consequence of a complex of problems. From the outset, the relationship was characterised by certain fundamental conflicts of economic and political interest. In themselves, these problems were not insurmountable. However, the attempt to resolve these contradictions was seriously handicapped by the mistrust and suspicion between the two governments which were born out of the embittered final negotiations over merger. An additional problem was that the perceived function of merger was not the same for both governments. This meant that the urgency of any problem was not always equally appreciated. In particular, the Tunku had no real commitment to or concern about Lee's import-substitution industrialisation programme. Furthermore, the PAP's perception of Singapore's importance to the Federation was not shared by the Alliance government in Kuala Lumpur. The assumption that its economic importance to the Federation entitled it to a special political relationship with the Federal government was never accepted by the Tunku. Moreover, this assumption inevitably incurred the wrath of the Malayan
Chinese Association (MCA) which fully comprehended the threat posed to it by such a view.¹

Even before separation, the various difficulties of merger had manifested in economic relations between Singapore and Malaya. Thus, economic co-operation gave way to competition. Not surprisingly then, capital’s initial enthusiasm for the prospect of an expanded market was followed by justified scepticism.

The failure of merger represented devastation for the PAP’s economic strategy. It also constituted a grave political failing on its part since so much of its political credibility had been invested in merger. The latter was less problematic in view of the declining potency of political opponents in Singapore. The economic dilemma, however, cannot be under-stated. The apparent loss of any hope of a large common market would certainly undermine the PAP’s efforts to attract sufficient capital to make a success of its strategy of import-substitution industrialisation. Needless to say, the collapse of this strategy and the failure to address the serious level of unemployment would in turn adversely effect the PAP’s political fortunes. The collapse of merger therefore precipitated a whole new context within which industrial policy would be decided. A radical change in direction soon resulted.

**Background to Merger**

In contrast with negotiations over political responsibilities and rights, reaching agreement over financial and economic relationships between the Singapore and Federal governments proved an arduous and, ultimately, divisive process.² The difficulties encountered in these negotiations not only contributed to the spirit of mistrust which plagued inter-governmental relations from the time of Malaysia’s birth, they also foreshadowed conflicts of interest which would later assume greater significance.

Whereas for the PAP merger was primarily of importance to its industrial programme, for the Malayan government it was essentially a means of securing its
own political security by more direct control over Singapore and its left wing. Apart from this difference in perspective, there were more concrete reasons for the reluctance of the Federal government to be drawn into any detailed agreement on a common market. So long as Singapore manufacturers enjoyed the duty-free import of raw materials by virtue of the island's entrepot port status, as well as cheaper labour costs, it was unlikely that the removal of tariff walls would be to the benefit of manufacturers in Malaya. The PAP, of course, was reluctant to sacrifice the duty-free status of its port since its economy was so dependent upon this trade in the short term. A compounding difficulty in negotiations over a common market was that the Alliance government lacked any comparable long term vision of economic goals or strategy to that of the PAP.

Negotiations over financial relations also encountered problems. In essence, Singapore sought to secure a far greater degree of autonomy over its finances than the Federal government was prepared to accept. The PAP argued that its own programmes in housing, industry, education and welfare necessitated considerable revenue. For its part, the Federal government was determined that Singapore make a substantial contribution in revenue in view of the services it would receive. Furthermore, it was keen to see that Singapore's prosperity strengthened the Federal government's capacity to promote balanced economic growth throughout the Federation.

The PAP's success in eventually forcing an agreement on the common market was due to a number of factors. However, Lee's success in convincing the Tunku that a settlement on revenue would be enhanced by an undertaking on the common market was decisive. The exploitation by the PAP of a report by the IBRD, which had been requested by the Federal government assisted Lee in this approach. The Reuff Report, as it was known, added weight to the PAP's argument for a common market and, even though the Federal government was less than happy with its recommendations, it became the basis of subsequent negotiations. Once discussions focused on the question of a possible economic union, the
greater expertise and clearer economic vision of the PAP worked in its favour. Lee also exploited the growing political opposition by the Indonesian government to the formation of Malaysia. He knew that the Tunku would be receptive to compromise rather than allow opponents of the Federation to capitalise on public disclosures of differences between the Federal and Singapore governments.⁴

Whilst Lee was driving a hard bargain in the merger negotiations, matters were further complicated by public clashes between the PAP and the MCA. Attempts by the MCA to ‘revitalise’ its Singapore branch were not welcomed by the PAP. Such moves were seen as an attempt to undermine the PAP’s domestic relations with business and to mar relations between Lee and the Tunku. Lee appealed to the Tunku to "sort them out", that is, the MCA.⁵ The Tunku, however, dismissed Lee’s claim that UMNO’s relations with the MCA were in any way problematic to merger.⁶ There was no doubt that even before merger the PAP and MCA saw each other as direct threats to their respective political fortunes in the new Federation.

Naturally the tensions created by the caustic public exchanges between the PAP and the MCA and Federal government did not aid the negotiations over financial arrangements. Lee’s refusal to submit to the Tunku’s demands that Singapore pay the Federal government $50 million out of its healthy reserves to assist in the development of the Borneo territories also added to ill-feeling between the two governments.

The final agreement, arrived at on 5 July 1963, resulted in a compromise between the parties. Singapore agreed to pay 40% of its national income from taxes (equivalent to 27% of its total revenue) to the Federal government as its contribution to pan-Malaysian expenses. The Federal government obviously hoped to improve on this arrangement in the future however, since it was agreed that this amount be reviewed one year after the establishment of Malaysia and every two years thereafter.⁷ On the question of a special Borneo grant, the Singapore government did not agree to give any money but to provide a 15-year loan of $150
million to the Borneo territories on the condition that Singapore could supply up to 50% of the labour required for the projects it would be financing.

The agreement which Lee secured over a common market was contained in Annex J of the written document, and only after considerable persistence. It was only a loose and vague agreement by comparison with the recommendations of the Reuff Report:

The Federal Government ... shall progressively establish a common market in Malaysia for all goods or products produced, manufactured or assembled in significant quantities in Malaysia, with the exception of goods and products of which the principal terminal markets lie outside Malaysia.8

The agreement provided for a Tariff Advisory Board (TAB) to be established to make recommendations on protective duties.9 Given the role assigned the TAB, the government provided for less freedom of competition in the Malaysian market than originally argued for by the Singapore government. Still, in essence the PAP's crucial common market request was embodied in the agreement.

Although the financial and economic questions had been temporarily resolved, the difficulties between the governments were not yet over. In response to international pressure and mounting Indonesian hostility towards the prospective merger of the Borneo territories with the Federation of Malaysia, the Tunku supported the idea of a United Nations mission to Sarawak and North Borneo to gauge the will of the Borneo people before proceeding with merger.10 Lee, however, was not prepared to delay the official declaration of Malaysia to allow the mission the necessary time. Lee defied the Tunku's requests for cooperation and proclaimed Singapore's independence on 31 August 1963 rather than wait for the re-scheduled date of 16 September. According to Lee, the Singapore government was the Trustee for the Federal government over the next 15 days in defence and external affairs matters. If this premature declaration was not enough to cause bitter resentment, Lee added insult to injury by referring to the "naive approach" of some people to whom power had been handed over "on a silver platter with red ribbons".11 This only served to further arouse the suspicion and resentment of the PAP by the Alliance partners.12
Clearly, as Singapore entered Malaysia relations had suffered from the process by which differences had been discussed and pursued. Added to this, there were certain underlying conflicts of interest which had not been satisfactorily resolved in the merger agreement. Though the Federal government viewed the terms of the agreement to be particularly favourable to Singapore, it was hopeful that a mutually acceptable redress would eventually be arrived at. Political differences soon surfaced, however, which made that redress more urgent and yet less attainable.

Political/Racial Conflict
Despite the clashes before the official declaration of merger, the PAP genuinely sought to work in concert with the Federal government. This was underlined by Lee on the eve of Singapore’s September elections in which UMNO and PAP candidates contested seats: "It is my belief that the Tunku and Tun Abdul Razak will work with us – not today or next month, but in years to come. We calculate in terms of elections". The implications of this statement were clear to the MCA leadership which had already concluded that the PAP posed a threat to its partnership with the United Malay National Organisation (UMNO) in the Alliance government. As for UMNO itself, it too was wary of the long-term implications of any PAP electoral presence on the mainland. This was already reflected in the disproportionately low number of seats granted to Singapore in the Federal parliament, an indication of the Alliance’s desire that the PAP play only a nominal political role in the Federation. A speech by Lee on 9 September in which the Tunku understood Lee was discounting the possibility of the PAP contesting the 1964 Federal elections was thus welcomed by UMNO. UMNO’s view of the PAP as a potential threat was hardened by the poor showing of its own candidates in Singapore’s September elections in which the PAP enjoyed considerable Malay support.
Interestingly, Lee evidently presumed that his Party's performance in the September elections must have enhanced the PAP's chances of eventual Federal recognition:

"We want to co-operate and work in the common interests of Malaysia. We want to help them understand what they do not understand – the problem of urban Chinese in the cities, in the town where over the last few years, the MCA and MIC have lost ground to a whole host of opposition parties in Malaya – like the PAP, the Socialist Front and the UDP. And it can be resolved provided there is an intelligent appraisal."^16

Drysdale argues that this statement appeared to suggest that Lee anticipated the Alliance would invite one or two of the PAP's House of Representatives members into the Ministry. The "intelligent appraisal" would ultimately require the MCA to be replaced by the PAP as a government partner.^17 The Tunku, however, did not entertain such thoughts of the PAP's importance to Malaysian politics, nor the apparent assumption that the PAP would be brought into government under some vertically structured power sharing arrangement.^18

Reservation and suspicion about the PAP also stemmed from the radical associations and image of the Party. This was not unfounded. Although the PAP had proven a less radical government than first anticipated, the Party nevertheless had a clear commitment to, and record of, a more equitable distribution of wealth and opportunity. The PAP was also characterised by a relative separation from business interests which made it possible to carry out social reform without harm to its political base. This contrasted with the conservative Alliance government. Moreover, the PAP's analysis of Malayan society and its prognosis for improved living conditions for the masses placed fundamental emphasis on socio-economic questions. Communalist questions were secondary to, and consequent of, socio-economic questions. Any attempt to obscure these fundamental questions was viewed by the PAP as a convenient screen by which vested interests tried to reproduce their own dominance:

If Chinese, Malay and Indian workers and farmers can be led to believe that economic conflict is based on racial rather than class interests, then, so the forces of reaction calculate, there will be no danger of Chinese, Malay and Indian workers uniting on a class basis
to resist exploitation by Chinese, Indian, Malay and British capitalists. Thus it is significant that left wing and socialist parties in Malaya are organised on a non-racial and non-communal basis. On the other hand, the communal parties in Malaya, by and large, stand for the economic status quo - that is for a capitalist society.\(^{19}\)

While the PAP's opposition to capitalism may have moderated since the above was written into the Party platform in 1959, its stated opposition to communalism was as strong as ever at the time of merger. For this reason, the PAP argued that it was unable to extend the Special Privileges enjoyed by mainland Malays to those in Singapore. The preference for socio-economic questions, however, taken in conjunction with the fact that the PAP was a Chinese-dominated party, was suspected by some UMNO elements to amount to anti-Malay prejudice. This suspicion was to greatly complicate the PAP's relations with the Federation.

If Lee had in fact implied that the PAP would not be contesting the 1964 Federal elections, circumstances soon prompted a revision. With the Federal government putting its full weight behind a resurgence of the Singapore branch of UMNO, and with the Tunku so far disregarding the PAP's electoral strength in favour of the MCA, the PAP decided that a 'token' participation in the elections was necessary. A demonstration of electoral appeal had become a matter of urgency since the decision to hold state elections in Malaya concurrently with Federal elections would otherwise deprive the PAP of the chance to prove its worth for another five years.\(^{20}\) The PAP's belief that it had a future as the rightful representative of the increasing urban proletariat was summarised thus:

> Our long-range objective, quite frankly, is to start a social revolution in Malaysia and break down the communal walls in this country. Our short term objective is just as clear. We want to defeat the Socialist Front and the Malayan Chinese Association, and by doing so prove to the Tunku that we are the only party that can appeal to progressive-minded Malaysians in the cities of this country.\(^{21}\)

The PAP was at pains, however, to emphasise that it was contesting the MCA and not UMNO itself in the election.
Although UMNO may have had doubts about the electoral appeal of the MCA, the PAP's participation in the April elections served only to bring the Alliance partners closer together. The Tunku considered that Lee had broken an earlier pledge not to contest the elections.22 The more extreme Malay nationalists, such as UMNO Secretary-General Dato Syed Jaffar Albar, were convinced that the PAP was ultimately out to destroy UMNO and the Malayan Indian Congress (MIC).23

The election results were disastrous for the PAP. It won only one of the nine seats it contested in peninsular Malaysia, with the MCA picking up six of the remaining eight. Although there were various reasons for the poor PAP showing, the most important point to emerge was that the Party's attempt to transcend communalism had been counter-productive. As a Chinese-dominated party, concentrating its campaign in the predominantly Chinese-populated cities, the PAP appeared to its opponents to be striving to re-assert the very Chinese social and economic ascendancy which they were committed to correcting. Lee's talk about the 'haves' and the 'have-nots' and the call for social and economic changes to solve problems of inequality fell on deaf ears. The real intentions of the PAP, it was presumed, were concealed by such talk. Lee appeared insensitive to the extent to which Malay cultural nationalism influenced the consciousness of his political opponents and the electorate generally. From this point on, fears and resentment of the PAP by the MCA and UMNO intensified. In particular, the more extreme elements of UMNO stepped-up their campaign to expose what they saw as the socialist intent of the PAP. Lee's abrasive debating style and continued denunciation of communalism only compounded the conflict.

UMNO's attacks on the PAP increasingly focused on the plight of Singapore's Malays who enjoyed almost none of the privileges of Malays across the causeway.24 Since merger, the material improvement of Malays in Singapore had been minimal, despite expectations to the contrary. By June 1964, significant discontent among Malays had surfaced. This was accentuated when the PAP
government began resettling Malays from their kampongs to make way for HDB flats. UMNO exploited this discontent and, through the Malay language Singapore daily newspaper, Utusan Malayu, stirred up anti-PAP sentiment. On 12 July, Jaffar Albar arrived in Singapore to mount a campaign to secure privileges for Singapore's Malays. Lee subsequently refused to meet the UMNO 'action committee' to discuss the question. He remained adamant that legislation to give economic advantages to Malays was not on. By this time, communal tension was high. On 20 July, pamphlets headed "Singapore Malay National Action Committee" were circulated in which it was claimed the Chinese in Singapore had plans to kill Malays. The next day, communal incidents at a Muslim procession sparked a full-scale race riot in which 21 people were killed and 460 injured. Another smaller riot broke out on 4 September in which eight people were killed and sixty injured. This second riot appeared to involve some Indonesian complicity.

From UMNO's point of view, the riots resulted from the legitimate grievances of oppressed Malays in Singapore. From the PAP's point of view, much of the discontent had been manufactured by UMNO extremists. In any case, both Lee and the Tunku recognised the peril of continuing the brazen verbal attacks on each other and it was mutually agreed in August that a 'truce' be called in the interests of racial harmony. This was short lived, however. In September, the Malayan Minister Khir Johair announced that efforts would be made to ensure the newly-formed Singapore Alliance Party (a political union of UMNO, MCA, MIC and the SPA) defeated the PAP at the next general elections in Singapore in 1967. The PAP Chairman, Toh Chin Chye, responded with the news that the PAP was soon to be 'reoriented and reorganised so that we can get at Malaya'.

With an escalating war of words providing the background to the November/December budget debate in Federal parliament, the PAP adopted the role of 'de facto opposition' rather than its previous self-defined role of 'loyal opposition' in closely scrutinising the budget. Apart from specifically attacking
the budget estimates and proposals for payroll and turnover taxes, both inside and outside parliament, the PAP condemned the tenor of the budget which it claimed favoured the rich at the poor's expense. Unaccustomed to such close analysis, the criticisms were received as divisive and destructive by the Federal government. By this time the PAP had most likely given up all hope of partnering UMNO but, just to make sure, in December the Tunku reiterated that there would be no place for the PAP in any Federal government. In the same month, the Tunku also first publically raised the possibility of separation.

In the following months public recriminations continued virtually unabated and the proposed common market started to feature in the dispute. More significantly, positions over communal relations became more polarised. Another important development was the merging of four separate Alliance parties in the States of Malaya, Singapore, Sabah and Sarawak to form the Malaysian National Alliance Party (MNAP). This prompted the PAP to draw together parties of the various Malaysian states to form a united opposition front, the Malaysian Solidarity Convention (MSC). Whilst the collective electoral significance of the parties comprising the MSC may have been modest, it nevertheless represented the merging of diverse racial groups. This was ideologically symbolic. The MSC's aim was the realisation of a "Malaysian Malaysia":

A Malaysian Malaysia means that the nation and the state is not identified with the supremacy, well-being and the interests of any one particular community or race. A Malaysian Malaysia is the antithesis of a Malay Malaysia, a Chinese Malaysia, a Dyak Malaysia, an Indian Malaysia or Kadazan Malaysia...
The special and legitimate rights of different communities must be secured and promoted within the framework of the collective rights, interests and responsibilities of all races ...

As had been the case in the past, the PAP's attempts to put communalism into a broader political context only stirred accusations of racialism. Despite Lee's view that the dispute was not over the desirability of a non-communalist society but the route by which this was to be achieved, the route advocated by Lee, via socio-economic change and not special privileges, would necessarily effect the result. Open and equal competition for all citizens for political power
would almost certainly produce a largely Chinese government in view of their favourable socio-economic disposition. The Alliance’s approach was to assist the Malays in their development so that eventually they might be able to compete more equally with the Chinese. The MSC was thus viewed as a new stage in the attack on Malay rights. At UMNO’s 18th general assembly on 15 May, a resolution calling for the arrest and detention of Lee was unanimously passed, although not acted on by the Tunku.

Fears about the threat of the MSC’s "Malaysian Malaysia" concept for Malay special privileges were enhanced in May 1965 when Lee drew on historical and demographic data to question whether Malays were in fact any more native than other racial groups in Malaysia. This was received as especially insulting and the concept of a "Malaysian Malaysia" denounced as aimed at "destroying the Malay race in its homeland and destroying Islam and the Islamic state of Malaysia". As the debate raged and Lee persisted with his reference to population data, the Tunku’s calls for calm within UMNO became less effective. Internal pressure for extreme measures to stem the attacks from Singapore mounted. Meanwhile the MSC had attracted almost exclusively Chinese support, adding weight to the claims that it was outrightly communalist.

In the ensuing parliamentary session, starting on 26 May, debate was unrestrained and inflammatory. Criticism of Singapore’s incorporation into Malaysia also became widespread among UMNO ranks. Against this background a disillusioned Tunku left for London to attend the Commonwealth Prime Ministers’ Conference. An attack of shingles extended his stay in London and afforded him the chance, while hospitalised, to weigh up the pros and cons of perseverance with Singapore in the Federation.

In the Tunku’s absence, PAP/Federal government relations further deteriorated. In the Hong-Lim by-election in Singapore on 10 July, the PAP devoted much of its energy to attacking the Federal government. The Federal government’s expulsion of British journalist Alex Josey, whose portrayal of events had been consistently sympathetic to the PAP, also aroused severe PAP
In the wake of these events, Dr Goh Keng Swee publically rejected the Federal government's request that Singapore's contribution to Federal finance be increased from 40% to 60%. In fact, Goh demanded it be reduced from 40% to 30% and indicated that the $150 million loan to the Borneo territories would not be forthcoming either. Following the Tunku's assessment of the cost of Singapore's continued participation in the Federation and a senior cabinet meeting reaching a unanimous agreement on separation, the Tunku instructed Tun Razak from London "to proceed with the necessary legal chores and amendments to the constitution". Subsequent discussions between Lee, Goh and Tun Razak failed to avert the secession of Singapore. On 9 August 1965, a Bill proclaiming the separation of Singapore from the Federation and the granting of independent sovereign nation status was passed 128-0. This unanimous vote, however, did not genuinely reflect the shock and disappointment of Lee and the PAP. Lee claimed that he had been presented with a fait accompli, with the implicit threat of Singapore's continuation in the Federation at the cost of the repression of the PAP. There can be no doubt that Lee and the PAP were deeply committed to merger, even in view of the difficulties:

Every time we look back to the moment we signed this document it is for us a moment of great anguish. For me it is a moment of anguish. All my life, all my adult life, I have believed in merger and unity of the two territories. We are connected by geography, the economy and ties of kinship... It broke everything we stood for.

The failure of merger was due to a variety of inter-related problems. Conflicting interests and perspectives could never be resolved in the atmosphere of mistrust and political competition which characterised Singapore's brief merger experience. Moreover, when communal questions became embroiled in the various political controversies, and ultimately assumed the centre stage, the threat of racial conflict became real and the likelihood of differences being resolved seemed remote. Attempts to rationalise the continuation of Singapore in the Federation also ran the risk of creating deep divisions within UMNO. This cost seemed too high to the Tunku, especially since the original motivation for merger,
ensuring the nullifying of Singapore's left, no longer applied. The PAP's political dominance in Singapore, together with measures taken by the Federal government itself, had allayed the threat of the left. Unlike the PAP and Lee, UMNO and the Tunku had no overriding commitment to an industrial strategy dependent upon merger to warrant perseverance with political union.

Economic Problems and the Common Market

With Singapore's unexpected entry into Federal politics, the question of revenue collection and Singapore's industrialisation assumed direct political significance for the Federal government. The prosperity of Singapore, without adequate benefit transferred to other states, would not only produce unbalanced economic growth but run the danger of enhancing the electoral appeal of the PAP in view of impressive economic achievements. This does not mean that the Federal government was bent on sabotaging Singapore's industrialisation or the common market. However, there was understandable caution about a common market until certain political differences were settled. These, of course, were never settled and the political struggles not only stultified progress towards a common market but in many cases generated direct economic competition rather than cooperation.

Although the creation of a Tariff Advisory Board was part of Annex J and the Malaysia Agreement, this body was not established until July 1964. It was not until early 1965 that the first lists of possible common market items were published. This was all that the TAB had achieved by the time of separation. No concrete steps towards the harmonisation of duties in the two states had been taken. On the one hand, this lack of progress reflected the low priority accorded a common market by the Federal authorities. On the other hand, in view of the unresolved question of revenue sharing between governments, and the TAB's responsibilities in this regard, any more progress may have only led to greater conflict.
If the tardiness of the TAB was fortuitous in a political sense, it certainly was not for Singapore's import-substitution industries. Industry complaints about inadequate protection from import competition thus saw the introduction of import quotas on over 30 categories of goods by July 1965 as a stop-gap measure by the Singapore government. Moreover, instead of access to the Malayan market being enhanced by merger, the Federal government imposed prohibitive import duties on some Singapore goods to protect Malay's own fledgling industries. Acceptance of a range of import duties was later explained as the price Singapore would have to pay for the elusive common market. To the Singapore authorities, import quotas were intended simply to obstruct Singapore's development.

Probably the controversy which most clearly demonstrated the inability of the two governments to co-operate at the economic level was that over textile quotas. This dispute not only raised serious questions about the legal relationship between the Singapore and Kuala Lumpur governments, it also evidenced the depth of mistrust which underlay inter-governmental relations. Starting in the latter half of 1963 and into 1964, exports of textiles and garments from Singapore to the United Kingdom showed dramatic growth. The number of factories exporting to the UK had risen from six at the start of 1964 to 20 by May of that year, by which time such factories represented a fixed capital of $15 million. Of most significance, they provided jobs for about 2,600 people. The impetus for this expansion had come from Hong Kong-based manufacturers who invested in Singapore to circumvent UK trade restrictions on textiles from Hong Kong. The problem for Singapore, however, was that in 1964 the British Trade Board decided that, as from May of that year, no new textile contracts would go to Singapore manufacturers. It was taken for granted by the Board that a previous agreement with Malaya that the import quota of five million square yards of textiles would also cover Singapore now that the territories had merged. This decision spelt doom for Singapore's infant textile industry and a significant loss of jobs. Despite immediate protests, it was only after the
Singapore government banned 46 classes of British goods and subjected all other goods to specific import licencing in August that the British committed themselves to a serious re-negotiation of the quota. Even then, it was not until union action was taken that negotiations really got under way.

The NTUC, cognizant of the threat to jobs and unhappy with the early revised British offers, threatened to ban the handling of British goods by its port workers unless measures were taken to arrest the retrenchment of textile workers. By the end of March 1965, more than 1,000 textile workers had been laid off. By this time, however, Dr Goh Keng Swee had publically revealed that the real obstacle to a settlement was the Federal government. The British had offered a new deal which allowed for all contracts entered into before 1 May 1964, plus Malaysian quotas of 8.2 million square yards of textiles and 7.6 million square yards of garments. The unexpected offer of garments became the focal point of the rivalry.

In the ensuing dispute, the Singapore government argued that the additional 7.6 million square yards of garments was intended exclusively for it, insufficient as it was to provide for the industry's productive capacity and restore job losses. The Federal government, however, claimed that the "110 textile factories in Malaya, having been governmentally restrained from importing previously, deserve a sizeable share of the 7.6 million". The claim that so many factories existed at all, let alone had the capacity to meet the quota sought was questionable if not spurious. To the PAP leaders, the Federal government's motive in seeking a substantial share of the quota was to sabotage Singapore's industrial programme. Goh Keng Swee complained of:

a series of actions taken by Kuala Lumpur which had the effect of damaging Singapore's industrial progress. It is clear that the Central Government of Malaya in its relations with Singapore considers itself not the Government of Malaysia but the Government of the States of Malaya. Singapore is considered not as a constituent state of Malaysia but as a dangerous rival to be kept down at all costs.

In response, the Federal government charged that it had a responsibility to promote balanced development in all states and that, furthermore, investors in
Singapore had been injudicious in assuming unrestricted access to the UK market.66

Suspicion of the Federal government's motives also surfaced with the amendment to legislation which gave it the power to grant pioneer certificates. The PAP was accused by the Federal Minister for Finance Tan Siew Sin of having been too liberal in its granting of certificates in the past. He told industrialists that they should first consult the Federal government before establishing industries in Singapore, otherwise their calculations might be based on false assumptions.67 Goh interpreted this as confirmation that the Federal government was bent on "frustrating" Singapore's industrialisation.68 Goh later went into detail about how the Federal government had done its best to deprive Singapore of new industries.69 Certainly few, if any, pioneer certificates were granted by the Kuala Lumpur government to manufacturers in Singapore during 1965.70 Singapore-based industrialists had also complained about unfair treatment in the granting of certificates.71 What lay at the heart of the certificates controversy was the general preference by industrial capital for Singapore as a production site. The Federal government was concerned about an appropriate ration of industry for Malaya,72 especially in view of Singapore's reluctance to meet Federal revenue requests.

Another issue, though inseparable from the political conflict, which reflected the contrasting economic bases of the two territories was the introduction of a 0.5% turnover tax on gross earnings of all trades and businesses and a 2% payroll tax. The purpose of the taxes was to raise funds for the defence effort necessitated by Confrontation. However, Malaya's greater emphasis on agricultural production meant that Singapore's economy would be disproportionately effected by the taxes. Even though the Singapore state stood to gain more revenue than the Federal government, the PAP was sensitive to the impact of the taxes on labour-intensive industry.73

Yet another economic conflict was that centred around the Federal government's announcement in December 1964 that it intended to close the
Singapore branch of the Bank of China. Under the Malaysian Banking Ordinance, any bank with 50% or more ownership by or on behalf of a foreign government was not allowed a licence. In any case, the Federal government claimed that the Bank's continuance facilitated the funding of subversion. This decision was of considerable importance to Singapore because the Bank played a crucial role in providing low-interest finance to traders and small business people to facilitate the food trade with China. The closure would significantly reduce Singapore's trade, already suffering due to Confrontation. After much heated debate and the Bank's insistence on staying in Singapore, the Bank Negara finally took over the Bank on 5 August 1965. The scheduled closure, however, was saved by Singapore's separation shortly after. Amongst other things the Bank of China affair demonstrated the difficulty of merging different economic and legal backgrounds.

As we have seen above, in conjunction with the serious political differences between the PAP and UMNO, the period of merger involved clashes of economic interest. Though these clashes had some objective basis to them, invariably they were exaggerated by the political context within which they occurred. Since there was no joint commitment to a single economic or industrial strategy, the prospect of co-operation to resolve short-term problems never really existed. Instead, the various circumstances served only to sharpen economic contradictions and jeopardise Singapore's access to a common market of Malaysia.

**Manufacturing and Investment**

Having identified and analysed the major economic and political problems characterising the period of merger, let us now examine the extent to which the PAP's ISI strategy was actually implemented. As would be expected, the inter-government friction and the trade embargo with Indonesia negatively affected the Singapore economy. Nevertheless, some limited progress occurred in the manufacturing sector in 1964, with GDP up by 3.69% (at 1968 market prices) even though total GDP dropped by 3.49% for the same year. In the following year,
manufacturing GDP rose by 13.44% compared to the total GDP rise of 7.5%. This was brought about by the progress of a broad group of import-substitution industries, a trend established before merger. The broadening of operations by the state-owned National Iron and Steel Mill was one of the features of this period. In the export field, the petroleum and petroleum products industry and the textiles industry experienced significant growth. The textile industry's already heavy export orientation became accentuated with the influx of Hong Kong-based capital. This industry assumed importance as a provider of jobs in the period, but its precarious existence as an export industry did not auger well for long-term employment hopes. Indeed, the problem with the industrial development which had taken place under the import-substitution programme was, apart from textiles, the relatively capital-intensive nature of manufacturing operations. Thus, the total number of workers employed in the sector rose by only 3,120 in 1964 and 5,820 in 1965. Pioneer industries accounted for 1,686 and 2,762 of these new jobs in the respective years and expanded the number of firms in production by 27 in 1964 and 39 in 1965 (See Table 9).

In view of the political instability between the Singapore and Kuala Lumpur governments, and the lack of progress on the common market, private foreign investment during merger did not quite match the PAP's initial expectations. The decision by Mobil Oil to join Shell, Maruzen, Caltex and Castrol was a significant development, confirming Singapore's attraction as a refining centre. The other significant developments, however, were the considerable influx of Hong Kong-based capital in the textile industry and the continuation of mainly Japanese-based capital investment in import-substitution industry. Japanese investors continued to show a preference for joint-ventures. By August 1965, fifteen projects jointly financed by Japanese and Singapore industrialists had been established. As progress towards the common market became delayed though, the momentum of Japanese capital slowed and investors adopted a 'wait and see' attitude rather than actively implementing their approved projects.
Table 9: Firms Granted Pioneer Status and Pioneer Firms in Production, 1964 and 1965

<table>
<thead>
<tr>
<th>INDUSTRY GROUP</th>
<th>No of Firms 1964</th>
<th>No of Firms 1965</th>
<th>NO. OF FIRMS THAT HAVE COMMENCED PRODUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Firms in Production by 1963</td>
</tr>
<tr>
<td>Food &amp; Beverages</td>
<td>14</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>Textiles, Garments &amp; Leather</td>
<td>24</td>
<td>26</td>
<td>7</td>
</tr>
<tr>
<td>Wood &amp; Paper Products</td>
<td>6</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Rubber Products</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Chemicals &amp; Chemical Products</td>
<td>16</td>
<td>21</td>
<td>3</td>
</tr>
<tr>
<td>Petroleum &amp; Petroleum Products</td>
<td>7</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Non-Metallic Mineral Products</td>
<td>7</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Metals &amp; Engineering</td>
<td>22</td>
<td>31</td>
<td>5</td>
</tr>
<tr>
<td>Electrical Products</td>
<td>7</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>7</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>113</strong></td>
<td><strong>144</strong></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

Table 10: Capital Structure of All Pioneer Firms
as at 31st December 1964 ($000)

<table>
<thead>
<tr>
<th>INDUSTRY GROUP</th>
<th>Authorised</th>
<th>Proposed Subscribed Capital</th>
<th>Issued Capital</th>
<th>Paid-Up Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Local</td>
<td>Foreign</td>
<td>Total</td>
</tr>
<tr>
<td>Food &amp; Beverages</td>
<td>108,500</td>
<td>27,695</td>
<td>9,505</td>
<td>37,200</td>
</tr>
<tr>
<td>Textiles Garments &amp; Leather</td>
<td>98,400</td>
<td>22,665</td>
<td>6,671</td>
<td>29,336</td>
</tr>
<tr>
<td>Wood &amp; Paper Products</td>
<td>67,500</td>
<td>8,387</td>
<td>1,608</td>
<td>9,995</td>
</tr>
<tr>
<td>Rubber Products</td>
<td>23,000</td>
<td>4,880</td>
<td>5,970</td>
<td>10,850</td>
</tr>
<tr>
<td>Chemicals &amp; Chemical Products</td>
<td>85,400</td>
<td>28,395</td>
<td>16,022</td>
<td>44,417</td>
</tr>
<tr>
<td>Petroleum &amp; Petroleum Products</td>
<td>140,000</td>
<td>5,500</td>
<td>29,100</td>
<td>34,600</td>
</tr>
<tr>
<td>Non-Metallic Mineral Products</td>
<td>35,000</td>
<td>14,250</td>
<td>3,250</td>
<td>17,500</td>
</tr>
<tr>
<td>Metals &amp; Engineering</td>
<td>133,500</td>
<td>26,963</td>
<td>17,627</td>
<td>44,590</td>
</tr>
<tr>
<td>Electrical Products</td>
<td>35,000</td>
<td>5,410</td>
<td>1,620</td>
<td>7,030</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>31,500</td>
<td>9,710</td>
<td>440</td>
<td>10,150</td>
</tr>
<tr>
<td>Total</td>
<td>757,800</td>
<td>153,855</td>
<td>91,813</td>
<td>245,668</td>
</tr>
</tbody>
</table>

* Issued capital = actual subscribed capital

Percentage of Local Capital

<table>
<thead>
<tr>
<th></th>
<th>Proposed Subscribed Capital</th>
<th>Issued Capital</th>
<th>Paid-up Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Pioneer Firms</td>
<td>62.6%</td>
<td>56.8%</td>
<td>54.7%</td>
</tr>
<tr>
<td>Excluding Petroleum &amp; Petroleum Products</td>
<td>70%</td>
<td>68.3%</td>
<td>63.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INDUSTRY GROUP</th>
<th>Authorised</th>
<th>Proposed Subscribed Capital</th>
<th>Issued Capital*</th>
<th>Paid-Up Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
<td>Total</td>
<td>Local</td>
</tr>
<tr>
<td>Food &amp; Beverages</td>
<td>131,000</td>
<td>30,795</td>
<td>9,695</td>
<td>40,490</td>
</tr>
<tr>
<td>Textile, Garments &amp; Leather</td>
<td>132,000</td>
<td>23,530</td>
<td>8,506</td>
<td>32,036</td>
</tr>
<tr>
<td>Wood &amp; Paper Products</td>
<td>73,500</td>
<td>8,837</td>
<td>2,658</td>
<td>11,495</td>
</tr>
<tr>
<td>Rubber Products</td>
<td>23,000</td>
<td>4,880</td>
<td>5,970</td>
<td>10,850</td>
</tr>
<tr>
<td>Chemicals &amp; Chemical Products</td>
<td>108,600</td>
<td>29,347</td>
<td>17,180</td>
<td>46,527</td>
</tr>
<tr>
<td>Petroleum &amp; Petroleum Products</td>
<td>145,000</td>
<td>5,500</td>
<td>31,000</td>
<td>36,600</td>
</tr>
<tr>
<td>Non-Metallic Mineral Products</td>
<td>34,000</td>
<td>14,950</td>
<td>3,250</td>
<td>18,200</td>
</tr>
<tr>
<td>Basic Metals &amp; Engineering</td>
<td>158,000</td>
<td>32,038</td>
<td>20,077</td>
<td>52,115</td>
</tr>
<tr>
<td>Electrical Products</td>
<td>47,000</td>
<td>5,950</td>
<td>2,080</td>
<td>8,030</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>46,550</td>
<td>10,863</td>
<td>847</td>
<td>11,710</td>
</tr>
<tr>
<td>Total</td>
<td>898,650</td>
<td>166,690</td>
<td>101,363</td>
<td>268,053</td>
</tr>
</tbody>
</table>

* Pan-Malaysia Cement Works Ltd. has not been included as all necessary finance is advanced by the parent company.

Table 11: Capital Structure of All Pioneer Firms as at 31st December 1965 ($000)

Percentage of Local Capital

<table>
<thead>
<tr>
<th></th>
<th>Proposed Subscribed Capital</th>
<th>Issued Capital</th>
<th>Paid-Up Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Pioneer Firms</td>
<td>62.19%</td>
<td>51.67%</td>
<td>53.56%</td>
</tr>
<tr>
<td>Excluding Petroleum &amp; Petroleum Products</td>
<td>69.64%</td>
<td>61.73%</td>
<td>62.05%</td>
</tr>
</tbody>
</table>

The overall contribution of foreign investment to pioneer firms is shown in Tables 10 and 11 above. Foreign capital represented 43.2% and 60.83% of issued, that is, actual subscribed, capital in 1964 and 1965 and 45.3% and 44.2.6% of paid-up capital for the respective years. Of course, the contribution appears more modest if the petroleum and petroleum products industry is excluded. Up until this point then, local participation was still significant.

The total level of actual foreign investment as measured by gross fixed assets reached $157 million by the end of 1965 (See Table 9 in Appendix). Of this sum, however, $99 million was in the petroleum and petroleum products industry and this accounts for how Dutch and British capital surpassed the level of Japanese capital at the end of 1965. Whatever the distribution of this sum in terms of country of origin or industry, it was certainly less than the PAP leaders had hoped for. What is more, with the prospects of a common market dashed, the capacity to improve on this sum was in very serious doubt following separation.

Position of the Left During Merger
Singapore's merger experience was not only characterised by political confrontation and economic difficulty, it also culminated in political embarrassment for the PAP with separation. Instead of these circumstances leading to a weakening of the government's political position, however, PAP dominance only grew during this period. This was due, amongst other things, to the continued repression of the left by both the PAP and the Federal government and the internal disintegration and weak leadership of the BS.

In the area of industrial relations, the PAP continued its endeavours to weaken the BS base and militant unions. It legislated for the establishment of a Pioneer Industries Union (PIU), affiliated with the NTUC, which provided for the agreement between this union and pioneer firms to collective agreements on wages and employment conditions for a set number of years. During these years, strikes for improved conditions were forbidden.
Already weakened by Operation Cold Store, the BS's organising strength was further reduced following splits within the Party in May 1964. Dr Lee Siew Choh's pre-occupation with the thesis that Singapore was still dominated by colonial and neo-colonial forces had led to his call for an all-out attack on the government's proposed national registration and conscription to meet defence needs during Confrontation. This emphasis was viewed as misplaced by others within the Party and in the ensuing struggle Dr Lee resigned, as did other BS executive members. These problems impaired the response of SATU to the NTUC which was growing in influence amongst labour. Thus, by the end of 1964, SATU and its affiliates were no longer effective rivals to the NTUC. The withering away of independent labour and left wing influence was further advanced in 1965 when the Federal government banned go-slow campaigns and, subsequently, all forms of industrial action, including strikes, in essential services. By August 1965, a unified labour movement under the control of the NTUC had emerged.

Aside from the Central government's clamp on militant labour, in mid-1964 it also exercised its powers under the internal security provisions to arrest more than 50 students at Nanyang University for alleged communist activities. This was followed by the introduction of "suitability certificates" under which students of "political left leanings" were banned from tertiary education.

The weakness of the BS was demonstrated in the Hong Lim by-election in July 1965. As a constituency heavily dependent upon trade for the livelihood of merchants, shopkeepers and labourers, the negative effects of merger were fully felt here. The divisions within the BS, however, significantly reduced its electoral effectiveness. The subscribers to Dr Lee's neo-colonial thesis wanted the demand for secession from Malaysia to form the basis of the Party's campaign but a different view prevailed. The BS slogan was instead "Crush Malaysia". Not only did this lead to less than total Party leadership commitment to the campaign strategy, it also left the BS open to charges of anti-nationalism. Moreover, the talk of Singapore's independence as "phoney" had little electoral appeal. Thus,
despite the adversity created by merger, the PAP secured 58.9% of the vote in the Hong Lim by-election.\textsuperscript{90} This highlighted the political ineptitude of the BS.

\textbf{Conclusion}

As we have seen above, no single problem caused the ultimate breakdown in relations between the Singapore and Malaysia governments. Rather, with merger being founded on mistrust and a poor understanding of each other’s agreement, inevitable conflicts of political and economic interest were compounded. Ultimately, the Malaysian government calculated that it had more to lose than gain by persevering with merger. The position for Singapore, however, was quite different. The economic need for merger was as, if not more, important by August 1965 as it had ever been. Even the mere prospect of a common market was vital to the PAP’s efforts to attract industrial capital and generate employment. With separation such a prospect was almost certainly lost. This effectively marked the collapse of the PAP’s economic strategy, for although the scope for import-substitution industry within Singapore was by no means exhausted, a market of 2 million people could not sustain the growth necessary to alleviate the serious unemployment problem. Meanwhile, separation had caught many investors out who would now have to adjust to the unforeseen circumstances or withdraw from Singapore altogether. For Singapore, separation represented an economic crisis. A radical revision of the PAP’s plans for industrialisation was in order.
FOOTNOTES

1. The Malayan Chinese Association was subsequently re-named the Malaysian Chinese Association.

2. It was formally agreed in late August 1961, for example, that Singapore would retain autonomy over labour and education, in contrast with other Federation members, and defence, external affairs and security would be the exclusive responsibility of the Federal government. Not long after, agreement had also been reached on the more controversial questions of citizenship rights and Singapore's representation in the Federal House of Representatives.


6. ibid., p.330.


9. The Annex did not go into what criteria would be used in deciding upon the application of protective duties.


15. Lee had actually said that "... even if the PAP keeps out of the election on the mainland, the MCA will still lose ..." In other words, he spoke of an hypothetical situation. He did not unequivocally state that the PAP would not contest the elections. See Drysdale, 1984, p.344.

16. As quoted in ibid., p.346.

17. ibid.
18. Lee's public attacks on Tan Siew Sin, Khan Kai Boh and other MCA representatives served only to bring the Tunku himself out in public support for the MCA. See Drysdale, 1984, pp.346-347.


21. An anonymous official of the PAP, as quoted in Fletcher, 1969, p.33.

22. See Footnote 16.


24. They did receive some financial assistance in education.

25. An UMNO-sponsored convention comprising approximately 150 Malay organisations assembled at Pasir Panjang's New Star Theatre on that date at which Albar was the principal speaker. See Drysdale, 1984, pp.360-361.

26. Earlier, on June 21, the Minister for Social Affairs, Othman Wok, had sent letters to 144 Malay welfare, sports, social and cultural organisations inviting representatives to meet with the Prime Minister and other ministers on July 19 to discuss the position of Malays. UMNO, the political representative of the Malay community, however, was not invited.

27. The conclusion to the circular read: "Before Malay blood flows in Singapore, it is best to flood the state with Chinese blood". As quoted in Leifer, 1965, p.65.


29. ibid., p.365.

30. As quoted in Fletcher, 1969, p.46.

31. ibid., p.24.

32. The Tunku asserted that the Alliance would continue to fight elections even if there was only one person left in the MCA. See Leifer, 1965, p.68.

33. Fletcher, 1969, p.46.

34. The Alliance parties were the Singapore People's Alliance, UMNO, MCA and the Malayan Indian Congress. See Drysdale, 1984, p.379.

35. The parties forming the MSC were the PAP, the United Democratic Party (UDP), the People's Progressive Party (PPP) and the Machinda Party (from Sarawak). See ibid., p.381.

36. As quoted in ibid.


38. Drysdale, 1984, p.381.

40. As quoted in ibid., p.64.
41. ibid., pp.64-65.
42. Sopiee, 1974, p.203.
43. ibid., p.208.
44. The expulsion was interpreted as an indication that repressive measures lay in store for the PAP leaders. Dr Toh Chin Chye claimed on 8 June that "instructions were given to make a case for Mr Lee's arrest". As quoted in ibid.
45. ibid., p.209.
46. As quoted in Drysdale, 1984, pp.390-391.
47. In the Tunku's speech to Parliament on 9 August 1965, he said the option to separation was to take repressive measures against the Singapore government "for the behaviour of some of their leaders". See Alex Josey, Lee Kuan Yew, Volume 1, Singapore: Times Books International, 1980, p.283.
48. Lee Kuan Yew, as quoted in Drysdale, 1984, p.394.
52. ibid., p.339.
54. Goods affected included electric bulbs, condensed milk, garments and tyres. See Drysdale, 1984, p.357.
55. See ibid.
59. Goh Keng Swee claimed that the dispute had prevented the establishment of 50 factories and the loss of 10,000 potential jobs. See Fletcher, 1969, p.22.
61. ibid.
62. ibid., p.119.
63. A segment of Goh's statement is quoted in ibid., p.118.
64. ibid.
65. As quoted in Fletcher, 1969, pp.22-23.
66. ibid., p.23.
69. See Fletcher, 1969, p.20.
70. No data on pioneer certificates were published during this period. See ibid.
72. This was one of the reasons why the development of Port Klang was so important to the Federal government. See Andrew Nathan, "Moves for Malayan Industry", Far Eastern Economic Review, 11.6.64, pp.564-565.
75. ibid.
76. For a discussion of some of the problems involved in ascertaining the exact trade with Indonesia, see Lee Soo Ann, "Trade and Shipping Growth in Singapore", in Wong Kum Poh and Maureen Tan (editors), Singapore in the International Economy, Singapore: Singapore University Press, 1972, pp.68-83.
77. As calculated from Table 8 in Appendix.
80. Shell Oil Company is a Dutch/British consortium.
82. Fletcher, 1969, p.75.
84. Fletcher, 1969, p.76.
86. Fletcher, 1969, pp.75-6.
88. As a result of the left's failure to have succession as the Party's plank, none of the left union leaders appeared on Party platforms. See Harvey Stockwin, "Hong Lim Result", Far Eastern Economic Review, 29.7.65, p.210.
89. ibid.
PART III: BUILDING THE EXPORT-ORIENTED MANUFACTURING SECTOR

We have already seen how in the post-1959 battle for political supremacy Lee Kuan Yew's PAP successfully merged state and Party to the detriment of its political opponents. With the collapse of merger, however, fresh political and economic challenges witnessed a new level of mobilisation and sophistication in the exercise of state power by the PAP. This enabled the PAP to facilitate a swift and decisive turnaround in economic strategy, putting Singapore on an export-oriented industrialisation path. Remarkable growth in manufacturing soon followed.

In the immediate wake of separation from the Federation of Malaysia and the collapse of the import-substitution strategy, the PAP exploited the sense of crisis and indeed contributed to it. It employed the ideological apparatus of the state to sponsor a set of values and social attitudes which enhanced the political legitimacy of the PAP's right to exclusive and unquestionable power to determine the course ahead. Extolling the virtues of self-restraint and self-discipline in the PAP-defined 'national interest', and simultaneously curbing all effective constitutional opposition, the Party further cemented its already extensive social control. Ideological notions about the functional necessity of elitism and meritocracy became institutionalised, further rationalising the structures of political control instituted by the PAP.

This new emphasis on ideological control, which in some respects amounted to an accentuation of tendencies present before 1965, is only partly explained by the perceived political insecurity resulting from the failed merger. There was also an economic consideration. It became increasingly obvious in the post-1965 period that the option offering the most rapid private-led industrialisation rested on export orientation. However, following the examples of Hong Kong and Taiwan would necessitate a serious address of labour costs and competitiveness. The new ideological emphasis was thus linked to the attempt to justify the further and
complete defeat of the labour movement, an essential prerequisite of the new economic strategy. In time then, draconian measures followed to reduce wages and drastically curtail and circumscribe the bargaining power of unions. These radical measures were the basis of the PAP's programme to attract international capital to Singapore. Cheap and docile labour was the foundation of the new economic strategy.

The provision of cheap and docile labour was not the only element of the government's strategy however. Just as the absence of a domestically-based bourgeoisie of sufficient economic and political power had meant that any private-led industrialisation was dependent upon the seduction of international capital, so too it had contributed to the state assuming a range of important economic functions in that seduction. Recognising that Singapore's labour was not of itself an absolute attraction even after the wage reductions, the PAP endeavoured to add to the island's competitiveness by embarking on substantial infrastructural improvements and a range of direct and indirect subsidisations of private capital's establishment and operating costs. State control was extended to all facets of the economy in the introduction of a highly co-ordinated and effective programme of support for EOI. This cohesive approach, epitomised in the various functions of the state's chief mobiliser of economic resources and investments, the Economic Development Board, assured capital of quick and inexpensive access to Singapore's labour. The state's capacity to fulfil this role owed much to its relative autonomy from capital and labour outlined in the previous section of the thesis.

This capacity of the state to affect change in economic policy with great rapidity proved no less important within the export-oriented programme than it did in the transition to it. Thus, once the unemployment problem was eased and Singapore became dependent upon imported labour to fill labour shortages, the state initiated active encouragement of relatively capital-intensive, higher value-added investments by international capital. However, with the 1974/75 global
recession quickly reversing Singapore's industrial fortunes, once more the government swiftly changed emphasis and softened its attitude to labour intensive, lower value-added investments. The government's policy reversals and modifications invariably enjoyed the support of systematic and comprehensive state co-ordination. By the late 1970s, however, a number of economic and political contradictions generated pressures for decisive steps to resolve the longer term direction to be taken under the EOI strategy.
CHAPTER 6

THE INITIAL LABOUR-INTENSIVE PHASE OF EXPORT-ORIENTED INDUSTRIALISATION: 1965-1969

Introduction

With the severe economic setback of losing the prospect of a common market, the PAP faced the daunting task of securing Singapore's viability as an independent nation-state. Immediate post-separation events ruled out any co-operation to achieve some sort of economic rationalisation. Other setbacks compounded Singapore's economic difficulty and the unemployment problem. Under these circumstances, the PAP opted to follow the examples of Hong Kong and Taiwan and pursue an export-oriented industrialisation (EOI) strategy. This shift in policy involved the state in social, political and economic intervention to create those conditions necessary to successful competition for the labour-intensive investments of international capital. In some respects, this represented an accentuation of a role already assumed by the PAP state, particularly in the repression of labour. In other respects, however, a new degree of state co-ordination of and intervention in economic activities materialised, including a variety of institutional measures to assist manufacturers.

The more central economic role played by the Singapore state in the EOI strategy involved it in a range of initiatives. Considerable sums were devoted to the development of infrastructure and the provision of finance. The state also established various technical advisory and support schemes to promote export manufacturing. In many respects the state was fulfilling the role of a capitalist class. The existing capitalist classes in Singapore were embedded in trade or, to a lesser extent, import-substitution industry. There simply was no capitalist class interested in or capable of mobilising capital and other factors of production in support of the new strategy and no government desire to rectify this in view of
links between the Chinese business community and elements of the BS. This new
degree of economic intervention by the state was integral to the strategy and, as
we shall see later, expanded significantly over time.

In the process of responding to difficult circumstances, the PAP displayed an
impressive capacity to adapt quickly to change and effectively institute re-
directions in economic policy. This capacity owed something to political
relationships initiated before separation occurred. In particular, the merging of
state and party was accelerated as the PAP sought to implement and justify its
policies. Such radical policies as those which cut wage levels and curbed the
activities of organised labour could only have been successful in a certain political
context. It was that context, of PAP dominance and control of the Singapore
state, which combined with the various institutional measures to provide the basis
for Singapore's successful and dramatic incorporation into the new international
division of labour. This brought with it rapid progress towards the alleviation of
Singapore's unemployment problem by the late 1960s.

The Compounding Problems of Separation

Although the Independence of Singapore Agreement contained a reference to the
need and desire for economic co-operation between Singapore and Malaysia, this
did not eventuate. Only a matter of days after separation, the Singapore
government announced import restrictions on as many as 187 manufactured items
from Malaya. The decision was explained as a move to redress the advantage
enjoyed by Malayan manufacturers who had, up until such time, exported to
Singapore free of duty or quota; the same benefit had never been extended to
manufacturers from Singapore to Malaya. From the PAP's point of view, it made
no sense affording special privileges to Malayan manufacturers unless these were
related to access to a Malaysian common market. Significantly, the list of goods
placed on quota corresponded with those listed earlier by the TAB for possible
inclusion in a common market. However, if the PAP's move was in any way
intended to impress upon the Alliance government how important some ultimate economic union was, it only backfired. Interpreting the PAP’s measure as provocative, the Malaysian government responded by applying licensing and quota restrictions on Singapore goods.¹

The evident concern of and damage to the business communities of both Singapore and Malaysia prompted the two governments to take measures to avert any further trade impediments. After difficult negotiations, which again found Lee Kuan Yew publically denigrating the Alliance government,² it was agreed on 8 October to revert back to the pre-separation position by abolishing most import quota restrictions but retaining duties. The appearance of any co-operation, however, was exposed just one day later when the Malaysian government made the shock announcement of steps to establish a common market with Sabah and Sarawak by abolishing quota restrictions on goods on the common market lists entering Malaysia.³ Trade on 160 items was freed between the states of Malaya and the Borneo states (but excluding Penang and Labuan which were free ports) and duties on over 200 goods entering Sabah and Sarawak were abolished.⁴ Having been excluded from this common market, the Singapore government responded by imposing tariffs on 154 items in 30 classes of Malayan manufactures.⁵

Although it remained technically feasible for a limited customs union between Singapore and Malaysia to be introduced at some later stage, this was never to be. Instead, the differences between the two governments prevailed. Over the next few years, their inability to co-operate manifested in a range of issues.⁶

Apart from the blow of having lost any hope of an economic union, the post-separation period witnessed a decline in Singapore’s entrepot trade headed for Malaysia, particularly from mid-1966.⁷ In that year, Tan Siew Sin reiterated his government’s objective of reducing dependence on Singapore and stressed that it was imperative for Malaysia’s own development to gradually switch to its own port facilities at Port Swettenham and Penang.⁸ For similar reasons, the resumption
of trade with Indonesia, following restoration of diplomatic relations, did not generate the business anticipated by Singapore's traders. Thus, the PAP's eagerness to resume trade was more successful in offending the Malaysian government than cushioning the loss of a prospective market for manufactures.9

If the above were not enough to threaten the viability of Singapore's economic plans, the announcement by the British in April 1967 of the intention to withdraw all military bases by 1975 posed an added problem. In January 1968 the British further announced that there would be an accelerated withdrawal so that all forces would be out by 1971.10 This represented a significant blow to the Singapore economy. In 1967, the British had spent $450 million in Singapore through their bases, representing 12% of the country's total GNP.11 However, the bases were estimated to be responsible for another 11 - 12% of GNP since the livelihoods of thousands of taxi drivers, grocers, domestic helpers, property and bar owners and others benefited from the 'spin-off' effects of the bases.12 The withdrawal was expected to lead to an estimated loss of approximately 100,000 jobs. In 1967, the bases directly employed 42,150.13 Even more were believed to have derived their livelihood from base expenditure.14

When all these problems were added up, it was understandable that many writers, and the PAP itself, referred to Singapore's predicament as an economic crisis.

Initial Policy Response

With the loss of the prospect common market, it was obvious that Singapore's small domestic market would, of itself, be insufficient a base for the scale of manufacturing activity necessary to generate the required employment opportunities. The difficulty confronting the PAP was indeed formidable, as Singapore's Foreign Minister S. Rajaratnam admitted: "The task is not to wipe out a backlog of the existing unemployed but also to provide another 95,000 jobs in 1966-70 for those entering the labour market".15 Under the circumstances,
Singapore's policy-makers opted to radically re-formulate their industrial plan in favour of export markets. The conclusion was quickly drawn by the PAP that its best option was to emulate the EOI models of Hong Kong and, to a lesser extent, Taiwan. It took some years, however, for the range of policies in support of this strategy to unfold. For one thing, it took time for the PAP to comprehend the full implications of its momentous policy reversal. For another, it was only when the subsequent loss of British military bases and the poor trade performance with Malaysia became evident that the implementation of this strategy assumed great urgency.

The first major policy indication of a revision of industrial strategy came towards the end of 1965. Finance Minister Lim Kim San announced the introduction of fiscal measures to promote export-oriented industry. Firms engaged in exploring export markets would be able to make double tax deductions on any expenses incurred in such activity. In essence, this measure was directed at existing manufacturers within Singapore. By this time, the EDB had also undergone a noticeable change in its promotional emphasis towards export-oriented industry. However, though a re-formulation of strategy may have been apparent by late 1965, it was at this stage only a general shift in emphasis rather than any detailed plan of action characterising the government's approach. Towards the overall development of industry, Lim Kim San also announced the government's total outlay for the Second Development Plan 1966-1970 of $1,521.1 million, of which $975.9 million, or 64.2%, was capital expenditure on economic development.

Once the seriousness of the post-1965 trade decline with Malaysia became apparent and the British announced their intention to withdraw military bases, the PAP introduced more comprehensive measures to promote export-oriented industrialisation. In Lim's budget speech of late 1966, he declared it his government's intention to attract investment from big international companies which would bring expertise and "assured markets". In other words, the PAP
sought to enter into competition for investment in labour-intensive manufacturing production for established markets in the developed, industrial countries. This implied a number of things, including the need for Singapore's fiscal incentives to be "as attractive as, if not more so, than those offered by other countries".\(^{19}\) Lim thus outlined various incentives which were subsequently embodied in the Economic Expansion Incentives (Relief From Income Tax) Act, passed in December 1967, and amendments to the Pioneer Industries Ordinance.\(^{20}\) Amongst other things, the Act allowed for profits on the export of manufactured goods for existing and new industries (excluding processing) to be taxed at the equivalent of one-tenth of the normal company tax rate, that is, at an effective rate of 4%.\(^{21}\) This incentive was specifically intended to lure direct foreign investment. Incentives were also provided to encourage the general application of industrial technology to the mutual benefit of foreign and local investors. Thus, income tax on earnings from approved royalties, technical assistance fees and contributions on research and development were reduced from the normal 40% company tax rate to 20%.\(^{22}\) Other incentives under the Act were: unlimited duty-free import of equipment, machinery and raw materials needed by industrial enterprises; accelerated depreciation allowances; tax exemption for interest payable to foreign lenders on approved loans advanced to Singapore enterprises for the purchase of production equipment.\(^{23}\) It was hoped that these incentives, when combined with the provision for free remittance of profit and repatriation of capital, would go a long way towards ensuring international capital played the leading role in Singapore's industrialisation.

These specific measures to promote EOI were accompanied by general prime-pumping measures to promote economic growth in view of the British withdrawal announcement. Thus, Singapore's new Finance Minister, Goh Keng Swee, announced the government's intention to inject $1,070 million between 1968 and 1972 in the public sector.\(^{24}\) The target of $1,070 million was computed on the basis that British expenditure per year was $465 million, a considerable under-
estimate of the more probable sum of $700 million when indirect spending was taken into account.\textsuperscript{25} However, Goh and his government had by now concluded that at best the prime-pumping would constitute a partial and temporary solution. It had also expressed its optimism that Singapore could develop as a financial services centre to help compensate.\textsuperscript{26} The real hope, however, had to lie with the plan to attract international capital to use Singapore as an export base for manufacturing. Particularly in the next year, the government introduced drastic measures to secure the success of this plan.

**New Ideology Emerges**

Given that so much of the rationale behind past PAP policy had been linked to the necessity of merger, the separation of Singapore from Malaysia constituted more than a collapse of economic strategy. Rather, as leaders of a small, independent city-state, the PAP suddenly felt the need to explain and justify the political existence of Singapore. What emerged out of this was a coherent set of arguments which focused on the threat to, and requirements of, Singapore's political and economic survival. This ideology of survival, as it has been referred to,\textsuperscript{27} insisted on the inseparability of economic and political survival and the necessary subservience of all other considerations. Above all else, survival demanded the internalisation of an entirely new set of social attitudes and beliefs which embodied self-sacrifice for the 'national interest'. An important aspect of the new ideology was the acceptance of the PAP's sole right to determine this interest and the belief that the PAP's own political survival was paramount to Singapore's survival.

The view that overcoming the difficulties posed by separation depended principally on the nature of the subjective responses of Singapore's citizens was first clearly articulated by Foreign Minister S. Rajaratnam in late 1965:

> Whether Singapore survives or collapses will depend not so much on the fact that it may face difficulties as on whether we have the courage and determination to overcome them... However, self-confidence is not enough. We must also learn to understand the kind
of problems we are likely to face and take measures how to meet the problems. It is no use trying to meet the problems when they are sitting on top of us. In other words, what we need is a population with a new attitude. This 'new attitude' was the ideology of survival. There were four major elements to this ideology which can be discerned: the necessity for citizens to be devoted to nation-building; the importance of Singapore's population being 'highly organised'; the need to adapt quickly to change; and the importance of societal rewards being distributed according to merit.

Initially, PAP leaders were in a quandary over the question of nationhood. Even after separation the Party had not discounted the possibility of some distant re-merger. As late as March 1966, S. Rajaratman contended that it was "ludicrous to speak of a national identity for Singapore". Therefore, up until mid-1966, by which time the faith in even any distant re-merger had dissipated, PAP leaders usually referred to 'community' or 'society' rather than 'nation' when appealing to Singaporeans to make sacrifices for the collective good. Thereafter, however, the concept of nationhood became central and towards this objective trade unionists and workers in particular were expected to endure difficulty. As a concrete step towards engendering this notion of self-sacrifice and collective consciousness, 21 Ministers and MPs signed up in December 1965 with the newly-established People's Defence Force. Subsequently, in February 1967, compulsory national service was introduced. Particularly following the announcement of the British intention to withdraw its bases, the appeal to national interest became a recurring theme in government propaganda.

The PAP also placed emphasis on the importance of social organisation to Singapore's survival. As Lee Kuan Yew saw it, this was necessitated by the small size and limited resources of the city-state:

Societies like ours have no fat to spare. They are either lean and healthy or they die. We have calculated backwards and forwards for eleven months, on an independence we never sought that our best chances lie in a very tightly organized society.
However, Lee's "very tightly organized society" was intended to produce a definite mentality. He was as much interested in the political consequences of social organisation as the economic benefits. Lee envisaged a "tightly organized society" producing disciplined yet resilient citizens capable of sacrifice. Through effective socialisation he believed such a society could be created:

It depends on the education we give them; the training they receive; the values that they are taught - what is good, what is bad; what should be done; what should not be done; whether we should have a soft society, a tough, rugged society ... We want to live our lives as free men in an open society, not as sycophants or, worse, as serfs doing other people's bidding ... If you want to live your own life, then you must be well organized and you must have a tough society. And everybody must know that small we may be, this place is not a digestible morsel. 34

Though such a society would no doubt enhance Singapore's defences, Lee's reference to the desirability of an "open society" was not easily reconciled with the discipline which was to become institutionalised thereafter. Lee's real concern for a "tightly organized society" was more to do with the perceived political need for social control than the military defence of Singapore or the safeguarding of a free, open society.

This political objective of social control was directly related to the sort of economy the PAP hoped to develop. The new generation of the "rugged society" were expected to be dedicated to the task of increasing work skills to contribute to the development of industry. Moreover, to be successful in the highly competitive world export markets, workers would be required to accept both delayed gratification, that is, no wage improvements until the economy had developed, and the vagaries of global market forces, that is, sudden changes in demand. In effect, Lee hoped that his "tightly organized" and "rugged" society would produce people who saw the economy as something given to which they had to respond rather than a product of human relationships which could itself be modified: "If every year Singapore could turn out men and women who understood the mechanics of a modern society and a modern economy its position would be consolidated." 35
Another common theme in the PAP's emphasis on the attitudes essential to survival was the necessity of being adaptable to change. Obviously an acceptance of the need for change is complementary to the objective of constructing a "rugged" and "tightly-organized society". It was the need to adapt to economic forces which underscored the emphasis on change; the social organisation was essential to provide the structure through which particular forms of change could be ushered in. It was indeed a specific sort of change which Lee and the PAP envisaged:

Societies which modernize rapidly and smoothly are those which accept change as inevitable, necessary and a normal part of existence - not as unpleasant deviations from the norm to be fought off for as long as we can. Change as a way of life is particularly for developing countries the only rational approach to the kind of world modern technology and science is creating.36

There was of course, an obvious political utility in the emphasis on change per se. Any number of policies could be rationalised with respect to this tenet.37 Singapore's leaders were also astute in the recognition that responding quickly to market conditions would be the essence of the new industrial strategy and this called for flexibility at all levels of society.

In conjunction with the emphasis on change, the PAP also promoted a sense of urgency about time and the need to chart out a plan of positive action for the future. There was always a pending crisis of variable magnitude which Singaporeans were called to prepare for. The PAP made a very conscious effort to ensure that government institutions not only had a "forward and enlightened outlook ... enthusiasm for development ..." but also the "flexibility to facilitate it".38 This was important if Singapore was to get the edge on its regional competitors for export-oriented manufacturing investment. Equally, the government expected institutional flexibility at other levels of society, especially from trade unions, in support of the effort to attract capital. Promoting a general receptivity to change, then, had very practical applications.

The PAP linked its emphasis on the objective of a modernised and technological economy and society with emphasis on scientific and rational
thought. By promoting such thought, it was believed Singapore's problems could be solved. The PAP insisted that these problems were objective. The Party was determined to dispel any question that the course and nature of economic development was in any sense political. As the Director of the Party Political Bureau put it:

We do not want a clear-cut ideology because ideology is changing. At this juncture, doctrinaire ideology prevents flexibility. A distinct ideology does not help to solve real problems such as modernization and national unity. We are more a problem-solving party. Our philosophy is based on what we do.39

The PAP contended that policy had to be based on scientific, rational findings rather than ideology. Good leadership was essentially about 'scientific pragmatism', not ideology. In support of this approach, the PAP created a new Ministry of Science and Technology in 1968 and downgraded the status of social sciences in favour of the natural and physical sciences in secondary and tertiary education.

Despite PAP attempts to create a contrary awareness, scientific rationality is, of course, not devoid of ideology.40 The problem-solving which Singaporeans were called on to address was essentially that of how to generate a successful market-oriented economy. Arguably this was more or less problematic depending upon one's position in the class structure. The belief that the application of scientific thought somehow neutralised this question demonstrated the PAP's subscription to the ideology of scientism.41 The effect of this ideology was to legitimise the existing social order, justifying questions of social control and the distribution of resources on rational or scientific grounds.

Towards achieving a modernised and problem-solving society, the PAP believed that Singapore had to be ultra-meritocratic to maximise its human resources. Indeed, Lee explained that his adherence to socialism was based on its technical superiority in allowing the most gifted persons to rise to the top:

I believe in socialism because I believe it is one of the most effective ways of mobilizing human resources. Give equal opportunities to all, regardless of rank, race, religion, sex, in a given nation and you are likely to draw the best from each of your
nationals. Give him the best opportunity to educate himself in order to use his talents and, if you throw your net wide enough to cover your whole population, the chances are you will have ever so much more talent that will emerge at the top. And in a society based on equal opportunity, if rewards are correlated to the effort and output of the man and not to his possession of wealth or status, then it is likely that you will give your people the incentive to strive for themselves and for their community.\textsuperscript{42}

Whilst Lee emphasised the importance of equal opportunity, he also accepted inequality in individual capacities as natural and functional, indeed crucial in Singapore's survival. Lee remarked in 1967 that every society has approximately 5\% of its population:

\ldots who are more than ordinarily endowed physically and mentally and in whom we must expend our limited and slender resources in order that they will provide that yeast, that ferment, that catalyst in our society which alone will ensure that Singapore shall maintain its pre-eminent place in the societies that exist in South and Southeast Asia.\textsuperscript{43}

The difference between the "rugged society's" elite and elites of other societies was that it would, supposedly, be based on ability, not wealth. According to Lee, however, ability or intelligence was hereditarily determined. The task ahead was to devise ways of effectively ensuring that those with the predetermined capacities to provide the most rational and effective leadership were able to rise to the top. The "rugged society's" elite was therefore, according to the PAP, entitled to respect and obedience by virtue of functional superiority in the survival of Singapore. This elitist perspective not only promoted achievement orientation but also became the guiding principle in education. In 1969, the first junior schools were established to cater for the intensive preparation of a hand-picked elite considered to be rightful claimants to power and prestige.\textsuperscript{44}

Lee's premise that society could not function effectively without an hereditarily-determined elite contained important implications. In concentrating on uncovering such an elite, the depth of the socio-economic obstacles to individuals realising their capacities could be concealed. Thus, instead of Lee's meritocracy posing any challenge to the class system, it actually reinforced and legitimised it. Lee himself seemed convinced that the working class was
genetically inferior to the ruling class and legalised abortion in 1969 with the aim of averting the contamination of the population by this class:

... We must encourage those who earn less than $200 per month and cannot afford to nurture and educate many children never to have more than two. We will regret the time lost if we do not take the first tentative steps towards concreting a trend which can leave our society with a large number of the physically, intellectually and culturally anaemic.49

The PAP's meritocratic society thus threatened to be less a liberating experience for the traditionally oppressed than a process which would rationalise greater control by an elite.

It can be seen from the above that the ideology of survival stressed a number of inter-related values: discipline, resilience, achievement-orientation, future-orientation, adaptability, patriotism and self-sacrifice. Though the PAP may have seen intrinsic merit in these values, their overriding concern to imbue Singapore's citizens with them was because of their practical utility to Singapore's economic and political survival. This was the thread which wove these values into a purposeful ideology. The PAP played on the sense of crisis created by separation and the British withdrawal to exhort the population to respond in accordance with these values. In this the Party was very effective and skilfully harnessed adversity to its political advantage. The success in institutionalising these values was assisted by the already-established state structures. The Ministry of Culture, Radio Singapore and the CCCs provided excellent channels of propaganda, as, of course, did the school system. Understandably, special efforts were concentrated on youth and in this regard the CCCs were crucial.46

At one level, the new ideology represented an accentuation of the PAP's shift to the right which was under way before separation. However, the post-separation circumstances afforded far greater clarification, even revision, of the Party's philosophy. In particular, the PAP pointed out in an official document that though an "independent, democratic, non-communist, socialist Malaya" may have been the Party's objective, a socialist Singapore was "an economic impossibility".47 Singapore's predicament had dictated that the Party concentrate
its efforts on attracting private investment to Singapore. It was towards this end that the new ideology had special relevance. Having rationalised the long term preservation of capitalism, the Party was less constrained in measures to weaken the working class to facilitate a favourable climate for international capital. More importantly, the PAP now had a strong ideological justification for such action, couched in terms of objective necessity and pragmatism.

Implications of New Strategy for Labour

Following separation it became increasingly obvious that labour costs and labour competitiveness would be crucial now that import-substitution, and therefore protection, was no longer an option. The political defeat of labour thus became essential. As a first move towards this, in late 1965 the NTUC, the Singapore Manufacturers' Association and the Singapore Employers' Federation were brought together to ratify a "Charter for Industrial Progress". The essence of this Charter was the primacy of rapid industrial growth. Therefore, "... all partners in the industrialisation programme, worker, employer, government, must pool their efforts and strive for a continuing increase in productivity and output in all enterprises". Industrial peace was fundamental to this joint objective. The appeal of the Charter was consistent with the PAP's ideological notions of self-sacrifice for the collective good and economic problems being above class interests.

The appeal to trade unions to act with social responsibility was continually repeated throughout 1966. Initially, the NTUC seemed responsive to this plea, as evidenced by its announcement at the 1966 May Day Rally to launch a massive campaign to 'explain' the nature of the economic and political problems of Singapore to workers and the need for wage restraint and industrial peace. This view changed slightly, however, once the government passed the Trade Union (Amendment) Bill on 17 August. The Bill declared strikes and other industrial action illegal unless approved through secret ballot by a majority of a union's
members and banned strikes altogether in essential services.\textsuperscript{49} It also provided for compulsory registration of branch and paid officials of a trade union. This would allow greater direct government control over unions. The NTUC protested against the legislation as anti-labour and unnecessary.\textsuperscript{50} Even though the NTUC was by now closely related to the PAP, its officials were probably sensitive not just to the disproportionate burden placed on workers, but also to the continuing erosion of its autonomy over labour affairs.\textsuperscript{51}

Apart from the verbal protest by the NTUC, the Bill also prompted the NTUC affiliate, the Public Daily-Rated Employees' Unions Federation (PDREUF), which belonged to an essential service, to threaten strike action unless the government agreed to settle longstanding grievances on wages and conditions.\textsuperscript{52} The NTUC issued statements of support for the PDREUF but eventually adopted the moderate line of calling for arbitration. The tardy negotiations, however, resulted in cleaning workers from the Public Health Department striking in protest. The government swiftly deregistered the PDREUF and another affiliate for calling an illegal strike and followed this up with yet another amendment to the Trade Union Ordinance which outlawed sympathy strikes and entrusted the Labour Minister to bar the formation of a federation of unions in essential services.\textsuperscript{53} Significantly, when things got hot the NTUC was not prepared to challenge the government's treatment of its affiliated unions. The PAP had made it plain that it did not just expect labour discipline, it would enforce it.\textsuperscript{54} A further three unions were deregistered in June 1967 for involvement in unlawful strikes in April protesting about the Trade Union (Amendment) Act.\textsuperscript{55} These unions were not affiliates of the NTUC but their fates served as examples to labour in general.

Following the announcement of the intended British withdrawal, there was a new sense of urgency about the labour question. By now, the government had become fully committed to promoting EOI and was prepared to adopt drastic measures to ensure the low wage, disciplined labour force required. Such
measures, however, came only after the PAP brought the 1968 election forward by seven months to obtain a mandate for unspecified action to deal with the economic crisis. The PAP did not risk outlining the legislation it had in store for fear of alienating its supporters. The resounding victory, however, provided the justification for legislation essential for economic survival, and it was with this rationale that the PAP introduced the Employment Act of 1968 and the Industrial Relations (Amendment) Act.

Introduced in May 1968, the Employment Act significantly altered the conditions of service and remuneration of employees. Under the Act: the standard weekly working hours were increased from 39 to 44; public holidays were reduced from 15 to 11 per year; rest days and sick leave were also reduced; annual paid leave was restricted to seven days for workers with less than 10 years' continuous service and 14 for those with more than 10 years'; retirement benefits, other than those from the CPF, only applied after seven years' continuous service; overtime was limited to 48 hours per month; retirement was compulsory at 55 years of age; retrenchment benefits only applied to workers of three years' continuous service. In addition, bonus or ex-gratia payments were limited to up to an equivalent of one month's salary per year. Any additional bonuses must be tied to productivity. This represented a significant form of wage control since annual bonuses in the private sector ranged from two weeks' to 23 months' wages and were regarded by workers as inherent to their wage, rather than tied to productivity. As was intended, the Act represented considerable savings to employers in direct and indirect payments to labour.

As a complement to the Employment Act, the government introduced the Industrial Relations (Amendment) Act in the same year. The prerogatives of management were considerably expanded under the Act. Issues such as promotions, transfers, retrenchments, dismissals, re-instate ment and work assignments were barred from union negotiation with employers. Such issues were also now beyond the jurisdiction of the IAC. The minimum and maximum duration
of collective agreements between employers and employees were also raised under the Act, from one-and-a-half to three years and three to five years respectively. Such agreements, however, could not include more favourable terms than those stipulated in the Employment Act.

By expanding the rights of management and limiting the occasion for re-settling collective agreements, the PAP hoped to greatly weaken the scope for industrial action. The principle of collective bargaining was clearly attacked, since labour's bargaining position had been seriously undermined. According to the Foreign Minister, however, this had to be viewed in the context of Singapore's primary objective of attracting investment:

Collective bargaining is the essence of a free and democratic society, but vital management rights must not be eroded if we are to create the necessary climate of stability for investors to come in.57

More than weakening the bargaining position of labour, the government's legislation represented an attack on the traditional function of unions per se. For some time the PAP had claimed that it was the embodiment of workers' interests and that unions should therefore work together with the PAP government. However, despite this perspective, and PAP influence on the NTUC, unions had continued to operate as sectional interest groups. In view of the urgent need to attract investment now, however, such a role could no longer be tolerated. Unions, including those affiliated to the NTUC, were seen as obstacles to creating the appropriate investment climate. Lee even went so far as to contend that unions were unimportant and had, in any case, not been responsible for the benefits workers had achieved over the years.58 The labour legislation negated the legitimacy and undermined the capacity of unions to act as sectional interest groups. Goh Keng Swee explained the broader context within which unions would now be expected to operate:

The Employment Act enjoins upon the labour movement higher standards of discipline, restraint in wage negotiation and, generally, a greater awareness of organized labour in the larger framework of the national interest.59
Naturally, the new labour legislation was welcomed by employers. The more interesting response was from the NTUC. Although the NTUC leadership protested about specific provisions of the legislation, it did not confront the government over the need for such a general attack on the power of trade unions. This is not to deny that certain elements within the NTUC were greatly concerned. However, there was sufficient PAP influence through its direct membership of the NTUC to curb these elements and ensure the legislation's acceptance. By this time, the NTUC had also established its authority over affiliate unions in almost all questions of policy.60

Having denied unions their traditional role as legitimate interest groups, the PAP turned its attention to the task of more effectively harnessing unions to the government's management needs. Towards this, C.V. Devan Nair was returned to Singapore in 1969 as NTUC advisor and he played an important role in re-orienting union activities.61 A new kind of trade unionism was subsequently foreshadowed in late 1969 when a NTUC seminar entitled "Modernization of the Labour Movement", dominated by leading PAP figures, outlined the supportive function organised labour was expected to play for government. S. Rajaratnam argued that historically new circumstances meant that workers now stood to benefit by cooperating with employers and government in the task of modernisation and economic development. It was now appropriate to genuinely talk of "national interest:. Under these circumstances, a modernised labour movement was required which, amongst other things, would devote itself to raising the skills of the workforce in the interests of productivity.62 Another seminar participant referred to the need for the NTUC to "become an effective instrument in determining public opinion", obviously of particular relevance to securing support for the government's low wage policy.63 In short, the theme of the seminar was that the only possible role for organised labour was in 'active acceptance' of the PAP's plans for economic and social change.
Out of the 1969 seminar, a number of important recommendations were made to the NTUC which would facilitate the 'active acceptance' being sought. One of these was the establishment of workers' producer and consumer co-operatives. Through these, labour would have a direct financial stake in the national economy and would, thereby, hopefully be more committed to its development. Recommendations were also made to recruit full-time professional staff to the NTUC to ensure "effective leadership" in the effort to build the economy. These professionals, trained economists and politicians, could ensure that the NTUC and its affiliates direct resources most efficiently towards state-defined goals. For the NTUC to generate necessary finances for such officials, as well as support its proposed co-operative enterprises, it was recognised that union membership, which had fallen off in recent years, needed to be boosted. Subsequently, measures were taken to implement all of these recommendations.\(^6^4\)

The introduction of legislation to further weaken union power and the exercise of deregistration to intimidate labour contributed to a reduction in union membership and militancy between 1965 and 1969. Improved economic conditions also, to some extent, reduced the need to strike towards the end of this period. From a total of 30 stoppages in 1965, involving 3,374 workers, industrial disputes declined and in 1969 Singapore experienced its first strike-free year (see Table 16 in Appendix). There was a dramatic decline in industrial action following the introduction in 1968 of the Employment Act and the Industrial Relations (Amendment) Act. There was no doubt that the government's legislation was fundamental to the economic success which accompanied this taming of labour, a point which the World Bank had made in an October 1969 report.\(^6^5\) The declining capacity of unions to act in defence of its membership, however, naturally disillusioned the workforce. Thus, from a total union membership of 154,054 in 1965, membership dropped to 120,053 in 1969 (see Table 17 in Appendix). When the government came to favour a policy of promoting 'active co-operation', it became necessary to revive union membership, one of the problems addressed at
the 1969 seminar. One thing was abundantly clear though: militant trade unionism was finished in Singapore.

Institutional Measures and Public Investment

Apart from the PAP's crucial role in reducing the cost and militance of labour, there were various other ways in which the government attempted to create a climate conducive to EOI. This not only involved accelerated infrastructural development through statutory bodies, but also the provision of special institutional support and even direct government investments.

Institutional support in the late 1960s was characterised by increased specialisation. This particularly affected the EDB which shed many of its increasingly complex and demanding functions to make way for new, more specialised institutions. One of the most important of such was the Development Bank of Singapore (DBS) which was incorporated in July 1968 as a public limited company, with 48.6% government equity, to relieve the EDB of responsibility for financing the development of industry.66 Up until this point, the EDB had been required to reconcile the contradictory functions of promoting industry and yet acting as a prudent financier of it.67 The DBS was not only intended to resolve this contradiction but also facilitate greater specialist attention to promoting EOI, both from established and new firms. The DBS was established with an authorised capital of $200 million and a paid-up capital of $100 million. Not only was the DBS to provide long-term finance in favour of EOI at relatively low interest rates,68 it was also to take a sizeable equity with private capital as a means of stimulating EOI.69

The DBS wasted no time in assuming its functions. By the end of 1969, it had commitments amounting to $264.6 million in 98 ventures, made up of $160.1 million in loans, $42.9 million in equity and $61.6 million in guarantees. 78 of these ventures were in the manufacturing sector, making up $195.3 million or 73.8% of the total commitments.70
Soon after, in November 1968, the government established the International Trading Company (Intraco) as a public limited company to relieve the EDB's Export Promotional Division of its functions. Intraco's purpose was two-fold: to develop overseas markets for Singapore-made products and to source cheaper raw materials for local industries through bulk buying. In particular, Intraco was to handle trade with centrally-planned economies, something a large state body could do more effectively than any individual traders. Direct government equity in Intraco was 25% but the DBS held another 15%. The company's authorised capital was $50 million. Like DBS, Intraco also became active in equity participation.

As an additional measure to improve the prospects of export manufacturing, in January 1969 the government established a 100% government equity public limited company, Neptune Orient Lines. This reduced Singapore's dependence on foreign shipping, particularly Conference Lines, and facilitated easier trade with centrally-planned economies. Developing countries had long complained that Conference Lines discriminated against them with excessively high charges, a practice making exporting very costly. Neptune Orient Lines was intended to expedite foreign trade and ensure lower freight rates for Singapore-manufactured goods.

Another outgrowth of the EDB was the Jurong Town Corporation (JTC) which was established as a separate statutory body in June 1968 under the Ministry of Finance. It took over all responsibility for industrial land and estates from the EDB's Industrial Facilities Division. The volume and complexity of this work became particularly acute from 1967 when demand threatened to outpace the supply of industrial land. The JTC was thus created to provide more specialist attention and prevent any bottlenecks. It quickly implemented expansions. At the time of its establishment, 101 hectares were under preparation. By the end of 1968, however, 662 hectares were under preparation, 383 of which were ready for use within one year. This increased the supply of fully-prepared land by one-quarter.
Shedding some of its functions to new bodies, the EDB was able to concentrate on promoting export-oriented investment in Singapore. By the end of 1969 it had established promotional centres in New York, Hong Kong, San Francisco, Chicago, London and Tokyo and had plans for Frankfurt.

Other statutory boards set up to enhance industrial development included the National Productivity Centre (NPC) in 1967, the Engineering Industries Development Agency (EIDA) in 1968,\textsuperscript{77} and the Singapore Institute for Standards and Industrial Research (SISIR) in 1969.\textsuperscript{78}

In conjunction with the institutional measures to promote EOI, expansion through existing state bodies generated infrastructural improvements. Total government expenditure on economic development rose from $184.4 million in 1965 to $332.8 million in 1969-70.\textsuperscript{79} Of these sums, favourably termed loans to statutory boards amounted to 61.8% and 53.5% of the respective years.\textsuperscript{80} The government's capacity to provide finance for development was enhanced in September 1968 when it increased the rate of contribution by employers and employees to the Central Provident Fund (CPF) from 5% to 6.5% each. Contributions to the CPF rose from $68.0 million in 1968 to $106.6 million in 1969.\textsuperscript{81}

The government also turned to direct productive investments as a means of influencing Singapore's industrial structure. Whereas between 1960 and 1967 the total number of public investments in manufacturing enterprises was 18, as many as 13 such enterprises were established in 1968 alone and another eight the following year.\textsuperscript{82}

One of the main explanations for the surge in public investments was the government's initiative in taking over various operations vacated by the British. The government was not prepared to just hope that private enterprise would fill the gap. This was the case with the establishment in December 1968 of the Sembawang Shipyard as a private limited company with 75% government equity to take over the Royal Naval Dockyard.\textsuperscript{83} The Dockyard not only provided many
jobs but also represented a viable commercial enterprise. Indeed, the government insisted that profitability be the guiding principle of Sembawang's operations.84

The importance the government attached to this industry, one in which it already had a considerable stake, was also underlined in August 1968 when Keppel Shipyards Pte Ltd was separated from the Port of Singapore Authority (PSA) to form a wholly government-owned enterprise. This afforded the enterprise greater commercial flexibility. In the same year, the government invested in the Singapore Shipbuilding and Engineering Pte Ltd (23.4% equity) and Jurong Shipbuilders Pte Ltd (33.3% equity) and in the following year in the rigs, drilling and small vessels building company Bethlehem (S) Pte Ltd. (30% equity).85 The government's direct involvement in the industry had been given a fillip in view of the urgency of job creation and the opportunities created by the British withdrawal.

Shipbuilding was not the only enterprise inherited from the Dockyard. The Singapore Electronic and Engineering Pte Ltd, a wholly government-owned company, took over the Weapons and Radio Organisation. Here was another case of the government recognising commercial viability and taking the initiative to ensure the survival of the enterprise.86 Of the other public investments between 1968 and 1969, one of the more significant was the entry into the petroleum industry through joint-venture with the US-based Amoco (63%) and the Japanese-based Oceanic Petroleum (5.7%) called the Singapore Petroleum Company (SPC) in which the government's equity was 31.3%. The absence of any private domestic capital in this vital and lucrative industry meant that any local participation had to come from government.87 As the list in Table 12 below shows, other investments spanned a number of industrial groups, each one involving certain specific considerations. The point to bear in mind, however, is that the sudden overall increase in public investments was part of a broader strategy to promote industrialisation. Specific considerations became more pertinent in the context of the British withdrawal and the anticipated economic consequences.
<table>
<thead>
<tr>
<th>Year</th>
<th>Company</th>
<th>Equity Participation %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Govt.</td>
</tr>
<tr>
<td>1965</td>
<td>Raya Mills Corp Pte Ltd</td>
<td>50.0</td>
</tr>
<tr>
<td>1962</td>
<td>Acma Electrical Industries Ltd</td>
<td>16.7</td>
</tr>
<tr>
<td>1967</td>
<td>Sigma Metal Co Pte Ltd</td>
<td>11.0</td>
</tr>
<tr>
<td>1967</td>
<td>Far East Levingstone Shipbuilding Ltd</td>
<td>51.0</td>
</tr>
<tr>
<td>1967</td>
<td>Fairlady Fashions Ltd</td>
<td>n.a.</td>
</tr>
<tr>
<td>1968</td>
<td>Cerebos (S) Pte Ltd</td>
<td>45.0</td>
</tr>
<tr>
<td>1968</td>
<td>United Vegetable Oil Pte Ltd</td>
<td>40.0</td>
</tr>
<tr>
<td>1968</td>
<td>Cedar Garment Factory Ltd</td>
<td>18.4</td>
</tr>
<tr>
<td>1968</td>
<td>International Wood Products</td>
<td>21.7</td>
</tr>
<tr>
<td>1968</td>
<td>Toppan Printing Co (S) Pte Ltd</td>
<td>40.4</td>
</tr>
<tr>
<td>1968</td>
<td>Copper Industries Ltd</td>
<td>30.0</td>
</tr>
<tr>
<td>1969</td>
<td>Diaward Equipment Pte Ltd</td>
<td>33.3</td>
</tr>
<tr>
<td>1968</td>
<td>Keppel Shipyard Pte Ltd</td>
<td>100.0</td>
</tr>
<tr>
<td>1968</td>
<td>Jurong Shipbuilders Pte Ltd</td>
<td>33.3</td>
</tr>
<tr>
<td>1968</td>
<td>Sembawang Shipyard Ltd</td>
<td>75.0</td>
</tr>
<tr>
<td>1968</td>
<td>Singapore Shipbuilding and Engineering Pte Ltd</td>
<td>23.4</td>
</tr>
<tr>
<td>1968</td>
<td>Naigai (S) Pte Ltd</td>
<td>25.2</td>
</tr>
<tr>
<td>1968</td>
<td>Blue Bells Fashion Pte Ltd</td>
<td>8.0</td>
</tr>
<tr>
<td>1969</td>
<td>Straits Fisheries Pte Ltd</td>
<td>15.7</td>
</tr>
<tr>
<td>1969</td>
<td>John White Footwear</td>
<td>89.0</td>
</tr>
<tr>
<td>1969</td>
<td>Jurong Plywood Co Ltd</td>
<td>35.0</td>
</tr>
<tr>
<td>1969</td>
<td>Hytex Limited</td>
<td>5.0</td>
</tr>
<tr>
<td>1969</td>
<td>Singapore Petroleum Co Pte Ltd</td>
<td>31.3</td>
</tr>
<tr>
<td>1969</td>
<td>Singapore Electronics and Engineering Pte Ltd</td>
<td>100.0</td>
</tr>
<tr>
<td>1969</td>
<td>Trans-Aire Electronics (S) Pte Ltd</td>
<td>16.7</td>
</tr>
<tr>
<td>1969</td>
<td>Bethlehem (S) Pte Ltd</td>
<td>30.0</td>
</tr>
</tbody>
</table>

Government participation is defined as participation by the Ministry of Finance Incorporated, Development Bank of Singapore and Intraco.

Apart from the above measures to stimulate industry and shape its structure, the PAP was also active in tailoring the education system to the needs of industry. In 1969 six new vocational institutes were established (there was previously only one) for the teaching of trade skills and in approximately one year the intake of students rose from a few hundred to 2,151 in 1969.\(^88\) In the same year, the faculties of engineering, accounting and business administration and building and architecture were introduced to the University of Singapore.\(^89\)

It is quite clear, then, that the effort to promote industrialisation in general and EOI in particular involved a host of government measures. These represented various forms of direct and indirect intervention in the economy. As is outlined in detail later in this chapter, the response of international capital to these policies was extremely positive. This high government profile was integral to the industrialisation process and such a role would not diminish in the years ahead.

**Birth of the One-Party State**

At the same time as the PAP set about inculcating Singaporeans with a new ideology and restructuring the economy, its political opponents were conveniently in an advanced stage of self-destruction. The BS leadership persisted with the neo-colonial thesis and contesting the fact of Independence. This thesis not only created internal divisions but also provided part of the justification for the BS's crucial decision to boycott Parliament instigated by Dr Lee in December 1965. Though this decision lacked total Party support, by October 1966 all BS Assembly representatives had resigned from Parliament.\(^90\) The BS asserted that its participation in Parliament was dependent upon eight specified conditions being met by the PAP to enable serious political opposition to survive, including the release of political prisoners, freedom of speech and the abolition of detention laws.\(^91\) The PAP, of course, had no intention of meeting such demands, as the BS well knew. After all, in December 1965, Foreign Minister S. Rajaratman had boasted of how the Government "has induced the opposition to liquidate
themselves out of the Chamber". On 7 October 1966, then, Dr Lee declared that the BS would "carry on outside Parliament the struggle against imperialist oppression!" and "take our struggles into the streets".

The BS's first public outing under its new strategy on 23 October 1966, an Aid Vietnam show, produced violent clashes with police. This resulted in the detention under the ISA of 22 BS members, including the Party's organising secretary, and undermined plans for further demonstrations. The most significant public disturbances in 1966, however, stemmed from student dissatisfaction and were not reliant upon BS leadership. In particular, the recommendation of the Commission set up to investigate the academic status of Ngee Ann College that the institute become a junior college contrasted sharply with student aspirations for university status. Sit-in strikes by students followed and the University of Singapore Students' Union (USSU) and Nantah undergraduates added their support in a dispute which widened to include issues of general academic freedom. Events culminated in a demonstration on 4 November 1966. Clashes between police and demonstrators resulted in the arrest of 10 students. Subsequently, 112 students were expelled from Nanyang, 81 from Ngee Ann and 71 from Singapore University. Trouble died down at Nanyang by 1967 and by the following year at Ngee Ann. The PAP's control over educational institutions was considerably increased. Changes to school management, revision of school syllabus, the penetration of teachers' unions by the PAP, and a de-emphasis of Chinese education all facilitated greater direct control. At the same time, influence over universities was increased, especially through PAP representatives being appointed to university syndicate, the faculty and student organisations. The appointment of PAP Deputy Prime Minister Toh Chin Chye to the Vice Chancellorship of the University of Singapore left no doubt about the relationship between university and government.

In 1967 the BS became more active in trying to effect its strategy outside Parliament. Part of the reason for this was the success of Dr Lee at the March
1967 Party Congress in regaining his position as Party Chairman and relegating internal opponents of this strategy. However, the discord created by continuing to boycott Parliament and persistence with the phoney Independence thesis reflected in the BS's declining influence over non-NTUC unions. This was demonstrated by the poor response to the Party's call for a general strike in April 1967 to protest against the PAP's proposed changes to the Trade Union Act. The demonstrations which the BS did successfully organise in 1967 were forcefully suppressed by the government, resulting in massive arrests. The PAP continued to work from the assumption that opposition was of necessity communist-inspired and justified its repression on such grounds. A May Day demonstration led to the arrest of 46 people, including the Vice Chairman of the BS, and another 'sit down' protest outside Changi prison in June 1967 against alleged torture and ill-treatment of political detainees resulted in more than 300 arrests. Eventually, in December, prison sentences ranging from three to six months were handed out to the mass of those arrested. The fate of the protesters confirmed two things: first, the PAP was intent on suppressing all opposition, communist or not, and, second, in view of the government's predictable response, the extra-parliamentary strategy of the BS was doomed to fail.

Ineffectiveness of the BS outside Parliament did not force a revision of strategy. Instead the Party boycotted the 1968 general elections. As a result, the PAP was unopposed in 51 of the 58 constituencies and easily won the remaining seven seats. The only other party to contest the elections was the Workers' Party, fielding two candidates. The overwhelming support for the PAP indicated that many previous BS voters had changed camp. Had the BS contested the elections, then, it would not have won office but at least received enough seats to exploit the parliamentary forum.

The government's success in the 1968 elections reflected the ever-growing satisfaction of middle and lower income earners with the rapidly-materialising social reforms, especially in public housing. By this time, there was also
evidence that efforts to attract industrial capital were meeting some success. Overall, the government enjoyed an impressive record of efficiency and achievement under difficult circumstances. The government's electoral success also derived in part from the PAP's ideological campaigns. With the institutionalisation of the concept of survival, there was a simultaneous and related decline in critical appraisal of PAP actions and an increase in public receptivity to PAP rationalisations of its own behaviour.

At one level, arriving at a political system exclusively dominated by a single party was not problematical for the PAP, indeed it was conducive to good government if Lee Kuan Yew's earlier pronouncements had any relevance. Lee had held serious reservations about the value of one-person-one-vote systems in Asia: "At a time when you want harder work with less return and more capital investments, one man one vote produces just the opposite". Lee continued on to claim approvingly that the one-person-one-vote system and its associated public accountability had been:

superseded by systems which give power effectively to one man or a group of men for an indefinite period. Government to be effective must at least give the impression of enduring, and a government which is open to the vagaries of the ballot box when the people who put their crosses in the ballot box are not illiterate but semi-literate, which is worse, is a government which is already weakened before it starts to govern...If I were in authority in Singapore indefinitely without having to ask those who are being governed whether they like what is being done, then I have not the slightest doubt that I could govern much more effectively in their own interests ...

At another level, however, the PAP was at least concerned about the appearance of parliamentary democracy, if not the substance of it. This was understandable in view of the attempted high profile by the PAP in international affairs and its aspirations as a representative of and model for the Third World.

Before the 1968 elections, and following the BS withdrawal from Parliament, a government-appointed Constitutional Commission had, to the government's displeasure, focused on the general dangers arising from the effective monopoly of power enjoyed by the ruling party and recommended safeguards against abuses of
power. Only after considerable reticence, reservation and modification did these recommendations win the government's limited acceptance. Whilst concerned with appearance, then, the PAP had no intention of burdening itself with constraints on the exercise of state power.

The circumstances immediately following the 1968 elections raised a new set of questions about the dominant single party state. This time there were practical implications for the PAP's own functioning. At a time when the Party was trying to prepare a new generation of leaders for the future, the existing leadership speculated that the selection of appropriate successors might be impaired by the docile political climate. There were other negative implications for the Party such as the effect of this climate on intra-party debate and morale as well as the question of Singapore's international image. Lee talked of the need to re-introduce some form of political opposition:

Opposition in this Chamber will, and must, inevitably return. But the Opposition will not be individuals claiming to act as the conscience of the people, or offering themselves as the necessary accoutrements of parliamentary democracy or the spurious argument that because there is no Opposition, therefore there is no parliamentary democracy. Singapore is not that gullible and incredulous.

Exactly what Lee had in mind was not altogether clear but a subsequent support statement by S. Rajaratnam indicated that consideration was being given to nurturing an opposition from within the PAP's own ranks:

In the Prime Minister's speech, he expressed the hope that one day the Opposition would and must inevitably return. Before that day comes, we, the P.A.P., within ourselves in this House are already creating the "Opposition" group in the form of the Backbenchers. Although this form of Opposition, as the Prime Minister observed, is not the same as the real opposition that he and his colleagues experienced in the fifties and sixties, nevertheless the new Backbenchers who represent a wide cross-section of our society will undoubtedly be able to keep the parliamentary machinery going...

The PAP leadership appeared, then, to have a rather utilitarian notion of an opposition at this stage, something which could serve the Party's needs yet enhance Singapore's international image. However, the idea of a parliamentary opposition and questions over what form it might take seemed to have lost favour by the end of 1969.
Meanwhile ideological justification for the single party state was not difficult. After all, it was the logical extension of the Party's constant equation between itself and Singapore's economic and political survival and the notion that the PAP's mission was above party politics. In any case, whatever harm this situation may have done to Singapore's image as a parliamentary democracy, it certainly did no harm to the PAP's overriding objective of instilling business confidence in Singapore as a site for export production. Quite the contrary, especially when viewed in conjunction with the pro-capital measures introduced by the PAP in 1968 in particular.

Manufacturing Growth and International Capital

What we have seen above is that the PAP's decision to embark on a new strategy to industrialise involved both interventionist economic policies and the creation of an appropriate political climate. The PAP reasoned that for successful incorporation into the new international division of labour, the investment climate had to be in keeping with the needs of international capital which, in Singapore's case, was the only fraction of capital capable of affecting such a strategy. The PAP was also averse to local Chinese capital on political grounds and was therefore not interested in assisting it make the transition to, or play any significant role in, the EOI programme. The local Chinese business classes had sympathies with some of the PAP's opponents and had extended funds to such groups.

Given that the primary motivation behind international capital's establishment of export bases in developing countries was to exploit lower production costs, primarily labour, the PAP's political dominance was necessarily central to Singapore's industrial success. It facilitated the defeat of organised labour and legislated for wage reductions. At the same time, the state accepted responsibility for putting in place various forms of infrastructure which would not be forthcoming from local capital. In addition to these moves the state cushioned the costs of investment implementation as a lure to capital. In short, what we
have discussed above is the establishment by the PAP of the perceived preconditions for EOI under the aegis of international capital. Developments in the manufacturing sector between 1965 and 1969 suggested that the PAP's reading of these preconditions was insightful, and its capacity to affect them fundamental.

Between 1965 and 1969, the Singapore economy underwent considerable expansion. Total GDP (at 1968 constant market prices) rose from $3,048.7 million in 1965 to $4,906.1 million in 1969, an increase of 60.9% (see Table 8 in Appendix). Growth was particularly rapid for the years 1968 and 1969, being 13.9% and 13.7% respectively. This rapid growth owed much to the development of the manufacturing sector in general and the response of international capital to the government's EOI strategy in particular.

The expansion of the manufacturing sector between 1965 and 1969 was impressive in both absolute and relative terms. The sector's contribution to GDP rose from $465.1 million to $942.4 million during the period, and at growth rates of 20.7% and 22.4% for 1968 and 1969 respectively (at 1968 constant market prices). The manufacturing sector's contribution to total GDP thus increased from 15.3% in 1965 to 19.2% in 1969 (see Table 9 in Appendix). Manufacturing expansion towards the end of the period was quite remarkable. Output increased in 1969 by 53.1% over that of the previous year and value-added by 41.3% (at current market prices) (see Table 1 in Appendix). This development gave rise to a steep increase in job opportunities. Employment in the sector rose by 54,618 or by 108.9%, during the period. Of this, 53.8% was generated in 1969 alone (see Table 6 in Appendix). By the end of 1969, total unemployment in Singapore had fallen to 6.7% (see Table 1 in Appendix).

The above indicators show that the most impressive gains occurred following the government's concerted attempts to attract export-oriented capital from abroad. Indeed, the dramatically successful attempts to attract international capital were crucial to Singapore's industrialisation between 1965 and 1969. Gross
fixed assets of foreign investment in Singapore amounted to just $157 million at the end of 1965. By the end of 1969, however, this had risen by $443 million, of which $297 million was invested in 1968 and 1969 (see Table 10 in Appendix). As a result, by 1969, foreign investment represented 54.2% of total gross fixed assets in manufacturing, after being just 45.4% as recently as 1966.115

The rapid growth in foreign investment had important implications for the orientation of production in manufacturing. By 1969, a positive correlation had been established between foreign investment and export production. In 1969, whereas 70% of wholly locally-owned firms did not export, the proportion for wholly foreign-owned firms was just 30% and 37% for joint-ventures. Likewise, whereas only 2% of locally-owned firms exported all of their output, the figure was 13% for foreign firms and 8% for joint-ventures.116 Foreign investment, then, was largely, though not exclusively, responsible for the boost in the export of manufactured goods which occurred particularly towards the end of the 1965-1969 period.

The overall growth in the direct export of manufactured goods is shown in Table 5 of the Appendix. It rose from $858.5 million in 1965 to $1,971.2 million (in current prices) by 1969, an increase of 129.6%, of which 111.6% was generated in 1969 alone. There was, then, a very sudden and positive response to the government's measures to promote export growth. Such was the response that the ratio of export sales to output for the sector, which had declined from 51.4 in 1965 to 36.3 in 1968, recovered to reach 46.2 in 1969. Similarly, the ratio of direct exports to total sales for the sector had declined from 51.6 in 1965 to 36.3 in 1968 but recovered strongly to 45.7 in 1969 (see Table 2 in Appendix). The pattern amongst pioneer firms was similar. Between 1965 and 1969, the number of pioneer firms in production rose from 95 to 236 and the export/output ratio of these firms rose from 27.7 to 38.3 (see Table 15 in Appendix). It was too early to ascertain the durability of this trend, but by 1969, certainly a marked and decisive shift in the direction sought by the government had been achieved. This was also
reflected in the increased percentage of manufactured exports destined for markets other than Malaysia, up from 46.3% in 1965 to 84.6% in 1969.117

An examination of expansion in manufacturing activity on an industry basis reveals more clearly the nature of the growth in this sector. In terms of output, the petroleum refineries and petroleum products industry was by far the dominant growth industry between 1965 and 1969. Output increased by 495.17% (at current prices) for the period. Value-added also increased significantly, by 238.8% (at current prices). This industry also played the leading role in boosting manufactured exports. Between 1965 and 1969, there was a 741.9% increase in direct exports by the chemicals, chemical and petroleum products industries, of which 581.0% occurred in 1969 alone (see Table 5 in Appendix).118 The export/output ratio for these industries was up from 28.9 in 1965 to 56.1 in 1969.119 This export surge derived from Singapore's position as the largest petroleum refining, blending and distribution centre in Southeast Asia. Consequently, Singapore benefited by increased demand for refined petroleum exports to South Vietnam during the Vietnam War as well as from its East and Southeast Asian neighbours which were experiencing general economic and industrial expansion. Significant as growth in this industry was, however, these developments constituted more an accentuation of earlier prominence and tendencies rather than a decisive structural shift.

Behind petroleum refineries and petroleum products, the major growth industries in terms of output between 1965 and 1969 were food, transport equipment, electrical machinery and sawn-timber. The leading contributors to value-added were transport equipment, petroleum refineries and petroleum products, electrical machinery, food and sawn timber (see Table 4 in Appendix). Some of the traditional leading growth industries, such as food, beverages and tobacco, though still important, had fallen behind the newly-emerging industries of transport equipment, and electrical machinery in their contribution to total manufacturing value-added.
The newfound importance of the transport industry was of course no accident. As pointed out earlier in this chapter, the government had deliberately promoted this industry's development, with special focus on shipbuilding and repair. As both a labour and skill-intensive industry, this was understandable. A total of 12,020 more jobs were provided by the transport equipment industry between 1965 and 1969, 22% of the total new jobs for the period (see Table 6 in Appendix). Export expansion was significant in the industry's growth, particularly within shipbuilding and repair. By 1969, with an export/output ratio of 30.4 the transport equipment industry was one of Singapore's leading export industries. Even so, the industry was, overall, not export dominated but drew on both domestic and foreign markets.

The expansion of the shipbuilding and shiprepair industry was very rapid. As late as 1967 there was just one major shipyard (Jurong) and 24 small ones, with the industry employing 6,308 people and output value at $82.8 million. By the start of 1969, however, 45 shipyards were in operation and 12,000 workers were employed, with output value standing at $150 million. Regional demand for shipbuilding and shiprepairing was boosted by the increasing traffic of oil transporting vessels and the Vietnam War, whilst opportunities stemming from offshore oil exploration also benefited companies engaged in rig construction and supply. Added to the upturn in demand, Singapore became increasingly attractive as an export base for shipbuilding and shiprepair for Japanese-based companies. By the late 1960s, Japanese wage costs had risen to levels approaching those of the USA and Europe, land was becoming precious and expensive in Japan, government-imposed pollution controls were raising production costs and the ongoing revaluation of the Japanese yen further eroded the competitiveness of export production in Japan.

It was the emergence of the electrical machinery industry by 1969, above all else, which defined the government's EOI strategy as successful. The industry's growth in 1968 and 1969 was outstanding. Of the industry's $39.7 million increase in value-added between 1965 and 1969, 78.3% of this occurred between 1968 and
During the same brief period, 70.1% of the $102.1 million increase in output between 1965 and 1969 also occurred (see Table 3 in Appendix). The contribution of exports to total output was extremely high. Exports rose from $15,046 million in 1965 to $84,605 million in 1969 and in 1969 the industry had an export/output ratio of 66.3. The result of this massive expansion was an increase of 5,564 jobs between 1965 and 1969 in the industry, of which 4,617 were generated in 1969 (see Table 6 in Appendix). Operations in the industry were inherently labour-intensive, whether in the assembly of electrical goods or the manufacture of electronic components. Products involved included a range of consumer electrical appliances such as radios, televisions, tape recorders, electric fans, as well as electronic components such as integrated circuits and semiconductors.

The spectacular growth of the industry towards the end of the 1960s was essentially the product of a tendency amongst US-based companies to develop new export bases to keep up with the boom in demand for electrical and electronic goods in the markets of Europe and the USA. At the same time, the measures taken to boost low-cost and disciplined labour in 1968, combined with the declining political stability of the established offshore base for electronics, Hong Kong, rendered Singapore suitably attractive. The EDB also spared no effort to entice such companies and ensure their smooth and uncomplicated establishment. The assumption the EDB worked from, which proved to be correct, was that investments by these companies would have a catalytic effect, pressing other firms to come to Singapore in order to remain competitive. This is precisely what happened, especially amongst semiconductor manufacturers.

Production in the electrical and electronics industry by international capital in Singapore characteristically involved only the least sophisticated, most labour-intensive aspects of these firms' international divisions of labour. Technological advances had made it possible for the different stages of production to be sourced out to the most cost-efficient production sites available in the world. Singapore's attractiveness as a site for such production would always be subject to the global
options available to these firms and the dynamism of technology which would in turn influence the nature of the international division of labour by which firms in the industry operated.

Though not significant in terms of relative share of total manufacturing value-added or output, another group of industries emerged in the 1965-1969 period as important generators of employment. The textiles, clothing, footwear and leather group of industries accounted for only 6.3% of increased value-added and 5.3% of increased output in manufacturing yet as much as 14.8% of new employment by the sector (see Tables 3 and 4 in Appendix). This highly labour-intensive, low value-added group was also heavily export-oriented with an export/output ratio of 56.1 in 1969.128 The heavy dependence upon export markets was reinforced with the relocation of Hong Kong-controlled textile companies after 1967 in search of political stability and, later, favourable labour costs.129 Another rapid generator of employment between 1965 and 1969 was the sawn timber industry which provided 3,581 more jobs at the end of 1969. Like the above group, this was also heavily export-oriented with an export/output ratio of 45.4 in 1969.130

The above-discussed industries were not the only fast-growing industries in the period 1965-1969. The point was, however, that by 1969, amongst other things, a new group of labour-intensive industries had come to assume prominence alongside the petroleum refining and petroleum products industry. A significant portion of this industrial growth had been based on the exploitation of relatively low-cost labour and was geared towards production for the world market. To a greater extent then, the sorts of products manufactured, the techniques involved in production and the destination of products manufactured in Singapore were tied up with the requirements of international capital and its associated international division of labour.

In terms of the origins of foreign investment, by far the most significant development for the period 1965-1969 was the emergence of US-based capital as
the leading investor in Singapore's manufacturing sector (see Table 12 in Appendix). This was due primarily to the steep investment increases in 1968 and 1969 in the electrical and electronics industry. Total US-based capital doubled between 1967 and 1968 and increased by nearly two and a half times between 1968 and 1969. In 1968, US-based electronic companies Teledeyne, International Technology, National Semi-conductor and Texas Instruments all established subsidiaries in Singapore. The following year another eight US-based companies followed suit.131

In keeping with earlier developments, US-based companies continued to expand investment in the petroleum refineries and petroleum products industry, with Esso setting up a refinery and lubricating plant during the period. There was also an assortment of small import-substitution activities, supplemented with some orientation towards regional markets.132 Overall, however, it was the shift towards labour-intensive, export-oriented manufacture, most especially in electronics, which was the outstanding feature of US investment between 1965 and 1969.

The other significant feature of foreign investment between 1965 and 1969 was the virtual cessation of growth in investment by Japanese-based companies, growing by just $9 million for the period. This reflected the view that without a common market with Malaysia, Singapore's small domestic market was an insufficient basis for manufacturing investment. Japan continued to be more interested in domestic Southeast Asian markets than in manufacture for export. Thus, after being the dominant investor for the first half of the decade, Japanese interest generally waned, with the exception of the shipbuilding and repair industry discussed earlier.133

The US was followed by British and Netherlands-based capital as the leading investors between 1965 and 1969 in Singapore. However, the bulk of investment by these two was due to the investments of the British/Dutch Shell Group which increased capacity during 1965-1969. Shell completed a second refinery in
1967,134 and also established two subsidiaries in 1969 to make hydrocarbon solvents and base lubeoil.135 Neither country's investors were generally active in Singapore's industrialisation in this period, the British agency and merchant houses in particular showing no real inclination to diversify from its traditional base into manufacturing.

Conclusion
We have seen above that the PAP responded to the economic challenges posed between 1965 and 1969 with vigour and success. The measures to promote EOI were particularly successful towards the end of this period. Creating the appropriate investment climate for this strategy's success involved the PAP in measures to generate physical and social infrastructure, provide fiscal incentives, provide government equity participation and, above all else, ensure a relatively cheap and docile labour force.136

The drastic measures adopted to tame labour were taken with the confidence of a Party which in many respects had become indistinguishable from the state. Indeed, it was the longstanding and successful effort to weaken the independent labour movement and the establishment of a government-sponsored substitute organisation which ensured that there would be no organised resistance of any consequence to these policies. Equally, the PAP's autonomy from any single element of capital enabled it to address the question of industrial strategy without fear of alienating its base of support or being conditioned by political constraints. This was important not just in deciding the economic direction of Singapore, but also in the state adopting an economic interventionist approach to the implementation of its strategy. The capacity of the PAP to create conditions favourable to the attraction of international capital for export production, then, derived in large part from power relations initiated before the PAP wholeheartedly adopted the export strategy. Once adopting this strategy, however, these relationships were accentuated. The paternalism and authoritarianism of the PAP state was given a fillip.
Of particular relevance to the EOI strategy was the coincidence of an appropriate investment climate with the PAP's own political objectives. Thus, the weakening of labour was but part of the broader political project of creating the conditions for the PAP's unchallengeable dominance of Singapore's political system generally. All manner of repression could now be justified on the grounds of Singapore's desperate economic need to ensure the success of the export strategy and create the associated favourable investment conditions. Such conditions virtually excluded the possibility of any organised political opposition capable of being any threat to the PAP, particularly one which was based on labour support. Between 1965 and 1969, then, the monopoly of power by the PAP became entrenched, with a comprehensive ideology being promoted in the hope that the legitimacy of this monopoly would become internalised in the population.

Finally, it should not be forgotten that the success of the government's economic strategy, indeed even the possibility of such a strategy, owed something to historical circumstances. Not only was the tendency towards international sourcing and offshore production by international capital a relatively recent and specific phenomenon, but the point at which the PAP attempted the attraction of such capital coincided with a particular need for US electronics companies to expand capacity. Neither the general tendency of international capital nor the particular requirements of US electronics companies were within the PAP's control. The PAP had demonstrated, however, that Singapore's own historical circumstances enabled it to fully exploit these international factors. Further development of the Singapore economy was to increasingly rely upon the capacity of the Singapore state to identify and respond to changes in the international division of labour.
FOOTNOTES


2. Lee referred to the leaders of the MCA as the "political eunuchs" of the Alliance government. See ibid., p.30.

3. There were just a few items on the lists which did not have quota restrictions abolished.

4. This brought revenue duties of these States into line with the rest of Malaysia.


8. Tan commented that "About 40% of all Malaysia's two-day (sic) trade flowed through Singapore ... our move is not designed to hurt Singapore, but it is essential to our social and economic development. The time must come when our exports and imports must go through our own ports ... such a programme would offset whatever loss Malaysia might have as a result of British troop reduction ... Malaysians need more jobs and a switch from Singapore to Malaysian ports will help to accomplish this". As quoted in Harvey Stockwin, "Confrontation Echo", *Far Eastern Economic Review*, 13.10.66, p.50.


11. This sum was made up of $225 million in pay to military personnel, $120 million to civilian lease employees and the remainder on local goods and services. See Singapore Ministry of Culture, *The Mirror*, 4, (15), 8 April, pp.4,6-8. Also see Lee Soo Ann, "Effects of the British Withdrawal", in *Papers on Economic Planning and Development in Singapore*, Singapore: Adult Education Board, 1971, pp.44-51.

12. Fong, 1980, p.188.


15. As quoted in Chan, 1971, p.15.

16. In Lim Kim San's budget speech, he outlined four possible opportunities for exporters: (i) "markets in the developed, highly-industrialised countries of the world;" (ii) "New markets in Africa and Eastern Europe;" (iii) "Markets to be provided by those countries which have been consistently running favourable balances of trade with us;" (iv) "Markets in those countries which have a vested interest in ensuring that Singapore remains viable and stable so that, in turn, their own security interests are not jeopardised". The first three possibilities were expected to be only slow in developing. See Harvey Stockwin, "Re-Merger for Singapore?" Far Eastern Economic Review, 10.3.66, p.473.


19. ibid.


21. To qualify, companies had to derive at least 20% of their profits from exports and have sales not amounting to less than $100,000 per year.


25. ibid.


28. As quoted in ibid., p.49.

29. ibid., p.53.

30. ibid., pp.52-53.


32. See Chan, 1971, p.53.

33. As quoted in ibid., p.51.

35. As quoted in Chan, 1971, p.52.


37. Chan, p.53.


41. Scientism, or mechanical materialism, is a positivist ideology which extends the reductionist methods of natural science to human sciences, converting human subjects into objects. Hilary Rose and Steven Rose observe that: "All knowledge except that which is legitimised by this mechanical materialism is denied. The consequence, as the 'scientists' are the producers of mechanical materialism, in that science becomes an ideology and scientists the ideologists. How does this work? As the material world controls the limits of an interpretation of the scientist in his own work, the answer lies, as Marx and Engels saw, outside the precise research area, where the scientist, freed from such constraints, talks (typically in the name of science), invoking neutrality, technique and expertise, the scientist supports the ruling strata". See Hilary Rose and Steven Rose, "The Problematical Inheritance: Marx and Engels on the Natural Sciences", in Hilary Rose and Steven Rose (editors), *The Political Economy of Science*, London: Macmillan, 1976, pp.8-9.

42. As quoted in Josey, 1980, p.316.


44. ibid., p.186. Lee’s first plan for an elite school was mooted in 1965. For details see Alex Josey, *Lee Kuan Yew. The Struggle for Singapore*, Sydney: Angus and Robertson, 1974, pp.56-57.

45. As quoted in George, 1975, pp.186-187.

46. The CCCs worked closely with such organisations as the Vigilante Corps Training Centre and the National Youth Leadership Training Institute in the attempt to ensure appropriate value inculcation amongst youth. See Seah Chee Meow, *Community Centres in Singapore*, Singapore: Singapore University Press, 1973, pp.37,48-55.


51. The increasingly important role played by the CCC in mobilising support for the Party meant that the PAP was less reliant upon the NTUC and, therefore, alienating it was not so much a problem as in the past.


53. Pang, in Chen and Evers (editors) 1978, p.428.

54. The PAP government reprimanded the NTUC and the PDREUF for "social indiscipline", and Lee reiterated the consequences of such behaviour: "The urge for wage increases might set up a chain reaction thereby creating a situation which will prevent us from creating jobs for the young generation coming on to the labour market". As quoted in Chan, 1971, p.25.

55. The unions involved were the Singapore Commercial Houses and Factory Employees' Union, the Singapore Shoe Employees' Union; and the Singapore Rubber Employees' Union. See Fong Sip Chee, 1980, pp.186-187.

56. Nyaw, 1979, p.179.

57. As quoted in Pang, 1971, p.76.


64. See Pang in Chen and Evers (editors) 1978, p.430.


68. These were usually offered at 9%. See Lee, 1973, p.104.

69. The DBS was supposed to take slightly greater risks in respect of the size of loans it gives, the nature of the enterprise, and the duration of the loan.


71. In 1972, Intraco's capital was restructured and it became a public limited company.


78. SISIR was created out of the Industrial Research Unit of the EDB to assist industry to overcome problems of technology and standardisation.

79. 1969–1970 refers to the period from 1 January 1969 to 31 March 1970, 15 months. From this point on, the Accountant General's Department data were presented on the basis of the financial year, 1 April to 31 March. See Table 21 in Appendix.

80. As calculated from Table 21 in Appendix.


83. Sembawang Shipyard Ltd. was converted into a public limited company in April 1973.
84. Upon acquisition, Swan Hunter, a foreign private firm, was appointed Managing Agent on a five-year contract to develop and manage the yard along commercial lines.


87. ibid., p.133.


90. Chan, 1971, p.23 points out that support for the boycott of Parliament by left wing trade unions was far less than anticipated by the BS Assembly people. Bellows also points out that there was significant division amongst the BS Assembly people themselves. The BS's Parliamentary leader, Lim Huan Boon, stated at the time of resignation: "By boycotting Parliament, we have broken faith not only with the democratic system but with the people who elected us". The boycott decision also prompted some resignations from the Party by Assembly people. See Thomas J. Bellows, The People's Action Party of Singapore: The Emergence of a Dominant Party System, Yale University, Southeast Asia Studies, Monograph Series, Number 14, 1973, pp.96-97.

91. Other conditions laid down by the BS included: free publication of party materials without censorship; the establishment of police neutrality; automatic citizenship and voting rights; an end to PAP intimidation and an assurance that there would be no revision of electoral laws and freedoms. See Chan, 1971, p.23.

92. As quoted in David Bonavia, "Has Singapore an Opposition?" Far Eastern Economic Review, 2.2.67, p.168.

93. See Fong, 1980, p.178.

94. For details of the incidents occurring during the demonstration see Chan, 1971, p.23.

95. The 'suitability certificate' was an issue which received particular attention from the USSU. See Fong, 1980, pp.179-180.

96. ibid., p.181.

97. The government maintained that foreign, notably Malaysian, students were largely responsible for the disturbances. The majority of expelled students were Malaysians. See ibid. and Chan, 1971, p.22.


100. See Fong, 1980, pp.183-184.

101. A total of 261 people were finally charged. See ibid., p.187.
102. The remaining five candidates were Independents.

103. Bellows, 1973, p.116, contends that the BS still had the capacity to secure between five and seven seats. Adherence to the "phony Independence" thesis had contributed to the success of the PAP and would have hampered any electoral challenge had the BS contested the election. This thesis, for example, had led the BS to advocate the withdrawal of British military bases, even though it would mean considerable unemployment for the very classes it hoped to represent.

104. The home ownership scheme established in 1964 for low and middle income groups was improved in 1968 when the PAP permitted the use of CPF savings to be used by individuals as 'down payment' for the purchase of HDB flats. See John Drysdale, *Singapore Struggle for Success*, Singapore: Times Books International, 1984, p.406.

105. As quoted in George, 1975, p.114.

106. As quoted in ibid.

107. The Commission proposed the creation of a council of state, comprising eminent yet politically independent citizens, to act as an advisory body. It would publically debate laws after their first reading in Parliament and focus on any threats to university groups posed by legislation. The Commission also suggested the creation of an independent Ombudsman to handle complaints about administrative abuses. Another recommendation was that fundamental constitutional provisions should require a two-thirds parliamentary majority for alteration, subsequently confirmed by a two-thirds majority of all the electors in a referendum. See Turnbull, 1982, p.319.

108. The government rejected suggestions regarding constitutional change. It also rejected the idea of an advisory council of state publically debating issues. It did, however, give accent to the principle of such a body so long as it met in private. The government also agreed in principle with the appointment of an Ombudsman but, by the end of 1969, had not actually appointed one. See ibid., p.319.

109. As a result of the 1968 elections, there were 18 new PAP members of Parliament. See Shee, 1971, p.78.


111. As quoted in Josey, 1974, p.235.


113. ibid., p.122.

114. As Pang, 1971, p.77, wrote: "In recent years PAP leaders appear to see themselves more as architects of the new state of Singapore than leaders of a particular Party. The primary objective is to build a strong and economically viable Singapore, and the Party has become merely one of the instruments to achieve this".


117. ibid., p.42.

118. Export data for the petroleum and petroleum products industry alone were not available for 1965 and therefore the category chemicals, chemical and petroleum products industries had to be used. However, petroleum and petroleum products was by far the dominant industry of the group and in 1969 the petroleum and coal products category had an export/output ratio of 51.1.

119. Owing to the problem referred to in footnote 121, the export/output ratio for these industries had to be calculated by using the output data pertaining to the category chemicals, chemical and petroleum products. These data, which were derived from the censuses of industrial production for the years 1965 and 1969, were supplied in Nyaw, 1969, p.196.

120. In 1969, for example, labour earnings in the transport equipment industry amounted to one-quarter of the total manufacturing remuneration paid to all labour. The cost of labour formed one-third of production value whereas the figure for manufacturing as a whole was only one-tenth. See Chia Siow Yue, "Growth and Pattern of Industrialization", in You Poh Seng and Lim Chong Yah (editors), The Singapore Economy, Singapore: Eastern Universities Press, 1971, p.207.

121. As calculated from Tables 3 and 5 in Appendix.

122. Lim Chong Yah and Ow Chwee Huay, "The Economic Development of Singapore in the Sixties and Beyond", in You and Lim (editors), 1971, p.33.

123. ibid., p.33.


125. As calculated from Tables 3 and 5 in Appendix.

126. 1967 was the year of the Macao riots.

127. Yoshihara, 1976, p.84.

128. As calculated from Tables 3 and 5 in Appendix.


130. As calculated from Tables 3 and 5 in Appendix.


132. ibid., p.82.

133. For a more detailed discussion of waning investment by Japanese-based companies, see Terutomo Ozawa, "Labour Resource Oriented Migration of Japanese Industries To Taiwan, Singapore and South Korea", Economics Staff Working Paper, Number 134, World Bank, August 1972.
134. This increased total capacity for Shell to 100,000 barrels per day. The Shell group comprise the British Company Transport and Trading Co.Ltd (a 40% interest) and the Royal Dutch Petroleum Co., a Dutch concern (a 60% interest). See Yoshihara, 1976, p.123.

135. ibid., p.114.

136. Special emphasis had to be placed on labour discipline since it was unlikely that wage levels alone could be reduced to a point which gave production in Singapore an absolute advantage over alternative export production sites in the region. However, low wages in conjunction with a disciplined, highly educated, English-speaking workforce rendered Singapore a very attractive production site.
CHAPTER 7

EARLY SHIFT TOWARDS HIGHER VALUE-ADDED PRODUCTION: 1970–1975

Introduction

Having expanded the manufacturing sector through the promotion of international capital investment and production for the world market, the Singapore government experienced almost immediate success in stimulating economic growth and generating employment. This closer integration of the manufacturing sector with the world economy, however, also committed that sector to a certain logic which would yet be felt in other ways. Not only would the Singapore economy be more closely subject to the vagaries of demand in the international economy, it would also be shaped by the fluid requirements and perceptions of international capital. The continued success of the export strategy would depend heavily on the capacity of the state to respond to the changing needs and perceptions of international capital. The high profile of the state during the 1960s, then, was by no means over.

Upon reaching full employment, and with international capital beginning to explore avenues for higher value-added investment in Singapore, the PAP adopted a number of initiatives intended to promote higher quality investments. These included: changes to fiscal and tax incentives offered to investors, expansions in the quality and quantity of social and physical infrastructure; selective equity participation in industry; announcement of an export credit scheme; and, of special importance, the introduction of more direct institutional control over wage levels and the harnessing of the trade union movement to support the government’s changed economic emphasis. These last two measures assumed even more importance when the 1974/75 global recession precipitated a return to a less selective investment drive. The economic volatility of the 1970–1975 period thus not only brought into focus the role of the state in generating the economic
conditions and inducements appropriate to higher value-added forms of production in Singapore. It also highlighted the range of political and social functions of the state in times of expansion and contraction of industrial activity. Indeed, incorporation into the new international division of labour affected more than the pace and nature of industrial development. It affected the entire political economy within which this production took place. Thus, although much of the PAP's repression of political opposition and general authoritarian rule had previously been rationalised on the grounds that a massive unemployment problem and economic crisis would otherwise result, there was no liberalisation of conditions once the PAP's political security was confirmed and unemployment eased. There was, however, a hardening of the PAP's resolve to curtail any dissent when the vulnerability of its externally-oriented strategy was exposed during the recession.

We see below then that at an early stage in the development of the strategy, the PAP consciously attempted to foster a particular pattern of international capital investment which had begun to emerge. Objective conditions quickly changed, however, thereby bringing into question the appropriateness and effectiveness of this attempt. Thus, whilst the state very definitely played a fundamental role in shaping industrial structure, it did this with cognizance of the dynamics of the global economy and international capital.

Adjustment to Industrial Strategy
Although the EOI strategy was founded on the attraction of investments for largely unskilled, labour-intensive production, Singapore's policy-makers never intended the economy to linger at this level of production longer than was necessary to solve unemployment. By the start of 1969, the government already appeared to be pondering the longer term prospects for industry in Singapore:

As development proceeds, major emphasis must be adjusted to reflect the emerging situation and to provide new guidelines towards desirable directions of growth. At the beginning of the industrialisation programme, the most urgent task had been that of
solving the chronic unemployment problem—both of the backlog and of providing sufficient new jobs for school leavers. Policy was thus properly directed towards getting a diversity of manufacturing enterprises established quickly to get the programme off the ground. Now, there will have to be more attention paid to a qualitative approach rather than a mere quantitative approach. The main effort and encouragement will be diverted towards changing the essential structure of the industrial sector—particularly towards the type of operations that have the highest value added, provide most scope for the development of skill potential and require a greater science and technology content. These industries are essentially long term in concept and are capable of sinking deep roots. Such developments, however, must be closely related to relevant programmes for education, training and productivity consciousness.

Given that at the time of this statement Singapore’s unemployment rate was still 7.3%, such a perspective may have seemed exceedingly ambitious. The pace of change had been so fast, however, that this projection of longer term economic possibilities was quite warranted. The rapid growth of the commercial, service and manufacturing sectors had already been such that the government had, in 1968, relaxed its immigration laws to facilitate the entry of foreign labour in certain skilled and semi-skilled areas. Before long, shortages became more acute in unskilled areas, especially construction and manufacturing assembly. As employment options widened, Singaporeans increasingly shunned heavy manual jobs and other ‘dirty’ work. A 1969 report on labour force problems revealed that resignation rates of 10–20% per month in new factories were common. The tremendous pace of Singapore’s industrialisation, if continued, was only likely to accentuate the growing selectivity of Singaporeans in employment and the need to import foreign labour.

By the end of 1969, the unemployment rate in Singapore had fallen to 6.7% and, based on projected investment growth, full employment (in economic terms) was quite possible in the foreseeable future. Under these circumstances, the PAP government felt it appropriate to begin to be somewhat more selective in industry promotion. First official hint of this came in the 1969 Annual Report of the EDB published in early 1970:

In evaluating new projects for the 1970s, however, more demanding criteria and critical examination will have to be applied to ensure
that growth is directed towards making use of resources and advantages. The main emphasis and priority will be given to those types of industries and operations that can make the most significant contribution in skill development with good potential for technological advance. The products must be marketable on a worldwide basis with prospects for future growth.  

In its Report, the EDB nominated various industries and products which belonged to the preferred areas for future investment. In broad industry category terms, these included: metal engineering and machinery; aerospace engineering; shipbuilding and transport equipment; optical instruments and lenses; engineering; scientific and medical equipment; electrical and electronic products; petrochemicals; plastic materials and fibres; jewellery. Reference was also made to the need to develop Singapore's service and commercial services, particularly the scope for Singapore as an international financial centre.

The government's first concrete policy change towards promoting higher value-added production came in 1970 following a review by the Ministry of Finance of tax concessions to pioneer industries. The government enacted the Economic Expansion Incentives (Amendment) Act 1970 which significantly tightened up eligibility for benefits under the 1967 Act. In addition, tax relief periods for export enterprises were reduced from 15 to five years for non-pioneer firms, and from 15 to eight years for pioneer firms. Another change was that capital allowances would now have to be taken into account by expanding and pioneer firms in computing their respective income exemption, something not required under the 1967 Act. This meant that less income would be tax exempt than previously estimated by firms.

As a matter of interpretation, the alterations to incentives should be seen as an active encouragement to higher value-added production rather than as an outright discouragement to more labour-intensive, lower value added investments. The latter were still welcome in Singapore, but not as welcome as the former. The Singapore economy, however, was not yet at the point where investment per se could be turned down. There was still the spectre of unemployment posed by the final withdrawal of British military forces in 1971, a
point which Lee emphasised in late 1970. The loss of some 30,000 British families' spending power, the retrenchment of 16,500 employees, and the abandonment of over 3,000 locally enlisted uniformed personnel had yet to be contended with. Once this problem had been overcome, Lee assured:

... we will spend more time and resources upgrading the skills and increasing the earnings of our workers. We must move into the middle brackets of technology. Then the average take-home pay will go up because value-added in the manufacturing process is increased.

As evidenced in Lee's statement, an assumption underlying the government's strategy for future industrial growth was that increased workers' skills would give rise to greater productivity and, hence, a greater capacity by capital to pay higher wages. To this point, however, workers had been given no explanation of how this capacity necessarily translated into real wage increases.

Over the next few years, the government's commitment to the promotion of higher value-added export-oriented investments was reinforced, particularly with the further tightening of the labour market. This was expressed in various ways: labour shortages in certain areas of industry; increased dependence upon foreign labour; and high job turnover rates. A survey conducted in July 1972 by New Nation identified Singapore's most labour-intensive industries of garments and textiles, electrical machinery, and shipbuilding and shiprepairing as the manufacturing sector's most adversely affected industries. According to the survey, these three industries were 9,000 workers short. Not only did this cause cutbacks in production, but it began to foster 'poaching' of workers by competing firms. Such circumstances had the potential to bring about significant wage rises. In order to avert such a situation, and ensure maximum economic growth, the government permitted large increases in the importation of foreign labour. By 1973, over 100,000 of Singapore's 817,400 total workforce was comprised of immigrant labour, mainly from Malaysia. In conjunction with this trend, the government encouraged the increased participation of women in the workforce. This cheap, unskilled source was in particular demand in the low
value production work in electrical and electronics assembly and the garments industry. In spite of these additions to the labour force, however, in 1973 the Ministry of Labour reported cases of annual turnover rates of 95% in electronics and 100% in one particular textiles plant.11 In response to this tendency, as from June 1973 foreign work permit holders required permission from the Ministry of Labour to transfer to a new employer inside three years of starting a job. This was not just intended to curb turnover rates but to also encourage labour training by companies.12

If the tightening of the labour market persuaded the government to consider measures to reduce reliance upon low value, labour-intensive production, it was the newfound interest by a range of international companies in Singapore which gave the government the confidence to act. Actual and committed foreign investment in the period 1970-1972 included various projects in precision engineering products such as tools and dies, watch accessories, miniature ball bearings, machinery, optical instruments and cameras, as well as the establishment of a semi-synthetic penicillin plant and various forms of forward integration and diversification in the electrical and electronics industry. Indications were, therefore, that some elements of international capital had identified Singapore as a suitable production site for the manufacture and export of higher value-added products and processes than those on which the post-1965 industrial programme had been based. The sort of technology involved may still have been modest by international standards, but the beginnings of a shift in the broad direction desired by the government did appear to be under way.

Aside from the favourable investment trends of the early 1970s, by the end of 1972 unemployment had dropped to 4.7% and the military pull-out had taken place smoothly.13 The country's National Service graduates had also been satisfactorily absorbed into the workforce. In 1972, then, Lee Kuan Yew declared that job creation was no longer the prime concern of the government:

Today there is only frictional unemployment – workers on the move in search of better jobs. Now we have to take some fundamental
decisions on what kind of society we want to be. I say let us raise our sights, let us aim at quality and not quantity, (sic) From now on, we will choose industries which are more skill-intensive, more sophisticated in production, and can therefore pay higher wages.14

Lee was obviously satisfied that the once daunting challenge of unemployment had been defeated and appeared to be suggesting that more measures to affect restructuring were forthcoming.

The government’s intention to become more selective in investment promotion did not signify disillusionment with the Singapore economy’s incorporation into the new international division of labour. On the contrary, the aspiration was that Singapore’s position in this structure be slightly elevated. S. Rajaratnam’s 1972 address to the Singapore Press Club, entitled "Singapore: Global City", in which even greater integration with international capital was advocated, exemplified the faith of the government in the path already followed. Rajaratnam expressed the optimistic view that, with the further internationalisation of production, Singapore stood the best chance of achieving a technological short-cut in its development.15

**Wage Policy**

Despite government statements about the potential for increased wages with the advent of higher value-added production, it nevertheless realised that international wage competitiveness remained fundamental to Singapore’s industrial strategy. As an export production site, potential investors would continue to compare Singapore with Hong Kong, Taiwan and South Korea. The closing of the wage gap between Singapore and these regional rivals had been of particular significance to the success of the strategy so far. Before 1968, and the adoption of the low wage policy, Singapore had the highest wage levels of these four alternative production sites. However, by the end of 1971, Singapore’s comparative wage levels had dropped to the point where it ranked behind Hong Kong’s wage levels in manufacturing and the differential between South Korean wages and its own had been nearly halved.16 A study completed in 1972 by the
Stanford Research Institute on comparative labour costs in South Korea, Taiwan, Hong Kong, Singapore and Japan also concluded that Singapore had by far the best record in maintaining wage cost stability. However, with Singapore's competitors also intent on attracting higher value-added investments, and with wage costs still comprising a significant component of total production costs in such industry, these gains could not be sacrificed now. Rather, the problem for the government was how to ensure control over wages amidst new circumstances.

Ironically, the new circumstances which rendered wage control a more difficult exercise derived from the very success of the government's low wage policy and broader strategy. So rapid was industrial growth that the resulting material benefits to the non-wage sections of Singapore society were both considerable and conspicuous. Workers' receptivity to appeals for sacrifice and restraint understandably weakened under these circumstances. In May 1971, the NTUC campaigned for a more equitable share of profits. Whilst emphasising the need for continuing discipline, NTUC Secretary-General Devan Nair vented the frustrations of labour when he questioned the justification for workers sacrificing improved wages indefinitely:

To keep on tightening our belts when other sectors of society are loosening theirs (sic) ... is to expect the impossible. What trade unions have every right to expect is a rational and progressive policy on incomes, whereby workers are clearly seen to share fairly and justly, in the growing profits of trade and industry.

As much as airing the feelings of workers, Devan Nair was cautioning the government about the limits to the NTUC's moderating influence over the workforce under such visibly inequitable conditions. Added to the question of inequality was the fact of inflation which increased by 1.8% in 1971, thereby eroding the real value of wages (see Table 18 in Appendix).

Throughout 1971 workers' discontent with the wage policy was quite real and coincided with growing labour shortages and, therefore, a continually improving bargaining position. Out of the endeavour to attract scarce labour, some non-unionised firms began offering higher wages to lure workers from unionised
firms. Where this was successful, staff turnover rates naturally increased. Some unions also found it possible to obtain wage increases without contravening the terms of the Employment Act.

Despite the official continuation of the low wage policy, then, wages increased in 1971 by an estimated 10% in the private sector of the economy. In early 1972, however, labour's resolve to improve its position manifested in an unusual spate of industrial disputes which essentially centred around the claim for a fairer share of profits by way of bigger bonus payments than afforded under the Employment Act. The most interesting aspect of these disputes was the government's non-involvement. By now the government had come to share the genuine fears of capital that a wage explosion was a real possibility but had also concluded that a total clamp on wages was not only impossible but counter-productive to wage control. Consistent with this reasoning, the government opted to ease the freeze on wages but, at the same time, to introduce more formalised institutional control over the process by which wage rises were arrived at. This would, hopefully, guard against any wage 'explosion'.

The first official hint of a new process for determining wage levels came on 19 June 1971 from the Finance Minister, Hon Sui Sen. Evidently, subsequent trends reinforced the government's conviction that such a change was required and in February 1972 the National Wages Council (NWC) was formed. This 10-member tripartite body was comprised of equal representation of capital, labour and government and included an independent chairman who, in 1972, was Professor Lim Chong Yah, an academic economist. Representatives of capital were drawn from the Singapore Employers' Federation (SEF), the National Employers' Council (NEC) and the Singapore Manufacturers' Association (SMA). Representatives of capital thus tended to favour larger employers and, particularly, those belonging to international companies which were strongly represented in these bodies. Labour representatives were drawn from the NTUC, and the government's representatives from its own departments. Under this
structure, the government's influence was quite pervasive since apart from its own direct representation, the PAP's cross-fertilisation with the NTUC, and the absence of any independent union representation, ensured that in practice the NWC would in effect reflect government policy.

The stated threefold purpose of the NWC was to: formulate general guidelines on wages; ensure orderly wage developments to promote economic and social development; and help devise incentive schemes to improve national productivity. Through the NWC, therefore, wage rises were certainly envisaged. The more important point of the NWC, however, was to influence the way in which rises would occur. In an address to the NTUC in March 1972, Lee Kuan Yew asserted:

We have the choice of controlled and steady wage increases and real growth, or of taking quick gains in artificially high and sudden increases in wage rates and bonuses, but thereby jeopardising future growth.24

The government's intention was to increase wages to a point which would prevent either a resurgence of labour militance or a tendency for spasmodic, unpredictable wage rises. Neither scenario would have enhanced Singapore's attractiveness to capital, especially where investment decisions involved longer term considerations, as was the case with higher value-added investment.

Although not mandatory, the NWC guidelines had the stamp of legitimacy in view of the apparent official tripartite support they enjoyed. Moreover, since disputes arising out of failed negotiations over these guidelines would be settled by the IAC, which would invariably take account of government policy, these guidelines had very real implications for collective bargaining. Indeed, collective bargaining would be further weakened since the agenda for negotiations was now effectively a matter of central institutional determination. This did not mean that wage increases would necessarily mirror those recommended, nor that they would henceforth be uniform, but it did give unions and employers clear indications of the sorts of claims that would be tolerated as legitimate.
Aside from the concern to avoid wage increases which would undermine the competitiveness of Singapore's manufactured exports, the more formal control over wages was also intended to help address the question of labour utilisation. The government's economic adviser, Dr Albert Winsemius, had warned that the pursuance of a low wage policy after the realisation of full employment would put a break on economic growth by encouraging labour absorption ahead of labour replacement in production.25 Given that labour shortages were now widespread, the government was therefore looking to improved productivity from traditional, low value-added industries such as textiles and garments, especially through mechanisation. There was some expectation that increased wages would force some of these manufacturers to make greater use of the improved training facilities and tax incentives available for the development of more efficient technology.

Confirmation that the government had softened its line on wage increases came in March 1972 with Lee Kuan Yew's announcement of average wage increases of 11.3% for all civil servants. The wage increase included a "thirteenth annual payment", an allowance equivalent to one month's pay, which Lee stressed was not a bonus. Unlike a bonus in the proper sense, this payment would be automatic and not subject to performance.26 This was the first step towards bridging the gap between public and private sector wage rates.27

Subsequent to the government's announcement of civil service wage increases, the NWC made its 1972 recommendations for the private sector of a flat 8% wage increase. Additionally, in keeping with the concept of a "thirteenth annual payment" the NWC recommended that the traditional bonus system be integrated into an annual wage supplement system. Under this complex system, it was possible for a worker to get an annual 'bonus' payment equal to between one and three months' salary.28 This represented a major departure from the rigid stipulation under the Employment Act of a maximum negotiable bonus equal to one month's wages. The NWC thus institutionalised bonus payments and annual
wage supplements as integral to the process of wage determination. Towards the end of 1972, the government also amended the Employment Act to extend the overtime limit from 48 hours to 72 hours per month.

In 1973, the NWC recommended a flat increase of 9%, but on this occasion applicable both to the public and private sectors. The recommendations, again fully accepted by the government, provided for variable off-setting against increments which occurred due to pre-1972 collective agreements. However, owing to an inflation rate increase of 19.6% in 1973, this recommendation was supplemented in February 1974 with an interim monthly cost of living allowance of $25 for workers receiving less than $1,000 per month. This represented the first attempt to address the question of income distribution. Previous recommendations had, due to the flat increases, tended to widen income disparities amongst wage earners. The NTUC, however, had argued consistently in favour of redressing disparities. The subsequent 1974 NWC recommendations called for an increase of $40 plus 6%, with no offsetting against wage increments for workers earning less than $1,000 per month, and a $40 lump sum plus 10% for workers with incomes above $1,000 per month. These recommendations, once more accepted in full by the government, effectively meant a 26% increase for those earning around $200 per month and an 11% increase for those earning above $11,000 per month.

The NWC's seemingly boldest recommendations were in 1974, advocating average wage increases of 16.2%. To some extent, this recommendation reflected the government's disappointment with a trend highlighted by Hon Sui Sen in his budget speech of the same year. Hon pointed out that 50,000 new jobs had been created in the Singapore economy in 1973, of which 24,400 were in the manufacturing sector. Hon observed that:

Such a massive new job creation was, however, not in accord with our strategy of raising the productivity of labour ... despite having to pay the NWC increased wages in 1973, employers apparently did not feel sufficiently induced to economise on scarce labour.
At the same time as this job creation was taking place, there was also a strong growth in the number of investments in middle technology industries and in the overall value-added per worker in the manufacturing sector.\textsuperscript{35} There was, thus, an inadequate rationalisation of labour by certain industries. The disproportionate wage increases for those workers receiving the lowest incomes were therefore intended to hit the labour-intensive, low value-added industries hardest.\textsuperscript{36} But if this third NWC decision was more aggressive, it still did not represent a departure from the view expressed by Lee Kuan Yew in 1972 that skill levels would need to be raised and more sophisticated industries attracted before better wages would be possible.\textsuperscript{37} The commitment to the idea that wages could be increased as a means of discouraging inefficient labour usage was still conditioned by other objectives. As Lee told a group of workers at the Sembawang Shipyard in 1974:

\begin{quote}
In the end it must be a compromise which will compensate workers for their loss of real earnings through inflation, while maintaining the edge in our exports, and also continue to encourage further foreign investors in skill-intensive, middle technology manufacture.\textsuperscript{38}
\end{quote}

Thus, at the height of the so-called 'high wage policy', Lee still had a qualified view on the extent to which wage increases could be used to assist restructuring. After all, wage increases might be effective in releasing some labour from inefficient manufacturers, but new industries would not be attracted without suitably competitive wage levels.

Despite the qualifications about the government's relaxation of the wage freeze, the new policy did nevertheless represent an important recognition by the PAP government of the implications of changes in the domestic labour market for economic strategy. The official approval of wage increases amounted to recognition that Singapore's survival in the new international division of labour rested on the ability to respond to the new circumstances and compete for investment in middle technology. Market forces were such that wage levels could not be held down sufficiently to ensure international competitiveness in the most labour-intensive, unskilled areas of industry. As Table 19 in the Appendix shows,
NWC recommendations were consistently exceeded as the pace of economic growth outstripped labour supply in the early 1970s and strengthened the latter's bargaining position. Singapore's prospects lay in raising skill and productivity levels to a point where it could compete for a greater share of the production traditionally confined to the advanced countries. In the long run, Singapore would have to graduate from its current position in the new international division of labour or be outdone by emerging cheaper production sites.

Other Policy Measures

In conjunction with the government's new approach to wages, a number of other measures were adopted to enhance the attraction and development of higher value-added industry. In particular, the government's already declared commitment to raising the productivity and skill levels of the workforce manifested in various educational and training reforms. In 1971, for example, the Ministry of Education decided to significantly expand technical education and industrial training, with the aim that eventually most secondary schools would have a technical stream at the General Certificate of Education (GCE) level, that is the final year of examinations. In the same year, vocational institutes were reorganised under the Industrial Training Board (ITB) and a Manpower and Training Unit (MTU) was established within the EDB to operate as a supplement to existing technical education, administering training in areas of special emphasis as well as providing general technical assistance to firms involved in restructuring. An overseas training programme placed trainees with overseas companies, and the EDB negotiated with foreign companies for the establishment of joint advanced training centres in Singapore for which the government set aside $8,700,000 in 1973.

One of the government's most comprehensive statements of its strategy for shifting towards higher value-added came in Hon Sui Sien's 1973 budget speech. Hon spelt out a 10-point programme in a speech entitled "The New Phase of
Industrial Development in Singapore. New incentives for capital-intensive and supporting industries were announced, including a five-year tax holiday for new firms with "the desired level of technology", with a possible 90% exemption from company tax on profits for an extended period. Hon specified that such criteria as capital to labour ratio, the degree of value-added per worker and the ratio of technical personnel and skilled workers comprising an industry's workforce would determine eligibility for such incentives.42

Possibly the most significant aspect of the 1973 budget speech was the announcement of a $100 million scheme for equity participation by the government in capital-intensive support industries. It was the government's intention to supply up to 50% of the required equity as an inducement to small and medium-sized specialist companies producing intermediate products or services required by large international manufacturing companies in Singapore.

Of course, for some time the government had engaged in direct equity participation as a means of assisting restructuring. Evidence that this would be no less the case with the changing emphasis in strategy had already been demonstrated in the government's luring of the West German camera company, Rollei-Werke, in 1970. In the effort to attract Rollei, Lee Kuan Yew even flew to the company headquarters in Braunschweig to speak to Rollei's management. Rollei's attraction was symbolic. It represented exactly the sort of relatively skilled, precision operation involving higher value-added and modern technology which the government was trying to promote in Singapore. Rollei, which had been losing considerable market ground to Japanese competitors and was also suffering a dramatic labour shortage, was enticed by Singapore's trainable yet cheaper labour force which offered the company a chance to re-assert international competitiveness. Offered the assurance that no Japanese competitors would be allowed into Singapore, and with the government putting up 25% equity through the DBS, Rollei was sufficiently convinced to begin production in 1971 with three separate facilities for the manufacture of cameras, electronic flashguns and slide
projectors. Later, Rollei embarked on a project to perform high quality multi-layer lens coating and a project to produce high precision telescopic sights.\textsuperscript{43} Evidently the Rollei experience had reinforced the government's thinking that there was an important role for government equity in ensuring the establishment of certain industries in Singapore.

The government's proposed $100 million equity participation scheme was part of a growing complexity and range of government involvement in productive activities. One estimate was that by 1973 the government, through the Ministry of Finance Incorporated, completely owned 26 companies with an authorised capital of $670 million and partially owned 33 companies involving $200 million government equity capital. By December 1973, the government also had a further seven wholly-owned subsidiaries through the DBS and shares in another 50 companies, with Intraco also having equity investments in 20 companies.\textsuperscript{44} Equity participation through the EDB and DBS had risen from $42.9 million in 1969 to $152.4 million by the end of 1973.\textsuperscript{45} Such was the expansion of government participation in the economy that in June 1974 a wholly-owned holding company called Temasek Holdings (Private) Limited was incorporated with an authorised capital of $200 million.\textsuperscript{46} Another wholly-owned holding company, Sheng-Li Holding Company (Pte) Ltd, was formed in January 1974 under the Ministry of Defence.\textsuperscript{47} Statutory boards also flourished, 12 being established between 1970 and 1974.\textsuperscript{48}

Apart from the declared intention to engage in further equity participation, Hon Sui Sen also indicated in the 1973 budget speech that the government would eventually be introducing an export credit scheme, complete with insurance, to help maintain the international competitiveness of exports from Singapore. With an anticipated shift from consumer goods exports to durable and capital goods, as higher value-added production expands, the government saw a role for itself in assisting those exporting on credit terms.\textsuperscript{49}
Both in response to the rapid expansion of industry in general and as part of the effort to generate the required infrastructure for the development of higher value-added industry, government expenditure on economic development rose sharply in the early 1970s. Budget expenditure on economic development jumped from $332.8 million in 1969-70 to $1,106.5 million in 1973-74, an increase of 232%. The capacity to outlay such sums had been enhanced by further increases in CPF contributions from both employers and employees and the establishment in 1971 of the Post Office Savings Bank (POSB) to mobilise domestic savings for public development.  

In conjunction with the government's plans to promote higher value-added manufacturing investments, the broader plan for the development of the Singapore economy included the development of Singapore as a financial and service centre for the region. As part of the growing emphasis on technological sophistication, the government favoured the development of the so-called 'brain services' such as engineering and consultancy, marketing, physical planning, international sales and the full range of latest financial services. Towards the promotion of Singapore as a financial centre, in September 1970 the government established the Monetary Authority of Singapore (MAS). The MAS acted, in effect, as a central bank, being the banker and financial agent of the government, promoting monetary stability and credit and exchange policies which stimulated economic growth. The government's commitment to the expansion of the services sector was reiterated in the 1973 budget speech by Hon Sui Sen.

As we have seen above, then, the PAP government set about in various ways trying to facilitate the restructuring of industry and, indeed, the economy, towards higher value-added production. Particular energy was devoted to building up the workforce, but at the same time the government introduced new incentives and undertook to outlay considerable funds in equity as a means of securing desired investments. With unemployment apparently resolved and favourable patterns of international capital investment beginning to emerge, the government
clearly felt more resources could now be devoted to raising the quality of industry in Singapore.

Political Developments, 1970-1973

Though the rationalisation for the PAP's limited tolerance of political dissent was justified as being necessary for economic growth, the success of the government's industrial strategy did not lead to any newfound political liberalisation. On the contrary, the government continued to portray political liberalisation as an obstacle to economic growth. To the government's way of thinking, the attempted shift towards higher value-added production placed even more onus on it to provide long-term political stability.

In keeping with the pattern which emerged in the 1960s then, the PAP government continued to extol the virtues of obedience and discipline ahead of critical thought and participatory democracy. However, the PAP's failure to adopt a more liberal political stance in the wake of rapid industrialisation and reduced unemployment led to a certain amount of disillusionment and disappointment amongst the middle class, including some of the PAP's own supporters. The process by which the economic strategy was pursued had also produced resentment from those evicted from homes, shops and farms. Moreover, the locally-based bourgeoisie harboured some ill-feeling about the growing dominance of international capital in the manufacturing sector. Locally-based manufacturing capital was simply not sufficient nor advanced enough to partake in an EOI programme in any significant way without state assistance, a problem only to be compounded by the shift into more technologically-based production. As was reflected in the government's decision to attract foreign-based support companies instead of building up local expertise, no such assistance was likely.

The locally-based bourgeoisie also observed that the government itself had played an ever-increasing role as a direct participant in the economy. This tendency was resented by the locally-based bourgeoisie for the limit it posed on
opportunities for its own expansion. Moreover, in the financial sector, the area in which the local Chinese bourgeoisie was most strongly represented, the government's extension of activities was viewed as unfair competition. For example, the DBS, unlike most companies, was not subject to limits on the type, size and security of loans it could make and the POSB, courtesy of the government, was able to offer tax-free interest to its depositors, again something not possible for local private banks.

Whatever grievances there may have been about the government's policies, the PAP gave clear intention that it did not intend these to be aired so as to give the appearance, as it understood it, of political instability. In particular, Lee would not entertain the local press adopting a critical approach to his government's policies. To Lee's mind, between 1970 and 1971 there had been a disturbing tendency in this direction and he took decisive measures to correct the situation. Starting on 2 May 1971 with the imprisonment of four editors of the Chinese-language Nanyang Siang Pau, the government subsequently forced the closure of two English-language newspapers, the Eastern Sun and the Singapore Herald by 28 May.

In the case of Nanyang Siang Pau, Lee was sensitive to the possibility of the paper becoming the forum for disgruntled domestic entrepreneurs and advocates of less accommodation with Western culture. But the Singapore Herald's critical discussion of the PAP's policies provoked a special determination from the government, despite widespread domestic English-speaking middle class opposition and international condemnation of its actions. Lee emphasised the view that the mass media in general had quite a different role to play in a developing country such as Singapore than that traditionally found in the developed Western democracies.

The mass media can help to present Singapore's problems simply and clearly and then explain how if they support certain programmes and policies these problems can be solved. More important, we want the mass media to reinforce, not to undermine, the cultural values and social attitudes being inculcated in our schools and universities. The mass media can create a mood in which people become keen to
acquire knowledge, skills and discipline of people in advanced countries. Without these we can never hope to raise the standards of living of our people.55

In other words, the media was expected to actively support the PAP in the realisation of its development objectives. As Lee understood it, this ruled out critical examination of its policies. This only stirred up trouble, gave rise to political instability and thereby undermined investment and economic growth.56

The end result of the government's clamp on the press was a period of enforced timidity by local newspapers. In 1974, the government also introduced the Newspaper and Printing Presses Act under which two classes of newspaper shares, ordinary and management, were created. Management shares, carrying greater voting weight, could only be owned by nominees of the Minister of Culture. Furthermore, newspaper editors would now have to be personally approved by the Prime Minister.57 This Act paved the way, therefore, for the PAP to ensure more control over newspapers and editorial policy.

Elections

With the security of a parliamentary monopoly and the economic programme bounding ahead, in 1970 the PAP turned its attention more closely to the question of its self-renewal. The process of introducing 'new blood' into parliament, initiated in 1966, was thus stepped-up. Five of the Party's MPs tendered their resignations, four of whom had been in parliament since 1959.58 The five candidates to successfully replace them in subsequent by-elections were notably young, with one exception, and of professional or technical backgrounds involving tertiary education.59 More than just bringing younger members into parliament, the PAP was reaching for prospective cabinet material.60 The PAP's concern with recruiting prospective Party elites was reiterated in 1971 at its December congress. Subsequently, another 11 candidates were recruited for the next general elections.61 Again, the selection of recruits emphasised youth, with the average age of the newcomers being just 35 years, and a strong preference for technocrats
Candidates with more traditional credentials, that is, relating to the ability to mobilise Party support, continued to be chosen but, as Chan points out, in a society with increasing emphasis on education and expertise, the weight of political influence to be wielded by mobilisers would in likelihood decline in relation to that of technocrats.

If the increased emphasis on 'rationality' in decision-making and policy formation within the PAP was likely to facilitate a more important role for technocrats and professionals, traditional Party mobilisers also had to contend with a growing concentration of power by public bureaucrats. The rapid growth in statutory boards and public companies in the early 1970s fostered a considerable increase in power by state managers. Not only did many of these bodies enjoy limited public accountability, but they tended to be managed by a small group of administrators. The interesting questions, therefore, were just how far the Party's existing leadership intended this shift towards greater power and recognition of technocrats to go and how far the less-educated mobilisers would allow this trend to go without challenge. It remained to be seen too, just how adept the young technocrats would prove to be in establishing political bases in spite of their non-political backgrounds.

Although general elections were not required until mid-1973, Lee Kuan Yew decided it appropriate to call them for 2 September 1972. The PAP had become anxious about the criticism which had surfaced both within and without Singapore in the clash with the press. The primary concern of the PAP was the effect this might have on the island's image of political stability in the eyes of prospective investors, particularly those in areas of higher value-added production. On the election eve, Lee observed that Western industrialists were now facing either labour shortages or grave trade union problems. Under these circumstances, Lee argued, investments into Singapore could receive a "great impetus", but not without reassurance:

Your massive support for the PAP will convince them that Singapore is the place to site their enterprises. It is crucial such people should
know that our workers and trade unions are wholeheartedly in support of our policy to attract manufacturing and banking capital, management know-how and marketing expertise.66

Hanna has also suggested that by calling the election early, the PAP would be able to bring its critics into the open and immediately assess their "capacities for manoeuvre and manipulation".67

One of the most significant features of the 1972 election was the comeback of the BS to constitutional politics. This re-entry was arrived at, and gave rise to, internal confusion and division, with the Party's Vice Chairman Chua Chia Meng publically calling on members to boycott the elections.68 Matters were further complicated by the MCP's call on its supporters earlier that year to continue the election boycott.69 Whilst acknowledging the problems this posed for Party unity, the BS committee explained the return to the ballot box as a response to changed historical circumstances. The PAP's monopoly of state power had afforded it an extraordinary capacity to disseminate its propaganda, thus necessitating the exploitation by the BS of any means, including parliament, "to do what we can in the undemocratic conditions in Singapore, to expose the political deceptions and diabolical machinations of the reactionaries on the one hand, and enlighten and educate the masses on the other".70

In all, five opposition groups contested the 1972 elections, involving a total of nine separate political parties. These included the BS, the People's Front (PF) and the newly-formed United National Front (UNF), which itself comprised the Singapore Chinese Party, the Justice Party, Persutuan Malayu Singapura and Angkatan Islam. They formed a loose alliance of the more left opposition parties.71 The Workers' Party (WP), which encountered problems in arriving at an electoral understanding with the BS, ended up campaigning for the most part on its own. The other party to contest was the Singapore Malays' National Organisation (SMNO).72 A feature of the opposition parties in 1972 was the lack of a coherent and co-operative strategy to challenge the government. A not insignificant amount of energy was diverted to attacks on other opposition parties.73
Despite the absence of any real co-ordination, there were nevertheless some issues and concerns thematic in the different parties' campaigns. One such concern was the extent of foreign investment in Singapore which, of course, was fundamental to the government's economic strategy. There were, however, differing levels of concern about, and understanding of, the implications of foreign investment. The UNF, for example, called for the curtailment or outright prohibition of foreign investment.74 By contrast, the WP chairman, Heng, called for greater selectivity, expressing particular concern at the level of Japanese and US investment. He warned against allowing firms from the US and Japan being allowed to treat the Republic as their backyard and drew attention to the implications of uncritically accommodating their needs—low wages and severe restrictions of the rights of labour.75 The BS, however, offered the most comprehensive challenge to the proliferation of foreign-based capital. Dr Liew Siew Choh asserted that the main plank of the BS's platform was a promise to fight "foreign economic domination", adding that those firms in the commanding heights of the economy should be in the hands of the government rather than left to private enterprise.76 Dr Lee also condemned the government's global city concept from a nationalist standpoint: "This multinational thing is an abhorrent thing and we must fight against it. What we need is a city that looks after our own interests. If it is capitalistic then let it be our own capital".77 According to the BS manifesto, the industrial strategy of the PAP government expressed the sell-out to foreign interests which had long been the focus of its false independence thesis:

...with their industrialisation programme 'the LKY puppet authorities' had spent millions of dollars, taxed from the sweat and toil of the people, to build large industrial estates for the convenience of foreign monopoly capital; Mr. Lee's government had enacted the anti-worker Employment Act and Industrial Relations Act to provide this foreign monopoly with cheap, docile labour; ...urban renewal was merely a device by which choice sites and strategic land was taken from the people and handed over to foreign monopoly capital and big business; ...The education system was designed to meet the needs of foreign monopoly capital, it did not serve the real needs of the Malayan people ...
The UNF's Ventrivelu shared the BS's view that the foreign monopoly of Singapore's economy "made a mockery of the independence of the Republic". 79

Condemnation of the government's labour laws and its general repression of the labour movement was also thematic to the parties of the left and the WP. This was part of a broader attack on the government's suppression of civil liberties. The opposition parties universally rejected the PAP government's thesis that political freedoms, of necessity, had to take second place to economic growth. 80

As was expected, the 1972 poll resulted in a resounding victory for the PAP which again won all parliamentary seats. Surprisingly, however, nearly 30% of the votes cast were in favour of opposition candidates. 81 This represented a marked increase on the 1968 election. Of the opposition parties, the WP obtained the highest number of votes with 11.9% of the total, followed by the UNF (7.2%), the BS (4.5%), the PF (3%), the SMNO (1.3%) and the two independents (1%). 82 If these total shares are considered in the context of how many candidates each party fielded, however, then the order of party success was SMNO, BS, WP, PF, UNF. 83 This puts the BS's performance into a more realistic perspective. Based on the performance of their 10 candidates, had the Party contested all 57 seats it would have captured 29.75% of the total votes. 84 Despite the internal problems plagueing the BS, this suggested that it still commanded significant support.

Lee's own interpretation of the relatively heavy opposition vote was that it amounted to a protest against his government rather than a positive vote for his opponents. He recognised that dislocation brought about by industrialisation had played its part. The strongest 'protest' vote was in rural areas affected by land clearance schemes. 85 Lee also attributed the exploitation of Malay chauvinism to the highest opposition vote. 86 In all likelihood, however, Lee suspected a deeper undercurrent of disillusionment amongst sections of the English-educated middle class who might have been attracted by the appeal for a more liberal political environment. However, post-election events suggest that Lee was determined to
undermine the ability of the opposition parties, the BS in particular, to harness this disillusionment.

In an attempt to discredit the relatively weighty opposition vote, the PAP alleged foreign backing of these parties. It subsequently called on all parties to open their accounts in future for inspection. This, of course, was intended to have more than the declared effect of exposing outside influences. As Chan points out, given the government's all-pervasive influence in Singapore society, local donors had to be either very committed or foolhardy to continue their financial support under such conditions. Another means of intimidating opposition was through the imprisonment of outspoken opponents. One BS candidate was sentenced to six months' gaol for having referred to the Prime Minister as "a bloody scoundrel", "a gangster", a "kidnapper" and "Singapore Public Enemy Number One". In addition, a heavy fine imposed on the BS resulting from a libel action brought on it by the government virtually crippled that party. The general political atmosphere became more repressive in the wake of the 1972 elections.

Interestingly enough, although the Prime Minister had recently discredited the value of parliamentary opposition, on the morning after the election results had been declared, he mooted the idea of reserving seats in parliament for representatives from universities and colleges to foster an "intelligent and constructive opposition". However, this notion did not enjoy anything like a consensus within the PAP. Whatever Lee's intention in raising the possibility, nothing ever materialised. If the proposal had been considered as a means of short-circuiting any foment of middle class support for greater political liberalism, the PAP appeared instead to have decided in favour of the more traditional approach of intensifying intimidation of those elements potentially capable of fueling such a movement. The government was not unduly worried about the 'protest vote', confident that its successful management of the economy on the one hand, and the repression of opposition on the other, would be
sufficient to ensure political stability. With this confidence, the government decided in 1972 that it was opportune to now introduce some of the promising second generation leaders into the Ministry, albeit in junior positions.94

Trade Unions

In keeping with the redefined role of trade unions outlined at the "Modernisation of Labour" seminar in 1969, the early 1970s witnessed the implementation of measures to enhance the financial independence of unions and the associated co-operative ventures which had been proposed. A 'check-off' system of enlisting union membership was introduced whereby membership dues were automatically deducted from salaries and paid into union accounts.95 Over the next few years, a range of union co-operatives were established, mainly under the initiative of the NTUC and its largest affiliate SILO.96 This shift in orientation towards co-operative ventures represented what C.V. Devan Nair referred to as organised labour's "rightful role and influence in society",97 which not only meant expanding material non-wage benefits to members, but engendering the spirit of affinity and co-operation between labour and capital and labour and government. As Devan Nair observed about the impact of the various projects of the labour movement:

> Trade unions and their members have therefore come to possess a sense of belonging to their society and their nation. They recognise that they are, in a very real and tangible sense, the co-owners of society.98

These co-operatives, then, were intended not only to provide the funds for extensive education and training programmes consistent with the role outlined in 1969, but to serve an ideological function as well. The PAP leaders hoped that the spirit of belonging would go some way towards averting any longing by workers for the "soft life" against which Lee had warned in his 1972 National Day speech.99

Efforts to expand union membership in the early 1970s achieved some success, with total membership rising from 120,053 in 1969 to 208,561 in 1975 and the NTUC share increasing from 71.3% to 94.7% (see Table 17 in Appendix). The percentage of the total workforce which was unionised rose from 17.3% in 1970 to
25.0% in 1975. A feature of the union structure which accompanied this expansion, however, was an acute concentration of total membership in just a few unions. Two unions, SILO and PIEU, represented nearly 40% of all unionised labour in 1975. This concentration, a by-product of the nature of industrial structure unfolding in Singapore, promoted a centralisation of financial and political resources within the trade union movement.

Significantly, the new functions performed by unions necessitated a greater reliance upon technically and professionally-trained managers with specialised expertise. This coincided with a general increase in the introduction of career-minded PAP cadres and associates into the NTUC and its various affiliates as full-time officials. Developments here were an extension of those the Party itself was undergoing. The question was, however, whether such a trend might produce union leadership divorced from an appreciation of the concrete experiences and aspirations of the membership. In a rare but symbolic incident in May 1973, the PAP leadership was reminded that workers could act independently of their union leadership when they felt especially hard done by. Workers at the American-owned Gulf Plastics factory, whose workload had been doubled with the introduction of new machinery but whose pay had increased by just US$0.20 per day, took strike and protest action even without support from their PIEU officials at union headquarters. Though the government crushed this spontaneous expression, it could not privately ignore the possibility that the union’s management of the workers’ grievances was less than satisfactory. Publically, however, it portrayed the incident as primarily the product of troublemakers from Malaysia, that is, guest labour.

In general, the early 1970s saw efforts to expand the influence of the PAP, through the NTUC, over labour. Though by 1975 still two-thirds of the organisable workforce remained non-unionised, some ground had been made and the economic base for a strong organisational structure had been laid. The government was now fully committed to the expansion and broadening of trade unions as a means of
promoting economic and political stability. This commitment was naturally enhanced by the establishment of the NWC which relied upon organised labour for its implementation. However, the more general function of sympathetically presenting government policies to members was no less important a role at a time when the government was attempting to ensure economic restructuring. The point was that by now the PAP had come to view trade unionism as an instrument of control, mobilisation, even education, of the workforce. Increased trade unionism was seen as a means of enhancing the administrative capacity of the state over workers and, hence, the economy.

Industrial Progress and the Onset of the Recession

We have seen so far how the EOI strategy not only produced rapid growth but soon witnessed attempts by the PAP to encourage qualitative gains in industry. The apparent resolution of the unemployment problem and the tightening labour market suggested that a shift in emphasis towards the attraction of higher value-added investments was opportune. Thus, the PAP government set about creating the economic environment likely to hasten the expansion of higher value-added investments. However, neither the general economic prosperity nor the new investment focus were associated with any easing of repression in Singapore. Relatively low labour costs and political stability still formed the basis of the strategy. Therefore, the PAP explored new means of institutionalising labour control and nullifying political opposition. The PAP's adjustments to economic strategy, however, and its attempts to cultivate a particular social and political environment in support of these adjustments, were guided by considerations about the dynamics of the new international division of labour. What we see in the following section of this chapter, however, is that there is an externally-imposed precariousness about participation in this structure over which even the most astute policy-makers in world export bases such as Singapore have very little control.
The rapid growth and industrialisation initiated in the late 1960s continued strongly into the early 1970s. Total GDP growth rates averaged 12.8% (at constant 1968 prices) between 1970 and 1973 before the effects of the world recession were felt in 1974, bringing the rate down to 6.3%. The manufacturing growth rate between 1970 and 1973 averaged 18.3% (at 1968 constant prices) before dropping to 3.8% in 1974 (see Table 8 in Appendix). This sector's share of total GDP rose from 20.5% in 1970 to 23.2% in 1973 (see Table 9 in Appendix). The general growth in manufacturing was accompanied by an increase in value-added per worker from $9,100 in 1970 to $17,100 in 1974 (see Table 7 in Appendix). Significantly, this period of expansion coincided with an accentuation of the export-orientation of the manufacturing sector and the contribution of foreign investment. Between 1970 and 1974, direct manufactured exports, as a share of total manufacturing sales, increased from 44.6% to 60.7% and, as a share of total manufacturing output, from 44.2% to 59.8%.\textsuperscript{104} Foreign investment increased by 306.9%, from $995 million in 1970 to $3,054 million in 1974 (see Table 10 in Appendix). Broadly, then, developments were extremely satisfactory. Certainly up until 1974, anyway, the decision to offer preferential treatment to higher value-added investments appeared to be a policy which could be afforded by the rate of economic growth in Singapore.

During the period 1971–1974, the dominant contributors to manufacturing output and value-added were, in order, the already-established industries of petroleum and petroleum products, electronic products and components, transport equipment, non-electrical machinery, and electrical machinery. The petroleum and petroleum products industry also recorded the biggest increase in value-added per worker for the period of $167,300. The next most sizeable increases in value-added per worker came from iron and steel ($46,600) cement ($44,000) paints and pharmaceuticals ($22,300), industrial chemicals ($12,900) and cigarettes and tobacco products ($12,400) (see Table 7 in Appendix). The fact that some of Singapore’s dominant industries in value-added and output terms ranked behind
others in increases to value-added per worker did not mean, however, that such industries did not undergo important qualitative changes, a point which will receive closer attention later in this chapter. Some industries, however, lent themselves more easily to rapid improvements in productivity than others. Moreover, in those industries which had been founded on Singapore's cheaper labour, such as electronics products and components, improvements in value-added per worker could only be expected gradually through the introduction of more sophisticated products and processes rather than any sudden wholesale displacement of labour. Such displacement would, after all, negate the advantage of lower cost labour.

One of the satisfying trends for the government between 1971 and 1974 was the increasing contribution of capital-intensive and relatively skill-intensive production to the manufacturing sector's growing export orientation. As shall be discussed later, this trend owed much to the tendency in the early 1970s of international capital to identify Singapore as a suitable base for export manufacture of a range of products involving a higher technological content. As a result, there was a rise in the export/output ratio of the metal engineering group of non-electrical machinery (38.2 to 65.0), electrical machinery (56.9 to 72.5), instrumentation equipment, photographic and optical goods (62.4 to 87.6) and transport equipment (30.2 to 41.1) as all these industries became more dependent upon export production for expansion. Similarly, the paints, pharmaceuticals and other chemical products industry changed from being essentially an inwardly-oriented one with an export/output ratio of 29.6 to one equally dependent upon exports with a ratio of 51.7. The interest in Singapore by leading international pharmaceutical companies accounted for the bulk of this shift in orientation.

Ironically, the pronounced external orientation in production achieved by the early 1970s not only brought rapid industrialisation but a capacity for sudden economic reversals as well. This was particularly so of the manufacturing sector which was heavily geared towards the markets of the USA and Europe. Thus, the
world recession of 1974/75 necessarily affected Singapore more adversely than most other economies, giving rise to considerable production cuts and massive labour retrenchment.

Changes in value-added and output give some indication of the sudden halt to Singapore's rapid manufacturing expansion which first began to manifest in late 1974. Following an increase in output between 1970 and 1974 of 207.7%, output actually fell by 7.3% in 1975. Similarly, value-added fell by 3.7% in 1975 after having risen by 215.3% for the previous four years (see Table 1 in Appendix). The severity of the fall-off is even concealed to some extent by these figures since they include data pertaining to a mild recovery in late 1975.

Although the downturn in production was not confined to export-oriented industries, these suffered disproportionately. This reflected in the reduction in the export/output ratio of the manufacturing sector from 59.8 in 1974 to 58.6 in 1975 (see Table 2 in Appendix). The heavily export-oriented industries of petroleum and petroleum products, electronic products and components, electrical machinery, sawntimber and textiles all experienced sizeable declines in output and value-added. The petroleum industry was particularly hard hit, operating at about 50% capacity in 1975. Within individual industries, specific product groups which were geared to the consumer markets of the advanced industrial economies experienced drastically reduced demand.

The most important consequence of the recession for Singapore was the heavy loss of jobs which resulted from the downturn in activity by the economy's leading labour-intensive, export-oriented industries. 17,000 workers or 2% of the total workforce were retrenched in 1974, of which 12,200 belonged to the manufacturing sector. Almost all of these lay-offs occurred in the last six months of that year. Retrenchments continued on into 1975, reaching a peak of around 20,000 for the total economy. The full social impact of these retrenchments was cushioned by the return of foreign workers to nearby Malaysia. Nonetheless, there were still significant domestic consequences owing to
retrenchments. The official rate of unemployment increased from 3.9% in 1974 to 4.6% in 1975 (see Table 1 in Appendix).

The bulk of the retrenchments were in the broad electronics industry group (which covered parts of the electrical machinery industry).\textsuperscript{109} Approximately two-thirds of the 20,000 retrenched workers in Singapore between July 1974 and December 1975 came from this industry group.\textsuperscript{110} These retrenchments were notable not just for their magnitude but the fashion in which they occurred. There was little or no phasing out of employment. With little warning, a spate of retrenchments occurred between July and December 1974. During this time, Texas Instruments shed 1,000 workers, Fairchild 1,187 and National Semiconductor 530 in July and a further 1,000 in December, including 85 management staff.\textsuperscript{111} These lay-offs continued well into 1975, by which time many of those employees who retained jobs were working a four-day week due to production cutbacks. Singapore, of course, was not the only country to suffer substantial labour losses in the electronics industry. Texas Instruments, for example, had sacked as many as 9,000 of its worldwide workforce of 78,000 in 1974.\textsuperscript{112} The problem for Singapore was particularly acute, however, because of the unusual dependence of its economy on this industry for employment.

An important observation by Lim about the massive retrenchments in the electronics industry was that, at least for some firms, these decisions represented more than just short-term measures to reduce capacity. Lim's survey of electronics firms revealed a distinction by respondents between jobs lost due to the recession and jobs lost due to upgradings and consolidation of the labour force, through mechanisation and automation for example. Some respondents cited high wages in Singapore, and particularly the influence of the NWC recommendations of 1973 and 1974, as prompting their firms to replace labour with capital.\textsuperscript{113} For some firms, then, the recession provided a convenient context within which automation and mechanisation could be introduced.\textsuperscript{114}
Student/Worker Response to Retrenchments

Sudden and sizeable retrenchments were not confined to the electronics industry but extended to various other export-oriented industries. This situation placed considerable pressure on the NTUC to ensure continued industrial peace and labour support for government policies. In particular, the contradictory position of government-affiliated unions was heightened as workers sought strong leadership to confront both capital and government for compensation and job security. The inability of the NTUC to adopt such a position, however, provided the opportunity for the student movement, through the USSU, which organised a Retrenchment Centre to publicise the problems of dismissed workers and offer them advice, to involve itself in labour affairs. This coincided with a general widening of the USSU's activities in 1974/75 to include other questions related to civil liberties.¹¹⁵

In one case, in 1974/75, union branch leaders and workers at American Marine, a shipyard building luxury boats, had been dissatisfied not only with the way in which lay-offs had been carried out, but with the indifference and disdain of the PIEU to their plight. The workers, with the support of the USSU, confronted the PIEU over its inactivity. They requested that the PIEU Secretary-General negotiate with the management for compensation during the lay-off. In what transpired, the authorities made it clear that such militance would not be tolerated and, more importantly, nor would any linking of student and labour politics. Resulting from the negotiations between the PIEU, the workers and their USSU aides, the USSU President, Tan Wah Piou, and two workers were accused of 'rioting' and 'unlawful assembly'. The subsequent trial, which came in for legal criticism as an unfair one,¹¹⁶ found all three guilty with Tan Wah Piou receiving one year's gaol sentence and the two workers one month each.¹¹⁷ On 22 January, the committee members of the PIEU resigned en masse and the branch committee instigators of the workers' action were all sacked.¹¹⁸
The American Marine case evidenced how comprehensively the Singapore trade union system discouraged branches acting primarily in response to their members' definition of their needs rather than the officially-directed notion from above. It also underlined the government's sensitivity to student/labour links.¹¹⁹

The government's determination to blunt the effectiveness of any student/worker alliance gave rise in November 1975 to the University of Singapore (Amendment) Bill which brought about a reconstitution of the USSU. The USSU now came under the direct control of the Education Minister and the University Council. The statute of the reconstituted USSU allowed only the Political Association of the USSU, to which only Singapore citizens would now be allowed membership, to make pronouncements of a political nature. Discretion in deciding what constituted politics was the sole domain of the University Council.¹²⁰ The intent of the government's legislation was clearly to neutralise the political effectiveness of the USSU. The Home Affairs and Health Minister, Chua Sian Chin, claimed that the USSU had aimed at the creation of a "highly centralised power machine" for political struggle.¹²¹ The PAP, however, saw no legitimate political function for the USSU, especially at a time when economic fortunes had suffered a setback. S. Rajaratnam went so far as to equate USSU involvement in various social issues with "non-communist subversion".¹²²

**Policy Response to Recession**

Though the government took measures to minimise the extent to which the negative social effects of the recession could be converted into political mileage by its critics, the dramatic retrenchments obviously demanded an economic policy response. By now, Singapore's policy-makers were irreversibly committed to an EOI programme but events at least warranted a re-examination of the finer details of this strategy. Towards the end of 1974 and early 1975 various public statements foreshadowed the temporary abandonment of wage rises. First Labour Minister Ong Pang Boon revealed that the unemployment rate had risen to 4.5%
and warned of more serious rises failing some action. Soon after, C.V. Devan Nair made it clear that such action would include a revision of the existing wage policy, a point which Lee amplified in March 1975: "If our economic activity is not to diminish and unemployment not to increase this year, any wage increases must be modest and moderate compared to 1974". Thus, after the adoption of the most substantial wage increases since the establishment of the NWC, the government found itself compromising its programme to promote higher value-added production. In the effort to maintain and encourage economic activity per se, the policy of actively promoting labour displacement through wage pressure was relaxed.

In keeping with the leadership's predictions, and in view of the lower inflation rate, the 1975 NWC recommendations were 'modest and moderate', being just 6% with full offsetting of normal annual increments. This was subject to a 3% minimum after offsetting, with no offsetting for employees without annual increments. Apart from the obviously lower increase endorsed, the move to include bonuses and other payments in the annual increase represented a significant toughening of conditions for employees. Under the Employment (Amendment) Act of 1975 employees were also prohibited from asking for the payment of any money, and employers prohibited from paying such, which was additional to the annual wage supplements or annual bonuses. When introducing the Bill into Parliament in February 1975, Ong Pang Boon explained the freeze on bonuses as intended to avert a "free for all" in wage demands and reiterated the importance of such wage curbs to improving Singapore's investment climate.

The continuing retrenchments during the first half of 1975 obviously hardened the resolve of the government to continue to put the brakes on wages. By late 1975 the government began to express a concern that even more needed to be done. Again, as is indicated in Table 19 in the Appendix, actual wage increases exceeded those prescribed by the NWC. When figures on foreign investment commitments for 1975 became available they also showed a drop of nearly 61%
over the previous year, from $678 million to $267 million. On the basis of these figures, Devan Nair argued to workers in February 1976 that there was likely to be a significant shortfall in jobs created in 1976 and 1977. Devan Nair calculated that existing investment commitments would only directly generate 10,000 new jobs in the manufacturing sector and possibly 20,000 through the multiplier effect over the next two years. Further assuming that another 20,000 jobs would be generated in the construction, transport and public service sectors, he estimated that approximately 40,000 new jobs would be created in 1976 and 1977, representing just half of the required 84,000.\textsuperscript{127} Though Devan Nair's estimations were open to challenge,\textsuperscript{128} his address certainly reflected the most immediate concern of the government: how to reverse the fall-off in projected foreign investment. Whilst conceding the influence of some external factors, Devan Nair's major argument was that declining foreign investment derived in large part from the diminishing rate of profit within Singapore and the rising labour costs in its manufacturing sector.\textsuperscript{129} After tax profits for 1973 and 1974 were satisfactory at 15% and 18% respectively but during 1975 fell to a rate of 12.5%.\textsuperscript{130}

There could have been a variety of reasons to explain the falling rate of profit cited by Devan Nair.\textsuperscript{131} Devan Nair, however, concentrated on the contribution of labour costs. Unit labour costs were said to have risen at a faster rate in Singapore than in Hong Kong, South Korea and Taiwan in recent years, a position attributed to the NWC, the appreciation of the Singapore dollar and the increased rates in CPF contributions. Singapore's reduced international competitiveness was, according to Devan Nair, evidenced in the wages of assembly workers which were, after taking account of benefits and tax costs, higher than any of its East or Southeast Asian rivals.\textsuperscript{132} The message from the government was clear: domestic labour costs must be lowered in comparison with its competitors'.
The government's intention of holding down wages did not signify the end of efforts to attract higher value-added investments. In the 1975 Budget, $100 million was allocated for the already-announced Capital Assistance Scheme (CAS) and additional funds were allocated for purposes of workforce training. As an adjunct to the CAS, the government also introduced a Joint-Venture Bureau to assist in finding suitable partners for companies seeking to set-up in Singapore. Pioneer status amendments were also introduced in 1975 which extended the exemption periods from five to 10 years for those firms making multi-product investments using technologies new to Singapore which required substantial initial capital outlays and involved long gestation periods. As an encouragement to small but high quality product industries, the previous requirement that a company must incur a fixed capital expenditure of not less than one million dollars was removed. A further encouragement to small, middle-level technology companies was introduced in May 1975 when the MAS opened rediscounting facilities for certain export and pre-export usuance bills to assist exporters obtain cheap export finance. In October, this scheme was liberalised so that documentary bills drawn under irrevocable letters of credit would qualify for re-discount.

Although the government responded to the recession by offering even greater incentives to higher value-added, particularly smaller, firms, it also introduced a number of measures directed at manufacturing capital in general. The attitude was that investment per se was the top priority; if it also happened to be in high value-added production then so much the better. Thus, discrimination against labour-intensive investments introduced in the 1970 Economic Expansion Incentives (Amendment) Act were relaxed in 1975. Previously only select industries qualified for the export incentive of 4% corporate tax on income from export sales but in 1975 this was extended to non-qualifying exports. There was also a general de facto relaxation of many other strict conditions placed on investment.
The MAS also adopted measures to stimulate investment. These included the lifting of all controls on credit expansion by banks and finance houses, the lowering of the prime rate, reducing the minimum and reserve ratio as well as a cut in the MAS rediscount rate for export and pre-export bills.135 MAS's liberalisation of foreign exchange controls included the removal of restrictions on the import and export of currency notes of all countries.136 The thinking behind these moves was to maximise the availability of finance at a time when many investments might be otherwise deterred.

A central aspect of the government's response to the recession was to exert greater influence over the economy through the budget, not just through prime-pumping, but the improvement of infrastructure for the anticipated recovery ahead. As is calculated from Table 21 in the Appendix, there was an increase in government development expenditure of 35.7% in 1975/76 of which 73.5% went in loans to statutory bodies. The main recipients of these loans were the HDB and the JTC. Loans to the HDB rose by 27.8% in 1975/76 to $584 million.137 Capital expenditure by the HDB increased by 25.7% in 1975/76 to $648 million.138 HDB development played a crucial role in stimulating economic growth. Although also intended to stimulate economic growth, allocations to JTC related primarily to the government's preparation for the next phase in Singapore's industrialisation.139 In 1974, $161 million in fixed assets were invested by JTC, representing a $68.7 million or 74.4% increase over 1973 (at current prices), of which $127 million was provided through government loans. This made possible the preparation of 299.65 hectares of industrial land.140 In 1975, total JTC development expenditure reached $384.4 million, 116.4% higher than for the previous year, representing the biggest annual increase up to that point.141 A total of 423.7 hectares were developed in 1975 by JTC.142 In the same year, JTC obtained the government's approval to develop Sembawang Industrial Estate which, eventually, would comprise 607 hectares and offer extensive water frontage for marine-oriented industries.143
The policy of using the recessionary period to gear Singapore for the next anticipated phase of industrialisation was a general one. Increased efforts, for example, were directed towards the raising of technical skills and the extension of capacity in schools, colleges and university.\textsuperscript{144} The high government profile then was no less evident in time of economic downturn. Rather, the government revealed a confidence in its vision of even greater expansion ahead and remained fully committed to its EOI strategy. The negative effects of Singapore's economy being so closely incorporated into the world economy were seen as short-term and tolerable. They were no grounds for reconsidering the validity of the basic strategy.

\textbf{International Capital, 1970–1975}

As has been pointed out earlier, there were significant qualitative developments in Singapore's manufacturing sector in the early 1970s. In particular, there was a shift towards the introduction of some relatively sophisticated technology, a shift which contributed to the increased value-added per worker during this period. As we shall see below, however, it was again international capital which was largely responsible for this development, with export production at lower cost providing the main motive for investment. Indeed, in the first half of the 1970s, Singapore was identified as a suitable export base not just for a wider range of manufacturing products and processes, but for a broader cross-section of international capital.

Between 1970 and 1975, foreign investment (in gross fixed assets) rose from $995 million to $3,380 million, an increase of 239.70\%. This included a fall-off of $605 million in 1974 over the previous year owing to the world recession (see Table 10 in Appendix). Similarly, foreign investment commitments rose significantly, by 43.4\%, to reach $224.1 million in 1973 before dropping by 24.7\% in 1974 and then recovering to reach $246.8 million in 1975 (see Table 13 in Appendix).\textsuperscript{145} It was certainly true that by 1975 the momentum of foreign
investment had slowed after spectacular gains in the earliest years of the
decade. However, the relative importance of foreign investment to the
manufacturing sector in general and export production in particular continued to
rise. In 1975, wholly foreign-owned firms had a ratio of direct exports to total
sales of 67.6 compared with that of wholly locally-owned firms of 28.3.146

EDB data on foreign investment on an industry basis show that in absolute
terms the biggest gains between 1970 and 1975 were recorded by the two already
dominant foreign-controlled industries of petroleum and petroleum products and
electrical and electronic machinery, apparatus, appliances and supplies. Their
respective increases were $871 million and $272 million. Much of the investment
in these two industries was characterised by upgrading and diversification by
existing firms.

The increased investment in the petroleum and petroleum products industry
between 1970 and 1975 derived mainly from expansion in capacity and
diversification by existing international companies in Singapore, Esso, Mobil,
Caltex, British Petroleum, Shell, Amoco and Oceanic Petroleum. The increase in
the capacity of the industry was such that by 1974, Singapore became the third
largest refining centre in the world.

By 1975, capacity stood at just over one million barrels per day.147 During
the period, Shell proceeded with a $135 million project to build a thermal-cracking
unit, a platformer and an upgrading facility for refining products.148 Esso also
diversified into the production of hydrocarbon solvents and base lubricants,
committing itself to a $25 million project.149 Another important development in
the industry was the interest shown by some companies in the Singapore
government's plans for a $2,000 million integrated petrochemical complex. The
Singapore government succeeded in luring a commitment to participation from the
Japanese group Sumitomo. It was proposed, however, that the project also involve
considerable Singapore government equity participation.150
Significant as developments were in the petroleum and petroleum products industry between 1970 and 1975, investment in this capital-intensive industry was still primarily motivated by Singapore's favourable geographic position as an export base to the region and Singapore's own sizeable domestic demand. As for the proposed petrochemical project, the Singapore government obviously hoped that by developing advanced processing facilities Singapore's regional dominance would be enhanced.

Between 1970 and 1975, foreign investment (in gross fixed assets) increased by $272 million or 331.7% in the electrical and electronic industry (see Table 11 in Appendix). Although many new investors were attracted in this period, the upgrading and diversification of operations by existing, mainly US-based, companies comprised much of this investment.

The upgrading of operations within the electrical and electronic industry, both through new and existing firms, took various forms. In the area of semiconductor manufacture there was forward integration whereby firms advanced from the assembly to the testing of integrated circuits. Forward integration was also expressed in the move towards higher value-added finished products. The introduction of such products as industrial control equipment, electronic measuring equipment, complex communication equipment and computer peripheral equipment during this period, for example, gave rise to an industrial electronics sector. Electronic calculators in particular quickly assumed prominence and by 1974 Singapore was a major international exporter of this product. Hewlett-Packard and Omron were the earliest assemblers of calculators but they were quickly joined by a wealth of other leading international companies.\textsuperscript{151} The shift towards higher value-added products also took place in consumer products. For example, Philips moved from the assembly of radios to cassette recorders, and Toshiba from black and white to colour televisions. Diversification also occurred with some firms introducing the assembly of refrigerators and air conditioners.
More than just boosting the value-added content of the electronics industry in Singapore, the increased forward integration by semiconductor manufacturers represented a qualitatively new perception by international capital of Singapore's place in the international division of labour. In the short term labour scarcities lead to slowdowns in investment in semiconductor manufacture. However, it soon became apparent to investors that, even with sufficient guest labour, lower cost labour was now available elsewhere. Nearby Malaysia was developing free trade zones and investment incentives to attract such production and offered more plentiful and cheaper labour. Some companies decided, therefore, that the most labour-intensive production would have to increasingly be located outside Singapore.

Two companies which were at the forefront of this relocation of activities were Hewlett-Packard and National Semiconductor. Hewlett-Packard opened up a plant in Penang around 1972/73 to take up additional capacity because of projected labour shortages and rising labour costs in Singapore. Meanwhile, the same company was introducing the manufacture of such finished products as calculators and analogue meters to Singapore. National Semiconductor was also expanding its assembly operations at Malacca and Penang at the same time as it was laying-off workers at its Singapore plant in 1974. At that time, starting wage rates for assembly operators in Penang and Malacca stood at $3 or less per day whereas in Singapore the figure was $4.24 (prior to the implementation of the 1974 NWC recommendations). National Semiconductor had decided Singapore would be the preferred Southeast Asian base for quality testing of semiconductors assembled at its other plants in the region, a decision which Fairchild had also put into effect by 1975. Singapore's position in the international division of labour was undergoing elevation, then, as production processes, such as quality testing of semiconductors, now deemed inappropriate for yet higher wage cost sites in the US, were transferred to Singapore. These replaced the most labour-intensive operations which, in turn, were now starting to be relocated or expanded elsewhere.
If the pattern of foreign investment in the electronics industry suggested that some elements of international capital had begun to identify Singapore as a suitable site for slightly more sophisticated production, the pattern in the fabricated metal products and precision equipment industries indicated that this perception was broadly shared by international capital. From a total foreign investment (in gross fixed assets) of $34 million in 1970, the fabricated metal products industry had attracted $258 million by 1974, a 658.0% increase. The precision equipment industry, virtually non-existent in 1970, also made spectacular gains in foreign investment, from a total of $26 million in 1971 to $142 million in 1975, a 446.15% increase (see Table 11 in Appendix). The vast array of relatively capital and skill-intensive investments accounting for such increases was cause enough for government satisfaction. Given that the bulk of these investments were geared towards production for international markets, however, this pattern also confirmed the scope for continued expansion under the export strategy.

A detailed analysis of investments in the fabricated metal products and precision equipment industries between 1970 and 1975 is not possible in view of the range and volume of investments involved. As can be seen from the list below in Table 13, however, many of the world's leading manufacturers set up operations in these industries in Singapore in the period under review. The more significant of these investments included Seiko's $22 million project to manufacture mechanical movement watches. Like Rollei, Seiko had been a target company for Lee Kuan Yew who had attempted to persuade Seiko to set up in Singapore following his visit to the company's plants in Takatsuka and Kameido in 1973. Every watch produced had a 70% to 80% higher value than the component metal and parts before actual assembly so this investment obviously fitted well with the Singapore government's plans for industry. Seiko, through the company Singapore Time, became Singapore's first mechanical watch plant when it began assembly in 1975 of all but the watch dial and case. Other noteworthy investments included a
$25 million project by Timex for the manufacture of precision tools and dies for use in Timex plants throughout the world; a $50 million investment in the manufacture of textile machinery components and ball bearings by SKF, the world's largest bearing manufacturer; and a $5 million investment by the Swiss-based Wild Heerbrugg in the production of theodolites and optical survey equipment.\textsuperscript{158} These examples were constantly cited by the EDB and the government as proof of the island's suitability for production involving middle-level technology.

\textbf{Table 13: New Investments in Fabricated Metal and Precision Engineering, 1970-1975}

<table>
<thead>
<tr>
<th>Company/Mfg.</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Optical Corporation</td>
<td>optical instruments and spectacle lenses</td>
</tr>
<tr>
<td>Astec Toolcraft</td>
<td>tools and dies</td>
</tr>
<tr>
<td>Avimo</td>
<td>optical instruments and components</td>
</tr>
<tr>
<td>Barden Corporation</td>
<td>precision steel balls</td>
</tr>
<tr>
<td>Cameron Iron Works</td>
<td>oil field equipment</td>
</tr>
<tr>
<td>Cincinnati Milacron</td>
<td>plastic process in machinery; twin screw extrusion machines and support equipment</td>
</tr>
<tr>
<td>Copal</td>
<td>precision parts</td>
</tr>
<tr>
<td>Corona (SCM Corporation)</td>
<td>portable electric typewriters</td>
</tr>
<tr>
<td>FMC</td>
<td>offshore wellhead equipment</td>
</tr>
<tr>
<td>GEC – Elliot</td>
<td>control valve plant</td>
</tr>
<tr>
<td>Hilgeland</td>
<td>cold-headed fastener machines</td>
</tr>
<tr>
<td>Hitachi</td>
<td>anti-pollution equipment; vacuum cleaners</td>
</tr>
<tr>
<td>Industrial Electronics and Engineering</td>
<td>fabrication of basic metal dies for components in electronics industry</td>
</tr>
<tr>
<td>International Springs</td>
<td>sophisticated precision springs for such products as cameras, typewriters, electric appliances and apparatus, business machines and computers</td>
</tr>
<tr>
<td>Karl Hopt</td>
<td>precision metal products</td>
</tr>
<tr>
<td>Le Blond</td>
<td>engine lathes</td>
</tr>
<tr>
<td>Le Tourneau</td>
<td>oil drilling rigs and marine engineering</td>
</tr>
<tr>
<td>Mitsui Manufacturing</td>
<td>precision stamping, carbide tools</td>
</tr>
<tr>
<td>NAC</td>
<td>photographic instrument equipment</td>
</tr>
<tr>
<td>Newton</td>
<td>precision tools and dies for watch manufacturing</td>
</tr>
<tr>
<td>Nippon Miniature Bearing</td>
<td>precision ball bearings</td>
</tr>
<tr>
<td>North American Rockwell</td>
<td>roller chains and machinery</td>
</tr>
<tr>
<td>Oberg</td>
<td>carbide tools and dies, precision stampings</td>
</tr>
<tr>
<td>Okamoto</td>
<td>precision machines for the mining</td>
</tr>
<tr>
<td>Patience and Nicholson</td>
<td>twist drills</td>
</tr>
<tr>
<td>Philips</td>
<td>tools and production machinery and medical x-ray and other specialised equipment</td>
</tr>
<tr>
<td>Pittler Asia</td>
<td>precision machine tools</td>
</tr>
</tbody>
</table>
 Whilst in some respects official propaganda may have exaggerated the significance of the inflow of investments in these industry groups, since much of the production still only involved assembly of parts and components (albeit of higher value-added products) the investment pattern did nevertheless represent a qualitatively new stage in Singapore's EOI programme. Of special significance was the trend towards investment in Singapore to produce finished products in large volumes for the international market, as illustrated in the cases of Rollei and Nippon Miniature Bearings. Though transportation costs of finished products would in some instances place limits on the suitability of assembly in Singapore, the pattern of investment between 1970 and 1975 demonstrated that so long as cost advantage could be maintained, Singapore could attract a large range and
volume of investments in middle technology products. Finally, it should be pointed out that not all of the investment in this period was as heavily oriented towards international markets. There was a significant, even if less sizeable group of companies which was also attracted to Singapore by the opportunity to provide supporting services or capital equipment for regional activities.\textsuperscript{159}

It would be a simplification to suggest that lower wages alone accounted for the growth in foreign investment in the fabricated metal and precision equipment industries. Cost advantages by manufacturing in Singapore were derived in various ways, many being peculiar to the technology involved. However, the lower wage costs of Singapore, compared with production sites in advanced industrial countries, were generally a key consideration of investors who were usually trying to counter rising production costs in traditional sites. For example, Sunstrand Pacific's decision in 1974 to manufacture constant speed drives in Singapore was intended to overcome rapidly increasing machinery and tooling costs at its Rockford and Colorado production plants in the U.S.\textsuperscript{160} Rollei, too, as discussed earlier, moved to Singapore to exploit lower wage costs. Both companies were examples of the technology aspired by government strategists, yet both, like the earlier lower value-added investments characterising Singapore's industrialisation, were also in search of lower labour costs. The fundamental attraction of Singapore had not altered, even though the level of technology sought and attracted had risen slightly.

Of the remaining industry groups, foreign investment expanded fastest in the wood and cork, plastics and transport equipment categories. Investments in the wood and cork group were largely accounted for by upgrading in the timber and plywood industry. The integration of such operations as kiln drying, surfacing and moulding facilities as well as the venture into higher value-added areas of fancy veneers, pre-finishing and pre-fabrication through greater automation were important developments in the industry. In the plastics products industry, much of the growth and diversification in foreign investment was in plastic moulding as a
support for the fast-growing electronic, machinery and instrument industries. In the transport equipment industry, foreign investment continued to be concentrated in shipbuilding and shiprepair, with increased investments by Japanese-based companies in particular. Work on two new shipyards involving Japanese-based capital in joint-ventures began in this period — Hitachi Zosen Robin Dockyard in 1970 and a 400,000-ton capacity drydock facility by Mitsubishi Heavy Industries (MHD in 1973). There were also investments by foreign-based companies in smaller craft, such as that by Vosper Thornycraft in oil rig supply boats and fast patrol craft as well as American Marine's pleasure craft investment.

Not only was there a widening of the range of products and processes attracted to Singapore in the 1970-1975 period, there was also a broadening of interest by capital of different national origins. In absolute terms, US-based capital invested most heavily again in this period, $775 million in gross fixed assets (see Table 12 in Appendix). As would be expected, the largest shares of this were invested in the petroleum and electrical and electronics industries where US-based companies were at the fore of the developments already discussed. In the petroleum industry, Mobil, Esso, Ocean Petroleum and Caltex all made significant investments in the period, as did General-Electric, Fairchild, Hewlett-Packard, Sperry Rand and National Semiconductor in the electrical and electronic industry. US-based investment was also central to the development of the fabricated and precision equipment industries, through SCM, Sunstrand Pacific, Cinciannati Milacron, Le Blonde, Richard M. Armstrong and American Optical Corporation for example. US-based companies were by far the dominant investor in the oil related equipment areas of industry too, Vetco Offshore and Cameron Iron Works being two such examples.

Extensive as US-based capital was between 1970 and 1975, it was not at all the fastest-growing investment. Japanese-based investment expanded at more than twice the US rate, increasing by $386 million or 567.7% (see Table 12 in
Appendix). Much of the explanation for the resurgence of interest by Japanese investors in Singapore was the erosion of manufacturing competitiveness in Japan. Wage rises in Japan had been continuous and the yen was revalued at the end of 1971 and again in February 1973. Japanese labour-intensive industry thus found it more difficult to maintain market shares against its foreign competitors.\textsuperscript{162} There was, as a result, a general exodus of Japanese-based capital in export-oriented, labour-intensive production in the early 1970s, from which the Singapore economy benefited. Although only a modest proportion of total Japanese-based investment in the Asian region,\textsuperscript{163} Japanese investment in Singapore was significant in absolute terms for the Singapore economy.

According to data compiled by the Japan Trade Centre (JETRO) in Singapore, the number of manufacturing establishments by Japanese-affiliated companies in Singapore increased from 38 at the end of 1970 to 105 by the end of 1975. The 67 new companies included two in food and beverages, one in textiles, 16 in ferrous and non-ferrous metals, eight in chemicals, 21 in electrical and electronics, six in transportation equipment and four in industrial machinery industries.\textsuperscript{164} In terms of paid-up capital, however, the transportation equipment industry, notably shipbuilding and shiprepair, continued to be the most important area of investment. The continued concentration in this area of industry, a pattern established in the 1960s, was still tied in with the lower production costs, especially labour, of Singapore and the nature of the regional requirements of Japanese ships.\textsuperscript{165}

The more interesting feature of the pattern of Japanese-based investment in the period was the spurt of investments in the electrical and electronics industries. Large international companies such as Fujitsu, Hitachi, Matsushita, Sanyo, Yokogawa and Asahi all established new plants in a range of labour-intensive assembly operations. Japanese-based companies, then, had belatedly followed the lead of their US-based competitors in using Singapore as an offshore production site for electrical and electronics goods. Though the wage differential
between the US and Singapore had been greater than that between Japan and Singapore, the wage differential between Japan and Singapore widened and assumed greater importance in the 1970s. The sheer volume of overseas investors in search of lower production costs also brought Singapore into sharper focus.

Though Japanese-based companies were less significant than US-based companies in the development of higher value-added production between 1970 and 1975, there were nonetheless some important contributions made. Numerically this was reflected in the figure of 16 new companies in ferrous and non-ferrous metals and four in industrial machinery industries in the period. Some of the more technologically sophisticated investments included Seiko's mechanical movement watches and machine tools and dies, Nippon Miniature Bearings in precision ball bearings, Copal in precision parts, Mitsui in tools and dies and NAC in photographic instrumentation equipment. Japanese-based capital was also active in the chemical industry with Singapore Polymer Corporation's PVC and compound resin manufacturing operation and Hymold's manufacture of plastic parts for the local electrical and electronics consumer goods industry.¹⁶⁶

As a group, capital based in EEC countries increased investment in Singapore between 1970 and 1975 by $706 million in gross fixed assets, representing a 173.9% increase (see Table 12 in Appendix). In relative terms this was less impressive than the increases by US or Japanese-based capital but this collective figure conceals some divergent patterns by capital from individual countries. The three leading sources of capital from the EEC in this period were the Netherlands with $290 million in gross fixed assets, Britain with $282 million and West Germany $104 million (see Table 12 in Appendix). However, in relative terms, the first two's shares of total foreign investment in Singapore dropped from 20.0% to 14.2% and 18.4% to 14.0% respectively while West German-based capital's share increased from 0.3% to 3.2%.

As has been established in the previous chapter, a considerable portion of Netherlands and British-based capital was concentrated in the petroleum industry
through the Shell group. Again, expansions by this group accounted for much of the total new investment by these two categories between 1970 and 1975. However, the trend towards greater exploitation of Singapore as a base for labour-intensive export-oriented industry for the markets of developed countries by Japan, for instance, was not generally shared by British or Netherlands-based capital. There were some exceptions. The British-based Beecham Pharmaceutical company invested $32 million plant for the manufacture of synthetic penicillin for export to its international markets, the first such plant in Southeast Asia.\textsuperscript{167} Plessey of Britain and Philips of the Netherlands also outlaid large sums in projects in electrical and electronics products for purposes of export to their world markets.

By comparison with British and Netherlands-based capital, investment by West German-based companies showed a greater overall interest in export production in Singapore. Rollei was clearly the dominant of such investments but other precision engineering companies such as Karl Hopt, Vollmer-Werke and Hilgerland also set up plants in Singapore. West German-based investors were thus also characterised by a relatively high value-added content. Another important European country whose capital was also involved in similarly sophisticated technology was Switzerland. SKF's investment in textile machineries and bearings, exported to Europe, the US and Japan, was one of the Republic's most prized investments. Another example of a relatively high quality investment was that by Wild Heerbrugg in precision optics and surveying equipment.

To generalise about EEC-based investment between 1970 and 1975, then, despite the declining overall share of investment in Singapore from 40.80% to 32.90%, certain EEC countries, notably West Germany, played an important role in the development of more skill-intensive industry. Clearly though, amongst international capital as a whole there was general, if not uniform, shift towards higher value-added investment.
Conclusion

We have seen in the discussion above that between 1970 and 1975 the pattern of international capital investment in Singapore underwent a qualitative change. This was not a dramatic change but rather a subtle shift in certain areas of production towards the introduction of more sophisticated technology. This did not necessarily mean that the actual production processes carried out in Singapore were commensurate with the technology of the product. Rather, in many cases labour-intensive assembly operations were still involved. However, the value-added content of the product being assembled was higher than that of the products which formed the initial basis of the industrial programme. There were other instances where higher skills were involved and the technology employed by workers was quite sophisticated. Putting things into perspective, however, it could only be claimed that in this period a start had been made in the introduction of middle level technology to Singapore.

Even with this qualification the shift in emphasis did signify something quite important about the perception of Singapore as a production site by sections of international capital. A clear distinction was being made between Singapore and some other export bases in the region. Many companies introduced products and production processes to Singapore which they had not located at any other offshore site. Such decisions, however, were still tied-in with calculations of labour-cost savings.

The government's policies were not responsible for instigating this new investment pattern of international capital investment, but at the same time without these policies it is doubtful that such a pattern would have unfolded. Certainly the government exploited the rapidly improving economic conditions to favour the development of higher value-added production. Significantly, this did not only involve a host of infrastructural provisions, both social and physical, and the provision of various fiscal and tax inducements, but the maintenance of wage control once deteriorating economic conditions lead to massive retrenchments and
reduced investment. Under these circumstances the Singapore government no longer felt it could afford to selectively promote higher value-added investments and relaxed conditions on the less skilled, labour-intensive investments. This highlighted the ultimate constraint on the government's plans to promote higher value-added production. Such plans had to be consistent with the logic of international capital investment.

Finally, throughout the entire 1970-1975 period the PAP government gave ample evidence that its resolve to ensure a docile and compliant labour force had not weakened. Equally, the generally improved economic conditions did not see any relaxation of the PAP's efforts to frustrate and obstruct political opposition. On the contrary, the slowdown in investment only confirmed in the minds of the Party leaders just how essential the PAP's continued political ascendancy was. By this time then, the authoritarian rule of the PAP appeared to be part of the ongoing economic and political management of the state and not a temporary condition necessitated by potential economic crisis.
FOOTNOTES


4. ibid., pp.18-19.

5. Whereas before firms only needed to produce pioneer products to qualify, applicants now needed to incur, or intend to incur, not less than $1 million in capital expenditure (excluding land). For expanding existing firms, the level of capital expenditure was raised from $1 million to $10 million.


7. ibid.


14. As quoted in ibid., p.94.


22. Lim was Dean of Arts and Social Sciences and Head of the Economics Department at the University of Singapore.

23. The various representatives were: J.D.H. Neill (SEF), Richard Y.J. Lee (NEC), Lim Hong Keat (SMA), C.V. Devan Nair (NTUC), Phey Yew Kok (NTUC), Professor T.H. Elliot (NTUC), Chairman of the EDB, the Permanent Secretary of the Finance Ministry or his deputy, and the Permanent Secretary of the Labour Ministry or his deputy. See "National Wages Council", Asia Research Bulletin, February 1972, p.758.

24. As quoted in "We Are Starting a New Economic Era Says Lee", Straits Times, 6.3.72.


26. In fact, bonuses in Singapore tended to be granted automatically anyway.

27. Chia Poteik, "11.3% More for Civil Servants", Straits Times, 6.3.72.


34. As quoted in Ilsa Sharp, "Singapore's Wages Compromise", Straits Times, 3.6.74, p.46.

35. Value-added per worker in the manufacturing sector increased by 21.9% in 1973 and 33.6% in 1974. See Table 7 in Appendix.

36. It should be kept in mind, of course, that industries can only very loosely be categorised as labour-intensive or capital-intensive since within industries there can be a variety of production processes involving contrasting labour or capital contents.
37. In his address to the NTUC Annual Delegates' Conference in 1972, Lee remarked: "Now the opportunity has come to raise the level of skills of our workers and degree of sophistication of our industries. Then better wages to workers will be possible". See "We Are Starting a New Economic Era Says Lee", Straits Times, 6.3.72.

38. As quoted in Ilsa Sharp, "Singapore's Wages Compromise", Straits Times, 3.6.74, p.46.


40. Under the Overseas Training Programme, which began in 1971, trainees were placed with advanced overseas companies for periods of up to three and a half years duration. By the end of 1971, 46 trainees were abroad learning skills with companies such as Goebel, Gildemeister, Griesheim, Karl Hopt (German), Wenger et Cie, Manufacture de Boites, Pibor, Schaublin, Bechler, Oerlikon-Bührle (Swiss), and O. Mustad and Sons (Norweigen). The engagement of companies grew along with the number of trainees. During the 1974 financial year, 103 trainees were sent to companies in West Germany, Switzerland, Australia and Japan. See Economic Development Board, Annual Report 1971/72, pp.22-23 and Economic Development Board, Annual Report 1973/74, p.110.

41. In 1971, the EDB began negotiations with several international companies to establish joint training centres. Under the agreement arrived at, participants would normally undergo a two year full-time course under company management. After completion of training, the graduate would be bonded to the company. Half the actual training costs were to be met by the government. The first such programme was opened in August 1972 with the Tata Group of India and then in July 1973 a further training centre with the Rollei Group of West Germany was established. The former provided instruction in tool and diemaking, precision machining, machine tool building and maintenance mechanics, and pattern, model and mould making and the latter in precision mechanics, tool and diemaking and precision optics. Later, in 1975, another joint training centre was established with Philips (Holland), providing training in tool and diemaking, precision machining and fine sheet metal working. Training costs under this programme were high. In the 1973 financial year $8,700,000 had been set aside by the government, through the EDB, for the running of the then two centres. See Economic Development Board, Annual Report 1973/74, p.107 and


44. Chan Heng Chee, Politics in an Administrative State: Where Has The Politics Gone? Occasional Paper Series, Number 11, Department of Political Science, University of Singapore, January 1975, pp.18-19.

46. It actually commenced operations in January 1975 as an investment and holding company with the transfer to it of all the Ministry of Finance's investments in local companies. See Linda Seah, "Public Enterprise and Economic Development", in Chen (editor), 1983, p.131.

47. ibid., p.136.


50. Seah in Chen (editor), 1983, p.140.

51. ibid., p.143.

52. In 1970, for example, Lee Kuan Yew appealed to students at a university orientation meeting to overlook political science, philosophy and sociology in favour of "more useful" subjects. Subsequently, the Public Service Board withdrew all bursaries to students taking these subjects and the Political Science Department at the University of Singapore was watered down (for details of the changes see T.S. George, Lee Kuan Yew's Singapore, London: Andre Deutsch, 1975, p.138). This official downgrading of disciplines in the social sciences reflected more than a positivist attitude towards education. It illustrated Lee's insecurity about general analytical skills being fostered and possibly brought to bear on his government's performance by sections of the electorate.

53. For details of the sentences handed out and the terms of release of the Nanyang Siang Pau's editors see Michael Richardson, "Shaking Off a Dose of Flu", Far Eastern Economic Review, 24.2.78, p.20.

54. Lee's reasons for forcing the closure of the Eastern Sun were never clear. Publically he claimed that the paper was receiving money from Chinese Communist agents in Hong Kong but the Sun's owner, Dato Ah Koh, was never charged. See Josey, 1980, Volume 2, p.16 and Gerald A. Delikham, "Lee's Black Operation", Insight, July 1971, p.38.


56. ibid., p.22.


58. The four were: Lee Teck Him, Lim Ching Lock, Chan Choy Siong and Buang bin Omar Junid. The other person to resign, Lim Soo Peng, was in Parliament since 1966. See Alex Josey, The Singapore General Elections, 1972, Singapore: Eastern Universities Press, 1972, p.49.

59. They were: Hon Sui Sen (civil servant), Yeo Choo Kok (lecturer), Dr Chiang Hai Ding (lecturer), Dr Augustine Tan (lecturer) and Yeo Toon Chia (technician). See Shee Poon Kim "Political Leadership and Succession in Singapore", in Chen (editor), 1983, pp.180-181.
60. See the report by the *Straits Times* 1.5.70 as referred to by Josey, 1972, p.49.

61. They were: Ong Teng Cheong (architect), Chia Chong Yii (burser), Dr Tan Eng Liang (lecturer), Dr Ahmad Mattar (lecturer), Dr Ang Kok Peng (lecturer), Ivan C. Baptist (unionist), Chin Harn Tong (unionist), Lai Tha Chai (Party editor), Phey Yew Kok (unionist). See Shee in Chen (editor), 1983, p.181.

62. ibid.


64. Lee Yoke Teng's study of the period up until the end of 1971 reveals that significant interlocking links existed between the directorships of the 47 companies studied. As a result, the ultimate control of these companies was actually concentrated in the hands of just a few directors. See Lee Yoke Teng, *Foreign Borrowing and Investment Policy of the Public Sector*, Academic Exercise, University of Singapore, 1973/1974.


68. Chua contended that the Party was ill-equipped to field quality candidates at this particular juncture. Leaders such as James Puthucheary, Sandra Woodhull and Fong Swee Suan who had been released from gaol had all moved to Kuala Lumpur and Lim Chin Siong to London. Chua also claimed that 95% of the members were against this decision. See Turnbull, 1982, p.325; Josey, 1972, p.65; Hanna, 1972, p.5.

69. Josey, 1972, p.73.

70. As quoted in ibid., p.71.


72. Of these parties, the UNF fielded the most candidates (33), followed by the WP (27), the BS (10), the PF (seven) and SMNO (two). See Josey, 1972, p.175.

73. See the arguments between the WP and the PF and the UNF and the BS in ibid., pp.80, 88, 93, 110, 120.


76. ibid., pp.93-94.

77. As quoted in ibid., p.111.

78. ibid., pp.75-76.
79. ibid., p.147. One of the contradictions apparent in the position of the BS and the UNF regarding foreign investment was that their opposition to it led them to indirectly or directly support domestic-based capital. It was never explained how this could be reconciled with opposition to capitalist exploitation per se. In any case, these parties probably succeeded more in attracting support from the petit-bourgeoisie - the hawkers, traders and self-employed - rather than the national bourgeoisie. After all, the national bourgeoisie had little reason to oppose the government's labour laws, the other major plank of the left's campaign.

80. As the WP's Chairman, Mr Heng, observed: "Either you have prosperity without freedom, or freedom without prosperity. But we in the Workers' Party say that our people can have both, and that is their birthright". As quoted in ibid., p.115.

81. ibid., p.155.
82. ibid., p.159.
83. ibid., p.175.
84. ibid., p.175.
85. ibid.

86. The two constituencies of Geylang Serai and Kampong Ubi were cases where the SMNO had appealed to Malays along communal grounds. See ibid., pp.155-156.

87. See ibid., pp.117, 121 in which S. Rajaratnam questions the source of UNF funds and the WP's Heng denies allegations that his party received outside funds.

89. Chan, 1975, pp.6-7.

90. One BS candidate was sentenced to six months gaol for having referred to the Prime Minister as "a bloody scoundrel", "a gangster", "a kidnapper" and "Singapore Public Enemy Number One". The PF's Secretary-General, Leong Man Kwai, also served a one month sentence and was fined $3,000 after being convicted for inciting violence. See Hanna, 1972, pp.4,7.


93. See the contrasting positions of the WP and the BS in ibid., pp.16-17.

94. Those introduced were: Dr Lee Chiaw Meng, Dr Ahmad Mattar, Chai Cheng Yiu, Dr Ang Kok Peng, Lim Guan Hoo, Dr Augustine H.H. Tan. See Shee in Chen (editor), 1983, p.183.


96. NTUC-financed co-operatives included an insurance co-operative (INCOME), a chain of supermarkets (WELCOME), extensive public transport
in the form of thousands of taxis and mini-buses (COMFORT), low-cost school books and stationary (FAIRDEAL), inexpensive dental care (DENTICARE) and travel services (NTUC Travel Services). In addition, a consumer movement, known as the Consumer Association of Singapore (CASE) was launched in 1973 with the NTUC as founder member. See C.V. Devan Nair (editor), Socialism That Works ... The Singapore Way, Singapore: Federal Publications, 1976, p.102.

97. ibid., p.101.
98. ibid., pp.102-103.
101. ibid.
104. As calculated from Tables 3 and 5 in Appendix.
105. All export/output ratios calculated from Tables 3 and 5 in Appendix.
106. Iron and steel also showed a significant drop in value terms but this was largely the consequence of a drop in steel prices rather than a substantial cutback in production. See Economic Development Board, Annual Report 1975/76, p.10.
111. ibid.
114. Technological upgrading, increased capital-intensity and reorganisation had given rise already to a five-fold increase in value-added per worker between 1968 and 1974. Obviously the recession enticed employers to look further at increasing labour's productivity and displacement. See "Singapore's Electronics Industry", Asia Research Bulletin, November 1976, p.265.

115. Amongst other things, the USSU organised an 'Anti-Repression Week' during which criticism was focused on detention without trial, government control of the press and the lack of basic democratic rights. See The Dutch Labour Party in Devan Nair (editor), 1976, p.260.

116. See the comments by Australian lawyer Frank Galbally who attended the trial, reported in Ian Day, "Bid to Fight Singapore 'Repression'", The Age, 6.1.75.


119. The government persisted with the view that the student movement was essentially an externally-contrived force. Six members of the USSU were deported back to Malaysia. Earlier, in July 1974, the then Minister for Science and Technology and Vice-Chancellor of the University of Singapore, Dr Toh Chin Chye, claimed that the USSU was not representative of the Singapore student population. According to Toh, foreign students were "leading Singapore students by the nose". The USSU, however, pointed out that of its 11 member executive committee six were Singaporeans, four were Malaysians and one from Hong Kong and of the 43 student councillors 26 were Singaporeans. See "University Students Criticised", Asia Research Bulletin, July 1974, p.2859; "Controversy Over Singapore Student Activities", Asia Research Bulletin, January 1975, p.48.


122. According to Rajaratnam, the USSU was a prime vehicle of the so-called New Left which had been concerned with gathering support for three propositions: (i) that Singapore's one-party government is propelling the Republic towards dictatorship; (ii) an independent Singapore is not viable economically, politically or militarily and re-merger with Malaysia is the only way out; and (iii) the minorities, the Malays in particular, are oppressed and the solution lies not in the PAP's multi-racialism but through the creation of an alliance of communal parties. Rajaratnam contended that those who wanted to subvert Singapore had to support all three propositions. See "Mr. Rajaratnam on the 'New Left' in Singapore", Asia Research Bulletin, December 1974, p.38.


128.  Ho Kwon Ping argued that Devan Nair's estimations were misleading and that the actual number of jobs required to achieve 'full employment' would be much less than was being suggested. See Ho Kwon Ping, "Singapore: A Lid on Wages", Far Eastern Economic Review, 19.3.76, pp.53-55.

129.  External factors which Devan Nair cited as making the task of attracting foreign investment difficult included: unemployment in the major industrialised countries which was expected to remain high over the next few years; trade union pressures against retrenchments in these countries which could deter relocation of production overseas; hesitancy about investment in the Southeast Asian region in view of the victories of the communists in Cambodia, Vietnam and Laos as well as reported insurgency in Thailand.


131.  Heavy capital investment during the period, for example.


135.  Ngiam Peng Teck, "Industrialisation in Singapore", AMPO (Japan-Asia Quarterly Review), 8(4) and 9(1-2) (Special Issue), 1977, p.145.


140.  ibid., p.48.


142.  ibid., p.3.

143.  ibid., p.21.
144. See "Restraint and Counter-Recessionary", Straits Times, 4.3.75; Seah Chee Meow and Linda Seah, "Education Reform and National Integration", in Chen (editor) 1983, pp.240-267.

145. Presumably C.V. Devan Nair's projection of a 61% drop was arrived at by an over-optimistic assessment of the 1974 commitment figure.


149. ibid.


160. Source: Interview with Paul Stateham, Quality Controller, Sunstrand Pacific (Singapore), 23 December 1981.


163. In 1973 alone, for example, 293 projects were approved for investment in South Korea. To Japanese investors, Singapore was both physically and
culturally more distant from Japan than South Korea, Taiwan or Hong Kong. See ibid., p.73 and Terutomo Ozawa, "Labour Resource Oriented Migration of Japanese Industries 20 Taiwan, Singapore and South Korea", Economics Staff Working Paper, Number 134, World Bank, August 1972, p.24.


166. See Albert Tien, "Foreign Investment: Swarming In", Insight, April 1972, pp.36-37.

CHAPTER 8

Investment Recovery and the Unfolding of Contradictions

Introduction

Having undergone a severe economic setback due to the world recession, Singapore's economic planners were preoccupied between 1976 and 1978 with the task of creating the conditions for a sustained economic recovery. This entailed a wide range of measures to attract investment. Wage control through the NWC was especially important. Without this control no other measure was expected to be effective. Equally, the government insisted that without political stability and labour discipline Singapore would be unattractive to international capital in these fiercely competitive times. Indeed, so apprehensive was the government about the capacity to attract sufficient capital from abroad that the first really concrete steps were taken to promote the locally-based industrial bourgeoisie. This promotion was, however, not altogether unrelated to the primary objective of attracting international capital.

Aside from the uncertainty of Singapore's economic recovery, two important political questions would have to be answered in the next few years. When the recessionary effects hit Singapore in 1974/1975, protest from workers and students was harshly dealt with. What form then, if any, would opposition to government policy take in future? Further, given that the PAP had to face an election in the next few years, how would the electorate assess the PAP's handling of the economy and indeed, its opponents and critics?

Given the setback of the recession to the government's strategy to promote Singapore's shift towards an intermediate technological stage of industrialisation, economic recovery per se became the overriding priority in the 1976-1978 period. The government continued to pursue its restructuring objectives but this was done in conjunction with policies to promote manufacturing growth in
general. As we shall see in this chapter, however, such an approach not only fostered the desired economic recovery, it also produced fundamental contradictions in industrial strategy. The recovery and expansion of Singapore's traditional labour-intensive industries, which had been particularly hard hit by the recession, began to generate serious constraints on the capacity of the economy to support higher value-added manufacturing production. At the same time, a number of external factors also forced the government to seriously reconsider its economic objectives and means of achieving them.

Wage Control and Labour Policy
In keeping with the policy adopted in 1975 of curbing wage increases, NWC recommendations in the years 1976-1978 emphasised wage restraint as an encouragement to investment and job creation. Thus, in 1976 the government accepted recommendations for a 7% increase with full offsetting of annual increments for both the public and private sectors. Unlike in previous years, however, offsetting was to be calculated on a group rather than an individual basis. It was also recommended that the list of quantum and fringe benefits provided for in collective agreements should not be extended or enlarged beyond the expiry of the existing agreements and that new companies be very moderate in their provision of fringe benefits. This emphasis on fringe benefits represented an attempt to place constraints on the total wage bill, rather than just wages. Given that there was a decrease of 1.9% in the CPI in 1976 (see Table 18 in Appendix), these recommendations might on the surface appear generous. However, there was a significant qualification to these recommendations. They need not be implemented, in either part or full, by export-oriented industries with a high labour content where such industries were facing competition from lower wage countries. This reflected the government's concern that Singapore might lose out to Taiwan and South Korea, in particular, in the attraction of investment.
Again in 1977, the NWC addressed the problem of containing increases in the total wage bill. A flat 6% wage increase was recommended, but this time with offsetting calculated not just on annual increments but all other forms of remuneration, such as merit and promotional increments. Further, the real value of those increases within the guidelines was eroded by a 3.2% increase in the CPI in 1977 (see Table 18 in Appendix). In any case, Singapore's lowest paid workers tended to be employed in precisely those industries which were again exempt from any obligation to implement the guidelines - the labour-intensive, export-oriented manufacturing industries. Even though by now there had been some recovery in the Singapore economy, the government's projections were still pessimistic and wage restraint would, in its view, need to prevail.

Whilst again calling for wage moderation in 1978, the NWC guidelines recommended some important changes to the formula for arriving at wage increases. The guidelines provided for a flat $12 increase plus 6%, with offsetting on the same basis as for 1977 except that promotion increments would not be included. The significance of the $12 was that it represented an official acknowledgement of the gross wage differentials in the Singapore economy, though by no means greatly redressing this inequality. The problem was in any case directly related to the government's policy of holding down wages most tightly in the labour-intensive, export-oriented industries.

The more significant feature of the 1978 NWC recommendations was the revision of group offsetting to ensure that wage adjustments were more closely related to individual worker productivity. Employers were advised to adopt one or both of the following schemes to distinguish between different levels of worker productivity: (i) a demerit scheme based on penalties for absenteeism, unpunctuality, failure to observe safety rules and generally unsatisfactory performance - all offences leading to denials in part or full of the annual increments; (ii) a merit scheme based on measurable increases in productivity. Though employees would soon make the point that the implementation of such
schemes was fraught with difficulty, the focus on individual productivity was ominous. Whilst the government had been productivity conscious since the early 1970s, the 1978 NWC recommendations were intended to institutionalise this to a greater extent. Future NWC recommendations would see even further emphasis on productivity.

By the time of the 1978 NWC recommendations, Singapore’s economic climate had undergone important changes. Official unemployment had fallen to 3.6% and labour mobility had become at least as great a concern as unemployment. This was reflected in the 1978 NWC recommendations that wage adjustments not be paid to employees with less than twelve months’ service unless they have been retrenched, were new labour recruits or either their company or themselves had cause to relocate address.8 To the policy-makers, increased productivity consciousness would promote better work attitudes and, hence, less ‘job hopping’.

Evidence available suggests that the NWC’s recommendations enjoyed significant compliance by employers during the period from 1975 to the end of 1978. Chew and Chew cite survey data showing a range in the degree of implementation in both the manufacturing sector and economy in general of between 70% and 89%.9 Official data also show that average hourly earnings in the manufacturing sector increased from $1.94 in August 1975 to $2.48 in August 1979, an increase of 27.8%.10 This suggests that increases approximated those recommended by the NWC which called for average annual increases of 27.3% from 1975 to 1978 inclusive.

We have seen in earlier chapters that since adopting an EOI strategy wage policy had been heavily conditioned by the need to attract international capital. In the period following the 1974/1975 recession, this connection became paramount to the PAP government’s attempts to ensure a sufficient share of the limited investment by international capital. Through the direction of the NWC, and with the support of the NTUC, the government successfully implemented
wage control which gave manufacturers in Singapore an opportunity to remain competitive with exporters from other production sites in the region. The support of the NTUC leadership for the wage policy was reiterated in October 1977 at a four-day seminar which it organised, entitled "The Next Ten Years – Job Creation or Job Loss". This support was fundamental to the success of the wage policy of producing a decline in the monthly earnings of Singapore workers relative to those of Taiwan, South Korea and Hong Kong workers during the period 1976-1978.11

Locally-Based Capital

Although the government's immediate concern during the recession had been to address the decline in foreign investment, the 1975 budget also contained measures to stimulate capital in general. Despite these measures, however, by 1976 a clear trend had emerged towards an absolute and relative decline in the contribution of locally-based manufacturers to total investment. The contribution of locally-based capital to total manufacturing investment commitments had fallen from $123.1 million or 42.17% in 1974 to $59.5 million or 19.43% in 1975 and $42.80 million or 14.11% in 1976 (see Table 13 in Appendix). This trend was not only disappointing for the government in view of its efforts to raise investment levels per se, it also raised questions about the place of local manufacturers in any future restructuring of industry. Domestic capital continued to be concentrated in finance and trade, and to a lesser extent in the naturally-protected import-substitution manufacturing industries, with no evident interest in diversification. Dr Goh Keng Swee had announced in 1975 that the most desirable growth strategy would involve the upgrading of domestic, low-technology industries with the simultaneous promotion of higher technology, capital-intensive but small firms as growth leaders.12 Figures on investment commitments suggested that locally-based manufacturers were either indifferent to this strategy or incapable of partaking in it.
Towards promoting the development of locally-based companies, in 1976 the government introduced the Small Industries Finance Scheme (SIFS). In essence, this was an extension of the CAS to Singapore's small, locally-based companies. It provided lower than commercial rate loans for the establishment of viable enterprises and the diversification and integration of manufacturing operations of existing companies.13

The new interest in promoting locally-based manufacturing capital did not represent any revision of basic economic philosophy. The government was certainly not motivated by nationalism. On the contrary, it continued to subscribe to the view that only capital which could withstand market competition deserved to survive. Rather than trying to assist local companies in competition with international capital, the government's intention was to encourage greater integration between the operations of local and international companies.14 Particularly in the electronics industry, international capital stood to benefit from the building up of a more fully integrated industry. Not only would efficient locally-based firms help to cut transportation and production costs, and thereby enhance the competitiveness of the industry, but their increased content would also render more international firms eligible for trade privileges under the General System of Preferences (GSP).15 As protection became more an obstacle to exports from Singapore, international capital became more anxious to ensure the building-up of support industries.16

Despite the introduction of the SIFS, little progress was made over the next few years in either promoting local investment or fostering greater integration between locally-based and international capital. In 1978, local investment commitments still only amounted to $46.7 million, just 5.75% of total commitments (see Table 14 below). By mid-1978, loans under SIFS had been approved to small companies producing television cabinets, ice-making machines, plastic injection mouldings, electric power cords and a range of other products which totalled $11.19 million.17
Table 14: Net Investment Commitments in Manufacturing 1974–1978

<table>
<thead>
<tr>
<th>Year</th>
<th>Total $M</th>
<th>Foreign</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>291.9</td>
<td>168.8 (57.8%)</td>
<td>123.1 (42.2%)</td>
</tr>
<tr>
<td>1975</td>
<td>306.3</td>
<td>246.8 (80.6%)</td>
<td>59.5 (19.4%)</td>
</tr>
<tr>
<td>1976</td>
<td>303.3</td>
<td>260.5 (85.9%)</td>
<td>42.8 (14.1%)</td>
</tr>
<tr>
<td>1977</td>
<td>396.4</td>
<td>362.6 (91.5%)</td>
<td>33.8 (8.5%)</td>
</tr>
<tr>
<td>1978</td>
<td>812.4</td>
<td>765.7 (94.3%)</td>
<td>46.7 (5.7%)</td>
</tr>
</tbody>
</table>


The failure of SIFS to attract a sufficient volume of successful applicants was attributed by Singapore's domestic-based manufacturers to the defensive attitude of commercial banks which were said to have considered the margin on interest from the SIFS loans unattractive. Borrowers were required to submit excessive collateral.18 Similarly, banks tended to be very cautious in the administering of both the pre-export and export financing offered by MAS, again to the detriment of small firms. Money was simply going to the best credit risks, the multinationals.19

In recognition of the failure of the government's measures to affect any substantial development of locally-based manufacturing capital or industrial integration, in 1978 the Product Development Assistance Scheme (PDAS) was introduced. This was intended to develop local applied research and product capability and indigenous technology. Under the scheme, a dollar-for-dollar grant of up to $100,000 was available for approved product or process development projects carried out by local companies.20 The grant could be used for either in-house research or work carried out at outside institutions such as SISIR or the Applied Research Corporation (ARC). Again, this measure was designed to develop the capacity of local capital to integrate with and service the needs of international capital. Had the government wanted to boost investment by locally-
based capital for the sake of developing this fraction of capital, far more positive
discrimination in its favour would have been required. This, however, was
antithetical to the government's philosophy, counter productive to its economic
strategy and negated by the basic political mistrust of the local business
community by the PAP.

**Budgetary Measures to Promote Growth**

In keeping with the government's policy of prime-pumping the economy to
compensate for dampened demand for Singapore-manufactured goods,
development expenditure by the government increased significantly between 1976
and 1978. Total development expenditure rose from $1,548.5 million in 1975/76 to
$1,890.0 million in 1977/78. Loans to statutory bodies and enterprises continued
to dominate these outlays, comprising $1,138.7 million in 1975/76 and $1,180.0
million in 1976/77 (see Table 21 in Appendix). Again, the chief beneficiaries of
these loans were the HDB and the JTC.

Total capital expenditure by the HDB for the years from 1975/76 until
1977/78 amounted to $2,716 million. Of this, $2,408 million was provided by the
government in loans.\(^21\) Between April 1977 and March 1978, a record number of
30,547 units of flats and shops had been completed by the HDB, bringing progress
on the Fourth Five-Year Building Programme (1976-1980) ahead of schedule. As a
result, an estimated 1.4 million people, or 60% of the population, were living in
estates managed by the HDB.\(^22\)

The economic recovery anticipated by the JTC in its 1974 Annual Report
took longer in materialising than originally projected. Naturally this affected
demand for industrial land. In fact, in 1976 85.5 hectares of land were
relinquished by industrialists through premature termination of leases. At the end
of that year there were as few as 10 applicants on the waiting list for 6.8 hectares
of land.\(^23\) Expansions in land preparation continued, however, in keeping with the
policy of maintaining an adequate supply to meet future demand. Total capital
expenditure on land preparation in 1976 amounted to $296.2 million of which $209.4 million was provided through government loans, with a further $137.9 million out of JTC's $195.8 million capital expenditure for 1977/78 again from such loans. This made possible the preparation of 1,346.2 hectares of industrial and other land during this period. Utilising a time of slack demand to expand facilities proved a wise policy. When demand suddenly picked up, JTC was able to allocate record numbers of factory buildings in 1977 and 1978. By the end of March 1978, a total of 1,751 industrial establishments under JTC's management employed 143,412 workers representing about 62% of the total manufacturing labour force.

Political Developments

From the time that the PAP became the sole political party represented in parliament, international curiosity in the Singapore political system was assured. PAP leaders were particularly sensitive to suggestions that this situation was undemocratic and pointed to the fact of free, compulsory elections. To the PAP's irritation, however, a growing critical interest developed amongst Western journalists, scholars and political activists in, what they saw as, the systematic obstruction and intimidation of opposition which rendered elections a superficial measure of political freedom. The PAP's treatment of the press in the early 1970s had done much to prompt sympathy outside Singapore for this view. What outsiders viewed as repression, however, was explained by Lee Kuan Yew as firm but necessary measures to curb the omnipresent, if greatly reduced, communist threat. In particular, criticism of detention without trial under the ISA was rejected by the PAP leaders who contended that their critics had no appreciation of the security problem posed by the MCP which was now committed to the overthrow of government by force. So persistent were the criticisms, however, that the PAP eventually felt the need to develop a more systematic and comprehensive justification of its position, linking its style of government to Singapore's economic needs and performance.
Despite the government’s rationalisation of the use of detention without trial under the ISA, by early 1976 formal international concern manifested in the publication by the Federation of United Kingdom and Eire Malaysian and Singapore Students' Organisations (FUEMSSO) of *Singapore: Behind the Economic Miracle*, and an 86-page briefing paper by the London-based international human rights organisation Amnesty International.\(^{27}\) The former comprised a series of articles highly critical of the PAP’s record on civil liberties and included reprints of statutory declarations by detainees attesting to the allegedly harsh and inhumane treatment and torture of political prisoners.\(^{28}\) The Amnesty report, which caused even greater embarrassment owing to the organisation’s reputation for non-partisanship, claimed that as many as 40 political prisoners were being held under the ISA.\(^{29}\) It went on to contend that the use of detention without trial was part of the PAP’s broader repression of legitimate non-violent political opposition:

> Political detainees include those who have criticised the government for curtailing the application of the rule of law, restricting freedom of the press and of speech, and denying opportunities for normal trade union activity, for free political activity and for the establishment of a true parliamentary opposition.\(^{30}\)

Amnesty also raised the question of prisoner treatment, pointing out the government’s failure to even take up the recommendation by the Chief Justice of the Constitutional Commission of 1966 to amend the Singapore Constitution to provide guarantees against torture.\(^{31}\)

As if the FUEMSSO and Amnesty reports were not sufficient indictment of the PAP, these were soon followed by plans to expel the Party from the Socialist International which it had joined in 1966. Expulsion moves were formally initiated by the Dutch Labour Party (DLP) in a memorandum circulated to members of the Socialist International and supported by all Western social democratic parties. The memorandum called for the unconditional release of all political prisoners, and raised such questions as the violation of workers’ rights to organise.\(^{32}\) Anticipating the inevitable, in September 1976 the PAP resigned from the Socialist International.\(^{33}\)
In the wake of the PAP's resignation from the Socialist International an extensive attack on the Party's critics was conducted. Typically, Lee Kuan Yew portrayed the charges from the Socialist International as part of a wider conspiracy and alleged that the Socialist International had "wittingly or unwittingly become a vehicle to further the communist cause in Singapore". The NTUC's Second Triennial conference in mid-April 1976 was also presented with a 64-page report from Secretary-General Devan Nair which was essentially a polemic against the British and Dutch Labour parties and the Socialist International. Devan Nair levelled severe criticism at the "ultra-liberal lunatic fringe" of Western democratic socialist parties, otherwise referred to as the "New Left". The government's attempts to dispel its critics' charges culminated in the publication of a 268-page work entitled Socialism That Works ... The Singapore Way, edited by Devan Nair. This comprised articles by leading Party figures and functionaries and documents pertaining to the activities of subversives in Singapore. Western liberals and social democrats came in for special ridicule and condemnation, not just for allegedly aiding and abetting the MCP, but for the general moral decadence which they represented to PAP leaders.

Whatever outside elements contended about the PAP's exercise of security laws, the Singapore authorities continued to pursue perceived communist activities with vigilance. No doubt there were genuine MCP attempts at infiltration and subversion, but whether these were as widespread as the Singapore government claimed and whether they took all the forms which attracted ISD harassment is not possible to verify. However, the political utility to the PAP of keeping alive the appearance of widespread communist subversion was all too obvious to the government's domestic political opponents and external critics. Thus, Amnesty International remained unconvinced that detention without trial could be justified and released a second briefing paper in February 1978. In contrast to the previous report, however, this one aroused little government response. The experience of the last few years had proven that these
allegations did not necessarily weaken the PAP's domestic political position nor the appeal of Singapore to international capital.

1976 General Election

Although a general election was not due until September 1977, on 6 December 1976 Parliament was dissolved with 13 December set as Nomination Day and 23 December as Polling Day. In announcing the election date, Prime Minister Lee Kuan Yew referred to the difficult times anticipated in 1977 and the need to get the election over with so that preparations could be made to deal with the problems ahead. These problems included a possible new recession, oil price increases and the pressure to be applied on the US President-elect Jimmy Carter for a speedy settlement of the Middle East dispute.39

There was no expectancy that the PAP could lose office in this election, but it would be of interest to gauge the effect of the charges by the DLP and Amnesty International on the PAP's domestic popularity. A skilful exploitation of this issue might provide the basis for some gains by opposition parties. Aside from the civil rights question, there had also been some rumblings of discontent by the middle class earlier that year after the government's New Year's Eve decision to substantially increase road taxes and motor vehicle registration and area licencing fees. Following unusually vocal public protest, including two motorcade protests, significant revisions were made to the proposed charges.40 The government's modernisation and redevelopment of the city centre and remaining rural areas also continued to cause dislocation to thousands of businesses and families, thereby risking some electoral backlash.41 Finally, it remained to be seen how Singapore's working class was accepting the new hold on wage levels. Rising costs of transportation, food, utilities and government services such as health, education and housing obviously had greatest impact on this class. The gross inequality of income distribution in Singapore meant that despite the high per capita GNP, many people still received very low wages.42
By the time of the 1976 election, the PAP's policy of ushering in promising new second generation leaders to prepare for the eventual phasing out of the Old Guard had gained momentum. In June 1975, three younger generation recruits were appointed senior ministers. These senior ministers of state were also the first in the Party to be given the power to exercise full ministerial functions and attend cabinet meetings. The Party fielded 11 new candidates, the average age of these being in the mid-thirties and most of them having tertiary education backgrounds, two of them possessing Ph.Ds and another an M.A. Nine of the 11 had been educated in English. The close relationship which had developed between the government and other levels of the state was re-inforced through the choice of candidates too. Two of these candidates were top level executives of government-controlled corporations. They were Suppiah Dhanabalan, Executive Vice President of the DBS, and Goh Chok Tong, Managing Director of National Orient Lines, the national shipping company. Two other candidates, Dr Lau Teik Soon and Dr Ow Chin Hock, were lecturers at the University of Singapore. Their entry to Parliament would increase the PAP's direct representation at the University of Singapore to five, two of whom would be departmental heads. The already pervasive PAP influence thus continued to be cemented and extended throughout the Singapore state.

In contrast with the previous general election, in 1976 the opposition parties managed to achieve some degree of co-operation so that a three-cornered contest took place in just two constituencies. Towards a more effective maximisation of the opposition's limited resources, a Joint Opposition Council (JOC) was formed, a loose federation of parties comprising the BS (six candidates), the Singapore United Front (SUF) (15 candidates), PKMS (two candidates) and the Singapore Justice Party (SJP) (two candidates). The Workers' Party (22 candidates) and the United People's Front (UPF) (six candidates) also merged at the last moment so that the opposition parties were broadly grouped into two separate but not antagonistic coalitions. Two Independents also contested the election.
Despite the improved co-operation between opposition parties, there were still many underlying difficulties which rendered this co-operation superficial. The whole opposition campaign lacked unity. Thus, while the combined platform of the JOC called for the abolition of the ISA and the immediate release of all political detainees, a position also shared by the UPF, the WP argued that the ISA should be retained but the "indiscriminate detention" which characterised the ISA's execution should be abolished.\(^{48}\) The WP called for greater executive accountability.\(^ {49}\) Similarly, whereas the JOC platform sought the revocation of "unjust anti-workers [sic] laws like the Employment Act and the Industrial Relations Act", the WP sought better conditions for workers.\(^ {50}\)

As had been the case in previous elections, opposition parties encountered problems in obtaining an accurate and adequate media coverage.\(^ {51}\) By contrast the PAP exploited its favoured relationship with the media to saturate the electorate with its propaganda. In general, the PAP leaders treated their opposition with contempt, and dismissed their suggested reforms as irresponsible.\(^ {52}\) Lee Kuan Yew attacked the opposition parties on the grounds that: "Most of the opposition want to give everything away". He added:

They want lower taxes, lower rates and lower public utilities rates. We stand for the security of Singapore which, unfortunately, means that hard-core detainees who refuse to abjure the use of violence will have to be detained.\(^ {53}\)

The PAP slogan, "Towards a Safe Future with the PAP", became synonymous with arguments about the pending economic difficulties and the insidious communist forces, both which could be kept at bay only with continued tough leadership and the success of the PAP's economic strategy. According to the PAP, if the opposition won any seats at all foreign investment would consequently drop and thereby threaten this strategy and, hence, the entire security of Singapore.\(^ {54}\)

Election results once again gave the PAP a landslide victory, taking all 69 seats. Of the total votes cast, the PAP gained 72.4% and the opposition parties 25.32%.\(^ {55}\) The so-called 'protest vote' had dropped about 5% since the last general election. The improved PAP vote owed much to greater support from
constituents in the northern rural districts who had grievances in 1972 over land appropriation by the state and felt generally neglected. Since then, however, compensation rates for appropriated land had increased and opposition parties, beset with financial and organisational limitations, found it increasingly difficult to campaign in remote areas. Significantly, though, the PAP lost some marginal ground in middle class constituencies which had previously provided the backbone of PAP support. Presumably this had something to do with the increased charges to which this class had been subjected. The middle class was also the most likely to harbour resentment over PAP and state authoritarianism in general. Despite the WP's reduced share from 12.2% to 11.5% of the total vote, Jeyaretnam registered the highest opposition vote with 39%, but the biggest surprise of the losers was the 31% vote gained by Independent Chiam See Tong. Chiam, a lawyer with no previous political experience, contested the Minister for Communications and National Development, Lim Kim San, in the Cairnhill constituency and in so doing reduced the Minister's 1972 margin by 13%.56

Despite some evidence of marginal middle class alienation with the government, the clear message of the 1976 elections was that the PAP's record of economic achievement entitled the Party to a mandate for any difficult times ahead. The considerable economic growth over which this government had presided had provided real material benefits for the domestic-based bourgeoisie and the working class, albeit to different degrees. Both classes held legitimate gripes but the gains they had made far outweighed other considerations. Significantly, the working class showed no apparent concern for the question of civil liberties. If there was any concern it was tempered by a more fundamental aspiration for economic security and material improvement which the PAP had a record of providing. This unhappy verdict for the opposition was later repeated in a by-election in the predominantly working class constituency of Radin Mas in May 1977 when WP candidate Jeyaretnam was defeated by the PAP's Bernard Chen Tien Lap after making human rights the central focus of the campaign.57
Chen, a civil servant in his thirties who was recruited for this by-election by the PAP, made the seemingly politically correct observation which Singapore's opposition parties could only accept with considerable reluctance:

Let me tell you what human rights, basic rights or fundamental rights are — what they mean to the people. They are the rights to a better life: the right to work, to stay in a decent home, the right to education, medical facilities and law and order in the country. These are the real fundamental rights of the people, not the empty words of the opposition.\textsuperscript{58}

The BS fared no better in another by-election in late July 1977.\textsuperscript{59} The negative international publicity the PAP received in 1976 had thus not harmed the Party domestically and any hope that such publicity might have, indirectly, led to a relaxation of repression was therefore delivered a setback.\textsuperscript{60}

As we have seen above, the vigilence of the authorities in suppressing suspected subversive activities in the student and labour movements continued over the next few years. The media too came in for closer official scrutiny with the arrest of several journalists.\textsuperscript{61} As a follow up to the 1974 Newspaper and Printing Press Act, the government also introduced new legislation to curb the influence of the privately-owned, notably Chinese, domestic press. The 1974 Act was intended to restrict the influence of outsiders on local politics through press ownership but it still remained possible for local individuals to wield significant control so long as they commanded sufficient management shares. Thus, in July 1977, amendments to the Act were introduced which limited individual holdings in publishing companies to 3\% of the shares, with the rest being offered on the open market to small investors.\textsuperscript{62} Clearly the government was sensitive to the fact that the two Chinese newspapers, \textit{Nanyang Siang Pau} and \textit{Sin Chew Jit Poh}, were in the hands of two powerful families, namely the Au and Lee families.\textsuperscript{63} Both these families had been accused of power broking and exploiting their media control for political ends, that is, the promotion of Chinese chauvinism.\textsuperscript{64} The breaking up of these newspaper empires was yet another step in the PAP's systematic elimination of any actual or potential capacity of the press to exert any political influence other than that sanctioned by the PAP.
The government's introduction of amendments to the Newspaper and Printing Act did not mean that the PAP anticipated any strong revival of Chinese chauvinism. The move was primarily a precaution. In fact, in February 1978 the government abolished the Suitability Certificates for entry to tertiary institutions which was, after all, particularly intended to screen suspected MCP supporters and sympathisers from Chinese-language secondary schools. Over time, however, the government's institutional control and the greater utility of an English-language education in employment contributed to the declining influence of Chinese-medium education. The government had also been successful in the general curbing of leftist influence throughout Singapore society. As a result, the Suitability Certificate was no longer considered necessary by the authorities. Instead, the government concentrated on rounding off the defeat of Chinese consciousness by introducing a joint campus scheme in 1978 whereby students from Nanyang University would attend lectures in English with their counterparts at the University of Singapore. Amongst other things, the purpose of the exercise was to advance the more politically acceptable Singaporean identity at the expense of the Chinese cultural consciousness promoted by Nanyang's medium.

In summary then, the period 1976-1978 represented one of political consolidation for the PAP. Not only did the PAP again secure a strong mandate for its economic programme, which involved sacrifices from the masses, but it also continued its uncompromising attitude towards dissent from labour, students and press. The ISA also continued to be enacted without any significant negative electoral consequences. Thus, despite the resort to the ISA, Singapore projected an image of political stability. The government had been at pains to emphasise that this was fundamental to the attraction of international capital in these competitive times. As we shall see below, this political stability did coincide with an impressive economic recovery. However, this recovery brought with it a new set of problems for the government's economic strategy which, if not addressed, might ultimately threaten that very stability.
Manufacturing Development and International Capital

At different points above, reference has been made to manufacturing developments and, in particular, the investment tendencies of international capital between 1976 and 1978. Here, however, we examine these more thoroughly, drawing out the important qualitative developments in Singapore's EOI strategy. We see that the PAP's measures to arrest declining investment were successful not just in addressing unemployment, but in promoting a new phase of rapid industrialisation which involved significant technological upgrading.

From the beginning of 1976 to the end of 1978, the Singapore economy underwent considerable expansion, especially given that the global economy had not yet fully recovered from the effects of the 1974/75 recession. Singapore's total GDP for the period grew by 26.0% (at 1968 market prices). In this time, manufacturing GDP grew by 33.4% (at 1968 market prices). This manufacturing expansion was largely fueled by a recovery in export demand. Domestic manufactured exports grew by 75.4% from the end of 1975 to the end of 1978, facilitating an increase in the export/output ratio for the sector from 57.1 to 64.2 in the same period. As a proportion of total manufacturing output they rose from 57.7% to 63.9% (see Table 2 in Appendix).

In absolute terms, the leading contributors to increased manufactured exports in the period 1976 to 1978 were, not surprisingly, the petroleum refineries and petroleum products and the electronic components and products industries, followed by the food, apparel, transport equipment and sawntimber industries (see Table 5 in Appendix). Relative increases, however, were most rapid in the furniture and fixtures industry, followed by the iron and steel, apparel, electronic components and products, plastic products and food industries. Included amongst the absolutely and relatively fast-growing export industries then were some industries involving a high labour component. As a result, the manufacturing sector provided 52,196 more jobs by the end of 1978 than it did at the same time in 1975, of which 34,121 had been created in the heavily export-oriented
electronics and apparel industries (see Table 6 in Appendix). Export expansion thus made an important contribution to the reducing of official unemployment from 4.6% in 1975 to 3.6% in 1978 (see Table 1 in Appendix).

Given the already established dominance of international capital in the Singapore manufacturing sector, especially in export production, the economic recovery of this period understandably owed much to foreign investment. Indeed, the recovery strategy was, as we have seen, geared around the attraction of foreign investment. The government's success in this regard was reflected in various measures. Whereas foreign investment accounted for 73.7% of total gross fixed assets in manufacturing in 1975, by the end of 1978 it accounted for 78.5%. Wholly foreign-owned companies also accounted for 52.3% of all manufactured exports for the years 1976-1978 and companies with at least 51% foreign ownership 87.4%.

Of particular satisfaction for the government was the growth in actual and committed foreign investment in the years 1976-1978. Total actual investment in gross fixed assets increased by $1,862 million or 55.1% and investment commitments by $518.9 million or 210.3% (see Tables 10 and 13 in Appendix). In both cases, however, the pattern was for steady increases in 1976 and 1977 and then quite dramatic increases in 1978. 58.9% of actual foreign investment and 77.7% of committed investment increases for the period occurred in 1978. 1978, then, marked a watershed in the strategy to revive foreign investment.

The biggest increases in actual foreign investment in the period 1976-1978 occurred in the petroleum and petroleum products ($266 million), non-electrical machinery ($237 million), transport equipment ($117 million) and precision equipment ($70 million) industries (see Table 11 in Appendix). The fastest growth in foreign investment, however, was recorded by the non-electrical machinery industry which expanded by 94.8%, followed by the electrical and electronics industries at 75.1%. Of the committed investment, the most substantial gains were made by the electrical machinery industry ($279.1 million higher at end of
1978 than at end of 1975) followed by the petroleum ($195.0 million higher) and precision equipment ($32.6 million higher) industries (see Table 13 in Appendix). A more meaningful understanding of these developments, however, necessitates an examination of investments within individual industries.

The most significant development in the petroleum industry in this period was the increasing interest in secondary processing activities which raised the value-added of refined crude. Shell's $135 million project to produce low sulphur fuel oil, diesel oil and other light petroleum products made further progress in this period. Then, in 1978, Shell announced its intention to build a hydrocracker costing $330 million for the upgrading of lower value oil products. This plant would be only the second such unit built by Shell outside North America. In the same year, Mobil commissioned a $57 million reformer plant, a $300 million hydrocracker project and embarked on a $200 million visbreaker project. Upgrading, then, made further progress in this industry.

The period 1976-1978 was one of exceptional recovery for the electrical machinery and electronic industries. The electrical machinery industry expanded output by $195.6 million or 36.8% whilst the larger and more export-oriented electronics industry increased output by $825.8 million or 47.9% with exports up by 47.7% (see Tables 3 and 5 in Appendix). The pattern of foreign investment also underlined the confidence in the ability of this recovery to be sustained. Not only was there a total of $226 million invested by international capital in these industries, but also a 143.1% increase in foreign investment commitments between 1977 and 1978 (see Tables 11 and 13 in Appendix). Though both industries attracted much foreign investment, including significantly improved technology, overall productivity increases in these industries remained modest, value-added per worker rising by $3,800 in the electrical industry and $1,700 in the electronics industry (see Table 7 in Appendix). This was due to the uneven distribution of productivity increases within these industries.
Productivity increases in the electrical industry in period 1976-1978 were mainly brought about by the continued introduction of higher value-added products. A great many of these products, involving backward and forward integration, had been committed before 1976, but the value and range of products increased further during the period under review. Thus, such items as switch gears, analogue meters, motors, compressors, air conditioners, refrigerators, vacuum cleaners, coffee makers, clocks, hair dryers and various components and accessories were invested in. The more significant foreign investors attracted included Matsushita, which began the manufacture of precision motors, Crompton Parkinson, which set up a project to manufacture electrical meters, and Meidensha, which began production of high tension distribution transformers. Expansions and diversifications were also carried out by the already established Union Carbide for the manufacture of alkaline batteries, Varta for silver oxide button cells and Sanyo for various household appliances. 73

The poor productivity performance of the electronic components and products industry in the period 1976-1978 conceals the fact that important qualitative upgradings did take place. Inefficient applications of labour by some firms tended, however, to cancel out the effects of investments in more complex products and processes or in greater automation or mechanisation by other firms. Pang suggests that labour shortages in electronics assembly work may have given rise to reduced worker quality and discouraged skill upgrading through training. 74

Foreign investment in consumer electronics, inherently the most labour-intensive section of the industry, was characterised by both forward and backward integration in the period 1976-1978. Examples of backward integration were the introduction of fluorescent digital display tubes by NEC, liquid crystal displays by Siemens, cassette tape mechanisms by Copal, colour television sub-assemblies by Luxor, monochrome and colour television sub-assemblies by Philips, colour television picture tubes by Hitachi and precision switches by Isostat. The range and value-added of consumer products invested in by international capital were
also boosted by projects including radio-cassettes and hi-fi amplifiers by JVC and electronic television games by Nikko. There were also significant expansions of existing product lines by all the established big international companies in Singapore. Electronic household appliances, radios, electronic watches and clocks and black and white television sets were particularly popular lines for investment expansion.75

In the generally more capital-intensive electronic components sector, the trend towards greater forward integration gathered momentum in the period 1976-1978. This was reflected not just in the extension of semiconductor testing facilities, with Siemens, for example, following the lead of other international companies,76 but in the introduction of a range of new products and processes. The trend towards the transfer of the least sophisticated, most labour-intensive processes out of Singapore also gathered pace, with those highly labour-intensive processes which were retained increasingly subject to automation and mechanisation.

New investments raising value-added introduced by semiconductor firms in the period included the tin plating of integrated circuits by Siemens, and tin, gold and silver plating by SGS-Ates and the manufacture of metal oxide components by Texas Instruments.77 Fairchild also announced that it would be introducing the more complex integrated circuit, the 64-kilobit MOS random access memory (RAM), once its plants had been appropriately upgraded.78 Though this product had been superseded as the most advanced of circuits, the technology was completely new to Singapore. The pattern of investment by international semiconductor firms in Singapore was becoming clearer. Production in the parent company home plants would be concentrated on the most recent technological developments while, where possible, other technology was employed in subsidiary plants at lower cost sites. In this division of labour, however, Singapore attracted much more sophisticated and more recent technology than many other such sites. Other foreign investments involving forward integration included investments by
Mitsumi in magnetic tape heads, Murata in multi-layer ceramic capacitors and FEC in ferrite cores and antennae. Matsushita also committed itself to the raising of value-added with the automation of its semiconductor assembly operations in 1978.79

Though accounting for just 2% of the total output of the electronics industry by 1978, the inflow of foreign investment in industrial electronics in the period 1976-1978 suggested that this sector would grow quickly in the future. Hewlett-Packard, which already had significant investment in the manufacture of pocket calculators, began the manufacture of hand-held printing calculators and data cartridges for computer peripherals in 1977 and followed this with an investment in the manufacture of oscilloscopes for testing other electronic products. Singapore was intended to become the only Hewlett-Packard plant producing these oscilloscopes which were, at the time, manufactured in West Germany and the US.80 Other significant investments in this high value sector were Matsushita's project in micromotors, ITT's in telecommunication equipment, Elekrisk Bureau's in microwave links and field telephones, and smoke detectors and flash tube units for copying machines by Siemens.81

In her study of the electronics industry in Singapore and Malaysia, Lim argued that shifts towards higher value-added production took place in response to the changing nature of technology, which constantly redefined what production was suitable for Singapore, and pressures caused by the international product market. Thus, the most rapid shifts took place in the dynamic semiconductor sector while changes to components involving more standardised products and lower technology were less substantial. Lim also argued that increased automation was generally implemented to raise productivity and the timing and extent of this automation had much to do with the technical requirements and possibilities pertaining to the technology of the particular product or process involved.82 The general dynamics of the industry then were seen to be largely beyond the control of Singapore's policy-makers. However, Lim concedes that
such factors as wage costs help explain the transfer of labour-intensive processes to other countries, even though productivity considerations are also involved. Helpful as Lim’s analysis is to the understanding of change in the industry, two other points must be emphasised. First, even though technological changes fundamental to the industry’s development necessitated adjustments to the international divisions of labour of firms, it still remained that Singapore’s domestic factors of production would influence any decision about where technology would be located, that is, where Singapore fitted into this modified division of labour. Second, we should be careful not to take for granted the role of the state in shaping these factors of production.

The pre-1976 tendency of international capital showing interest in Singapore as a base for the manufacture for export of products and components in metal working industries continued in the 1976-1978 period. Not only did commitments in non-electrical machinery, transport equipment, precision equipment and fabricated metal industries come on-stream, expansions of existing investments and the introduction of new products and processes by other investors broadened and upgraded the base of metal working operations in Singapore.

Of the metal working or engineering group, non-electrical machinery recorded the biggest increases in foreign investment in the 1976-1978 period, $237 million (see Table 11 in Appendix). This sum included expansions by some recently established companies, such as MNB, Le Blond, Wild and Koyo Seiko. Much of the investment, however, involved new companies. Examples included Walbro’s investment in non-automotive carburettors, Traub’s investment in single spindle automatic lathes and Morimoto’s investment in industrial sewing machines. Committed projects also included Japan Steel Works’ $6.5 million investment in plastic injection moulding machines, Nachi Fujikoshi’s investment in precision cutting tools and hydraulic control systems and Textron Adcock-Shipley’s investment in machine tools. Though the bulk of investments in this industry were intended for parent company and worldwide market demands, the potential
growth in Southeast Asian demand was becoming more relevant to these investment decisions.

The starts made by international companies in the automotive and aircraft components industries before 1976 received a fillip in the 1976-1978 period. The two most significant investments in automotive components were by General Motors and Repco. General Motors began implementing a project to produce automotive electronic components and sub-assemblies for world export, a project which was expected to eventually involve $20 million investment. Repco's $16 million project involved the manufacture of universal joints and was motivated by the need to cut production costs not only to hold export markets but to withstand import competition in the company's home base in Australia. The most important new investments in the aircraft component industry were by Normalair-Garrett and Vac-Hyd. The former diversified beyond its repair and overhaul of turbo engines and auxiliary power units to implement an investment castings project which would enable it to supply induction hardened parts to other Garrett plants in Europe and the US. When fully implemented, the project was expected to cost $15 million. Vac-Hyd also implemented a project for heat treatment of aircraft engine components. In conjunction with Sunstrand’s investment in constant speed drives, these investments represented impressive gains in middle level technology for Singapore.

Of the $53 million new investment in fabricated metal industries in the 1976-1978 period, the oil tool industry was the main investment focus. New investments included: the establishment of a specialty tools and equipment project by Tri-State Tools, a subsidiary of the US company Baker International; a $7 million project by Hydril to manufacture threaded pipes and tool joints; a $10 million pipe coating and inspection plant by AMF Tuboscope; and a tool joints and drill bits project by Hughes Tool. These investments confirmed Singapore's status as the oil drilling and servicing centre of Southeast Asia.
Given the small investment base of the precision equipment industry, the $70 million of foreign investment in this period had a significant impact on the industry. Some of the more important such investments which increased product range and quality were by Avimo, Sandvik and Rollei. Avimo introduced the assembly of laser rangefinders for worldwide export, whilst Sandvik introduced the manufacture of woodband saws. In 1978, Rollei also manufactured its first fully electronic camera in Singapore and expanded its product range to include both reflex and pocket-size cameras.

Of course, there were other foreign investments in export production which testified to the strength of the trend towards higher value-added manufacturing. At the same time, there were also expansions by lower value-added, more labour-intensive areas of production, such as apparel, and even within some of the industries discussed above, such as electronics. The point was, however, that by 1978 the volume and nature of new investments indicated that the opportunity existed for Singapore's policy-makers to more vigorously explore means of accelerating the shift towards higher value-added production.

As has been seen in earlier chapters, there has been no investment pattern common to capital of all national origins. The 1976-1978 period was no exception. In absolute terms, the largest investment increases came from US-based capital ($486 million), followed by Netherlands ($431 million), Japan ($347 million), and the UK ($310 million) (see Table 12 in Appendix). Once again, however, Japanese investment grew at a faster rate than US investment, 76.4% compared to 43.2%, in keeping with the 1971-1975 pattern. In terms of investment commitments, Japanese-based capital was also $134.8 million higher at the end of 1978 than at the same time in 1975, compared with the US increase of $101.3 million (see Table 14 in Appendix). Commitments by Japanese-based capital grew at more than twice the US rate in this period.

The dominant manufacturing industries featuring in US investment continued to be the capital-intensive petroleum refining industry and electronics, in which
upgrading and diversification continued. According to US Embassy surveys, investment in petroleum refining and storage grew from S$40 million by five firms as of January 1975 to US$501.5 million by five firms at the start of 1978. Investment in electronics grew from $194 million by 19 surveyed firms to US$359.1 million by 15 surveyed firms for the same period.97

Table 15: Selected Ratios of Contribution of Direct Foreign Investments in Singapore's Manufacturing Industry by Major Sources of Capital, 1978

<table>
<thead>
<tr>
<th>Ratio</th>
<th>U.S.</th>
<th>Japan</th>
<th>U.K.</th>
<th>West Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Added per Worker (S$)</td>
<td>41,351</td>
<td>15,241</td>
<td>59,842</td>
<td>15,686</td>
</tr>
<tr>
<td>Output per Worker (S$)</td>
<td>196,682</td>
<td>47,937</td>
<td>161,558</td>
<td>33,486</td>
</tr>
<tr>
<td>Renumeration per Worker (S$)</td>
<td>7,964</td>
<td>6,421</td>
<td>12,021</td>
<td>5,769</td>
</tr>
<tr>
<td>Capital Expenditure per Worker (S$)</td>
<td>7,328</td>
<td>4,779</td>
<td>3,401</td>
<td>2,746</td>
</tr>
<tr>
<td>Direct Exports to Total Sales (%)</td>
<td>84.3</td>
<td>70.4</td>
<td>75.4</td>
<td>95.3</td>
</tr>
</tbody>
</table>


Owing to the heavy concentration of US-based investment in the petroleum refining industry, and its upgrading and diversification of investments in the electronics industry, the average value-added per worker of US investment at the end of 1978 was, as we see in Table 15 above, $41,351. This was nearly double the overall average value-added per worker in Singapore's manufacturing sector of $21,179 (see Table 2 in Appendix). The Singapore government placed considerable reliance on US investment for the success of its plans to move into higher technology industries and products. Thus, in April 1977, Finance Minister Hon Sui Sen addressed the American Business Council, identifying five main areas for
intensive investment promotion: aircraft manufacture and related industries, communications equipment, special chemicals, medical equipment and industrial and consumer electronics. Some starts had already been made by US companies in these areas, though mostly in electronics. The Singapore government was looking for an acceleration in the diversification of US investment.

The continued increase in Japanese investment was again related to the appreciation of the yen, rising production costs in Japan and the desire to more fully develop and exploit regional markets. In the 1976-1978 period, however, there were some interesting changes of emphasis in Japanese-based investment. According to JETRO surveys, a total of 43 Japanese companies were established in Singapore’s manufacturing sector between the start of 1976 and the end of 1978. This figure was made up of 25 in electrical/electronics, 10 in ferrous and non-ferrous metals, eight in chemicals, four in industrial machinery and three in transportation machinery, with another 10 in a variety of industries.

The rapid growth in the number of electrical/electronics establishments by Japanese-based companies did not constitute a new phase in sophistication of investment. Many of the investments were actually in the manufacture of products which had long been produced in Singapore by American and even other Japanese companies. For instance, in 1978, newly-established companies were manufacturing car stereo tape players (Nippon Rokki and Roadstar Electronics), car radios (Shintom Electronics), electrical components (Singapore Noble Electronics, Matsushita Denshi, FEC Singapore), semiconductor components (Sumida Electric). This did not preclude some higher value-added investments, such as Chiyoda Felt’s investment in industrial felts, Hitachi Electronic Devices’ manufacture of picture tubes and NEC’s fluorescent indicator panels venture.

The number of Japanese establishments in chemical and metal industries had been steadily rising since the early 1970s. During 1976-1978, however, there were some significant higher value-added investments in these areas. Koyo Seiko’s $20
million investment in the manufacture of ball bearings came on stream, Precision Watchcase invested $20 million in a watch case plant, Singapore Kitamura invested in electroplating of semi-integrated circle lead frames and in chemicals there was the $16 million joint-venture of the Petrochemical Corporation of Singapore to manufacture olefins, BTX CA and other petrochemicals. Tsurumi's manufacture of transport machinery and Asian Machine's manufacture of moulds and dies were examples of higher value-added investments in other industries.

In spite of the overall increase in Japanese investment in the 1976-1978 period, as well as the introduction of some higher value-added investments, it was still concentrated in lower value-added production. This is brought out in Table 15 where we see that the average value-added per worker of Japanese investment compared most unfavourably with that of Singapore's other major investors.

Of the Netherlands investment for this period, the bulk of it was accounted for by the expansions and diversifications of Shell and Philips in its various domestic appliances, consumer electronics and precision tools and dies operations. UK investment, by comparison, was accounted for by a larger number of investors, including expansions by Beecham in pharmaceuticals, Vosper Thornycraft in patrol crafts and new investments by Reyrolle Parsons in electrical measuring instruments and Albright and Wilson in detergent intermediate chemicals. The rest of the new investments by EEC countries making up the $797 million increase in the period was spread out, most from West Germany, France and Italy. Active West German investors in this period included Siemens in flash tubes and semiconductors, Traub in automatic lathes and Rollei in photographic equipment. The most significant new French investors were Isostat in push-button switches and Thomson Brandt in television parts and components while SGS-Ates was the leading Italian investor. In keeping with the pattern which emerged in the early to mid 1970s, European-based companies contributed to the broadening of Singapore's industrial base with a number of relatively high quality projects.
In summary, the period 1976-1978 witnessed steady and significant quantitative and qualitative gains in foreign investment in Singapore. In 1978, these gains accelerated and the increase in investment commitments suggested a strong continuation of this trend in the immediate future. With unemployment now under control the government could afford to once again focus its investment promotions on higher value-added production. The opportunity to be more selective, however, was not just a matter of choice. As we shall see in the following, various pressures combined to persuade the government that more decisive measures had to be taken to accelerate the shift towards high value-added production which was now firmly established, if uneven throughout the manufacturing sector.

Protectionism

Although there was a strong recovery in the export of domestic manufactures in the 1976-1978 period, the competitiveness of these exports aroused a defensive response from policy-makers in the markets in which these exports were sold. In particular, the rapid increase in the export of low-value, labour-intensive manufactured goods under GSP privilege caused irritation in the EEC and US markets. There had been a 55% increase in total domestic exports under GSP concessions between 1975 and 1976, from $645 million to $1,001 million, due mainly to the introduction of such concessions to Singapore by the US in January 1976. In spite of this, the EEC absorbed half of all exports under GSP from Singapore and remained the most important market for plywood, calculators, flashlights and cameras, transistor radios and electronic watches.¹⁰⁵

As a direct result of the successful penetration of EEC markets at a time when the domestic manufacturers of these countries were suffering labour and production cost problems, giving rise to significant unemployment, pressure soon mounted to halt the inroads of exports from lower production cost sites. Thus, in August 1976 the EEC decided to impose a 14% import duty on Singapore-made
electronic calculators. Though this arrested the growth of such exports to some extent, expansion was still significant. As a result, a new quota was implemented in January 1977 under which Singapore-made calculators to the EEC were limited to a maximum of $20 million worth, exports above this being subject to the 14% import duty.\textsuperscript{106} Singapore-made capacitators were also to become subject to 3.5% import duties imposed by the EEC following the expiry of GSP quotas in June 1977. This represented a severe setback since more than half of Singapore's total domestic exports of capacitators in 1976 went to the EEC.\textsuperscript{107}

The electronics industry was not the only one to suffer the effects of protectionism. In the Singapore Department of Trade's 1976/77 Annual Report it was pointed out that protectionism had adversely affected textiles, garments, shoes, plywood, television receivers as well as an assortment of electronic products.\textsuperscript{108} Singapore was not being especially singled out for these protective measures. Rather, developing countries in general were finding such obstacles to trade increasingly severe.\textsuperscript{109} That Singapore was able to expand its exports so much in spite of this protectionism in the period was a measure of the republic's competitiveness. How long this could be maintained, however, was problematic with so many lower wage cost production sites in the developing economies of the region also pursuing export programmes based on labour-intensive manufactures.

Some electronic calculator manufacturers in Singapore had demonstrated that it was possible not only to reduce the impact of protection but to also greatly enhance returns by upgrading products. Hewlett-Packard, which had suffered due to a substantial cut in world prices for pocket calculators and rising protection in 1976,\textsuperscript{110} responded by diversifying into printing calculators and programmable calculators. These were of a higher unit value than the previous line. Following Hewlett-Packard's lead, other smaller manufacturers moved into higher value calculators. As a result, even though world prices for basic calculators continued to slump in 1977, these companies were still able to flourish. In 1977, domestic calculator exports amounted to $124 million, 15.9% higher than for 1976. This
was achieved in spite of the fact that just 1.67 million calculators were exported in 1977, compared to 2.44 million in 1976.111 As government pronouncements and policies were to soon emphasise, this was the sort of direction to be encouraged as a means of countering the effects of protection.

The government's reaction to the increased protectionism of the developed countries was clearly outlined in the 1978 budget speech by Hon Sui Sen. The Minister's outlook was pessimistic, seeing an exacerbation of protectionism unless unemployment could be significantly arrested in the developed countries. The answer to this, however, was to accelerate the restructuring of the manufacturing sector away from the cheaper, lower-skilled, mass consumer products which aroused so much trade sensitivity. Textiles and the lower value electronics products were clear examples of the industries most susceptible for which Hon saw no future in Singapore. Hon identified product groups in which he believed Singapore enjoyed "an inherent advantage" which were also less sensitive to trade barriers. These included: industrial electronics and telecommunication equipment, precision engineering, aircraft components, medical instruments and fine chemicals. Subsequently, the EDB intensified its promotion of Singapore as a suitable site for investment in such product groups.112

Labour Shortages and Structural Pressures for New Policies
As we have seen earlier, in spite of rising protectionism, by 1978 the manufacturing sector was expanding rapidly and the level of foreign investment entering Singapore had reached new heights. Ironically, the most serious constraint on further expansion by now was a shortage of labour, and not a shortage of foreign investment as was the case in the mid-1970s. By 1978, jobs in the Singapore economy were being created at an average of about 40,000 per year while the workforce was expanding at an average of about 30,000-32,000 per year, leaving a substantial shortfall of approximately 8,000-10,000 annually.113 Since their heavy retrenchment in 1974 and 1975, foreign workers had again been drawn
on to fill vacancies, but the growing scarcity of readily accessible foreign labour and the increased cost and difficulty of obtaining it threatened to constrain future investment growth.

Industries most severely affected by labour shortages in manufacturing included electrical/electronics, textile, garments, leather, wood and products, footwear and transport equipment industries. The problems of the garment and electrical/electronics industries were particularly serious. The National Employers' Council study in the first half of 1978 indicated that there were shortages of between 7,500 and 10,000 workers in the garment industry. Estimates of the shortages in the electronics industry varied considerably, which may in part have been the consequence of the rapid and unexpected build-up in orders during 1978. The Singapore Industrial Labour Organisation was reported in July as having estimated that there were shortages of 3,000 female workers. One estimate was as high as 14,000. The shortages in electronics were in operation and other line workers.

Of special concern for the government was the suggestion by various electronic companies that planned expansions and upgradings may have to be abandoned or postponed in view of labour shortages. Since many of the companies being affected by shortages were actually embarking on the assembly of higher value-added products, or at least moving in that direction, these bottlenecks posed a threat to restructuring.

A symptom of the labour shortages which soon aroused employer and government concern was the practice of 'job hopping'. In the electronics industry this prompted employers, wherever possible, to employ more workers than was actually required. This labour hoarding was intended to minimise production bottlenecks caused by sudden staff losses or quick increases in orders. The labour turnover rate for the electronics industry was especially high and employers called for the introduction of a work card system which listed the job record of the holder as a way of identifying, so as to avoid the most mobile workers. The government, however, rejected the proposal.
Of course, another problem which was only exacerbated by the greater scope for job mobility was the growing preference of Singaporeans to avoid hard or 'dirty' manual labour. This manifested in shortages in the shipyards and the construction sectors of the economy. The government's 'Use Your Hands' campaign of June 1976 had enjoyed at best limited success in re-educating domestic workers about the attractiveness of work in these areas.122

In the endeavour to attract and maintain labour, firms began introducing a variety of inducements. Some firms increased wages, additionally offering such benefits as beauty courses, secretarial courses, subsidised lunches, transport and shift allowances, or even cash allowances upon the completion of probation or in recognition of good attendance.123 Foreign workers were also sometimes provided with accommodation.124 After months of unsuccessfully searching for new workers through advertising and recruitment trips to Malaysia, Luxor Singapore, a subsidiary of the Swedish-based manufacturer of colour televisions, offered new colour television sets to each of its production workers serving the firm for at least three months. The workers were able to keep the sets so long as they were working for the company.125 Although this measure met with success, it exemplified the competition between employers for scarce labour and the difficulty of maintaining a stable workforce.

The government's response to the labour shortages was to liberalise the conditions of entry for foreign workers. Much difficulty in obtaining foreign labour, however, had resulted from the drying up of the supply from Malaysia where the domestic labour force had expanded considerably because of industrialisation.126 Thus, in early 1978, the Singapore government gave some local textile and electronic companies permission to recruit workers from Thailand.127 Subsequently, in June and July, the government introduced a new work permit system for the importation of foreign labour: a daily work permit which enabled employers to transport workers from Johore Bahru; and a block permit which allowed for the employment of any number of workers from ASEAN
countries, Sri Lanka and India for an indefinite period. This liberalisation of entry, which was quickly exploited by garment companies in particular, was essentially a short-term response to the problem.

For a variety of reasons, any long term escalation of the number of foreign workers in Singapore was unacceptable to the government. By 1978, foreign work permit holders amounted to 40,000 according to the government, although economists generally identified 80,000 as a more realistic estimate of total foreign workers. The Selangor Graduates Society, however, claimed there were as many as 120,000 Malaysians alone in Singapore. Apart from the sheer strain on health and housing facilities resulting from an ever-increasing intake of foreign workers, the government was also reluctant to take in too much labour from beyond Malaysia. For one thing, PAP leaders, Lee in particular tended to regard certain non-Chinese races as lazy by comparison with Singapore's 75% Chinese population. PAP leaders did not wish to develop a reliance upon people with bad work habits and officials made no secret of their preference for Chinese rather than non-Chinese foreign workers. For another thing, the government also wished to avoid social and political problems of the sort experienced by European countries which had resorted to imported labour. It was sensitive to the possibility of pressure for greater cultural recognition of minority groups and the fact that these workers were products of different social systems, with different attitudes to and relationships with government. Assimilation was, then, equated with Chinese culture, which was not only understood by the PAP to be supportive of diligence but also characterised by deference to authority. Reliance on labour from non-traditional sources (NTS), that is, beyond Malaysia, was, therefore, not an acceptable long term solution to the labour problem for the PAP.

The heavy recruitment of foreign labour since the late 1960s was not only intended to fill job vacancies and facilitate economic growth in Singapore, but also to hold down wage levels, especially in the more labour-intensive, lower value-added industries. The availability of foreign workers to accept the 'dirtier'
and monotonous assembly work, with the associated low wages, was partially successful in taking the pressure off employers to introduce wages sufficient to attract domestic labour (see Table 19 in Appendix).

It was the occupational and industrial concentration of foreign workers rather than their sheer numbers which afforded them an influence over wages and labour employment patterns. Officially, Malaysian guest workers comprised only 4.7% of the workforce in 1977, although the actual figure was probably somewhere between 8% and 9%. However, seeing as 55% of these workers were employed in the production sector, the effect was quite significant. Thus, Malaysian guest workers accounted for 24% of all workers in wood preparation, 17% of spinners and weavers, 14% of shoemakers and other leather workers, 13% of tailoring and dressmaking workers, and 11% of chemical processing workers.

Significantly, the sorts of occupations filled by Malaysian guest labourers were not only concentrated in production work, they were also occupations traditionally dominated by females. It was, indeed, the heavy concentration of female Malaysian workers in the lower value-added industries such as textiles and leather, and wood and wood products which enabled manufacturers to remain internationally competitive. In his examination of the Ministry of Finance's 1977 Labour Force survey, Drysdale pointed out that the median gross monthly incomes of males and females in the production sector were $325 and $168 respectively. Importantly, Drysdale's examination of the correlations between educational qualifications, age and sex suggested that the explanation of the wage discrepancies could not be accounted for by educational qualifications. Central to the discrepancy, however, was the importation of foreign, largely female labour.

The role of foreign labour in the Singapore economy in general, and manufacturing sector in particular, began to pose important questions by the end of 1977. Although, as we have seen, considerable ground had been made in initiating a shift towards emphasis on middle technology in production, the overall
productivity of the manufacturing sector was not rising anywhere near as fast as might be expected. Value-added per worker for the period 1971-1974 increased by 76.3% but for the 1975-1978 period by only 19.1% (see Table 2 in Appendix). Significantly, the gains by the low value-added, labour-intensive industries were generally modest. On the one hand there were the furniture and fixtures, rubber products and electronics industries which all recorded below average rises, then, on the other, there were the wearing apparel and textiles industries whose above-average rises in productivity were still quite modest when their low value base was taken into account (see Table 7 in Appendix). A closer study of the pattern of productivity growth in the 1975-1978 period also reveals considerable variation and volatility within particular industries. If it is possible to extract any theme from the figures, however, it is that the more consistent and substantial gains prevailed in higher value-added industries and product groups.\textsuperscript{137}

The explanation for the slowdown in productivity growth after 1975 has much to do with the availability of cheap, especially foreign, labour. Pang argues that the main sources of economic growth from the mid-1960s to 1974 were productivity gains and capital accumulation. Since 1975, however, labour force expansion as a contributor to economic growth had been rising. Pang concludes that, whilst labour hoarding may account for part of the increased ratio of workers to capital,\textsuperscript{138} the policy of small wage increases between 1975 and 1978 probably acted to discourage labour displacement.\textsuperscript{139} We may add the point that foreign labour provided a special discouragement to such displacement. The particular problem for the Singapore economy, however, was that some of the industries which were most heavily reliant upon increased labour absorption for expansion were precisely those industries which the government no longer saw as central, such as wearing apparel and textiles, for instance. In the context of the government's plans for restructuring, it was untenable that certain sections of the electronics industry were considering shelving plans for lack of labour while other much lower value-added projects were accounting for much of the limited labour
available. It was also becoming increasingly clear that even these lower value-added projects would face growing difficulty in finding sufficient labour and, as we have seen, this could only be provided by looking afar for more guest labour.

Thus, with the Singapore economy experiencing a tightening labour market, the government was confronted with the question of whether it was time to take a more committed stance in favour of higher value-added production. In the past, it had operated on the assumption that lower and higher value-added production could develop side by side. Now, however, the limited labour supply suggested that one's expansion might negate the other's. Such a contradiction could only be resolved by rationalising Singapore's labour supply. Apart from the government's desire to see higher value-added production predominate, it was also keen to avert the excessive and growing dependence upon foreign, especially NTS labour for economic expansion. The considerations then of what policies might be appropriate to resolve the emerging contradiction were political as well as economic. The strong recovery in 1978 in economic growth and foreign investment, which showed a confidence by international capital in Singapore as an export base for middle technology production, provided an opportune climate for the adoption of more aggressive policies designed to rationalise labour in Singapore and address these economic and political considerations. There was never any contemplation of accepting a slower rate of economic growth as a means of avoiding a growing dependence upon foreign labour. Apart from the PAP's ideological commitment to rapid economic growth, the PAP's rationale for its political supremacy had long been founded on its ability to generate maximum economic growth.

In addition to the pressures to rationalise labour, Singapore's policy-makers were aware of the growing list of lower wage regional competitors in the export of low-skill, labour-intensive manufactures. The ASEAN countries, Bangladesh and Sri Lanka had all, to differing extents, made commitments to such programmes. The likely emergence of China as an exporter of light industrial
manufactures also loomed as a longer term threat to Singapore's international competitiveness in this area. Another realisation the government had made was that, owing to its relatively high per capita income, sooner or later Singapore would successfully be stripped of its 'developing country' status by the World Bank and thereby lose its GSP trade advantages in a host of labour-intensive products. Furthermore, the appreciation of the Singapore dollar was likely to continue to reduce the competitiveness of Singapore's most labour-intensive, low value exports.

As Singapore entered 1979, then, the government had cause to seriously re-examine its strategy for the manufacturing sector. The response to the new circumstances was, as we shall see next chapter, decisive and comprehensive.

Conclusion

We have seen in this chapter that the government adopted a range of measures to enhance economic revival after the downturn caused by the world recession in 1974/75. Chief among these was wage control as the government centred its attention on the task of attracting whatever investment by international capital it could. At the same time, other more specific measures were introduced to entice further higher value-added investments. These measures were successful enough so that not only was the feared escalation of unemployment averted, but labour shortages became a serious problem by 1978. At this point, the very basis of Singapore's successful industrialisation since the late 1960s, cheap labour, was actually beginning to pose a threat to the planned shift towards a more technologically sophisticated, higher value-added manufacturing sector. So long as labour costs were so low as to negate any advantage from increasing the organic composition of capital, an accelerated restructuring of the sector was unlikely. Furthermore, for the socio-economic reasons identified above, the government had a definite preference for moving away from an economy which depended upon labour force expansion for its growth. In short, the government
had cause to re-examine Singapore's position in the international division of labour.

If there were doubts in 1975 about the capacity of Singapore's leaders to resurrect Singapore's economy to its pre-recessionary dynamism, there were also related questions about how Singapore's workers would respond to the belt tightening which underpinned the government's strategy for recovery. As we have seen, however, the government's domestic political supremacy was not to be shaken as a result of imposing new sacrifices on workers. Past successes by the PAP in significantly improving the material conditions of the masses had apparently given the government's measures a degree of legitimacy. Equally, the PAP's position was not adversely affected by the international pressure which surfaced over the question of human rights in Singapore. The sorts of practices which came under attack as repression had long been rationalised by the government as necessary to create a favourable climate for international investment. Again, the electorate appeared to accept this reasoning and investment patterns during this period in no way contradicted the argument. Nevertheless, the likely expansion of the Singapore middle class as the economy progressed had the potential of bringing the question of the PAP's authoritarianism into focus at some future point. Meanwhile, the PAP was firmly in control.
FOOTNOTES

1. For example, if the wage bill of a particular company between 1 July 1975 and 30 June 1976 in bargained increases amounted to 5%, then the company would be obliged to provide the remaining 2% increase to all its employees.

2. One of the problems with the Employment (Amendment) Act was that it did not become operative until 26 December 1975, by which time many companies had already paid in excess of the frozen quantum. See "Bonuses and Wages", Singapore Economic Bulletin, May 1976, p.39.


8. ibid.


13. Initially, the maximum loan under SIFS was $500,000, provided only to firms with total productive assets not exceeding $1 million. In early 1978, the loan ceiling was raised to $1 million and made available to firms with fixed assets of up to $2 million. See Economic Development Board, "Bigger Loans Available for Smaller Firms", Singapore Investment News, March 1978, p.3.


15. To qualify for GSP privileges, goods had to be substantially manufactured in the developing country, wholly or partly from materials and parts which had undergone substantial transformation. Local content, including labour had to exceed 60% to enter the European common market countries. See ibid.

16. According to a survey by the Economic Research Centre of the University of Singapore in 1977, American electronics firms in Singapore purchased less than 10% of their material input locally, the Japanese purchased


25. In 1977 JTC allocated the highest number of standard factory buildings, 55, since its establishment in 1968. In the following year it bettered this performance with a further 66 allocations. See Jurong Town Corporation, Annual Report 1978/79, p.2.


27. See Ho Kwon Ping, "Countering the Communist 'Sinister Conspiracy'", Far Eastern Economic Review, 14.5.76, pp.21-22.

28. These were obtained by M.T. Rajah who had himself spent one and a half years in gaol.

29. These 40 were not listed in the publication.

30. As quoted in Ho Kwon Ping, "Countering the Communist 'Sinister Conspiracy'", Far Eastern Economic Review, 14.5.76, p.21.

31. ibid., p.22.


33. A meeting of the Socialist International Executive Bureau voted by a small majority to send a mission to Singapore to investigate charges against the PAP on human rights but, of course, once the PAP was no longer a member of the Socialist International such an investigation served no purpose. See Michael Richardson, "Lee Gives Socialists His Terms", Far Eastern Economic Review, 27.2.78, p.14.
34. As quoted in Ho Kwon Ping, "Countering the Communist 'Sinister Conspiracy'", Far Eastern Economic Review, 14.5.76, p.21.

35. Ho Kwon Ping, "Union Chief Sides with the State", Far Eastern Economic Review, 7.5.76, p.20.


41. The government had taken some steps to try to ease the problems of relocating people, including compensation for property and rent concessions to firms having to set up in new industrial estates. Inconveniences and complaints, however, still persisted.

42. According to a 1975 Ministry of Labour Survey, 75% of the 833,000 workforce were receiving less than $400 per month and only 2.6% over $1,500 per month. See Chan Heng Chee, "A Gaullist Referendum", Far Eastern Economic Review, 6.8.76, pp.34-35.

43. Dr Tan Eng Liang became Senior Minister of State (National Development), Chia Chang Yi became Senior Minister of State (Education) and Ong Teng Cheong became Senior Minister of State (Communications).


45. The 11 candidates were: Shaik Ahmad Haleem (a business person), S. Dhanabalan (an economist), Goh Chok Tong (an economist), Dr Lau Tiek Soon (a political scientist), Ngeow Pack Hua (a journalist), Dr Ow Chin Hock (an economist), Tan Soo Khoon (a manager), Tan Cheng San (a trade unionist), Teo Chong Tee (a unionist), Sidek bin Saniff (a teacher) and Mansor Hj Sukaimi (a civil servant). The only Chinese-educated candidates were Ngeow and Tan. See ibid., p.185.


47. At the same time, in the 1976 election there were twice as many uncontested seats than in the previous election so sixteen PAP candidates were elected unopposed.


51. WP's Jeyaretnam eventually refused to even talk to journalists from the Straits Times because of continual misquoting. See Ho Kwon Ping, "Singapore Votes for Lee's Brand of Action", Far Eastern Economic Review, 7.1.77, p.10.

52. See "Lee's Landslide", Asiaweek, 7.1.77, pp.10–11.


57. The WP vote dropped from 12.2% in the electorate in 1976 to 11.5% in the by-election. See Michael Richardson, "Running Out of Opposition", Far Eastern Economic Review, 7.7.78, p.20.

58. As quoted in "Swansong in Radin Mas", Asiaweek, 27.5.77, p.9.

59. In this by-election, the PAP's newcomer Lin Chee Onn, a civil servant, enjoyed a 7,000 vote win over BS chairman Dr Lee Siew Choh in the constituency of Bukit Merah. See "Dr Lee Loses", Asiaweek, 5.8.77, p.21.


64. "Buying a Slice of the News", Asiaweek, 23.12.77, p.35.


69. ibid.


71. The other in existence was Shell Haven in the UK. See Economic Development Board, "Shell to Build $330 Million Hydrocracker, the Second Such Plant Outside N. America", *Singapore Investment News*, March 1978, p.2.


73. ibid., p.18.


83. ibid., p.430.


96. The rate of growth was fastest amongst Netherlands-based capital due largely to the investments of the Royal Shell Group.


101. ibid.

102. ibid.


110. The average unit price of calculators in 1975 was $108 but in 1976 this fell to $43. See "Singapore Upgrades Calculators to Ensure Survival", *Asia Research Bulletin*, May 1978, p.444.

111. ibid.


114. The construction industry also suffered severe labour shortages.


116. ibid.


120. SGS-Ates' Asian operations Manager Dr A. Malavasi was reported to have claimed his company employed 25% additional staff to avoid being caught short. See Conrad Raj, *Singapore Business*, October 1978, p.7.

121. This measure was suggested by Mr Sato, Managing Director of Murata Electronics Singapore. See ibid.


123. Andy McCue, "Shortage of Workers Pinches Development of Singapore Industry", *Asian Wall Street Journal*, 31.10.78, reports that wage rates in electronics rose from $5-$6 per day to over $8 in just a few years.

124. ibid.

126. The Malaysian domestic labour force expanded from 290,000 in 1970 to 479,000 in 1977. See ibid., p.513.

127. ibid.


129. Immediately following the introduction of the scheme, at least 20 manufacturers were granted permission to recruit labour from Thailand and elsewhere. See "Recruitment of ASEAN Workers", Singapore Economic Bulletin, September 1978, p.39.


131. The term 'hard working', McCue suggests, was commonly used by officials to describe immigrants in such a context as to imply Chinese. See ibid.

132. When recruitment of workers from Thailand was approved, one of the conditions was that such workers be required to speak a local dialect. In effect, this meant that workers would need to be Chinese. See ibid.

133. Drysdale reports that according to the 1977 Labour Survey, 30% of Malaysian immigrant labour was employed in the professional and technical field, administrative and managerial occupations, the clerical services or as shop assistants in sales; another 13% were employed in the service industry. See Drysdale, 1979, p.43.

134. On an industry basis the concentration was as follows: textile and leather industries 13%; chemical, rubber and plastic products 8%, metal products, machinery and equipment 5%. See ibid.

135. ibid., p.40.

136. The 1978 recommendations for a flat $12 increase (plus 4%) per month could make little impact on wage differentials. Tradition dictated that females get less pay than males and employers could buffer the effect of these increases by importing foreign female labour.


138. Especially in the electronics industry.


PART IV: THE ‘SECOND INDUSTRIAL REVOLUTION’ AND THE EMERGENCE OF CRACKS IN THE SYSTEM

With an especially favourable upturn in international investment in Singapore in 1978, Singapore’s policy-makers acted with resolution in 1979 to resolve the contradiction between labour-intensive and capital-intensive production and address the rapid intake of foreign labour. In what amounts to the most imaginative and aggressive strategy by any developing country to exploit the structure of the new international division of labour, the PAP government embarked on the so-called ‘Second Industrial Revolution’. The purpose of the strategy was to accelerate Singapore’s transition to a more sophisticated technological base, thereby taking it out of competition with lower wage countries and lessening its reliance on labour expansion for economic growth.

The most significant feature of the new strategy was the radical turnaround in wage policy. State intervention was employed to raise wage costs to discourage low-skill, labour-intensive investments. This was the first time the state had exercised its control in this area to pressure employers to move in a preferred direction. Other measures to discourage low value-added production included tariff revisions and restrictions on imported labour. Simultaneously, a range of initiatives were adopted to induce a substantial shift in investment towards more capital-intensive, higher value-added production. Extremely generous tax and fiscal incentives were provided for appropriate new investments, dramatic expansions and improvements were made to social and physical infrastructure, and the government employed direct capital investments with considerable imagination to stimulate and/or initiate favoured forms of production.

In conjunction with the various forms of economic intervention by the state to usher in a greater degree of industrial sophistication, the PAP also introduced important refinements in social and political control, particularly over labour. The dismembering of the omnibus union structure was paramount to these refinements. Apart from weakening the power base of organised labour and
thereby minimising the capacity for any spontaneous resistance to the disruption of industrial restructuring, the new industry-based structure was designed to facilitate more effective social management of labour in the necessary training and retraining of the workforce. At the same time, the PAP's new strategy placed significant demands on capital, notably through the wages policy. Here, however, the ability to impose such conditions derived from the PAP's relative autonomy from capital which had been consolidated over the years. The private sector had become increasingly structurally dependent upon the paternalistic PAP state to provide the preconditions for accumulation.

Whilst state intervention has been thematic to Singapore's industrialisation, following 1979 this entered a qualitatively new phase. The degree and nature of intervention represented a conscious attempt by the PAP to test the limits to the influence state policy can exert in determining Singapore's upward mobility in the new international division of labour.

Though Singapore's initial experience under the strategy has involved some success in luring higher value-added investments, the 'Second Industrial Revolution' has also precipitated the emergence of a number of domestic political contradictions as well as contradictions of a more economic nature pertaining to the new international division of labour. These have been heightened, but not initiated, by the deepening of the global recession in 1985, thereby raising serious questions about the long term viability of the new strategy and already prompting some significant policy changes by the government. The most recent pattern of international capital investment in Singapore also raises questions about how far Singapore can go up the technological hierarchy associated with the new international division of labour. For the first time, then, we may be witnessing Singapore beginning to reach the objective limits of rapid and increasingly sophisticated industrialisation through the new international division of labour. Should such objective limits be starting to assert themselves, the economic and political implications for Singapore would be serious and throw open a number of fundamental questions about the EOI model.
CHAPTER 9

THE NEW ECONOMIC STRATEGY: SINGAPORE'S 'SECOND INDUSTRIAL REVOLUTION'

Introduction

As we have seen in the last chapter, towards the end of the 1970s the PAP government had cause to re-examine the economic plan for Singapore and the means by which this could be achieved. The commitment to the promotion of a more technologically sophisticated manufacturing sector was not in doubt, but some thought had to be given to what particular areas of industry Singapore would be best to pursue and, more importantly, how a shift in such a direction might be most speedily promoted. What materialised was a comprehensive plan for development which not only comprised broad objectives but a bold new strategy through which the government hoped to significantly influence the allocation of resources. As had always been the case with the PAP's intervention in the economy, however, this strategy was primarily intended to create the conditions conducive for international capital to take the lead in the proposed economic restructuring. Indeed, this new strategy, the so-called 'Second Industrial Revolution', amounted to a re-affirmation of the government's faith in the 1960s decision in favour of EOI under the aegis of international capital. The task now, however, was to ensure that the restructuring of industry already initiated by international capital was greatly accelerated, thereby elevating Singapore's status in the new international division of labour.

Although the government's proposed 'Second Industrial Revolution' entailed a comprehensive plan, the full statement of intent and strategy did not unfold neatly. A radical turnaround in wage policy signalled the birth of the new strategy. Subsequently, various other policies were introduced which the government explained as part of a consistent and concerted attempt to promote restructuring. These included a revision of tariffs, a re-assessment of the role of
guest labour, the introduction of new concessions and incentives to capital, expansions to physical and social infrastructure and even measures to foster certain preferred areas of industry through direct government investment where necessary. Whilst state intervention per se in the economy was nothing new to Singapore, this new strategy certainly marked a new phase in the state's pervasive influence. In short, the assumption of the PAP was that if state intervention was fundamental to the success of Singapore's low value-added, labour-intensive phase in export oriented industrialisation, it would be even more so to the higher value-added phase. Particularly in the initial stages of this phase, the state was expected to play an important role in helping to define Singapore's comparative advantage. In any case, the restructuring sought was all too vital to Singapore's political economy to be left to chance. Ironically then, though the PAP's policymakers extolled the virtues of market forces in shaping economies, and even portrayed their new strategy as a reflection of their commitment to this philosophy, in fact they deliberately set out to raise production costs in some industries and lower them in others.

Before proceeding to outline the policies introduced by the PAP since 1979 to foster restructuring, a brief comment on the capacity of the PAP to adopt such policies is appropriate. Earlier in this thesis some effort was devoted to emphasising that the historical circumstances out of which the PAP arose afforded the Party a degree of separation from the various class interests in Singapore society which was quite unusual for a political party. In particular, the PAP did not rely upon the bourgeoisie for electoral survival nor was its Party machine dominated by any business elite. On the contrary, the dominant characteristic of the PAP's leaders was their technical or professional backgrounds, a characteristic which reflected in the PAP's conception of government as primarily an administrative rather than political process. At the same time, the PAP's historic roots were in the labour movement but here, again, the Party was never subordinate to the movement. Rather, as has been
demonstrated throughout, the PAP leadership has been able to control the labour movement and harness it for its economic and political objectives.

The peculiar separation of the PAP from the control of either labour or capital had been reinforced over the years by two processes. First, the Party exploited state power to perpetuate and consolidate a paternalistic state. Through this the PAP was able to largely define the survival of labour and capital in such a way that both were dependent upon the state asserting its relative autonomy. Second, the fact that the PAP had presided over prosperous times for both capital and labour went a long way towards legitimising the relative autonomy of the PAP state and the technocratic rationality which supported it. Thus, come 1979, the PAP was in a position to adopt measures which invariably meant some sacrifices from both capital and labour. It did this with the confidence not only that such measures could be successfully implemented, but that there would be at worst only limited immediate negative political consequences as a result.

'Corrective' Wage Policy

Although the government's economic advisor, Dr Albert Winsemius, had alerted the government in the early 1970s to the counter-productive effects of pursuing a low wage policy after full employment,1 the government had always been reticent about allowing wage levels to rise for fear of jeopardising investment. The sudden fall-off in capital investment and consequent rise in unemployment due to the 1974/75 recession only reinforced this cautious approach. As a result, the government was slow to relax its clamp on wages in the period of economic recovery after the recession. As we have seen, however, by 1979 the Singapore government had come to the conclusion that there were economic and political costs in trying to sustain high economic growth rates through labour force expansion. It was in such circumstances that it looked to its wage policy to generate labour rationalisation. The government thus adopted what was referred
to as the 'corrective' wage policy, so named because it was assumed that the holding down of wages in previous years had distorted the genuine market value of Singapore's scarce labour. This had artificially propped-up production in which Singapore no longer enjoyed any comparative advantage.

The corrective wage policy formed a crucial component of the new strategy for Singapore's economic development. In particular, it was intended to facilitate the upgrading or phasing out of low value, labour-intensive production. In the following account of this policy we will look closely at both the nature of the wage increases involved and the reasoning underlying such increases. Some cursory observations will be made about the effect of the policy in promoting the desired changes, but greater attention is afforded this in Chapter 11. The focus here is primarily on explaining why and how the government so radically altered its wage policy.

The first indication of a serious revision of the wage policy came from the then Minister for Trade and Industry, Goh Chok Tong, addressing a gathering at the Japan Steel Works on 8 June 1979. Goh talked about the need for a "shake out" of inefficient users of labour by raising wages to such a level as to induce replacement of labour with productivity-raising machinery. This was intended to prevent a potential bottleneck.

We should formulate such a wage policy, supported by a national productivity improvement scheme to ensure the availability of trained manpower for higher valued, higher skilled and better paying industries.2

Labour is in high demand today and it is not enough to support existing and higher skilled investment which Singapore would like to attract.3

It was explained by Goh that Singapore's dependence on foreign labour simply perpetuated a vicious cycle:

It (foreign labour) helps to sustain low-skilled, low productivity and labour intensive industries. These industries in turn can afford to pay only low wages which in turn, cause them to depend on more imported labour to keep their wage cost down.4
Goh of course was not just stating personal views but giving notice of policy. Soon a chorus of support for this line was taken up. This included a call by the NTUC President, C.V. Devan Nair, for such a policy to usher forward a 'Second Industrial Revolution'. In due course then, the 1979 NWC recommended considerable increases. These included a basic monthly pay increase of $32 for all workers plus an additional 7% of the existing worker's wage. It also recommended that employers pay an increased 4% per worker in the compulsory national superannuation scheme, the Central Provident Fund (CPF) and proposed the establishment of a special fund, the Skills Development Fund (SDF), to aid upgrading. The SDF was to be financed by imposing a levy of 2% or $5 for each employee receiving $750 or less per month. These recommendations were accepted in full by the government.

The dramatic increases affected employers to varying, but in all cases substantial, degrees. Owing to the sizeable base increase of $32, employers offering the lowest wages were required to increase wages by the greatest percentage. Based on the average monthly wage rate at the time of $600, employers' total wage costs would rise by 21%. There were industries though, such as textiles, garments and electronic assembly, in which workers were receiving between $250 and $350 per month. Here pay rises alone could amount to 20%. It should be kept in mind that after allowing for the costs incurred to employers, such as increased CPF contributions and the SDF levy, as well as the increased cost of living, the actual wage increases to workers were less dramatic. For the average worker, the real increase would be around 11%. Real increases were substantial, but, as was indicated by the make-up of the recommended increases, the emphasis was on increased employer costs.

The government felt no need to be apologetic to employers about the size of the NWC recommended wage increases. It reasoned that in a fast-changing and competitive international economy, either Singapore changed along with it or fell further behind. Not only was this message expressed in the NWC guidelines
submission, it was reiterated by C.V. Devan Nair who warned that failure to take drastic action now would make Singaporeans "dead ducks" by the end of the eighties. He argued that the steep increases were guided by "hard-headed, simple, economic logic" which necessitated that Singapore either improve its position in the international division of labour or be swamped: "And where are we? In the overcrowded, overcompetitive third league. So what do we do, but to move up into the second league". The dramatic wage increases, then, represented the government's unequivocal commitment to the difficult and risky task of moving up the ladder into the 'second league'. For those that found the demands of this sudden transition too difficult, they could simply relocate or move into a more appropriate line of production.

The initial response from employers to the 1979 NWC recommendations was shock, for although they knew increases were on the way the actual magnitude took them by surprise. Most vocal complaints came from representatives of domestically-based capital who saw their position as precarious in view of their relative lack of resources and funds to upgrade, automate or mechanise, and the unsympathetic treatment received to date from financiers and government. Shock aside, employers were unclear how these wage increases would necessarily give rise to capital investment without a host of support policies. The government had, however, anticipated this criticism and Goh Chok Tong soon unveiled plans which included: a revision of tax rules on plant depreciation; setting up long-term financing for local industry; upgrading available computer services; establishing a venture capital fund, with provision for the government to take the lead in establishing joint-ventures in higher value-added industries.

Some employers also argued that the government could achieve the desired effect by simply prohibiting the increased inflow of foreign workers by "turning off the tap". This suggestion was disregarded for the time being on the grounds that it was too gradualist an approach. The government was not prepared to wait for labour inaccessibility to translate into wage increases and then, in turn, into
increased automation and mechanisation. Instead, Goh served notice of further substantial wage bill rises for the next couple of years.\textsuperscript{16}

Consistent with this forecast, the 1980 NWC guidelines called for further steep increases, although the complexion of these guidelines suggested acknowledgement of some protests and criticisms from employers. In particular, the point was accepted that there was a lack of incentive under the previous guidelines for workers themselves to partake in upgrading. As a result, it was recommended in the 1980 guidelines by the NWC that a $33 plus 7.5\% increase per month be granted for 'average' performers. A 2\% increase in the employer's SDF contribution was also recommended. The NWC estimated that the average total wage bill for employers would be 19\% under these guidelines.\textsuperscript{17} This would mean average real wage increases for employees of 8.5\% (not counting CPF contributions).

In declaring its acceptance in full of the 1980- NWC recommendations, the Ministry of Labour expressed satisfaction with the progress of the restructuring strategy. It reported that the intake of foreign labour had fallen from 23,000 in 1978 to 16,000 in 1979. Investment patterns were also seen as showing a "definite shift" towards industries of skill and capital intensity. The introduction of the two-tier system, however, in effect recognised that productivity increases had not matched expectations. Overall productivity growth had fallen from 4\% in 1978 to 2.6\% in 1979, although for the manufacturing sector growth had risen from 2.6\% to 5.7\%.\textsuperscript{18} Employers had turned their attention to workers' attitudes in attempting to explain this. The Minister for Labour, Ong Pang Boon, had also scolded workers for poor attitudes:

\textit{The years of high growth and full employment have eroded work attitudes considerably, to the extent that employers have to resort to paying punctuality and attendance bonus incentives just to get workers to come to work on time and to work regularly when these are expected norms of work.}\textsuperscript{19}

Whilst the two-tier system was welcomed by employers, employees had good reason to be concerned about the move away from standard increases for all
workers doing the same job, regardless of individual performance (however measured). Even Secretary-General of the NTUC, Lim Chee Onn, expressed some reticence since he understood that the NWC had been established precisely to mitigate the excesses of the market:

While we subscribe to free competition and open pricing, it may not be advisable for the purposes of collective bargaining to rely exclusively on the doctrine of a market economy.20

Not surprisingly, the phrase 'above average worker' also provided a few problems for employers at the level of implementation, in spite of attempts by the National Productivity Board (NPB) to clarify this concept.21 Employers argued too that the recommendations failed to take into account the considerable variation between sectors of the economy in the scope for labor displacement and productivity raising.22

Despite the criticism from the private sector, especially domestically-based companies, the government was convinced of the capacity of employers to cope with the rises. It pointed to the negligible retrenchments since 1978, which it claimed demonstrated that labour still had not become expensive enough to invite capital replacement.23 A Labour Ministry survey in October 1979 also showed that 83% of the 489,000 eligible employees had directly benefited from the 1979 NWC recommendations (though not all had received the full amount recommended).24 Although confident of the ability of employers to pay the rises though, the government did not totally disregard the general concern of employers and offered the reassurance in 1980 that in all likelihood there would only be one more year of high wage increases. After such time, it was explained, the backlog of wage increases suppressed between 1975 and 1978 should have been recouped.25 Although this statement implied that the government had made some sort of calculation as to what constituted the difference between the wage increases which had occurred in the past and those which should have occurred, no such calculation was ever identified. Arriving at the 'market value' of wages then involved a degree of arbitrariness. If the government had any clear or fixed
notion of what levels wage costs needed to rise to, the relative moderation of the 1981 NWC guidelines suggested that it had either revised such a notion or compromised on it.

Though again calling for large wage increases, the 1981 NWC was significant for both the fall-off in the magnitude of the recommended increases and the new element of flexibility characterising the guidelines. The recommendations, again accepted in full by the government, were for a flat $32 per month for all workers plus 6%-10% on each wage. An additional 2% of the group monthly wage bill of June was to be distributed among ‘meritorious performers’. As Smith has pointed out, this new flexibility in the range of increases to be granted by employers represented a compromise. Whilst the government would have liked average increases of about 20% again, by now the pattern of foreign investment had indicated that whilst international capital had identified Singapore as a suitable site for higher value-added production, this was not a generalised response. For reasons to be discussed in Chapter 11, Japanese-based capital’s interest in Singapore had waned since the advent of the new wage policy. For some investors, increased wage costs rendered Singapore unsuitable for labour-intensive production without necessarily prompting any commitment to Singapore as a site for more sophisticated production. On the other hand, there were those firms which had responded to the wage policy in the manner intended by the government, upgrading their investments, only to be rewarded with further cost increases. The 1981 NWC, which included increased representation from international capital, balanced the concern about investment fall-offs and delays with the government’s commitment to carry further the restructuring effort. The 1981 proposals by the NWC worked out to be increases of between 14% and 18% in total wage costs for the average employer. For workers, this meant real wage increases of between 5.8% and 9.8%.

Although the 1981 NWC rejected the call by employers for separate guidelines for each sector of industry because of the negative effects this would
have on "the optimisation of labour utilisation in all sectors of the economy" by providing for a range of increases it was now possible for sectoral-specific considerations to influence wage negotiations. Theoretically, this also provided for greater discrimination between industries, firms and, indeed, workers on the basis of productivity. The government emphasised that this formula symbolised the government's intention to promote collective bargaining as the future mode of negotiation:

    The range of wage increases recommended will allow for greater flexibility in wage negotiations. This is a move in the right direction as we must increasingly allow market forces a greater role in the determination of wage increases. The true cost of labour is best determined by free market forces. It is the individual company together with its union and workers who should determine, through collective bargaining, the actual wage increase.31

The government was not so much motivated by commitment to market forces per se. Rather, it was convinced that a strengthening of collective bargaining would make the dependent relationship between wage levels and productivity more visible. It was an important ideological exercise.

The 1981 NWC was in no doubt about the success of the corrective wage policy. It pointed to the more efficient use of labour and the increased significance of capital-intensive investment: a 71% rise in fixed investment per worker (excluding petroleum projects) for new investment commitments and a 28% increase in value-added per worker. The NWC also pointed to the reported drop of 37% in the number of new jobs created in the first quarter of 1981.32 This was supposedly an indication that jobs were being replaced by capital investment, but given the very brief period the NWC was referring to, its assertion was perhaps a little bold. A significant omission from the Council's analysis of wage policy was an examination of its effects on foreign labour. As we shall see later in Chapter 11, problems were being experienced in trying to reduce dependence upon foreign labour.

After three years of the corrective wage policy, the total recommended wage bill increases for employers amounted to between 54% and 58% on average.
Of this, employers were required to pay 4% to CPF and 4% to SDF. Another 4% of the total wage bill increase was paid by employees in increased contributions to CPF. Thus, the recommendations meant an increase of between 42% and 46%, on average, in the actual wages received by employees. Two obvious considerations, however, were just how many employers adhered to the recommendations and what effect did cost of living increases have on those rises which did occur. Survey data cited by Chew and Chew indicate that the degree of implementation of the NWC's recommendations was quite high for the period of the corrective wage policy in the manufacturing sector, ranging between 80% and 90% (see Table 20 in Appendix). Data from the Ministry of Labour support these survey findings, since the average hourly earnings for the manufacturing sector rose from $2.12 in May 1978 to $3.05 in May 1981, an increase of 43.9%. For the same period the increase for the total economy was $0.92 or 41.3%. Against this, however, there was a 20.7% increase in the CPI for the three years of the corrective wage policy (see Table 19 in Appendix). Evidence suggests therefore that there were generally significant real increases in wages for employees. There were, however, even bigger wage bill increases for employers. Furthermore, the flat monthly increases of $32, $33 and $32 for the respective years was likely to have compressed wages slightly and ensured that the hardest hit employers, in relative terms, were those most reliant on the cheapest labour.

Since 1981 we have seen a return to the policy of wage moderation, the government believing it has gone as far as it can with the high wage strategy. In 1982 the NWC recommended a fixed increase of $18.50 plus 2.5%-6.5% per month, followed by calls in 1983 for $10.00 plus 2.0%-6.0% and then $27.00 plus 4%-8% (with increases of 2% by both employers and employees in CPF contributions) in 1984.34

Interestingly, in the wake of the corrective wage policy the government has attempted to withdraw somewhat from the dominant role it has played in wage determination. In October 1982, the Minister for Labour, Ong Teng Cheong,
called on companies to negotiate their wage rises without awaiting the NWC negotiations. However, discussions generally only began after the government approved the NWC guidelines in 1983. This initial reluctance on the part of employers and unions to take the initiative is of course completely understandable. The NWC was established precisely to condition the terms of collective bargaining and has always closely mirrored government policy. Both employers and unions have come to learn that disregarding government policy carries certain perils. Not surprisingly, then, both have become dependent upon the NWC guidelines for direction. Therefore, it will not be easy for the state's role to diminish overnight. In order to assume a lower profile in wage determination, since 1983 the government has attempted to assume the role of another employer rather than the representative of the state. How successful the government will be in its endeavours is naturally yet to be determined. What we can say, however, is that the dominance of the PAP over organised labour suggests that state influence over wage determination will continue to be fundamental, even if less direct. Also, the attempted shift away from such direct state control is principally an ideological or political exercise rather than an economic one. The government is keen that the wage/productivity nexus is internalised by workers and considers it is much more likely to occur through collective bargaining. The PAP seems convinced that appreciation of this nexus is especially important to the 'Second Industrial Revolution'.

Regardless of the future form of wage determination, we have seen above that the government significantly intervened in the economy through its corrective wage policy to promote higher value-added production. This policy was grounded on the assumption that wage levels did not adequately reflect the genuine scarcity of labour in Singapore. Instead, before this policy artificially low wages had acted as a disincentive to raise productivity and keep low value, labour-intensive production competitive. Ironically, the government decided that wage levels which more accurately reflected market value could best be arrived at by more and not less intervention in wage determination.
The Broader Plan

Subsequent to the 1979 introduction of the corrective wage policy, the government adopted other measures intended to significantly alter conditions affecting investment. One of the first such measures was the declaration in August 1979 that preferential tariff treatment enjoyed by local vehicle assemblers would be abolished. The decision stemmed from consideration of the industry’s failure to develop a linkage between assemblers and component manufacturers, and the declining competitiveness of the industry. Importantly though, the government regarded this low skill, labour-intensive industry as an inefficient user of labour. Withdrawal of protection led to the closure of all foreign companies assembling cars in Singapore and also caused the closure of the country's sole tyre manufacturer, Bridgestone. Though the labour released was not expected to contribute much to solving labour shortages, folding up those industries symbolised the new direction of government policy and the belief that certain production had simply outlived its usefulness in Singapore. As an unsympathetic EDB official remarked about the closures:

We have warned these industries for years that we would not allow our consumers to prop them up indefinitely. We have told them to reduce prices to be competitive with other countries but when they could not do this, that was it. They have recovered their investment and made their money and now it is time to call it a day.

The future of the automotive industry in Singapore was to lie in the manufacture of higher value-added components geared towards world markets, such as those by Repco in universal joints and General Motors in automotive electronics which have been discussed in the last chapter. Indeed, the government viewed the emerging concept of the 'world car', whereby the manufacture of any given automobile was carried out through detailed international sourcing rather than complete or near-complete manufacture in one or two countries, as a positive development for Singapore. It subsequently set about trying to entice such investments with tax incentives.
In the 1980 Budget, Goh Chok Tong, the Minister for Trade and Industry, announced a more general reduction of protective duties, with the exception of those pertaining to the ASEAN Preferential Trading Agreement (PTA). Duties on such imported products as sugar, biscuits, plastic raincoats, rubber tyres, underwear, air conditioners and a variety of other goods were either abolished or substantially reduced. Protecting such industries was, in the government's view, an anachronism, belonging to a stage in Singapore's past industrialisation.40

It was, however, in the 1981 Budget that the broader plan into which the wage policy and tariff measures fitted was given its most coherent expression. Singapore, Goh stated, was to be "developed into a modern industrial economy based on science, technology, skills and knowledge".41

The anticipated pace of the restructuring under the government's 10-Year Plan, alluded to in the budget speech, was indicated by the target of real annual growth in GDP of between 8% and 10% for the decade. Such a rate would give Singapore a per capita income of S$15,000 (at 1979 prices) by 1990, equivalent to the 1979 Japanese per capita GNP. According to the target, productivity rates are also to rise between 6% and 8% per annum. In the process, the manufacturing sector is expected to increase its share of GDP from 22% to 31% by 1990 and its share of total exports to 60%. Value-added is also expected to rise between 11% and 13% annually for the sector.42

To achieve the desired expansion in the manufacturing sector, some shifts in emphasis were considered necessary. Apart from the need to place more emphasis on parts and component manufacture (such as aircraft and automotive components and precision equipment), the government emphasised Singapore's strategic location as a basis for further higher value-added industrial expansion. This could be achieved through industrial servicing and agricultural machinery or medical equipment, for example, or by exploiting Singapore's position at the centre of the waterways and air-routes in the region. This shift in emphasis was one which, according to the government, could only be enacted under the aegis of
international capital, although it was envisaged that locally-based manufacturers could play a crucial role in providing support industries. This point Trade and Industry Minister Tony Tan later emphasised:

Ultimately it is their [support industries'] competence in supplying parts and components which will determine the competitiveness, in terms of price, quality and reliability, of the final products produced here.43

The list of industries earmarked for the 1980s included: automotive components; machine tools and machinery; medical and surgery apparatus and instruments; specialty chemicals and pharmaceuticals; computer, computer peripheral equipment and software development; electronic instrumentation; optical instruments and equipment; precision engineering products; advanced electronic components including wafer fabrication; hydraulic and pneumatic control systems; and key supporting industries for the above. As the list of targeted industries suggests, Singapore would still be seeking to produce for the markets of the advanced capitalist countries, but increasingly in much higher value-added areas. However, as a complement, Singapore would to a larger extent become a regional supplier of middle technology products and services.

Although the focus of this thesis is the manufacturing sector, the government's overall economic plan is much broader and includes ambitious objectives for the services sectors. These sectors have long been the backbone of the Singapore economy, still contributing 76% to Singapore's growth in GDP (at 1968 factor cost) throughout the 1970s.44 Singapore's strategic location at the crossroads of international air and sea transportation routes and telecommunications networks has provided the basis for much of this growth. Transportation and communication was the leading growth sector in the 1970s, accounting for 25% of GDP (at 1968 factor cost) and enlarging its share of total GDP from 12% in 1970 to 19% in 1979.45 The state has played a key role in this growth, both through the expansion of its own national airline and shipping companies as well as through substantial infrastructural boosts and improvements. This area will continue to expand in the 1980s but, under the new
plan, special emphasis will be placed on Singapore's so-called brain services or software. In particular, the government hopes to develop Singapore into a 'financial supermarket', a regional centre for sophisticated financial services. Towards this, the government has found it necessary to introduce a variety of taxation concessions and reforms to promote international loan syndication and offshore fund management activities. It has also intervened to regulate the gold market. At the same time, the government is committed to the development of necessary infrastructure such as advanced telecommunications equipment and general software requirements of the finance sector.

Apart from clarifying the pace and direction of restructuring being sought, the government's Ten-Year Plan included clarification of the relationship between the corrective wage policy and the broader strategy:

Higher wage increase is, however, only one policy instrument for economic restructuring. It must be supplemented by fiscal and other incentives to encourage the use of more capital in production. But only increasing the relative price of labour to capital to bring about restructuring is like trying to cut with one blade of the scissors. The other blade is the skill of our workers. Both blades must cut in unison. Thus training must be stepped up to enable our workers to acquire new skills and refine old ones.46

Towards the end of manpower development then the government set about boosting the volume and quality of skilled labour. Additionally, it introduced an array of incentives and assistance to facilitate a wider adoption of labour replacement production techniques. A considerable expansion and upgrading of the physical infrastructure necessary for the growth envisaged was also initiated. The overall strategy then basically boiled down to actively discouraging low skill, labour-intensive production on the one hand, whilst providing the necessary preconditions and inducements for higher value-added production on the other. This latter aspect of the strategy has seen the level and quality of the state's involvement in the economy reach new heights and expense.
Manpower Development

In order to carry out the plans to significantly raise the technological level of production in Singapore, urgent priority had to be given to the building up of Singapore's supply of skilled labour. Hold-ups in some projects were already being experienced due to the shortage of skilled labour, particularly engineers. This would not be an easy task. With a declining rate of population growth, and hence a declining growth of school leavers likely for the eighties, there were obvious constraints confronting the government and the economy. To the government, however, the problem was by no means insurmountable. Rather, it called for immediate and comprehensive measures to ensure a considerable expansion of the existing and future skilled labour force. While these measures were taking their due course, shortfalls in the present skilled labour supply were being met by increased overseas recruitment by the EDB.47

Attempts to generate an adequate quality and quantity of skilled labour to support the restructuring strategy involved the government in efforts to expand education at all levels, but particularly at the tertiary and technical levels. Government development expenditure on education rose from $32.75 million in 1978/79 to $374.68 million in 1982/83, an increase of 1,044%.48 Not only were enrolments expanded at existing institutions in technical vocations and disciplines, a range of new institutions were established to meet the specific demands of this new phase of industrial expansion. In this latter respect, the government took the initiative in ensuring that manpower development was closely tailored to the needs of private companies engaged in, or moving towards, higher value-added production. It also outlayed significant sums in direct and indirect subsidisation of capital's restructuring costs. Toward the generation of a more skilled labour force, the government has paid particular attention to engineers. Total enrolments of students in universities and colleges rose by 49.4% and 7.5% in technical and vocational institutes from 1979 to 1983. For the same period, enrolments in engineering courses rose by 2,104 at the National University of Singapore and 10,232 at the Singapore Polytechnic.49
Apart from rapidly expanding the output of engineers, the government has established a number of institutes of technology to teach specialised and sophisticated skills on a higher technological plane than provided by existing institutions. These have been set up with the collaboration of the German, Japanese and French governments. In February 1982, two new institutes began operations, the German-Singapore Institute of Production Technology (GSI) and the Japan-Singapore Institute of Software Technology (JSIST). The former's purpose is to produce practice-oriented technicians combining a working knowledge of production technology and industrial automation with operational skills. The latter's function is to produce computer professionals for the software industry and generally support the computerisation effort in industry. In August 1983 another institute began operations, the French-Singapore Institute of Electro-Technology (FSI). FSI trains technicians for the electronic and electrical manufacturing and servicing industries. In another development, Singapore's fourth JITC which was established in November 1979, the Japan-Singapore Training Centre, was upgraded in June 1983 to become the Japan-Singapore Technical Institute. It concentrates on the training of maintenance personnel who, it is anticipated, will be in big demand once restructuring picks up, especially by companies with highly automated and microprocessor-controlled machines.50

Computerisation is integral to the government's manpower development programme. Amongst other initiatives, a Software Technology Centre is being built in the new Singapore Science Park being developed to house Research and Development-oriented enterprises. In February 1983 the Computervision-EDB CAD/CAM Training Unit (CECTU) also began operations and, subsequently, the EDB has set up another two institutes in conjunction with private companies to generate highly specialised technicians.52 Further, in 1981 a National Computer Board was established, through which the government plans to spend over S170 million on computer education for Singaporeans between 1982 and 1986.53
Manpower development has also been supported by the government through its various schemes administered by the SDF, easing costs to employers engaged in training the workforce and upgrading equipment. Apart from the Training Grant Scheme providing between 30% and 90% of training costs for skill development in preferred areas, the Interest Grant for Mechanisation Scheme and the Development Consultancy Scheme involved outlays as at March 1984 of $493.7 million.54

One of the obstacles confronting the government in trying to generate a larger supply of skilled labour is the fact that many workers have inadequate education to facilitate easy retraining. Not only have many workers only attended elementary school, they have also not been taught in English.55 Towards addressing this problem, in July 1982 the NTUC introduced the Basic Education Skill Training (BEST) programme which was revamped and expanded by the government later that year.56

As the descriptions above detail, the state has assumed a crucial role in the raising of workers' skills to accelerate industrial restructuring. We have seen that there has been a rapid rise in the number and range of training schemes and institutes. Not only has this been due to the initiative and capacity of the government to co-ordinate such developments, but also to the clear commitment of the government reflected in the substantial outlays of funds. Pang argues that in many cases the government is simply funding training which firms would have undertaken anyway.57 The point, however, is that obviously the government intends that through the stimulus of subsidisation such training will occur at an earlier stage than otherwise, and thus so will restructuring. It is attempting to ensure that those firms which have the capacity to upgrade to or invest in higher value-added production are not held back for lack of suitably skilled workers or the funds to generate such.
Incentives and Concessions

As we have seen, even before 1979 the government offered investors significant incentives and assistance in the establishment of higher value-added production. These included exemption from the 40% company tax for between five and ten years for companies granted Pioneer Status and the provision of long term loans at below market and fixed rates for desired projects. After 1979, however, these schemes were given greater promotion and joined by a range of other measures intended to stimulate investment.

Amongst the government's new measures since 1979, incentives for R & D have been particularly comprehensive. R & D of course is necessary if the technology pertinent to Singapore's priority industries is to be transferred to the Republic. The following incentives were thus announced in the 1980 Budget: double tax deductions for R & D expenditure; an investment allowance of up to 50% of the capital investment in R & D; capitalisation and writing-off of lump sum payments for manufacturing licensings for a period of five years; and the extension of existing schemes for accelerated depreciation allowances for machinery, plant and building to R & D.58

The 1980 Budget also contained announcements of liberalised capital allowances for plant and machinery, making for speedier depreciations which would enable firms to invest more after tax earnings on mechanisation and automation. This measure was complemented in 1982 with the announcement that firms introducing robots or other automated equipment leading to significant labour saving could be depreciated over one year and granted an investment allowance of up to 50%. This incentive was directed mainly at those companies having relied on guest labour but hoping to still manufacture in Singapore, most of whom would not have qualified for incentives under the Economic Expansion Incentives (Relief from Income Tax) Act.59

Generally the government made much greater finance available for firms upgrading or restructuring after 1979. Government funding of public R & D
institutions rose from $10 million in the 1981 Budget to $50 million in 1982;\textsuperscript{60} funds for the Product Development Assistance Scheme doubled to $2 million in 1981;\textsuperscript{61} funds for the Capital Assistance Scheme were raised from $100 million to $150 million in 1980, and then to $300 million the following year.\textsuperscript{62} Moreover, these funds were being put to use more readily than before. Thus, whereas by 1980 just $44.7 million in equity and loans under the CAS had been committed since the scheme’s inception in 1975, a year later this total had risen to $137.8 million.\textsuperscript{63} The incentives offered under the CAS became a major plank of EDB’s promotions after 1979 in the effort to attract key international manufacturers to Singapore, especially the availability of long term, low interest loans.

In accordance with the government’s earlier-expressed concern about the capacity of locally-based manufacturers to provide the support industries required by international capital, a series of measures were adopted to enhance the ability of locally-based firms to upgrade. In 1982, the maximum loan under the Small Industries Finance Scheme was raised from $1 million to $1.5 million and interest reduced from 9.5% to 9.0%. In the same year, the maximum interest grant available through the Interest Grant for Mechanisation Scheme (IGMS), introduced in 1980 to subsidise mainly local, small companies’ interest payments on new capital equipment purchases, was raised from 7% to 9%. A company taking out a loan and qualifying under the SIFS and the IGMS would thus effectively be paying only 4.5% interest.\textsuperscript{64} Other measures directed specifically at locally-based manufacturers included the setting up of a Small Industries Technical Assistance Scheme and a Materials Technology Application Centre.\textsuperscript{65}

Though here we are only concerned with the manufacturing sector, it should nevertheless be noted that the use of various tax and financial incentives and assistance were also introduced to stimulate other sectors of the economy central to the government’s Ten-Year Plan. This has particularly been the case with regard to the financial and service sectors, culminating in the amendment of the Economic Expansion Incentives (Relief from Income Tax) Act in October 1984.
which made it possible for the provisions of that Act to apply to non-manufacturing sectors.\textsuperscript{66}

In providing the various incentives and assistance, the government has had to outlay significant sums and forego revenue. In the context of its plan to promote a qualitatively new phase in Singapore's industrialisation, however, these costs and losses are accepted. The long term benefits are seen to outweigh the short term costs. The government was under no illusion that the provision of these incentives and assistance would of themselves be sufficient stimuli to achieve the desired restructuring of industry. Nevertheless, it still saw such measures as integral to a broader package which would collectively entice appropriate companies to Singapore to set up new, technological processes and assist those existing companies in the Republic to shift speedily towards higher value-added production. It was precisely because these stimuli belonged to a broader strategy for restructuring that the government was so heavily committed to cushioning the costs of capital in establishing or upgrading operations.

\textbf{Industrial Estates}

In conjunction with the government's plans to accelerate industrial restructuring, the Jurong Town Corporation embarked on massive expansion plans. It devised its own Ten-Year Master Plan (1980-1990) to improve the standard and supply of industrial buildings, land and supporting infrastructure. The Plan also called for greater decentralisation of industrial estates and the continuing improvement of commercial services and amenities within the estates. This was in part directed at raising the percentage of women in the workforce and the percentage of the workforce living in Jurong Town itself.\textsuperscript{67} The Plan also called for the provision of special facilities, including the creation of several priority estate projects such as: the reclamation and development of Southern Islands as an international petrochemical manufacturing and distribution centre; the development of Loyang as the first centre for aviation industries, and as an engineering base to support
offshore oil and mineral exploration; the development of Seletair Air Base for avional and aeronautical industries; and the construction of the Singapore Science Park to accommodate industrial and scientific R & D enterprises.

Planned expansions in industrial estates were massive and, according to one estimate, would cost well over $2.5 billion in the 5-7 years following 1981. One of the planned projects, the Sembawang Industrial Estate, would upon completion in 1992 cover 526 hectares and cost an estimated $800 million.

Progress towards JTC's objectives and increases in required expenditure have been rapid since 1979. A total of 240 hectares of industrial land was prepared in the 1979/80 period alone, followed by another 375 hectares over the next four years. By March 1984, JTC was managing 22 industrial estates and another 13 were in various stages of development. Such development involved JTC in considerable cost, especially as some of the work included ambitious and lengthy reclamations. JTC's development expenditure has thus risen from $127 million in 1978/79 to $435 million in 1982/83, an increase of 243%. Owing to the recessionary effects on Singapore's economy in 1983/84, development expenditure was reduced to $277 million, but this was still a significant sum which was directed at providing increasingly specialised facilities for higher value-added industries.

The expansions undertaken by the JTC have been heavily reliant upon loans from the government. Of the total development expenditure of $1,568.1 million from 1978/79 to 1983/84, as much as $992.5 million or 59% has been provided through government loans and a much lesser amount in government grants. Future expansions will continue to reflect this reliance.

In recognition of the difficulties the latest recession has posed for capital wishing to upgrade or expand, the JTC has recently introduced a number of incentives. Buyers and tenants of three estates, Tuas, Woodlands East and Loyang, have been offered the following: 20% discount on rents; the cost of stamp duties and preparation of agreements to be borne by the JTC; a 15%
reduction in the downpayment of the purchase/lease price; and the cost of installations up to 10% of the selling price of the factory to be met by the JTC.77

Obviously expansions, improvements and greater specialisations in physical infrastructure are fundamental to Singapore's projected restructuring. They are also costly. Not only are the more specialised and better quality provisions appropriate to a higher level of technology more expensive, Singapore's space problems have also necessitated costly reclamations in order to facilitate expansions in estates. As we have seen, however, the government has accepted the role of ensuring the JTC has sufficient funds to carry out the necessary work. It accepts that the ready availability of low cost, good quality industrial land and infrastructure is a precondition for its own economic plans.

Direct Government Investment

As has been pointed out earlier, the government itself has been an important investor in both the manufacturing sector and the Singapore economy in general since the 1960s. The pattern has been for government investment to expand and diversify over time. As can be seen from Table 22 in the Appendix, by 1983 the government had invested in 58 diverse companies with a total paid-up capital of $2.9 billion. Of these 58 companies 23 were wholly government-owned. The majority of investments, however, were channeled through the government's three wholly-owned holding companies, Temasek, Sheng-Li and MND, whose total paid-up capital amounted to approximately $237 million in 1983.78

The motivations for direct government investments vary. One point which has been underlined since 1979, however, is that the government sees direct investments as a way of stimulating private capital in higher value-added areas. Finance Minister Goh Chok Tong was quite clear about this from the outset of the new economic strategy. As he said in response to criticisms about excessive government investments:
We will continue to go in for big business where the private sector finds it difficult to go into. We will also go into business where the market is international like a shipping line, or airline. If its international why should we worry about the government taking part? What we meant by reviewing our role was that we should divest ourselves of some shares in companies in which we no longer see important roles for ourselves. We may even sell off 100%.

But that does not mean we will not invest in new companies. In fact my recent remarks about a new venture company (to be set up by the government and to finance promising but high risk ventures) indicated that we would invest in more companies. But once these companies succeed, we should in fact divest ourselves of their shares ... and we'll move into something else, my own view is that we'll grow bigger and bigger. 79

Since this statement the government has not hesitated to use direct investments to either initiate developments in higher value-added production or to consolidate trends by private capital.

One of the clearest examples of the government directly investing to ensure the development of a priority industry has been the incorporation in 1982 of Singapore Aircraft Industries (SAI), a holding company belonging to the Sheng-Li Group. In all, SAI is to comprise six subsidiaries engaged in various aspects of the aerospace industry. One of the most significant enterprises is Singapore Aerospace Manufacturing (SAM) which manufactures aircraft equipment and parts, the area of special importance to the government's long term plans for the industry. The other companies, however, are engaged in a range of complementary servicing, overhaul and maintenance activities so that collectively these investments amount to a coherent and concerted attempt to promote the aerospace industry. 80

Through its Sheng-Li holding company, the government has also been involved in more generalised attempts to promote higher value-added production. In 1983, six Sheng-Li-owned companies were grouped together to form the Singapore Technology Corporation (STC). 81 The intention of STC was to pool resources to develop and market Singapore-made high technology products. STC was established with a $200 million capital base and 4,500 employees (including 800 of which were engineers, technicians and executives). This made it
Singapore's largest locally-based company and it could therefore afford to purchase the latest technology and develop products in those areas of high technology in which its respective group members had expertise - defence equipment, automotive engineering and computer software.82

Probably the above examples of government investment represent the more conspicuous of illustrations. There are many less dramatic instances of the government's various investment arms actively trying to shape Singapore's industrial restructuring. The DBS, for example, is one of eight Singapore-based companies to have set up a venture capital company called Venture Investment (Singapore) in April 1984. This company intends to invest its $14 million of pooled capital in industries such as computer hardware, peripherals and software; semiconductor products and equipment; telecommunications services and equipment; agro-industry; and health and health care products and services.83 Intraco also partnered the US company Scien-Tech to form Scien-Tech Intraco Automation in January 1983 with a paid-up capital of $1 million. This company is engaged in the production of high technology automation equipment such as educational and industrial robots and computer systems. It made the first programmable robot in Singapore.84

One of the more interesting developments in the government's direct investments since 1979 has been the establishment of the Government of Singapore Investment Corporation (GSIC) in 1981. The GSIC was set up specifically to manage Singapore's massive foreign reserves, officially declared at $15.84 billion (at cost value) at the time,85 a task previously handled by the MAS. MAS had come under fire for allowing surplus reserves to accumulate beyond that necessary to meet its legal obligations. Thus, the GSIC was to more effectively maximise the investment potential of these reserves and it immediately began scouting for opportunities abroad, identifying the US, Japan and Australia as prime targets.86 The GSIC was considered so important that Lee Kuan Yew himself was its founding Chairman, with Goh Keng Swee, the then First
Deputy Prime Minister, its Director. The point to keep in mind about the setting up of such a corporation, with a view to developing a highly profitable international investment portfolio, is that it has taken place precisely at a time when the state is facing increasing financial commitments as part of its restructuring of industry and the economy. Apparently in this context the Singapore government has felt a greater need to put its reserves to work.

At one stage the government indicated that the GSIC would be investing abroad in some of the world's leading high technology companies as a means of bringing them to Singapore. The GSIC invested some of its reserves in Mitel, a Canadian telecommunications equipment company, as well as in such world-leaders as IBM and Hewlett Packard. The idea being considered was to obtain seats on the boards of big corporations and mount takeover bids. This bold scheme, however, appears to have been abandoned and now the GSIC generally limits its holdings in any one company to below 5%. As Goh Keng Swee explained: "The last thing we want to do is ruffle anyone's feathers". On second thoughts then, the strategy under consideration ran the risk, in Goh's assessment, of being counter-productive by instilling fears in those companies with the technology sought by the Singapore government. Nevertheless, the fact that such a strategy was ever conceived emphasised the government's conviction that it had a definite role to play in speeding-up Singapore's industrial restructuring.

**Government Spending**

Many of the previously-outlined policies adopted in support of Singapore's 'Second Industrial Revolution' have involved the government in considerable expense. Outlays through the government's special Development Fund have increased from $1,890.0 million in 1977/78 to $5,154.7 million in 1981/82, representing an increase of nearly 173% before dropping to $4,997.8 million in 1982/83 (see Table 21 in Appendix). Meanwhile, development expenditure as a proportion of government budget spending has risen from 36.6% in 1979/80 to a projected 55.3%
in 1982/83 (see Table 16 below). Of course, there are other increases in government spending resulting from the new economic strategy which are reflected in normal recurrent expenditure, such as that on educational personnel and other aspects of social infrastructure. Recurrent expenditure on education, for example, has risen from $381.8 million in 1977/78 to $983.8 million in 1982/83.89

Table 16: Trends in Government Expenditure, Financial Years 1979-1983

<table>
<thead>
<tr>
<th>FY</th>
<th>$m</th>
<th>% inc. over previous FY</th>
<th>% for Recurrent Expenditure</th>
<th>% for Dev. Expenditure</th>
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</thead>
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<tr>
<td>79</td>
<td>6,291.3</td>
<td>21.4</td>
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<td>83*</td>
<td>14,671.1</td>
<td>18.4</td>
<td>46.9</td>
<td>53.1</td>
</tr>
</tbody>
</table>

* Budgeted  
** Excludes the transfer to the Development Fund

Source: Ministry of Finance, Memorandum on the Budget for Financial Year 1983/84, Table III, p.5.

In addition to ensuring the necessary funds for the upgrading and expansion of social and physical infrastructure for a higher stage of industrialisation, the government has also assumed responsibility for maintaining high growth rates in spite of the effects of the latest recession. The targeted growth rate in fixed capital formation for the decade of 11% per annum is 3% higher than that achieved for the period 1970-1978.90 Towards achieving this the government has poured large sums into public housing construction.91 A deepening of the recession has also seen the government finally go ahead with its long-discussed proposal for a mass-rapid-transit (MRT) rail system, a measure clearly intended to, amongst other things, compensate for falls in private capital investment.92
Any further economic slowdown resulting from the global recession would most likely see the relative importance of non-industrial development expenditure increase. Quite obviously, however, for either or both of the government's objectives of rapid economic growth and restructuring to occur the government will be involved in heavy expense, recession or not.

Conclusion

As we have seen above, the government's plans to hasten industrial restructuring since 1979 have involved considerable intervention in the economy. The most blatant form this has taken has been through the corrective wage policy. By imposing steep increases in wage costs on capital, the government has attempted to pressure employers to upgrade production techniques and raise productivity. These increases, the government has explained, were necessitated by its pursuance of an overly cautious wage policy in the 1970s. Having supposedly restored wages to market levels though, the government has since sought to play a lower profile in wage determination. It is confident that this will facilitate Singapore's graduation to a technologically higher position in the international division of labour in manufacturing. The new emphasis on collective bargaining, however, even if successfully implemented, should not be seen as the end of state influence in wage determination. On the contrary, the state continues to exert a powerful influence over organised labour which restricts the latter's capacity to act as a free agent in the market place. Apart from legislation circumscribing matters for negotiation, the PAP-NTUC symbiosis ensures that the interests of labour are never practically divorced from those of the Party. As we shall see in the next chapter, new policies have been introduced since 1979 to secure this relationship in the restructuring period.

Aside from the corrective wage policy, there have also been considerable government expenditure increases in the provision of expanded and improved social and physical infrastructure and the introduction of various fiscal
incentives. The nature and expense of such intervention is to some extent the consequence of embarking upon a qualitatively higher phase of industrialisation. Higher skill levels and more specialised infrastructure are obvious pre-requisites for a more technologically advanced economy and these involve large capital outlays. Equally, the sophisticated machinery the government is encouraging employers to invest in is not only expensive but often quickly superseded. Long gestation periods and more consequential risks are also characteristic of this new phase of industrialisation. In these circumstances, greater re-assurances and incentives have been employed to attract the desired investment. The state has thus adopted the role of alleviating the impact of some of the additional costs for employers. In effect, the state has intervened to help define Singapore's comparative advantage in higher value-added production by absorbing many of the costs involved in upgrading operations and investing in higher technology.

In conclusion, then, in spite of the government's espoused faith in market forces, the period of the 'Second Industrial Revolution' has been characterised by a basic practical mistrust of market forces. Intervention has been the hallmark of the new economic strategy, with the government exploiting numerous avenues to protect investors from the full force of the market. The government wants the manufacturing sector to take a certain direction and it is prepared to do what is necessary to enhance and secure that direction. This active state role has long been integral to Singapore's industrialisation, but the new phase of industrialisation has seen some changes in the extent and means by which the state has attempted to influence the allocation of resources.
FOOTNOTES


2. As quoted in "Cheap Labour 'Shake Out'", *Straits Times*, 9.6.79.

3. As quoted in ibid.

4. As quoted in ibid.

5. ibid.

6. This increase was fully offset against all forms of pay increases.


10. As quoted in ibid.

11. The analogy of the international division of labour and a football league comprising different divisions was earlier drawn by NTUC Secretary-General Lim Chee Onn. See "In Our Workers' Long-Term Interests, Says Chee Onn", *Sunday Times* (Singapore), 24.6.79.

12. A statement issued by the Labour Ministry declaring acceptance in full of the NWC recommendations pointed out that the relocation of firms was an expected outcome of the wage rises. See George Joseph, "Govt OKs New Pay Guidelines", *Straits Times*, 26.6.79.

13. The President of the Singapore Federation of Chambers of Commerce and Industry, Wee Cho Yaw, the Chairperson of the Singapore Manufacturers' Association, Michael Yeo, and the President of the Singapore Employers' Federation, Jack Chia, all expressed concern at the government's policy. Their comments are reported in Susumu Awanohara, "Goh Faces His Pragmatic Critics", *Far Eastern Economic Review*, 13.7.79, p.66. Wee Cho Yaw also expressed particular concern about the capacity of locally-based manufacturers to usher in technological upgrading at the required pace: "We believe that the push towards higher wages should be implemented in stages, so as to allow manufacturers sufficient time to upgrade themselves. The Federation is concerned that this year's drastic NWC recommendations will have adverse effects on the Singapore economy in general, and indigenous manufacturers in particular". As quoted in Andy McCue, "Big Wage Rises Recommended in Singapore", *Asian Wall Street Journal*, 26.6.79.

14. "SMA Puts Forward 4-Point Plan to Help Firms", *Straits Times*, 30.6.79.

15. See the reported comments by Wee Cho Yaw, for example, in Andy McCue, "Singapore to Ease Wage Guides' Effect on Local Firms", *Asian Wall Street Journal*, 3.7.79.


21. See Fong Mew Leng, "Identifying Above Average Workers", Business Times, (Singapore), 4.8.80.


23. This need not be the case, however, in a context of rapid economic growth since existing labour may be required to become more productive.


25. Ong Pang Boon, the Minister of Labour, offered the reassurance that: "We expect next year to be the final year of the 'catch up' phase of our wage policy after which our wage levels will reflect the value placed on our products in international markets". As quoted in "Employers Need Dose of Fiscal Incentives", Business Times, (Singapore), 28.6.80.


27. ibid., p.61.

28. The representation of international capital was significantly upgraded for the 1981 NWC. US, Japan and West German representations were all increased, expanding the Council from 12 to 26 members. See ibid.

29. ibid.


35. ibid.


39. As quoted in ibid.


42. ibid., pp.26-27.


45. As calculated from ibid.

46. Goh Chok Tong, 5 March 1980, p.5.

47. See Fong Mew Leng, "EDB in Move to Woo Engineers", Business Times, (Singapore), 29.5.80.


51. Seventy per cent of the $1.65 million capital outlay involved in CECTU was provided by the EDB through the SDF, the EDB also being responsible for management and operating costs. See Economic Development Board, "CAD-CAM Training Centre + $180 Million for Computer Education in Singapore", Singapore Investment News, September 1982, p.1.

52. In June 1983 the ASEA-EDB Robatics Training Unit (AERTU) was established and then in October 1983 the Japax Group - EDB CNC Training Unit (JECTU) was established. See Economic Development Board, Annual Report 1983/84, p.54.


56. The number of workers involved expanded from 950 to 5,000 from as many as 60 companies. See "Efficiency: Singapore Tries Harder", *Asiaweek*, 10.12.82, p.41.


59. The labour-intensity of such firms' operations usually precluded them from incentives under the Act.

60. At the time of the 1982 Budget, grants totalling $11.5 million had been approved in support of 14 projects in engineering, medical and biomedical fields. See Dr Tony Tan Keng Yam, "Budget Statement 1982", 5 March 1982, Information Division, Ministry of Culture, n.d., p.5.


62. ibid., p.34.


65. ibid., p.997.


68. Plans for the development of Seletar into an aviation centre have since been dropped. See Yong Pow Ang, "Aviation Centre Plans in Seletar Dropped", *The Singapore Monitor*, 13.9.83.

69. The Singapore Science Park is being developed in four phases to eventually comprise 125 hectares. It will provide a computer centre, science and engineering libraries as well as a range of telecommunication and postal services. The areas of R & D for which the Park is intended include: advanced electronics development; product testing and analysis services; medical and scientific instruments development; biotechnology; process control and automation equipment development; optical and electro-optical applications research; chemical and plastics R & D. The Park will also house the Singapore Institute of Standards and Industrial Research and its Materials Technology Applications Centre. Being situated alongside the
National University of Singapore in Kent Ridge, and in proximity to the Singapore Polytechnic and the Nanyang Technological Institute, it is anticipated that the Park will facilitate interaction between researchers at the various institutes and the enterprises at the Park. See Economic Development Board, "JTC Building a Home for R & D Activities", Singapore Investment News, January 1982, p.4.


73. This has particularly been the case in the development of the Southern Islands for the petrochemical industries.


85. It has been estimated that the actual market value of these reserves could be anything up to $40 billion. See Susumu Awanohara, "A Storm in Singapore", Far Eastern Economic Review, 6.3.81, p.51.
86. See Michael Richardson, "Goh Gets Set to Slice his Cake", Far Eastern Economic Review, 15.1.82, pp.36-37; Michael Richardson, "Singapore $ Millions Likely for Australia", The Age, 9.1.82; Chris Pritchard, "Singapore Government Planning Large Investment in Australia", Asian Wall Street Journal, 13.1.82.


88. As quoted in ibid.


91. Budgeted capital expenditure by the Housing Development Board (HDB) rose from M$911 million in 1978/79 to M$2,254 million in 1982/83. The average contribution of such expenditure to the government's total development estimates during this period was 32%. The vast bulk of the HDB's finance was provided through government loans. The total loan drawings by HDB for the period was M$6,285 million. These were repayable over 60 years at 7.5% per annum. See HDB Annual Report 1982/83, p.20.

92. The project, confirmed in May 1982, is expected to cost approximately $5 billion and involve eight to ten years' construction. The government has indicated that the sale of reclaimed land at a site called Marina South, adjacent to the city's business district, will be used to finance the MRT project. See James Leung, "Singapore Confirms It Will Build A Subway Financed by Land Sales", Asian Wall Street Journal, 31.5.82.
CHAPTER 10

SOCIAL, POLITICAL AND IDEOLOGICAL CONDITIONS OF THE "SECOND INDUSTRIAL REVOLUTION"

Introduction
Starting in 1979, the Singapore government attempted to induce a shift in the pattern of capital investment in the manufacturing sector through its wages policy, tariff removals, direct investments, increases in social and physical infrastructure, and the provision of low interest finance and various investment incentives. These measures, however, required a favourable social and political context for capital accumulation if they were to achieve the desired effects. Though the state had long played the role of ensuring labour discipline, the transition to a higher stage of industrialisation was seen by the government to require certain refinements in the control over labour to facilitate the smooth restructuring of capital. This view was not just based on the political consideration of labour's capacity to resist or assist restructuring, but also on the technical consideration of how the workforce might be most cost-effectively organised for capital. As a result, significant changes to the structure of trade unions were introduced and the PAP stepped-up its placement of Party personnel in key NTUC positions. At the same time, the government embarked on a concerted and all-embracing campaign to create a general ideological acceptance of capital restructuring by workers as a complement to the new structural controls over labour.

Although the PAP's new measures to ensure social and political control of labour were linked to the perceived needs of capital in the restructuring process, consideration was also given to the PAP's own long term political security which was seen as integral to successful restructuring. The PAP had for decades seen itself as the natural instrument of Singapore's social and economic progress. To the PAP leadership's way of thinking, the Party's mission was above politics. The
PAP was the embodiment of the nation's collective aspirations and, what is more, it was the only institution capable of realising those aspirations. The PAP took it for granted that its unquestioned political supremacy was fundamental to the success of the restructuring programme for the 1980s. It soon discovered, however, that not all shared the PAP's ideological convictions. In 1981, the PAP lost the by-election in the constituency of Anson to the Workers' Party candidate J.B. Jeyaretnam who became the first opposition member of parliament since 1968. To the PAP this loss symbolised a more general attitudinal malaise among the general public which also reflected in deteriorating work attitudes, subscription to Western and materialist values, and insufficient reverence for authority, that is, the PAP. This suspected malaise was believed to be especially prevalent amongst Singapore's younger generation and this did not augur well for the future of the PAP or, hence, restructuring. The PAP has thus set about the task of ensuring its own long term political security by ensuring the reproduction of Party ideology through Singapore's various social institutions. This has involved legislative measures as well as the promotion of certain Confucian ethics which are supportive of the PAP's hegemony.

What we see clearly in the discussion to follow is not only that the PAP has been engaged in pervasive social engineering to support the economic policies outlined in the previous chapter, but that it has tried to secure its long term monopoly of state power at the same time. Without the latter, the Party leadership could not possibly envisage any successful future for Singapore at all, let alone the transition to a modern industrial economy based on science, technology, skills and knowledge.

Trade Unions

Although the PAP had since the 1960s emphasised the necessity of a trade union movement which was responsive to government policy, in the period of the 'Second Industrial Revolution' new measures were taken to ensure that the
‘symbiosis’ between the NTUC and the government remained firm. Lee Kuan Yew was fully aware that the large-scale changes associated with the new economic strategy would require an especially co-operative union movement. Whilst there were no immediate indications that the labour movement might question this relationship, Lee was concerned that the growth in the wealth and power of Singapore’s larger unions represented a potential threat which had to be dealt with.¹ In the period of substantial restructuring, Lee was emphatic that the primacy of the PAP was more vital than ever and warned against any challenge to the Party’s supremacy:

Now, however, in the nature of union organisations, as compared to that of political parties, a curious contradiction has arisen between the PAP and the NTUC; it is one which has the seeds of potential conflict if the present PAP-NTUC relationship is not institutionalised and made durable before a younger generation of leaders has taken over charge of both organisations. Because of the check-off system the PAP in government allowed since 1970, the NTUC is growing stronger financially every year; because of full-time staff which stronger finances enable it to recruit, the NTUC is also growing stronger organisationally every year. This is the case in several industrial countries. Unions are wealthier and stronger than political parties. And because union objectives appeal directly to the pockets of workers, plus the grouping of members in offices and factories, it is easier for union leaders to mobilise their supporters, than for political party leaders to mobilise theirs (sic). In Singapore, only the overriding authority of political leadership saves the country from unnecessary conflict; for if challenged the union leadership knows it must face the consequence of a collision of wills; few union leaders can doubt the outcome of such a clash.

Lee’s concern about the potential political power of unions, and the implications of such for the government’s planned economic restructuring, was probably heightened, if not aroused, by the strong grassroots support developed by Phey Yew Koh in the 1970s. In 1979 Phey was at the helm of Singapore’s two largest unions, SILO and PIEU, controlling 90,000 workers, as well as the 10,000 member-strong Singapore Air Transport Workers’ Union (SATU). Phey had been disappointed at being overlooked for the top NTUC position in that year in favour of Lim Chee Onn and had reportedly vowed to oppose Lim at the NTUC delegates conference in late 1979. Before this could eventuate, however, Phey was charged with the misuse of co-operative funds and fled the country while on bail.⁴ Though
Phey was never able to put his substantial grassroots power base to the test for Lim's job, Lee apparently concluded that the existing structures of control over NTUC-affiliated unions needed to be tightened. Through the subsequent restructuring of trade unions, the government took decisive steps to guard against even the remote possibility of power bases developing amongst organised labour which could pose any challenge to the PAP's hegemony in general or its economic plans in particular.

Indications that significant changes in the structure of trade unions were to take place first came at a NTUC seminar in November 1979. Newly-appointed NTUC Secretary-General Lim Chee Onn outlined proposals at the seminar for the dismembering of Singapore's two largest unions, SILO and PIEU, to make way for smaller, industry-based unions. Lim's reasoning was that such a restructuring would enable individual unions to develop expert knowledge of the industry they represent and improve their relationship with management as a result. Though not openly acknowledged by Lim, the move would also weaken the power base of the union movement since the restructuring invariably meant an end to the numerically large unions previously possible. Challenges to either the NTUC or the PAP would thus be made even more difficult than they already were. At the same time, the workforce could be more easily re-organised to meet industry-specific needs of capital in the restructuring process.

The plans for industry-based unions were quickly put into effect. In February 1980, the executive councils of SILO and PIEU voted in favour of their dissolution and by July 1981 nine industry-based unions with a total membership of 79,000 had been formed. Under the new constitutions and ties of these unions to the NTUC, activities have come under closer government scrutiny. The executive councils of these unions are monitored by a 24-member advisory council, each of which contains at least one government MP, highly loyal union cadre members and 'founder members' who are either PAP members or closely associated with the Party.
As an adjunct to the changes described above, the government has also promoted the establishment of various in-house or house unions. It was no coincidence that six of the first seven house unions between 1981 and 1983 were initiated by workers at wholly or significantly government-owned enterprises. By late 1984 there were 13 of these new house unions. House unions are a logical extension of industry-based unions, further weakening the organisational capacity of labour and making it possible for company-specific needs to be more easily realised. Lim Chee Onn’s successor, Ong Teng Cheong, not only acknowledged the implications of house unions for the power of organised labour, he went so far as to contend that the erosion of this power was in labour’s own interests:

... it is recognised that the establishment of house unions could possibly erode the power base of the larger craft, industrial and general unions. However, in the interests of our national economy and the long term benefits to the workers and management, they must be willing to submerge their sectional interests for the national good. Apart from the weakened organisational capacity of labour resulting from house unions, they also serve an ideological function. As Ong has explained: "In a house union, the workers are better able to identify themselves with the company, and to see clearly the nexus between their own well-being and the success of the enterprise." House unions, then, represent the ultimate in the reconstitution of organised labour to aid the restructuring of capital.

At the outset of announcing plans to introduce house unions, the government indicated that this was a long term objective which would probably be introduced gradually. One of the government’s considerations was the need to find adequate leaders to facilitate such a decentralisation of control. It also recognised that it would have to spend some time explaining to workers the benefits of house unions. It was not long however before the government became impatient with debate over the question and indicated in no uncertain terms that opposition to house unions would simply not be tolerated. In November 1981, the executive council of the 2,798 member-strong United Workers of the Petroleum Industry (UWPD) decided to oppose splitting the union into various house unions, contending
that this was a naked attempt to weaken the membership and reduce its clout.\textsuperscript{13} Delegates at the UWPI's biennial conference in July 1982 sanctioned a resolution which empowered the executive council to dismiss any member seeking to undermine this position. Subsequently, the executive council threatened to expel its British Petroleum branch committee for advocating the introduction of a house union.\textsuperscript{14} This prompted a strong reaction from the PAP, with Ong Teng Cheong warning that "... the NTUC will not accept and tolerate any such oppressive resolutions".\textsuperscript{15} The end result was a back down by the UWPI which rescinded its resolution. In the same month, Ong declared that the question of house unions was "no longer an issue".\textsuperscript{16} In 1984, the Singapore Shell Employees' Union (SSEU) was formed as a house union, thereby weakening the UWPI by 1,177 members.\textsuperscript{17}

Despite the firm position adopted by the government and the NTUC, and the defeat of the UWPI, the question of house unions appears to nevertheless remain a contentious rather than a non-issue. Events in 1984 suggest that some pockets of resistance still remain. Following recommendations from the NTUC, on 7 May 1984 the executive council of the Singapore Air Transport Workers' Union (SATU) decided to fragment SATU into three house unions.\textsuperscript{18} In the wake of this decision, however, there were protests from SATU members that the SATU executive council had failed to secure a mandate for such a move.\textsuperscript{19} On 14 June, three SATU officials also filed a writ of summons with the Supreme Court for an injunction to stop the fragmentation of SATU, the plaintiffs claiming the executive council had exceeded its authority under the union's constitution.\textsuperscript{20} The next three months marked an intense internal struggle which culminated in the ratification in August of the executive council's decision by delegates of a SATU conference.\textsuperscript{21} It would seem then that in spite of the government's refusal to debate the question of house unions, some unionists are still reluctant to surrender their power bases. It is clear, nonetheless, that the future path of organised labour will be house unions. Those unionists who challenge this direction have little or no chance of success; for in a "collision of wills" with the government, "few union leaders can doubt the outcome of such a clash".\textsuperscript{22}
The new union structure, particularly house unions, should make for more effective administering of the technical changes necessary for rapid capital restructuring. It will facilitate maximum flexibility in the training and retraining of workers and the enforcement of discipline to accept the direction of technical change, in spite of the possible negative consequences for labour, such as redundancies and other inconveniences. The weakening of the union base, and thus the potential for the mobilisation of worker opposition, is clearly inter-related with the enhanced technical management of the labour force. Thus, when the government introduced the Employment (Amendment) Act of July 1984 which significantly increased the scope for employers to schedule working time, a move intended to allow employers to use their expensive high-technology machinery around the clock, and tied annual leave to the length of service, it did so with the confidence that there could be no effective obstruction of the Act even if labour was unhappy about its implications.23

Having set about restructuring trade unions to implant a more effective means of labour management, the government has tried to promote an expansion of the number of workers which can be reached through organised labour. In 1979, just 249,710 workers representing 24% of the total workforce belonged to unions. By 1982, this figure had dropped to 214,337 or 19% (see Table 17 in Appendix). This should come as no surprise, however, since we have already seen that the weakening of labour's power and autonomy in the late 1960s was followed by a sharp decline in union membership. Since then, the paternalism of the state and the limitations placed on the union role have acted to further discourage membership. The restructuring of trade unions of late only extends PAP influence over unions and restricts the capacity of unions to reflect grassroots sentiment. Putting the new structure in place is one thing, affecting any substantial change in worker attitudes to unionisation may be quite another.

If there were any doubts about the implications for unions of their reconstitution, the legislative changes to the Trade Union Act went a long way
towards addressing any such uncertainty. Arguably the redefinition of the role of trade unions in Singapore through the Act simply represented acknowledgement of what had become a fact of life anyway. Nevertheless, so as to hammer home the government's emphasis on "co-operation rather than confrontation", a new definition of the objectives of unions was passed in December 1982. The new objectives were to: promote good relations between workers and employers; improve the working conditions of workers or enhance their economic and social status; and achieve increases in productivity for the benefit of workers, employers and the economy of Singapore.\textsuperscript{24} The Act also stated that any proposed new trade union would only be recognised if its constitution was "not oppressive or unreasonable", the definition of which was to be left to the discretion of the Labour Minister. Considerable control over the management and auditing of union funds was also afforded the registrar of trade unions.\textsuperscript{25}

These legislative changes were intended to maximise the co-operation of unions in the restructuring process, not just by simplifying control over union activities but also by helping to create an ideological sympathy towards the government's objectives. This is what Lee meant when he said that unions "must play a positive role in reshaping attitudes and objectives, supporting management and government in a joint effort to realise our full potential".\textsuperscript{26} It was towards the objective of realising 'full potential', that is, achieving the highest possible material productivity, that individual union leaders were expected to devote their energies.\textsuperscript{27} The task confronting union leaders in the 1980s in Singapore was to help create "better work attitudes and higher skills".\textsuperscript{28} The message which the union was to get across was that any changes which raised productivity would ultimately benefit labour.

The government's de facto control of unions had effectively existed for over a decade. The government's amendment to the Trade Union Act must therefore be seen to have at least in part been prompted by a slight uneasiness about the future. There is little doubt that the Singapore International Air Pilot's
Association (SIAPA) work to rule in October/November 1980 largely contributed to this uneasiness. The SIAPA industrial action seriously disrupted SIA flights and aroused scathing government remarks. SIAPA was eventually deregistered. It was thus not a complete surprise when the government identified the "need to build a modern industrial society founded on sophisticated economic activities and a new relationship between management and labour" as the most urgent task facing the new parliament in 1981. The dispute was a very symbolic one and the government went about clarifying in no uncertain terms that the idea of unions operating as sectional interest groups could not be tolerated in Singapore. As Singapore entered the 1980s, unions were expected to be gearing themselves towards a new era of 'co-operation'. In the wake of the SIAPA dispute, government ministers and the NTUC head spared no opportunity to publically expound the primacy of the PAP-NTUC symbiosis and the paramount responsibility of labour to raise productivity. Industrial disputation was anathema to the new high in co-operative spirit which the PAP was insistent upon.

The wider responsibility of orienting labour towards national obligations, which was officially entrusted the NTUC through the redefinition of the union role and aided by the restructuring of unions, was of course first mooted as far back as 1969 at the "Seminar on Modernisation". The essence of the union role then has not changed. Rather, a new level of co-operation is being demanded, one which the PAP considers appropriate to a higher stage of industrialisation. In what has been anticipated as an unprecedented period of rapid technological change, the PAP sees the need to ensure worker flexibility, receptivity to training and retraining, acceptance of shift work and the inevitable redundancies and various other changes. Through the initiation of BEST, the NTUC demonstrated the co-operative spirit sought by the government. Facilitating the upgrading of skills, however, is not so difficult as the other expectation of NTUC leaders: instilling motivation and discipline amongst workers. As we have seen above, however, towards securing the support and discipline of labour in this new phase of
industrialisation, the PAP has modified some of the forms and mechanisms of labour control.

Towards enhancing and reproducing labour control, the PAP adopted the strategy throughout the 1970s of filling key positions in the NTUC with Party members or sympathisers. Recently, however, the PAP has attempted to significantly increase its representation in the NTUC, particularly through the new union structure. Lee has referred to this process as 'cross fertilisation', a necessary measure to "increase understanding between the government leaders".34 This 'increased understanding', which actually amounts to a more effective transmission of government policy from the PAP leadership through to the workforce, has involved increasing numbers of trained technocrats assuming NTUC leadership roles. These technocrats have generally little or no background at shop-floor level. The appointment of Lim Chee Onn as NTUC Secretary-General in 1979 marked a new high in this trend. Lim, also Minister without portfolio in the government, was a member of the so-called Second Generation of leaders who had no trade union experience prior to his appointment.

It has been explained in earlier chapters that the increasing appointment of technocrats to the NTUC runs the risk of widening the gap between the leadership and the rank-and-file membership. Naturally it also arouses some resentment from the older, longer serving union leaders of working class background. It appeared, however, that the PAP thought that 'cross fertilisation' needed to be stepped up to guarantee the maximum support of and control over the NTUC in the restructuring period. It was not long, however, before this policy encountered problems. In April 1983 Prime Minister Lee Kuan Yew announced the dismissal of Lim Chee Onn from his post as NTUC Secretary-General. In Lee's published letter concerning Lim's dismissal, he referred to the discontent of NTUC executives of rank-and-file backgrounds who felt that under Lim's leadership they had been brushed aside. Further, Lim had appointed various young technocrats to high posts who had no experience in union affairs.35 Lee explained that "the process of
meshing in scholars and professionals with rank-and-file union leaders was not progressing well". However, rather than re-examine this process itself, Lee concluded that another technocrat of different personality and temperament could do the job. Thus, Lim's successor was 47-year-old Ong Teng Cheong. Ong, an architect by profession and another member of the Second Generation of leaders, left his government portfolio of Communications and Labour to take the post. Though initial developments suggest that Ong's style of leadership may be more suited to the task, the underlying contradiction between the technocrats and the rank-and-file has the potential to manifest in the longer term. Eventually, of course, the older, rank-and-file leaders will be superseded to a far greater extent. There will be few leaders from the rank-and-file to emerge from the more placid and tightly controlled 1970s and 1980s who will have the capacity or inclination to arrest the trend. It could be, however, that the growing alienation of the rank-and-file from NTUC leadership is reflected in the declining membership of NTUC. If this is the case, the PAP will need to address the contradiction if it is to realise its objective of expanding the number of workers to be reached through its new union structure.

**Ideological Conditions**

Through institutionalised and legislative changes the government defined new expectations of trade unions and attempted to enhance its ability to enforce changes considered necessary for rapid restructuring. At the same time, it was recognised that an ideological acceptance of the methods for, and objectives of, economic restructuring would need to be instilled in workers. In late 1980, then, the PAP leadership started to focus very closely on the ideological conditions considered necessary to the 'Second Industrial Revolution'.

For some time the government had been addressing itself to, what it saw as, the problem of poor worker attitudes. It had been concluded by various employers and the government that the widespread practice of job-hopping signified that
many workers lacked suitable application to work and or loyalty to their companies. However, towards the end of 1980 a significant change in emphasis occurred when Singapore's leadership increasingly began to conceptualise the problem at a more abstract level, calling for a qualitatively new approach to industrial relations. In a pre-election speech in December 1980, Lee Kuan Yew identified the Japanese system of industrial relations, characterised by a close co-operative spirit between employer and employee, as a suitable model for Singapore to emulate. In the years to follow Singaporeans were to hear and read much from the government about this model.

It was no coincidence that the government's campaign to 'learn from Japan' was initiated in the wake of the SIAPA-SIA dispute. The resort to industrial action by the SIAPA symbolised an approach towards management which Lee considered the antithesis of the spirit required of workers during the 1980s.

Carrying on the theme of greater co-operation between employer and employee, Lee told Singaporeans in his 1981 May Day Speech that: "Greater team spirit is the secret of success in our next stage of economic development." The better work attitudes being sought amounted to a collective dedication towards greater productivity. Lee was asking workers to see their interests as inseparable from their employers', and indeed their fellow workers'.

The time has come for us to make a qualitative change in work attitudes. The Singaporean is an individual achiever. The Singaporean must now learn to be a team achiever. He must realise that he achieves more for himself by working smoothly in a team to help the team succeed. Greater team spirit is the secret of success in our next stage of economic development. Whether it is in the manufacturing or in the service, it is co-operation amongst fellow workers, and between workers and management, which will increase productivity. This is the meaning of good work attitude.

Lee's speech was followed by a comprehensive and tireless campaign to cement in the population's consciousness the close nexus between team work and productivity and the fundamental importance of developing worker/employer relations which reflected this consciousness. It was this 'team spirit' which supposedly, more than anything else, epitomised the lesson of Japan's impressive
industrial success. Lee emphasised this point in his 1982 May Day Message to the NTUC:

High productivity, or more output per worker with similar capital investment, depends on the philosophy of management and the attitude of workers. The concept of productivity must penetrate the mind of every manager, supervisor and worker in Singapore. It must be understood and grasped by all teachers in schools, VITB, Polytechnic and University, so that it can be transmitted to every student. In essence, it boils down to good human relations. Team spirit and co-operation among workers, in QC circles or zero defect circles, depend on good human relations.41

In peculiarly Singaporean fashion, the campaign to promote awareness of the need for greater productivity through team spirit was orchestrated with cohesion, thoroughness and relentless monotony. At every level, and almost every opportunity, Singaporeans were called to adopt an attitude of 'team work', the path that inexorably leads to greater productivity and a 'bigger piece of the cake' for all.42 As Chua Beng Huat wrote: "Singapore has been literally blitzed with ideological discourse of team work".43 In April 1981, a Committee on Productivity was established, later to be superseded by a National Productivity Council in September, which, amongst other things, added another appendage to the state's machinery to advance acceptance of these concepts.

In August 1982, a survey which had been commissioned by the National Productivity Board (NPB) was conducted by the Times Organisation. The survey of 590 people showed rather mixed results and was a matter of concern for the government. An alarming 70% of those interviewed expressed the view that increased productivity would be primarily to the company's benefit and not the worker's. This view was equally as common amongst the better educated as those with little or no formal education.44 The survey also found that few were interested in actively participating at their places of work in promoting 'team work'. For example, 89% expressed the view that small group work activities could raise productivity, but just 17% indicated a willingness to participate in them.45 This did not augur well for the government's proposals to introduce management techniques which involved worker participation techniques such as quality control circles (QCCs) and work improvement teams (WITs).
That workers did not make an instant and passionate commitment to 'team work' should come as no surprise. After all, both through the government's own efforts and due to the inherent nature of the capitalist economic system, contradictory attitudes had been fostered over the previous decades in Singapore. The government had gone a long way towards encouraging individualism with its promotion of the 'rugged individualism' ethos emphasising self-sufficiency over collectivism. Such an ethos or national personality had been considered important to Singapore's survival in a fiercely competitive world. This competition, Singaporeans had been told, brought out the best in individuals, and indeed companies for that matter. Competition, both as a supportive ideology and a concrete reality, was still very much alive in Singapore and, as in other capitalist societies, permeated all levels of the social structure. Through NWC guidelines the government has also increased material rewards for the 'more meritorious' workers. Observers have been quick to point out the obvious contradiction between 'team work' and 'meritocracy', with group unity and affinity being undermined by disproportionate rewards for workers doing the same job. Aware of this apparent contradiction, the following attempt to reconcile the two concepts was offered by Goh Chok Tong:

In Singapore, we rightly emphasize meritocracy as the key factor in building a better organization and a better country. Meritocracy is not at variance with the Japanese concept of consensus by compromising or placing group interests before self. It is our application of the meritocratic system which is at fault. We equate meritocracy with individual ability, regardless sometimes, of the individual's ability to lead a team or work as a member of a team. It is this misunderstanding of the meaning of meritocracy that has caused some scholars and high-flyers in the civil service and private sector to develop crass, selfish, egoistic attitudes. The ability to work as a member of a team is a virtue that must be taken cognizance of in any assessment of an individual for promotion or increment.46

Goh's qualification suggests that the ability to mobilise workers should be deserving of greater reward. It does not explain, however, why those whom leaders are trying to mobilise should want to co-operate to ensure leaders' disproportionate rewards.
Apart from the campaign to promote a general awareness and acceptance of 'team work', the government examined concrete ways in which aspects of the Japanese model embodying this spirit could be incorporated in Singapore. Three clearly identifiable objectives were to unfold: to promote the establishment of a greater number of house unions; to apply such Japanese-style management techniques as Quality Control Circles and Work Improvement Teams; and the adoption of some form of company welfarism. The thinking behind house unions and the moves already made in that direction have been discussed earlier. As for the Japanese-style managerial techniques, efforts to promote them have been largely assumed by the National Productivity Council (NPC). The NPC has conducted seminars and disseminated information on such techniques. By March 1983, a total of 341 QCCs, comprising 2,582 workers in 44 organisations had registered with the NPB. Important as such management techniques are to the government's new industrial relations plan, however, it has been the declared commitment to company welfarism which has represented an even more fundamental attempt to reshape the attitudes of workers.

Lee Kuan Yew's preoccupation in the 1981 May Day Speech with the relationship between welfare programmes and productivity, by way of a comparison of China, Germany and Japan, was the first indication that he had become seriously concerned about the extent of Singapore's own welfare programmes. Lee argued that whilst governments generally had a role to play in subsidising certain essential services, such as medical services and housing, any public welfare system which protected people from all risks of hardship or deprivation would inevitably lead to declining productivity.

Later, when speaking at a National Day rally in August 1981, Lee lauded a recommendation by the American Business Council (ABC) to the NPB's Committee on Productivity (COP) which also called for a re-examination of the government's role in welfare. Lee quoted directly from the ABC submission:

The Singapore government, in its desire to provide for its citizens has developed wage policies and social programmes such as the CPF, which
cause a worker to feel his future and security is dependent on the government rather than the employer.\textsuperscript{50}

The ABC's observation was indeed something which the government by now had come to accept as accurate and worrying. Manifestations of this dependence were, according to the government, not just excessive job-hopping, but the reliance of workers and companies on the NWC to set wage levels.\textsuperscript{51} A more germane manifestation was the apparent perception by Singaporeans of subsidised public housing as an inalienable right or entitlement of citizens. The PAP had come to see their defeat in the 1981 Anson by-election as in large part the consequence of failing to satisfactorily fulfil this expectation. Such an attitude not only placed the PAP's political survival on a demanding contract, it also evidenced, in the eyes of the government, an obstacle in the plan to cement the worker/company bond and raise productivity. Lee spelt out the importance of moving towards the Japanese system of company welfarism as a means of addressing this problem:

\begin{quote}
We must gradually switch to the Japanese system, where workers look to the company's success for their medical and welfare benefits. As long as welfare is provided by legislation, with political parties bidding against each other as in auction at election time, the worker does not see why his work and his company's success is important. On the contrary, the worker squeezes all he can get out of his employer. He believes that if the company collapses, the State social welfare must look after him ... Gradually, Singaporeans must become aware that the government can only provide the broad framework of good administration for social stability and for equal opportunities in education and basic medical services and housing for the poor. The extras, welfare benefits, holidays, higher standards of life must depend on the success of the companies they work for. Japan has avoided the pitfall of excessive State welfare. The personal interest of managers for their workers leads to excellent industrial relations. Company welfarism gives Japanese managers and workers their deep sense of loyalty to and identification with their company. I am keen to discover which parts of the Japanese system can be adapted to suit Singapore circumstances. I believe team spirit is crucial for group success.\textsuperscript{52}
\end{quote}

Given the PAP's concern about its shock defeat in the October 1981 Anson by-election and the implications of that defeat, the promotion of company welfarism was thus not solely motivated out of a desire for closer worker/employer relations, hence greater productivity. It was also seen as a way
of guarding against potential political problems by shifting the electorate's judgement of the PAP's performance away from its ability to provide ongoing and expanded social welfare programmes. Although the government had adequate funds, it also preferred to relieve itself of the increasing welfare burden to concentrate its spending on the infrastructural provisions of capital and other areas.

Following the COP's recommendation that company welfarism be introduced using the CPF as a source of funds, the National Productivity Council was charged with the responsibility of working out the guidelines for the introduction of the Company Welfarism From Employers' Contributions (COWEC) Scheme. Under the guidelines drawn up, employers who produce acceptable schemes can retain 10% of their contribution to the CPF to set up a trust fund to provide welfare benefits. To make COWEC attractive to workers and to ensure it is directly related to company loyalty, members are entitled to a certain proportion of the difference between the returns of the COWEC investments and the CPF equivalent interest rates, ranging from 50% for those with five years' service to 100% for those with 15 years' service or more to a company. To pioneer the COWEC Scheme, the NPB has established a pilot scheme under which selected companies will be tried out for three to five years, after which wider application will be considered. Seven companies were selected in the NPB's initial batch of applicants, and a further eight later in 1985.

In the government's promotion of the Japanese model, it is significant that only selective aspects have been highlighted. Through this selectivity the government appears to have conjured up a somewhat idealised conception of the Japanese system. This has served to obscure the implications for labour of the shift to company welfarism in Singapore. With workers' benefits tied to service with a given company, the freedom of workers to exercise occupational and job mobility could be significantly curtailed. From the employer's viewpoint, this has the advantage of arresting job-hopping and making training and retraining easier
and more feasible owing to the more stable workforce. This amounts to an enforced and blatantly pragmatic nexus between worker and employer rather than a close ideological bond between the two. Should such a bond develop, this would constitute additional, self-imposed labour discipline.

A further consequence of companies assuming welfare responsibilities is an inevitable widening of disparities in worker benefits. Benefits can only be provided according to a company's ability and quite obviously this is an extremely variable factor. This would be further compounded should house unions be introduced on any large scale in Singapore. The bargaining strength of unions would diminish with company size. This is a side of the Japanese reality which the PAP has conveniently played down. Emerson points out, for example, that wages and fringe benefits in Japan's smaller automobile companies can be as little as 50% of those received by workers of the major companies. A further oversight by the PAP in its exhortation of the Japanese system is that recourse to strike action is common, indeed integral, to the bargaining strength of unions in Japan. Such action has effectively been outlawed in Singapore and is seen as antithetical to at least the PAP's understanding of 'team spirit'. The closer we examine the implications for labour of concrete policies embodying 'team spirit', the less attractive the concept appears for labour.

Apart from the possible problems simply involved in the implementation of COWEC on a large scale, there may be other problems which the government will have to confront. It has been pointed out that wide social and cultural differences exist between Japan and Singapore. The peculiar loyalty of Japanese workers to their companies and devotion to national objectives is in no insignificant way related to a cultural heritage of Buddhism, Confucianism and Shintoism, all of which stress the domination of the hierarchy and group. The government stands above the individual. This contrasts with the Singaporean emphasis on individual and family. Therefore, company welfarism is as much a consequence of shared or traditional values as it is an instigator of them in Japan. Will company welfarism thus necessarily evoke the same loyalty in the case of Singapore?
Finally, the government's shift towards company welfarism is also related to concerns about the costs to the state in providing welfare. This is suggested by the recent government moves to diminish its responsibilities for public health care. The government expressed concern in its Blue Paper, or preliminary report, on health care in February 1983 that the Ministry of Health's running costs had risen from $59 million to $257 million in the ten years from 1971. With a rapidly ageing population, running costs are likely to escalate steeply in the future. Resulting from this concern, the government has introduced a new hospital care plan, known as Medisave, under which enforced workers' savings from the CPF will be used to cover hospital costs. The government will continue to incur the capital and equipment costs and train the necessary skilled manpower. Under Medisave, which will ultimately see the end of any government subsidisation of hospital care, 6% of each worker's CPF contributions will be set aside for a special account to cover that worker for hospitalisation.

An obvious effect of Medisave is that it will be especially adverse for lower income earners. At the time of its introduction, 75% of hospital costs were subsidised by the government. Under the new arrangement, however, hospital costs will not vary according to income. While the privileged and middle class will be able to afford personal or corporate health insurance, the poorer Singaporeans who are not otherwise covered through COWEC will have limited health care. Possibly one of the intentions of Medisave is to coerce workers into supporting COWEC as a means of addressing this insecurity. At the same time, the move is also related to the PAP's view that state enterprises should pay their way.

Political and Social Considerations

Given the extensiveness of the government's campaign to address worker attitudes, onlookers could be excused for presuming that a serious problem existed. Interestingly, though, the government's concern was disproportionate to that of employers. For certain there had long been complaints by employers about
excessive job-hopping, but this labour mobility could reasonably be seen as workers taking legitimate advantage of the market rather than demonstration of poor work attitudes. In 1981, the NPB conducted a survey to gauge employers' views on worker attitudes. Members of the Singapore International Chamber of Commerce (SICC), representative of the republic's most important employers, indicated in the survey that they considered work attitudes favourable. SICC Chairman, R.W. Lutton, made it clear that Chamber members generally did not share the officially-inspired concern about worker attitudes, implying that isolated cases of poor attitudes reflected as much on management's own ability:

We do not share the oft heard jeremists about the inadequacies of the Singapore worker. There is naturally scope for improvement, as there always is in any human activity, and it is a prime management responsibility to give the right leadership and to display the right attitudes which will encourage this improvement.

Lutton pointed out that the Chamber's own surveys had found that there was no clear pattern of complaint amongst manufacturers. Later in the same year, an American resource firm, Business Environment Risk Information (BERI), released its results of a 45-country examination of international investment suitability. It was concluded that Singapore had the best labour force from the viewpoint of the international investor, with a particularly high rating under the category of 'worker attitude' and the best rating of all countries for 'relative productivity' in the manufacturing sector.

Not only did employers therefore seem unconvinced that any urgent problem of worker attitudes existed, but some local economists also pointed out that the government's emphasis on the relationship between worker attitudes and productivity was over-emphasised. Particularly in the more capital-intensive areas of industry, improvements in productivity derived largely from technological changes to the production process and increased investment in capital equipment. Dr Tony Tan acknowledged these criticisms in his 1983 Budget Speech and, although he did not take the opportunity to debate the point, he made it plain that the government was insistent on the fundamentality of worker attitudes:
I do not intend to debate the correctness or otherwise of such views but it is pertinent to remember that machines have to be operated, monitored and controlled by human beings. It is the accretion of small contributions in human efforts that determines the competitive edge of nations. We therefore have to continue with the drive to inculcate better work attitudes and understanding of productivity among our workers.68

As a matter of emphasis, however, it nevertheless appeared as though the government had paid undue attention to supposedly poor work attitudes, even to the point where some observers warned that potential investors might be scared off.69 This emphasis, however, needs to be understood in the context of much wider considerations by the PAP, considerations of a political nature.

Apart from seeking maximum labour co-operation in the restructuring process, another fundamental concern with worker attitudes was to ensure that the PAP's own political security would not be threatened in the years ahead. In view of the PAP's virtual stranglehold over state power, and its long-standing and impressive electoral support, such a concern may seem unwarranted. Nevertheless, starting in the 1980 general elections, there were indications of some disaffection with the PAP and, although this was most unlikely to manifest in any real threat to PAP dominance in the short term, the PAP seemed deeply concerned about the longer term possibilities. The emergence of disaffection, however slight, was ominous for the PAP since the 1980s was projected as a decade of rapid economic and social change. The preparedness of the electorate to accept the government's initiatives and the hardships these could bring some people in the short term, might therefore need to be boosted by addressing not just perceptions of work but those of government and authority generally.

If the 1980 general election raised questions about which PAP leaders had become concerned, it was the loss of the seat of Anson in the October 1981 by-election to Jeyaretnam which accelerated the Party's worry and prompted a stern response. Although this loss gave the opposition parties but one member in parliament, the first since 1968, it was the symbolic significance of Jeyaretnam's victory and the awareness that the PAP leadership did not enjoy absolute
electorate approval which was totally unacceptable. In what appeared an over-
reaction, various measures were taken to guard against any more serious challenge
to PAP dominance being posed.

As early as the February 1979 by-elections in which the PAP fielded seven
new recruits and won all seven seats, the ruling party suspected indications of
some unease from the electorate. In two constituencies the PAP did less
satisfactorily than it had come to expect. WP's J.B. Jeyaretnam managed to
attract 38.1% of the vote in the Telok Blangah contest, compared to 60.2% to the
PAP's Rohan Kanis's. In Potong Pasir, the PAP candidate, Defence Minister Howe
Yoon Chong, attracted 65.4% of the vote whilst 32.4% was attracted by the
Secretary-General of the recently-established Singapore Democratic Party (SDP),
Chaim See Tong. The full significance of these results, however, did not fully
dawn on the PAP at the time. However, in the December 1980 general election,
in which another 18 new candidates represented the PAP, a similar pattern
emerged. Overall, the PAP won 75.55% of the total votes cast, compared with
72.4% for the 1976 general election. In the same two troublesome electorates,
however, Jeyaretnam made considerable ground to take 46.3% of the vote whilst
the share dropped to 52.2% for Kanis. Meanwhile, Chiam improved his vote to
40.3% with a drop to 58.1% for Howe. Attempts at explaining the sustained and
improved performances of these opposition candidates naturally addressed a
number of factors. A significant characteristic of these two electorates,
however, which would have been of concern to the PAP was the high percentage
of newly enfranchised youths in these predominantly middle-class constituencies.
It was tempting to conclude that the younger and better educated Singaporean
youth, who did not share the same historical experience of political instability as
the previous generation, viewed the PAP in a more critical light than their
parents. In particular, the authoritarian style and repressive political measures of
the PAP might well have seemed unwarranted in stable Singapore. The
immediate PAP response to the 1980 results was calm, but some sole searching no
doubt took place behind closed doors.
The dominant explanations for the PAP's loss of the Anson seat focused on two main aspects. First, the hip-pocket nerve of the electorate, one which is predominantly of low income, was seen as important. Rising bus fares, Public Utilities Board (PUB) charges, food prices, double-digit inflation and the escalation of prices for HDB flats had hit some of the poorest pockets of Singapore society. Second, most analysts attributed at least some of the support for the Workers' Party in Anson to a demonstration of resentment at the style of PAP leadership. Arrogance and intimidation was a blatant feature of the Anson campaign by the PAP. Not only did the PAP field an inexperienced candidate in Anson, Pang Kim Hin, it also warned constituents that they could not expect to benefit from government policies as much if they were to elect an opposition candidate. The authoritarian nature of the PAP was also seen to have alienated certain educated, middle class elements.

The PAP's own postmortem on Anson identified rising prices and housing problems as the main factors accounting for the shock loss. Lee Kuan Yew publically attributed the loss to the planned eviction of 1,179 Blair Plain voters without priority in resettlement, hefty prices confronting 4,576 voters on the HDB waiting list, and the proposed resettlement of 750 voters from Kampong Bahru. In each case home ownership was jeopardised. Lee avowed the government's determination to ensure every Singaporean would, in future, be able to afford a home despite rising costs. Lee, however, also levelled a large share of the blame for the Party's defeat on the Second Generation leaders who had been given full command of the campaign. He saw the loss as a reflection of the ineffectiveness of the younger generation leaders to communicate with the electorate, and the poor grassroots level organisation. The younger generation was seen as unable to establish rapport with ordinary people: "Young leaders must learn to put hard facts in simple terms ordinary people can understand". Lee's reference to the Anson defeat as "an unfortunate misadventure, not without several blessings" was not the least inspired by his belief that it afforded the
chance to critically assess the capacity of its younger generation of leaders and consider appropriate corrective action.\textsuperscript{81} As we shall see later in Chapter 12, however, either Lee failed to comprehend the alienating effect of his own preferred style of leadership or he was incapable of addressing it.

Despite Lee's reference to the ironical blessings of the Anson defeat, there was no doubt that the loss touched a very sensitive nerve. The PAP reacted to the loss with a resolve that there would be no more Jeyaretnam's. The message was spelt out plainly that Singapore had no place for a political opposition; a message conveyed both through extensive public denunciation of political systems characterised by strong oppositions and concrete measures to tighten the PAP's political control as a means of obstructing any serious opposition forming in Singapore. Lee was particularly concerned that the younger generation of Singaporeans might subscribe to the liberal notion of an opposition as important to keeping a government accountable:

In the next few years, they (the younger generation) will learn that an opposition, if we are lucky, makes no difference to good government.

Unfortunately, they may well discover, at great cost, that if we are unlucky, like most developing countries, an opposition can make for confusion by raising false expectations of unattainable benefits from greater welfare spending, as in Britain and in so many Third World countries.

Instead of sound planning and hard work to achieve the progress of their countries, these opposition groups raise false hopes of easy giveaways from an imaginary pie.\textsuperscript{82}

Second Deputy Prime Minister Sinnathamby Rajaratnam reiterated this theme in a speech in February 1982, going so far as to turn the liberal argument on its head:

No opposition enters parliament to help a government govern well. Were an opposition to succeed in its declared objective, then there can be no doubt of the outcome in a subsequent election put bluntly, the role of an opposition is to ensure bad government.\textsuperscript{83}

Both Lee and Rajaratnam associated poor economic growth with political systems featuring significant oppositions, the implication being that Singapore could ill-afford the luxury of an opposition. Jayaretnam's rough and intimidatory
treatment by the PAP, both inside and outside parliament, further underlined the Party's contempt for any form of political opposition. 84

Following the defeat in Anson, there were a number of significant moves by the PAP leadership to tighten political control – both over the Party itself and over wider structures of Singapore society. In February 1982, the government appointed S.R. Nathan, a career civil servant and one-time Defence Ministry Secretary Chief, to head Straits Times Press Limited. 85 The government had made no secret of its dissatisfaction with the media coverage of the Anson by-election, believing it had promoted support for Jayaretnam. 86 It also affected comprehensive changes to the ownership and structure of the local press which are depicted in Figure 1 below. In early 1982 the government-proposed Singapore Monitor Limited was established, ostensibly to provide competition for the Straits Times. 87 By mid-1982, however, the government announced that the Straits Times Press group would lend the name of its afternoon tabloid, New Nation, to Singapore Monitor Limited in exchange for a three-year guarantee that Monitor would not publish a morning paper. In the same year, the two rival Chinese-language dailies, Nanyang Siang Pau Singapore Limited and Sin Chew Jit Poh (Singapore) Limited, were merged into a single holding company, Singapore News and Publications Limited. Singapore Monitor Limited was also a subsidiary of Singapore News and Publications Limited whose management included senior government officials and was chaired by the DBS President Chua Kim Yeow. 88 From March 1983, the traditional Chinese dailies were replaced by two new dailies – Lian He Zao Bao (United Morning News) and Lian He Wan Bao (United Evening News). The government's scheme was completed in July 1984 when Straits Times Press Limited and its sister printing and publishing giant, Times Publishing Berhad, merged with Singapore News and Publications Limited to form Singapore Press Holdings (SPH). Capitalised at US$660 million, SPH embraces seven major daily newspapers in three languages and has an advertising stranglehold in Singapore. 89 Not only did it constitute a completed media monopoly but it
formed the largest industrial group and sixth largest listed company in Singapore.90

Figure 1: Reorganisation of Singapore Press, 1982–83


Official explanations of the media restructuring have focused on two related points. First, it has been claimed that the merger avoided a circulation battle which would have cost an estimated $20–$30 million.91 Second, the added financial strength and combined resources enables SPH to diversify into high-technology communications.92 Important as these considerations may have been, the long-term political consequences of a highly competitive local press had also occurred to the government and were foremost in its thinking. In the rivalry which was developing between publishers for circulation, the recruitment of journalists had become a central feature of the battle. The competition to attract the best graduates from university had not only begun to manifest in attractive salaries for journalists, it had also threatened to elevate the social esteem of the profession and introduce a new degree of quality and imagination to local reporting.93 This, of course, ran counter to Lee's plans for the 1980s, especially the desire to maintain a very tight clamp on the reporting of electoral politics. The resulting
merger put an end to competitive reporting and arrested the potential for a more analytical press.

Lee's worry about the aloofness of PAP's younger generation leaders and his concern that the government's policies were not being properly explained at grassroots level prompted a new campaign to improve the PAP's community relations. Centrally controlled local community organisations, long an important instrument of the PAP's political machinery, were to assume a more overt political function. Previously these organisations concentrated on local issues exclusively. As from 1982, however, the Citizens' Consultative Committees were to lead discussions on such matters as wage policy, productivity and defence. These committees were not just to favourably portray government policy, but also to gauge the likely response of electorates to policy decisions - something which had been miscalculated in recent years. Both processes, it was also hoped, would enhance the political education of the younger leaders, sending them 'back to the people'.

Owing to doubts about the political acumen of the younger generation of leaders, there was some question of whether the policy of ushering in new leaders might need to be temporarily halted. Certainly it appeared as though at least some of the Old Guard had been persuaded to hang on a little longer than they might have hoped to. However, at the PAP's 1982 Biennial Conference, the ushering in of the Second Generation leaders resumed, with the first changes in the 12-member central executive since late-1980. Members to step down were Deputy Prime Minister Sinnathamby Rajaratnam, Toh Chin Chye, Lee Khoon Choy and Goh Keng Swee. New committee members were Ch'ng Jit Koon, Ho Kah Leong, S. Jayakumar and Lee Yiok Seng. After much thought, Lee appeared to have concluded that only through greater exposure, albeit under very watchful eyes, would the Second Generation leaders develop greater political acumen.

Decisions of even greater significance which were taken at the 1982 Biennial Conference related to the Party constitution. Of special significance was the
redefinition of the PAP and its objectives, which involved an elevation of the Party to the status of 'national movement'. As a national movement, the Party was to be "dedicated to the service of our nation and to the advancement and well-being of our people". The following explanation for this redefinition was submitted in the editorial of Petir, the official Party organ:

The task of running a nation of 2.4 million people of diverse races, religions and languages located in a small territory with no significant natural resources is no trivial matter, it is an awesome responsibility. No fly-by-night political parties, committed only to the politics of dissent, which are devoid of capable leaders and credible alternative policies, can run the country. Only a Party which can move an entire people can govern Singapore. What this meant, in effect, was that only the PAP was capable of, or had a right to, governing the country. Obviously the PAP would ideally like people to identify the Party as a national movement, though invariably this redefinition contained the suggestion of an official one-party state. However, as Smith has pointed out, the government appears to have aroused this suspicion precisely to dismiss it. So, whilst on the one hand making it very clear that only the PAP could or should govern, on the other hand the PAP reaffirmed its commitment to democratic elections. The PAP's confirmation of its faith in democratic elections was calculated to give the appearance of a party supporting democratic principles. Free elections, however, do not in themselves represent tolerance of opposition. Opposition can be very effectively eliminated or curtailed by more systematic means prior to elections. Thus, the statement of support for democratic elections made by Dr Tony Tan at the Conference should be seen primarily as an attempt to give the more important point of the Party's redefined role and status greater legitimacy. The essence of the Conference message was that Singapore could not afford to entertain the idea of any government which was not the PAP.

Other decisions at the Conference were taken which would enhance the power of the Party elite to control internal dissidence. Although the PAP had never been a mass-party, the removal of the right of its members to attend conferences and vote on proposed resolutions marked a new high in elitism. The
mandatory biennial Party congresses were now to be held only according to the agenda determined by the central executive committee.\(^{106}\) This increased centralisation of power has been explained by Smith as designed to ensure that a tighter rein on younger generation leaders and members can be secured whilst they are gradually educated in the grassroots organisations and required to prove their capacity.\(^{107}\)

The worry of the core PAP leadership about the Second Generation has been a thematic one since the early part of 1980. It was further highlighted by the apparent turnaround by Lee at the 1982 Biennial Conference on the question of a parliamentary opposition. It was then that Lee spoke of an opposition as a positive thing, albeit in a peculiarly utilitarian regard:

> Younger PAP leaders need opposition members in parliament as sparring partners to keep them fit and agile ... I have come to the conclusion that we might have to ensure that several better and more intelligent opposition members are in parliament. We may have to make some changes to bring this about.\(^{108}\)

Although Lee did not elaborate on just how he envisaged this scheme being effected, one which had of course been mooted before, Second Deputy Prime Minister Rajaratnam subsequently outlined a three-point plan which was under consideration.\(^{109}\) As we shall see in more detail in Chapter 12, the PAP's revision on the opposition question culminated in amendments to Singapore's constitution in July 1984 which provided for 'non-constituent' parliamentary seats. Under the amendments, a minimum of three opposition MPs was assured, with up to the three highest opposition losers in general elections being offered non-constituent seats carrying limited voting rights.\(^{110}\)

The change of thinking by the PAP leadership by the end of 1982 can be explained by two factors. First, it appeared as though heavy public attacks on Jeyaretnam had proved counter-productive for the PAP, evoking sympathy for the opposition MP and exposing the intolerance of the PAP. It had become clear that there was a general public sympathy for the idea of an opposition per se. Second, the government had come to the conclusion that it should be examining ways of
institutionalising opposition in such a way as to influence the form and nature of it. In so doing, the PAP hoped to safeguard its own dominance. The same approach had been successfully employed with organised labour. Of course, amongst other things, the adoption of non-constituent parliamentary seats was correctly perceived by the various opposition parties as a form of patronage which could only reduce the authenticity of parliamentary opposition. The PAP had thus not revised its intolerance of opposition, only the means of addressing it.

The support for opposition candidates in the 1980 general elections and then in the PAP's loss of the Anson seat in the 1981 by-election not only prompted constitutional and organisational change by the PAP. The leadership had taken these events so seriously that quite profound conclusions were drawn about the population's perception of the Party. In particular, the PAP leadership sensed currents of an underlying set of values which could ultimately challenge the legitimacy of the PAP, or at least reduce its hegemony. Principally the government was worried that Western materialist values threatened to minimise the degree of sacrifice forthcoming from the population. Further, the government concluded that the relatively comfortable existences of the younger generation Singaporeans impaired its appreciation of the PAP's contribution to today's living standards, especially since many of these people either had no memory or experience of pre-PAP-ruled Singapore. ¹¹¹ To temper these wider attitudinal problems, the PAP sought to cultivate a stronger ideological affinity between the population and the Party. This would serve the inter-related functions of securing PAP hegemony and fostering a more favourable climate for the structural changes ahead. This climate was to be sought through the promotion of Confucianist values which conveniently emphasise respect for leadership and authority.

In February 1982, it was announced that Confucian ethics would in future (from 1984) be taught in schools as an option under the compulsory religious knowledge programme. Dr Goh Keng Swee explained the move as an attempt to address the "less desirable aspects of Western culture" which prevailed in
Singapore society. By this he not only meant materialism and individualism. More particularly, he appeared to be referring to the relationship between government and people. Goh explained that Confucianism provided a code of conduct by which such relationships were most satisfactorily executed: "Confucius believed that unless the government is in the hands of upright men, disaster will befall the country. By the way, in this respect, the P.A.P also believes the same thing." Goh went on to argue that the economic successes of Taiwan, South Korea, Hong Kong and Singapore were possible because of the Confucianist tradition of these countries which developed a peculiar character in their peoples. For Goh, the Confucianist ethic provided the code of personal conduct by which Singapore could achieve greater economic success in the years ahead. Evidently, as the above quote seems to suggest, this involves respect for those honourable PAP leaders who have served the country well. According to Confucius, if a government was competent and trustworthy it should not be questioned but respected and obeyed. Of course, subscription to such a contract would, in the case of Singapore, conveniently rule out the need for any political opposition in view of the PAP's past performance.

The PAP's new emphasis on Confucianist ethics was particularly geared towards reversing the attitudes of the younger generation. Lee saw the young increasingly attracted by Western lifestyles and values. This was, according to Lee, in part the influence of Western television programmes but also a by-product of less effective transmission of traditional values through the family. Working mothers were unable to devote the necessary time to countering the intrusion of Western values. In this respect, Lee saw the restoration of the three-generation family as a crucial consideration:

The three-generation family is a rarity in Western Europe and in America. Yet it is still common in Japan, South Korea, Taiwan or Hong Kong, despite their industrialisation and modernisation. It is a question of family structure, of social framework, of filial ties and bonds, which hold family units together. Our strong family structure has been a great strength for continuity in bringing up of the next generation. The family has transmitted social values more by osmosis than by formal instruction. We must preserve this precious
family structure if our society is to regenerate itself without loss of vigour, compassion and wisdom.\textsuperscript{116}

Lee seemed to think that the extended family structure provided an important medium through which Confucian ethics could be transmitted, and in which they were epitomised. At the same time, the government saw the revival of the three-generation family as one means by which the pressure for public housing could be relieved. Towards this end, the government introduced measures which gave applications for public housing involving extended families special priority.\textsuperscript{117} The government's promotion of filial piety was certainly to some extent motivated by the expected short-fall in land available for public housing.\textsuperscript{118} It provided a convenient justification too for the government's attempts to curtail welfare spending and allow it to concentrate on expanding economic development expenditure.

Apart from the decadence of the young in their subscription to Western values, Lee was also worried about, what he saw as, a "disbelief in the durability of change we have wrought in Singapore".\textsuperscript{119} Lee talked of the need to stem the impatience of the young whom he saw as trying to "get their share of the cake before the boom slowed down".\textsuperscript{120} This attitude was completely counter to what Lee saw as necessary for the 1980s. Only through a belief in the inevitable long term benefits to the whole nation resulting from 'team work' could Singapore realise the ambitious goals being set:

The more impatient the young are in wanting their share of the cake, the more they will check the pace and the permanence of our growth.

The more Singaporeans, young and old, conduct themselves on the assumption that this transformation requires a sustained long-termed effort, the more quickly we shall maintain high growth through the 1980s and 1990s.\textsuperscript{121}

It is in the context of this long term vision of the PAP's leaders that the government's concern over attitudes must be seen. There was by no means any immediate problem posed by Singapore's younger generation.

Through Confucianism, it was hoped that the primary concern for self-interest amongst the country's workers might be replaced with a greater sense of
national identity. This would enhance social cohesion and a feeling of social responsibility towards decreed national goals.\textsuperscript{122} It is likely that the government placed some hope in this responsibility curbing impetuosity at the political level as well as creating a more compliant attitude towards restructuring and a greater tolerance for welfare cuts.

Though not recognised by the government, the supposed 'decadence' of Singapore's younger generation was as much a consequence of the government's suppression of political culture as it was a by-product of affluence. After all, Singaporeans had been systematically discouraged from critically assessing the values underlying their own society. They had been persuaded to equate good government with the ability to raise material standards of living or, more abstractly, increased GDP. The government's legitimacy was premised on the ideology of rapid economic growth and the immediate interest of all Singaporeans to achieve this. The government had represented material benefit as a trade-off for an active and critical political culture. It was one or the other. The elitist decision-making process of the PAP and the lack of any deep-seated values beyond the ideology of economic growth characterised the government. Commitment to the PAP was thus, not surprisingly, based on pragmatism rather than any higher or more abstract principles; and it was upon this basis that the Party earned its legitimacy. Self-interest and materialism were logical attitudes for Singaporeans to develop in such a context.

The government's perceived need to promote Confucianism has raised a number of questions and problems. In the first place, there is the question of whether the sort of obedience and respect for authority associated with Confucianism is appropriate to the development of a higher stage in Singapore's industrialisation. As a didactic code, Confucianism leaves no scope for critical analysis, a quality which is arguably already in short supply in Singapore.\textsuperscript{123} Certainly it is no coincidence that Japan's rapid post-World War II industrialisation has gone hand-in-hand with the decline of Confucianism and the rise of liberal democratic practices. A certain amount of public debate and the critical
exchange of ideas plays a role in promoting creative capacities useful to capital and industry. Creativity and imagination will be called upon more so in Singapore if industry is to become engaged in the innovative production of goods and services in higher technology. The government may be seeking to implement values pertinent to a stage in social and economic development quite different from that now being sought for Singapore.

The primary concern which prompted the promotion of Confucian ethics, with emphasis on filial piety and obedience to government, was the PAP's long term legitimisation. It was hoped that this would work at two levels: first, by instilling appropriate attitudes of reverence for the government; and second, by alleviating housing problems which had a proven capacity to manifest politically. The PAP has always seen its complete dominance of formal power as a necessary pre-requisite for the industrialisation of Singapore, a perception which helps explain the apparent over-reaction to the PAP's loss in Anson in 1981. This reaction, however, emphasises another feature of the PAP - its belief in dealing with perceived political problems when they are in their infancy.

Conclusion

It has been explained in the discussion above that the government's active encouragement of capital restructuring extends well beyond immediate economic policies. It has, amongst other things, involved a reconstitution of trade unions to establish a structure of control over labour more consistent with the needs of capital in a higher stage of industrialisation. The utilisation of unions for social engineering, however, also requires a capacity and willingness from union leadership to exploit this structure in the way intended. Therefore, increasingly the PAP has made its domination of key NTUC posts a priority. The government has emphasised that in times of rapid capital restructuring in the 1980s, labour discipline becomes even more crucial if Singapore is to attract the sorts of investments desired. Ensuring that discipline, however, has engaged the government in an address of wider ideological, political and social considerations.
Domination of the NTUC and a restructuring of trade unions does not, in itself, guarantee a willing commitment from workers to capital restructuring. In conjunction with these changes then, we have seen a concerted, if not too subtle, attempt by the PAP to create an ideological acceptance of rapid restructuring. Productivity, as a concept, has been promoted as a national goal, towards which some short term sacrifice or inconvenience might be required. In recognising that ultimately increased productivity is for everyone's benefit (without any necessary structural change to influence the distribution of rewards), workers have been called upon to adopt the highest possible level of co-operation with capital in raising productivity. Singaporeans have been urged to work as a team, and reject as irrelevant and mischievous notions of class or sectional interest.

In the above, we have also seen that the PAP feels that if its own political hegemony can be assured on a long term basis then successful economic restructuring is likely to follow. Without PAP hegemony, however, there can be little prospect for Singapore. As a result, workers' attitudes to capital and the electorate's attitudes to the PAP are seen to be closely related and deserved of simultaneous address. Political and social stability in Singapore can only be maintained by the population suitably appreciating this nexus between the PAP and industrialisation and, indeed, economic growth generally. As we have seen, towards instilling such an appreciation, and thereby avoiding any long term challenge to this nexus, the PAP has introduced various 'carrot and stick' policies and has even resurrected Confucianism as a guiding philosophy towards this end. In conjunction with the promotion of the ideological notion of productivity as a technical process which embodies the interests of all classes, the government has been busy trying to foster the internalisation of various other ideological notions in support of its own political hegemony. Although much of this ideology suggests the opposite, the government itself seems by its actions to be fully aware that capital restructuring is an intensely political process.
FOOTNOTES

1. By June 1982, the NTUC had aggregated total assets of $245 million in its business operations. Though the government saw the profitability of NTUC co-operatives and ventures as a positive development, it was concerned about the use to which large sums might be put by individual unions. For a brief account of the composition of NTUC assets see Patrick Smith, "A Congress of Welcome, Comfort and Income", Far Eastern Economic Review, 25.6.82, p.62.


3. This meant that of a total union membership of around 225,000 in Singapore, about 100,000 was concentrated under Phey. See Patrick Smith, "The Union Engineers", Far Eastern Economic Review, 25.6.82, pp. 57-58.


5. Lim Chee Onn, "NTUC Plan of Action For The '80s", Paper Presented at The NTUC Seminar on Progress into the 80's, 6-10 November 1979 in National Trades Union Congress, Progress Into The 80's, Singapore: The Singapore National Trades Union Congress, 1980, p.81.

6. The nine unions were: United Workers of Electrical, Electronic and Electrical Industries; Textile Industries Workers' Union; Metal Industries Workers' Union; Shipbuilding and Marine Engineering Employees' Union; Chemical Industries Employees' Union; National Transport Workers' Union; Food and Beverage Industries Workers' Union; Singapore Industrial and Services Employees' Union; Building, Construction and Timber Industries Employees' Union. The largest of these was the United Workers of Industrial, Electronic and Electrical Industries with 30,000 members. See Patrick Smith, "The Union Engineers", Far Eastern Economic Review, 25.6.82, p.59.

7. Lim Chee Onn, for example, was a founder member of seven of the nine new unions. See ibid.

8. These were: Far East Levingston Organisation (FELLO); Jurong Shipyard Employees' Union (JSEU); National Iron and Steel Mills Employees' Union (NISMEU); Post Office Savings Bank Employees' Union (POSEEU); Singapore Broadcasting Corporation Staff Union (SBCSU); and Union of Telecoms Employees of Singapore (UTES).


12. In the Prime Minister's May Day Message in 1980, he openly acknowledged that the new proposals for trade unions would demand wider leadership: "The reorganisation will allow more leaders at branch levels to learn to exercise their judgement as responsible leaders. Under a general union a
few persons at headquarters control most decisions. This reorganisation into ten industrial groups, and several big house unions, will require more ground leaders to be trained to exercise authority in their own right”. See Lee's May Day Speech in Singapore Economic Bulletin, June 1980, p.51.


15. As quoted in Foo Choy Peng, "Don't Block Moves to Form House Unions", Singapore Monitor, 29.7.83.


18. "Three Try to Buck the Break-Up", Asiaweek, 6.7.84, p.38.

19. On 2 June a letter through the plaintiffs' lawyers demanded an explanation within one week as to why the formation of house unions was decided upon without a mandate. Letters signed by 300 members were also sent to Lee Kuan Yew, on 30 May, and C.V. Devan Nair, on 4 June, raising the same question. The members petitioned Lee for a referendum. Another petition was sent to SATU President Peter Tan to treat house union applications as "null and void until such time as a referendum is held". Yet another letter, on 9 June, requested the executive council to convene a delegates' conference. See ibid.

20. ibid.


24. "Trade Union Bill Passed", Singapore Economic Bulletin, January 1983, p.32. The update replaced a 40-year old definition which was, at the time, appropriate according to the PAP since under colonial rule "employers generally exploited workers to maximise profits". The situation no longer existed, supposedly, because of appropriate industrial dispute systems and a government which was not a slave to British capital.

25. The registrar of trade unions came under the jurisdiction of the Labour Ministry.


27. Lee observed in his 1980 May Day Message: "What is your role as union branch leaders and activists? It is, in co-operation with the government
and with management, to help your members realise their full potential in knowledge and skills. This will enable our workers to achieve their highest productivity on the machines they work, given the management strengths they work under, and the habits of co-operation with fellow workers that they can develop". As cited in Singapore Economic Bulletin, June 1980, p.46.


29. Although Lee was particularly irritated by the industrial action of the pilots, he was also less than satisfied with the approach of the SIA management. See Lee Kuan Yew, "People Who Try Their Luck at Every Election", Straits Times, 20.12.79.

30. The deregistration was based on the argument that the SIAPA had been, and was likely to be in the future, used against the interests of aviation workers. See Leslie Fong, "New Union For Pilots", Straits Times, 27.2.81.


32. In subsequent years, the PAP constantly reiterated this theme at every opportunity. Particular attention was paid to this by the Secretary-Generals of the NTUC. See, for example, "Chee Onn: Forge A Quality Team of Workers and Bosses", Straits Times, 1.1.81 and Ong Teng Cheong, "PAP-NTUC Symbiosis", Presentation of NTUC Secretary-General's Report, Plenary Session of the NTUC Ordinary Delegates' Conference, 27 April 1984, in Singapore Economic Bulletin, June 1984, pp. 27-28.

33. See Chapter 6.


35. These included Sam Chong Keen, 30 years-old (Secretary for co-operation); Liew Heng San, 28 years-old (international affairs); Ong Yen Her, 38 years-old (industrial affairs) and Michael Heng, 30 years-old (leadership training and trade unions education).


39. As quoted in Philip Lee, "P.M.'s Call for Qualitative Change: 'Learn to be Team Players'", Straits Times, 1.5.81.

40. As quoted in ibid.


47. QCCs were actually first developed in the US, though more extensively applied in Japan. Essentially they involve worker participation, involvement and contribution to product development through joint management and worker meetings. In contrast, WITs are usually comprised of select personnel and are less industry based as groups. See "Other Ways to Productivity", *The Singapore Manufacturer* 5 (2), 1982, p.11.


49. See Philip Lee, "P.M.'s Call for Qualitative Change: 'Learn to be Team Players'", *Straits Times*, 1.5.81.

50. As quoted in "Submissions on Higher Output Were Instructive – PM", *Straits Times*, 22.8.81.


57. For details of the companies involved see ibid. and Toh Su Fen, "The Seven Pioneers of Company Welfarism", Singapore Monitor, 30.3.83.


59. See ibid. in which a Japanese professor is quoted as observing: "From the Tokergawa feudal days, the state has never been understood as a concept having as its foundation the establishment and consolidation of the rights of private individuals ..."


61. In 1982, those above 60 years of age numbered 183,000, or 7% of the population. It is projected by the government that this will rise to 8% by 1990 and 12% by 2000. See ibid.

62. One calculation suggests that the average Singaporean's Medisave account would afford just 18 days' hospitalisation in a working life. ibid., p.32.

63. This survey was commissioned by the Ministry of Labour which was contemplating introducing legislation to curtail job-hopping.

64. As quoted in Fong Mew Leng, "Local Workers in Favourable Light", Singapore Business Times, 20.8.81.

65. See Lutton's comments in ibid.


70. The seven recruits included C.V. Devan Nair (55 year-old unionist), Eugene Yap (36 year-old chemist), Howe Yoon Cheng (56 year-old civil servant), Teh Cheong Wan (51 year-old Director of Jurong Town Corporation), Dr Tony Tan (39 year-old bank manager), Rohan bin Kamis (29 year-old computer scientist) and Koh Lip Lin (43 year-old lecturer). Not all of these recruits could be termed Second Generation, but certainly again the emphasis was on professional, managerial and bureaucratic elites. See Shee Poon Kim, "Political Leadership and Succession in Singapore", in Peter S.J. Chen (editor), Singapore Development Policies and Trends, Singapore: Oxford University Press, 1983, pp. 186-187.


72. The average age of the 18 new candidates was 39, with most of them having had a tertiary education. Again, the majority of these candidates came from professional and managerial occupations. The new members were: Dr Wong Kwei Cheong (38 year-old Managing Director), Othman bin
Haron Eusofe (40 year-old Deputy Director, NTUC Research Unit), Professor S. Jayakumar (41 year-old Dean, Faculty of Law, National University of Singapore), Dr Tan Cheng Bock (40 year-old medical doctor), Lim Boon Heng (33 year-old Manager), Dr Wan Soon Bee (40 year-old Manager), Goh Chee Wee (34 year-old Director), Dr Tay Eng Soon (40 year-old civil servant), Dr Chau Sik Ting (40 year-old medical doctor), Said bin Shariff (40 year-old instructor, National Youth Leadership Training Institute), Mohammad Kasim Abdul Jabbar (47 year-old supervisor, Keppel Shipyard), Chandra Das (41 year-old Managing Director, Intraco), Wan Hussin bin Haji Zoohri (42 year-old Senior Inspector of Schools), Michael Liew Koh Pun (36 year-old General Manager, NTUC Comfort), Abbas bin Abu Amin (age not known, officer in Singapore Armed Forces), Dr Yeo Ning Hong (37 year-old chemist), Lee Yock Suan (34 year-old Director of Economic Development Board's Industry Division) and Lau Ping Sum (39 year-old data processing Manager, Overseas Union Bank). See Shee in Chen (editor), 1983, pp. 189-191.


74. ibid.


76. "Along Against the Odds", Asiaweek, 13.8.82, p.22.


78. Starting in the 1982 Budget, expenditure allocated to public housing was further boosted, with the aim of 290,000 new Housing and Development Board flats by 1990. The government also signed contracts with construction companies in February to put up 30,000 prefabricated apartments in the next six years, thus hopefully shortening the waiting periods. See "Prefabricated HDB Flats to Help Ease Shortage", Singapore Business Yearbook 1983, p.79.

79. Goh Chok Tong was in charge of the campaign.


84. Apart from the very hostile reception received in parliament, Jeyaretnam was also subject to various forms of official intimidation. For example, when Jeyaretnam requested the use of the former Anson MP's office the request was not granted for several months. Further, as though not to recognise Jeyaretnam's legitimacy, the Prime Minister's office refused to allow Jeyaretnam to act as an advisor to the official community organisations in Anson, normally the function of the local MP. See "Alone Against the Odds", Asiaweek, 13.8.82, p.19 and Patrick Smith, "Ignoring an Opponent", Far Eastern Economic Review, 15.10.82, p.32.
Upon this announcement, the Herald and Weekly Times Ltd pulled out of its participation in Singapore's New Nation newspaper and sold its 3% stake. Chairman of the Herald and Weekly Times Ltd, Sir Keith MacPherson wrote to Prime Minister Lee Kuan Yew stating: "The action of your government in appointing a government representative as executive chairman of the Straits Times publishing company has compelled me to sever my connection with the New Nation organisation ..." "Herald and Weekly Times Ltd. is a staunch supporter of the principles of freedom of the press ... Quite obviously, therefore, it is not possible for us to continue an association with a newspaper which is now clearly government-dominated". As quoted in Ian Gill, "Australian Publisher to Sell Stake in Singapore's New Nation Daily", Asian Wall Street Journal, 22.4.82. For some background on S.R. Nathan see "Nathan to Join Straits Times Board", Straits Times, 8.2.82.

It was reported in "Alone Against the Odds", Asiaweek, 13.8.82, p.13, that PAP leaders were infuriated when they learned that some Straits Times reporters had cheered when news of Jeyaretnam's win appeared on television.

Singapore Monitor Limited was financed by three local banks, one of which, the Overseas Union Bank, was given official permission to exceed the 30% shareholding legal limit. This was intended to "provide strong management backing" for the new holding company. See John A. Lent, "Restructuring of Mass Media in Malaysia and Singapore – Founding in the Coffin Nails?" , Bulletin of Concerned Asian Scholars, 4, 1984, p.30.

The Overseas Union Bank was the largest shareholder of Singapore News and Publications with 11,586,659 shares, followed by the United Overseas Bank and the Development Bank of Singapore with 1,158,657 shares each. Lee Kuan Yew's Press Secretary, James Fu, was also a minor shareholder with a token two shares. See "In Singapore, An 'Old Couple' Weds", Asiaweek, 8.4.83, p.69.


By October 1982, Singapore had 240 Resident Committees as well as CCCs in all constituencies. See Patrick Smith, "PAP's Political Primers", Far Eastern Economic Review, 15.10.82, p.30.

This miscalculation had largely been blamed on the naivety of the Second Generation leaders but the postmortems of Lee on the Anson loss also hinted that the PAP as a whole could benefit from a closer examination of the electorates' responses to policy.
97. This did not mean that existing Second Generation leaders were necessarily in danger of demotion. Of the group of seven young technocrats named by Lee in January 1980 as cabinet members, only Lim Chee Onn was to leave the cabinet in the wake of Anson, and that was in July 1983 after being sacked as NTUC Secretary-General.

98. Goh Keng Swee, for example, was one of the Old Guard who was persuaded to stay on when Lee became worried about the outcome of any further by-elections.


100. "New Faces in the Central Committee", Straits Times, 16.11.82.

101. At the Biennial Conference, Lee set 1990 as the time limit for himself and most of the Old Guard to hand over the leadership to the Second Generation. He made it clear that in working towards this timetable, the PAP would have to resume the policy of blooding new leaders now in order to ensure that Singapore is left in safe hands. See "Time Limit for the Old Guards. Young Leaders Need Sparring Partners", Asia Research Bulletin, January 1983, p.1005.


103. ibid.


105. See "Two Top Aims for Party and Nation", Straits Times, 16.11.82.


107. ibid.


109. It included: the possibility that some seats would not be contested by the PAP; a second chamber of parliament to accommodate critical discussion of PAP policies; and the establishment of two-MP constituencies, with one MP set aside for the opposition. See "Lee's Plan for a Better Opposition", Asiaweek, 14.1.83, p.11 and Michael Richardson, "Wanted: An Opposition", Far Eastern Economic Review, 6.1.83, pp. 11-12.


111. June Tan, "Confucian Ethics for Schools", Straits Times, 4.2.82.

112. ibid.

113. As quoted in ibid.
114. See Goh’s remarks about the parallel between the Weberian concept of the Protestant Ethic and its role in development and Confucian Ethic in Asian countries in ibid.

115. Apart from the obvious political appeal of such a notion, the PAP also felt that various similarities of circumstance characterised ancient China and modern Singapore, notably the sense of external and internal threat. See Patrick Smith, "An Ancient Code for a Better Tomorrow", Far Eastern Economic Review, 7.5.82, p.22.

116. As quoted in Leslie Fong, "Our Two Vital Social Tasks – P.M.", Straits Times, 8.2.82.

117. Through the Housing Development Board, a Multi-Tier Family Housing Scheme was introduced to encourage the extended family lifestyle. Among the concessions to eligible applicants were a three-year retrospective priority over other applicants, a longer period of loan repayment, purchase of a larger flat with no loss of priority and a smaller deposit payment for those with insufficient CPF savings. See Housing Development Board, Annual Report 1982/83, p.9.

118. Lee argued that, based on anticipated population growth, Singapore's population by 2030 would be 3.6 million. Assuming an occupancy rate of 4 people per household, this necessitated 900,000 total units of housing. In other words, a further 400,000 units of public housing would be required after taking into account growth in private housing. Lee contended that Singapore had sufficient land to cater for such expansion. If, however, Lee argued, grandparents were to live by themselves, Singapore would require 1.2 million units of public and private housing or another 700,000 more public units. This, warned Lee, was beyond Singapore's land capacity. See Leslie Fong, "Our Two Vital Social Tasks – P.M.", Straits Times, 8.2.82.


120. As paraphrased by Leslie Fong, "Our Two Vital Social Tasks – P.M.", Straits Times, 8.2.82.

121. Lee Kuan Yew, as quoted in ibid.


123. ibid.
CHAPTER 11

PROGRESS OF THE NEW ECONOMIC STRATEGY

Introduction

Having spent the last two chapters outlining the government's economic strategy since 1979 and the various social, political and ideological measures adopted in its support, it remains to examine the subsequent response of investors. From the outset, however, it must be emphasised that the following discussion is not intended to prove or disprove the validity of the government's strategy. Investment patterns obviously represent a response to a complex variety of factors, of which state policy is one. State policy-makers are, of course, fully aware of this and the intention of any economic strategy is usually to exploit these factors wherever possible. The task of isolating the effect of specific state policies is thus by no means easy and, indeed, to some extent obscures the important point that the relationship between state and capital is a dialectical one rather than cause and effect. Nevertheless, whilst acknowledging this, it is assumed in this chapter that through a study of international capital in Singapore since 1979 we may at least be able to clarify some of the considerations which have influenced investment decisions in this period.

Whilst the government's new economic strategy aims at Singapore assuming a more technologically sophisticated position in the new international division of labour, one of the official reasons for urgent restructuring is the need to arrest and, in turn, alleviate the economy's dependence upon guest labour. Thus, by the government's own definition the progress of the strategy also needs to be measured by the degree to which such dependence has been broken. As we shall see immediately below, it appears the strategy has been less successful in this respect than in facilitating restructuring.
Phasing out Guest Labour

As we shall see in greater detail later, significant increases in productivity did occur in the manufacturing sector following 1979. Value-added per worker increased from $23,800 in 1979 to $34,500 in 1981, an increase of 44.96%, before slowing in 1982 due to the recession when employers held on to labour in spite of production cutbacks. In 1983, value-added per worker stood at $36,200 (see Table 17 above). As pointed out earlier, it was intended that increased productivity, which the government tried to enforce through its corrective wage policy, would lead to reduced dependence on foreign labour.1 However, despite productivity gains, the rapid pace of economic growth in the Singapore economy witnessed continued use by employers of the liberalised work permits for foreign workers.

Details on the increase in foreign labour are not available since such statistics have only been collected in the 1970 and 1980 censuses. According to the 1980 Census of Population there were 80,000 non-residents working in Singapore, an increase of 56,000 over the official 1970 figure.2 On top of this, there was probably at least another 20,000 illegal guest workers. Whatever the exact extent of growth in the number of foreign workers entering Singapore after

---

**Table 17: Manufacturing Sector, 1979-1983**

<table>
<thead>
<tr>
<th>Year</th>
<th>Value Added* $M</th>
<th>Value Added* Per Worker $000</th>
<th>Direct* Exports $M</th>
<th>Foreign** Investment (Gross Fixed Assets) $M</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>6,412.9</td>
<td>23.8</td>
<td>16,203.0</td>
<td>6,349</td>
</tr>
<tr>
<td>1980</td>
<td>8,521.9</td>
<td>29.9</td>
<td>19,172.9</td>
<td>7,520</td>
</tr>
<tr>
<td>1981</td>
<td>9,720.5</td>
<td>34.5</td>
<td>22,375.3</td>
<td>8,593</td>
</tr>
<tr>
<td>1982</td>
<td>9,355.9</td>
<td>34.0</td>
<td>21,858.7</td>
<td>9,607</td>
</tr>
<tr>
<td>1983</td>
<td>9,822.1</td>
<td>36.2</td>
<td>22,640.8</td>
<td>10,514</td>
</tr>
</tbody>
</table>


1979, there had apparently been a sufficient increase in the number of workers from non-traditional sources (NTS) to prompt a significant government response. Having warned employers that liberalised foreign work permits were only a short term measure to reduce the problems involved in raising productivity, in January 1982 Prime Minister Lee Kuan Yew announced plans to forceably phase out all NTS guest labour receiving a monthly income of below $500 by 1984. Exception was made for workers required in the construction, shipbuilding and repair, and domestic service industries for which the deadline was the end of 1990.³

Just as the plan to phase out foreign labour through higher wages encountered problems, so too did the attempted enforced phasing out. The permit restrictions soon acted against the government's objective of realising economic growth rates of between 8% and 10% for the decade. Various companies, including many which had responded to the government's call for greater automation and mechanisation, were having to shelve plans for expansion for lack of labour. The policy led to a general uneasiness by employers about the future.⁴ As a result, in late 1982 the government decided to introduce minor concessions on the entry of NTS guest workers. Under the concessions, which were to take effect from January 1983, employers were allowed to extend the stay of NTS workers who were due to be repatriated by December 1984 by another one to two years. The number of NTS workers for whom extensions of permits would be made, however, was not to exceed 5% of a company's workforce and was subject to a ceiling of 50 NTS workers.⁵

Despite the minor concessions on NTS work permits and the relaxation of the original deadline for phasing out all NTS workers in Singapore, these proved insufficient to allay employers' fears once manufacturing demand improved in 1983. In these circumstances, the government found it necessary to introduce further concessions. In November 1983 major concessions were extended to companies deemed 'deserving', that is, those which had engaged in, or planned for, increased automation and mechanisation. Such companies were able to retain up
to 60% of their NTS workers or a number equivalent to 5% of their total workforce (whichever were the more favourable) until 1986. There would be no granting of new permits for NTS workers but extensions could be obtained for up to 6,500 existing permit holders, exactly half the total number of NTS workers who were due to be repatriated by the end of 1984.6

The government’s resort to the enforced phasing out of NTS guest workers and the subsequent relaxations of policy suggest that significant reductions in such labour might not be achieved without problems. A smooth phasing out is dependent upon productivity increases significantly arresting employment growth. These will need to be quite remarkable to totally avoid bottlenecks. Since 1979, when the total domestic workforce of Singapore was 1,035,000 and grew by 6.14% over the previous year, it has generally slowed in growth to 1,186,400 in 1983, an increase of 3.05% on 1982.7 This trend can be expected to continue since it is a function of Singapore’s declining population growth which has fallen from 4.4% in 1957 to 1.5% in 1980.8 There is, therefore, a structural constraint on the scope for domestic labour force expansion. The government’s plan, of course, is that the reduced domestic workforce expansion will be offset by the rising productivity and restructuring of industry which requires less labour for the same production. The problem is, however, that employment growth in the Singapore economy has been outstripping the growth in Singapore’s domestic labour force in spite of significant increases in productivity. This is the consequence of rapid economic growth. Another obstacle to the government’s plan of phasing out foreign labour is that, even though there has been a significant reduction in the number of people employed in the manufacturing sector lately, down from 285,250 in 1980 to 271,106 in 1983,9 this has not directly translated into a proportionate cutback in foreign labour. Some manufacturing jobs, which cannot be completely eliminated by moving into higher value-added production and increased productivity, remain unattractive to Singaporeans. Unemployment or, in the case of women, leaving the workforce is often preferable to assembly
work. It should be acknowledged too that the reduced employment in manufacturing of late is not just a function of increased productivity but the downturn in the world economy. An improved world economy, and consequent increased demand for Singapore's manufactures, would thus further test the domestic workforce capacity.

Although the government has made some concessions to employers over guest labour, it is emphatic that low-wage NTS labour will be phased out as quickly as possible. In announcing the concessions, the Acting Minister for Labour, Professor J. Jayakumar, stated the government's political concern about guest labour in the clearest possible terms. He argued that NTS guest workers represented a potential destabilising force in Singapore's industrial relations: "You see, they came from countries where they are used to confrontation with employers, instigation, taking up cudgels, which is contrary to our policy of promoting harmonious labour-management relations." The PAP apparently sees a strong correlation between such potentially threatening approaches to industrial relations and workers from non-Chinese-dominated cultures.

This distinction between workers from Chinese and non-Chinese-dominated cultures was further emphasised in the government's January 1984 decision to remove restrictions on guest workers from Hong Kong, Taiwan, Macao and South Korea who can, as a result, stay in Singapore until 1991. Thereafter they will be eligible to apply for Singapore citizenship. This concession, the extending of the Individual Work Permit Scheme to workers from the above-mentioned NICs, is intended to increase the pool of skilled foreign labour. A government-sponsored study published jointly by the Curriculum Development Institute of Singapore, an affiliate of the National University of Singapore, and the Ministry of Trade and Industry had concluded that Singapore would need an additional 2,000 workers per year up to 1990 for the government's projected 8% to 10% economic growth rates to be achieved. Even this estimated labour requirement was based on an optimistic assumption of productivity increases of 7% to 8% a year until 1990.
It has become increasingly accepted by the government, therefore, that increased foreign labour will be necessary if higher value-added industries are to expand as expected. The government maintains, however, that the more skilled workers from Asia's NICs would, due to cultural similarities, be easily assimilated into Singapore.  

General Manufacturing Development

Although the trend in guest labour since 1979 has not completely matched the expectations or objectives of the government, broad developments in the economy and the manufacturing sector have been more satisfactory. Gross domestic product (GDP) for the total economy has risen at an annual average of 8.6% (at 1968 market prices) from 1979 to 1983. Growth rates for the manufacturing sector have been slightly lower owing to the slackened demand for its exports, upon which it is heavily dependent, resulting from the global recession which hit Singapore in 1982. Still, with average annual GDP increases of 7.4% (at 1968 market prices) for the period, there has been quite significant development. However, due to the lower than average growth rate, the manufacturing sector's contribution to total GDP has fallen from 22.6% in 1978 to 20.4% in 1983, after having risen to 24.1% in 1980 (see Table 18 below). The sector will, therefore, require a considerable relative improvement in its growth rate if the government's original target of a 31% contribution by manufacturing to total GDP by 1990 will be achieved. As we shall see below, however, falling behind this target has not hampered progress in respect of other government objectives for the sector.
Table 18: Gross Domestic Product, 1978–1983

<table>
<thead>
<tr>
<th>Year</th>
<th>All Sectors</th>
<th>Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total $M</td>
<td>Growth %</td>
</tr>
<tr>
<td>1978</td>
<td>11,074.0</td>
<td>-</td>
</tr>
<tr>
<td>1979</td>
<td>12,114.1</td>
<td>9.4</td>
</tr>
<tr>
<td>1980</td>
<td>13,366.5</td>
<td>10.3</td>
</tr>
<tr>
<td>1981</td>
<td>14,695.2</td>
<td>9.9</td>
</tr>
<tr>
<td>1982</td>
<td>15,627.5</td>
<td>6.3</td>
</tr>
<tr>
<td>1983</td>
<td>16,869.0</td>
<td>7.9</td>
</tr>
</tbody>
</table>


The growth of the manufacturing sector from 1979 to 1983 was not accounted for by any radical turnaround by particular industries within the sector. The dominant contributors to value-added and output growth were the already-established petroleum refineries and petroleum products, electronic components and products, fabricated metal products, and non-electrical machinery industries (see Tables 3 and 4 in Appendix). In addition to these, however, there were other industries with exceptionally high relative growth rates which came into prominence in the period. The structural cement and concrete products industry was the fastest expanding industry in relative terms, with value-added increasing by 515% and output 529%. The boom in the construction of public housing and industrial infrastructure naturally stimulated this industry. The paints, pharmaceutical and other chemical products industry was the next fastest in relative terms, value-added expanding by 121% and output by 106%. Another rapidly growing industry in this period was the printing and publishing industry which expanded value-added by 112% and output by 93%.

There is a limit to what can be deduced from the above without a more detailed examination of the nature of expansion within individual industries. This will be largely left to the subsequent section of this chapter which deals with...
patterns of investment. A couple of cautious observations here are nonetheless appropriate. For one thing, the fast growth of the structural cement, paints, pharmaceutical and other chemical products, and the printing and publishing industries represented the continuation of the broadening of Singapore's industrial base which had begun before 1979 but was now gathering momentum. For another, it is significant that these industries are for the most part high value-added ones. The paints, pharmaceutical and other chemical products industry value-added per worker was three-fold that of the total value-added per worker in the manufacturing sector in 1983. The structural cement and concrete products industry was 44% higher. The printing and publishing industry was only marginally lower in value-added per worker than that of the overall sector in 1983 (see Table 7 in Appendix).

Interestingly, at the same time as the above developments, the traditional low value-added textiles industry suffered a significant decline in growth. Value-added dropped by 32% and output by 36% from 1979 to 1983. Another low value-added industry, the sawntimber and other wood products (except furniture) industry, suffered a 37% drop in value-added and a 41% drop in output. Whilst both industries were particularly badly hit by the global recession, as much as anything else their declines reflected the general diminishing of competitiveness of Singapore in low wage, low value-added production. This decline was accentuated but not caused by the recession.

The above discussion suggests that in broad industry category terms the pattern of manufacturing growth from 1979 to 1983 was in keeping with the government's objectives. Of course, this observation is somewhat superficial. Not only is there the question of developments within industries, but it is the general raising of productivity of industry which must accompany economic growth for the government’s strategy to be successful.

Productivity increases in the manufacturing sector have been quite substantial from 1979 to 1983. Value-added per worker has increased by 51.1% in
this period, with an average annual growth of 13.0% (at current market prices).\(^{19}\) This includes an actual decline in value-added per worker in 1982 when there was a much faster reduction in production than in the number of workers employed. In this year, Singapore was feeling the full effects of the global recession but employers were reluctant to lay off any more workers than necessary for fear of insufficient labour in the event of an upturn in demand.

On an industry basis, the most substantial absolute gains in value-added per worker in the 1979-1983 period were recorded by the cement (up $94,700), petroleum refineries and petroleum products (up $83,000), cigarettes and other tobacco products (up $68,800) and paints, pharmaceutical and other chemical products (up $49,700) industries (see Table 7 in Appendix). In relative terms, the most substantial gains were recorded by cigarettes and other tobacco products (up 199%), structural cement and concrete products (up 116%), paper and paper products (up 113%), and cement (up 108%).\(^{20}\) We have to be careful as to what significance we attach to these increases, since substantial increases in industries with small bases need not have a great impact on the manufacturing sector at large. Bearing industry bases in mind, then, the above average increases in value-added per worker by the fabricated metal products (up 61\%) and electronic products and components (up 53\%) industries was an impressive achievement.

One of the trends in the 1979-1983 period which has been especially pleasing for the government has been the increased productivity of some of Singapore's traditional, low value-added industries. Through increased automation, mechanisation and product upgrading, the paper and paper products (up 113\%), furniture (up 56\%), wearing apparel (up 54\%) and textiles (up 49\%) industries have made significant gains in value-added per worker.\(^{21}\) The increased productivity of the textiles industry, in spite of substantial overall declines in value-added and output, reflects the considerable rationalisation and restructuring characterising the industry since 1979. Through automation and mechanisation and the shift in emphasis to high fashion, the industry is becoming more narrowly focused but
better placed to maintain international competitiveness. This, of course, is the sort of direction which the government's strategy implies for all low wage, low value industries. Data on productivity, however, suggest that there are still some industries in which such upgrading is happening far too slowly for the government's liking. These include the leather (up 27%) and footwear (up 41%) industries which in 1983 still had value-added per worker levels of just $13,100 and $14,500 respectively (see Table 7 in Appendix).

As we shall see in greater detail later, the improved manufacturing productivity from 1979 to 1983 reflects a vast range of upgradings by industry. It has been pointed out in earlier chapters that this upgrading process actually began gathering momentum in the early 1970s. Of late, however, the pace has picked up considerably. This is partly reflected in the increase in capital expenditure by industry, up by 48% from 1979 to 1983. This compares with a 32% increase in capital expenditure from 1974 to 1978. The government's strategy did not initiate these increases, however, since between 1978 and 1979 there was a 73% increase in capital expenditure. Indeed, this was one of the factors which gave the government the confidence to implement its strategy. Since then, however, we have seen a consistently high proportion of capital expenditure devoted to increasing the organic composition of capital. In 1983, for example, of the total capital expenditure in the manufacturing sector of $2,113,351,000, as much as $1,198,974,000 or 57% went into new machinery and equipment. This trend will need to be sustained throughout the decade, of course, for the large scale restructuring of industry in Singapore.

Though the government's new economic strategy sought a shift in emphasis to the production of higher value-added manufactures which were less sensitive to protectionism, the strategy was still founded on export-orientation. In the period 1979-1983, domestic exports of manufactures have expanded by 39.7%, from a value of $16,202,989 to $22,640,771 (see Table 5 in Appendix). In spite of this, however, the export/output ratio of the sector has fallen from 64.2 in 1979 to 60.8
in 1983 (see Table 2 in Appendix). This is obviously in large part due to recessionary effects, but it also reflects the maturation of the domestic market. Despite this relative decline in exports, in absolute terms exports have continued to largely define the pace and direction of Singapore's industry in the 1979-1983 period.

In absolute terms, the major domestic exports from 1979 to 1983 were, in order, from the petroleum refineries and petroleum products (up $1,212 million), electronics (up $2,810 million), non-electrical machinery (up $957 million), transport equipment (up $118 million) food (up $289 million) and electrical machinery (up $283 million) industries (see Table 5 in Appendix). In conjunction with these increases, there were some smaller industries which underwent considerably rapid increases in exports. These included the paper and paper products (up 393%), non-metallic mineral products (up 264%), paints, pharmaceuticals and other chemical products (up 149%) and non-electrical machinery (up 134%) industries. Interestingly, the growth in exports by the paper and paper products industry involved a significant re-orientation towards the Asean market, its contribution to exports up from 8.2% in 1979 to 25.4% in 1983. By contrast, the paints, pharmaceuticals and other chemical products industry export expansion involved a re-orientation towards non-Asean markets, up from 76.6% of total exports for the industry in 1979 to 82.7% in 1983. Overall, however, export growth in manufacturing during this period did not involve any shift in the destination of exports. The ratio of non-Asean to Asean-destined exports changed marginally from 78.8 in 1979 to 78.5 in 1983.

International Capital

General Pattern

As has already been explained in Chapter 9, the strategy for a more capital and technology-intensive EOI programme was centred around the attraction of international capital. Unlike the circumstances in the 1960s, however, when the
labour-intensive phase was promoted, in 1979 international capital was firmly entrenched in the manufacturing sector, being primarily responsible for its shape and direction. In 1979, companies with at least 50% foreign equity accounted for 67.3% of total value-added, 57.5% of all workers and 85.2% of all direct exports of manufactures. International capital had also led the qualitative advances in industry to this point, with wholly foreign-owned companies' value-added per worker being $34,779 compared to $16,676 for wholly locally-owned companies. After 1979, not only did international capital consolidate its dominance of manufacturing with further substantial investment increases, it also rapidly accelerated the introduction of more sophisticated technology and higher value-added products. As a result, by 1983 wholly foreign-owned companies' value-added per worker had risen to $48,995, with that of wholly locally-owned companies reaching $24,381.

Between 1979 and mid-1983, actual foreign investment (in gross fixed assets) increased from $6,349 million to $10,514 million (in current prices), an increase of 65.6% (see Table 10 in Appendix). 1980 was a record year with $1,171 million being invested. Foreign investment commitments also grew remarkably. The total value of net foreign investment commitments grew from $823 million in 1979 to $1,776 million (in current prices) in mid-1983, an increase of 115.7%. This included substantial sums committed in 1980 and 1983 in the petrochemical complex, accounting for as much as $521 million or 63.3% of the total increase for the period. Understandably, commitments suffered due to the global recession. From the EDB's data on the fixed assets per worker and expected value-added per worker of total new investment commitments (both foreign and local), it appears that a fast-growing skill and capital intensity characterised investment commitment between 1979 and 1983. The expected fixed assets per worker rose by 113.7% and expected value-added per worker by 116.8% (in current prices) for these commitments. Foreign investment obviously accounts for the bulk of these increases since it represented an annual average of 68% of total investment.
commitments. It is clear from the data available then that the period 1979-1983 was not only one of record expansion of actual and committed foreign investment, it was also one in which the quality of foreign investment picked up considerably.

In broad industry category terms, the majority of foreign investment entering Singapore from 1979 to mid-1983 was concentrated in petroleum and petroleum products ($1,426 million), electrical and electronic machinery ($998 million), industrial chemicals ($553 million), non-electrical machinery ($532 million) and non-industrial chemical products ($261 million) (see Table 11 in Appendix). In relative terms, greatest gains were made by the industrial chemicals (up 576.0%), non-industrial chemicals (up 169.5%), non-electrical machinery (up 118.8%), electrical and electronic machinery (up 106.4%) and food, beverages and tobacco products (up 86.7%) industries. Of course, even before 1979 foreign investment had been largely concentrated in the three industries of petroleum and petroleum products, electrical and electronic machinery, and non-electrical machinery. Post-1979 developments then suggest a consolidation of the dominance of these three industries, with electrical and electronic machinery increasing its contribution to total foreign investment from 14.8% in 1979 to 18.4% in 1983 and non-electrical machinery's contribution increasing from 7.1% to 9.3%. Primarily due to the exceptional growth in foreign investment in these two industrial categories, the relative contribution of petroleum and petroleum products has declined from 41.4% in 1975 to 38.6% in 1983. This decline in relative, though certainly not absolute, terms has been a gradual one over the last decade, the industry accounting for 55.8% of total foreign investment in 1970. Significantly, the two industrial categories whose growth from 1979 to 1983 represented more of a rise to prominence than a consolidation of dominance in foreign investment were industrial chemicals and non-industrial chemicals – both technology and capital-intensive industries. The former's contribution to total foreign investment rose from 1.5% to 6.2% and the latter's from 2.4% to 4.0%.
In contrast with the consolidation and emergence of foreign investment in some of Singapore's more capital and technology-intensive industries between 1979 and 1983, there was a simultaneous decline in foreign investment in some of Singapore's comparatively lower value-added, labour-intensive industries. Foreign investment in textiles declined by $108 million (down 52.7%), wearing apparel by $65 million (down 47.5%), leather and rubber by $16 million (down 30.2%) and wood and cork by $98 million (down 44.6%) (see Table 11 in Appendix). These industries are precisely those upon which the government intended its corrective wage policy to have greatest impact. Thus, as Singapore's comparative labour cost advantage has been eroded in the least skilled, labour-intensive areas of production, the interest of foreign investors in such industries has significantly waned.

It should be remembered that many of the actual investments by international capital from 1979 to 1983 were committed before 1979 and therefore reflect decisions made prior to the introduction of the government's new strategy. Investment commitments, therefore, represent an even more up-to-date representation of the response of investors since 1979. We have already learned that there have been impressive increases in the expected capital and skill-intensity of these commitments. We can also see from Table 13 in the Appendix that the most heavily committed industries between 1979 and 1983 were, generally, the electrical machinery and appliances and petroleum categories. In absolute terms, however, the electrical machinery and apparatus industry was consistently the most heavily committed, with the exception of 1982 when the effects of the global recession were most acute for the industry. As we shall see in greater detail later, many of the most significant qualitative developments since 1979 comprise these commitments. Apart from the heavy commitments by Singapore's two most dominant industries, the 1979-1983 period is also characterised by high but sporadic commitments in other leading industries. Commitments in non-electrical machinery were high, particularly in 1981 and generally until

There is of course a limit to what can be deduced from foreign investment data based on broad industry categories. We know from data on productivity improvements in what industry categories the most substantial qualitative improvements have generally occurred, but the important differences within individual industries are not highlighted by such data. An appreciation of the most significant developments requires an examination of investments, both actual and committed, within industries. Table 19 below provides a list of the most significant higher value-added projects committed from 1979 to mid-1983. This allows for a superficial appreciation of the breadth of technological sophistication characterising foreign investment since 1979. Towards a more comprehensive and explanatory account of such developments, the discussion below will outline intra-industry investments in greater detail.

Table 19: Some Higher Value-Added Projects Committed, 1979–1983

<table>
<thead>
<tr>
<th>Company</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td></td>
</tr>
<tr>
<td>Digital</td>
<td>computer equipment and parts</td>
</tr>
<tr>
<td>Computer</td>
<td>precision optical instruments</td>
</tr>
<tr>
<td>FJW Industries</td>
<td>blood administration sets</td>
</tr>
<tr>
<td>Japan Medical</td>
<td>specialty pharmaceuticals</td>
</tr>
<tr>
<td>Supplies</td>
<td>lasers and quench tubes</td>
</tr>
<tr>
<td>Glaxo</td>
<td>oil rig elevating mechanisms</td>
</tr>
<tr>
<td>Siemens</td>
<td>powdered metallurgy products</td>
</tr>
<tr>
<td>Baker Marine</td>
<td>microwave links</td>
</tr>
<tr>
<td>Hitachi</td>
<td>vertical pumps</td>
</tr>
<tr>
<td>Electrisk Bureau</td>
<td>switching regulated power supplies</td>
</tr>
<tr>
<td>Worthington Pumps</td>
<td>for computers</td>
</tr>
<tr>
<td>Nemic Lambda</td>
<td>pneumatic controls</td>
</tr>
<tr>
<td>Festo</td>
<td>plastic injection moulding machines</td>
</tr>
<tr>
<td>Netsal</td>
<td>aircraft blades and vanes</td>
</tr>
<tr>
<td>General Electric</td>
<td>food processing research and</td>
</tr>
<tr>
<td>Nestle</td>
<td>development</td>
</tr>
<tr>
<td>1980</td>
<td></td>
</tr>
<tr>
<td>Apple</td>
<td>microcomputers and disk drives</td>
</tr>
<tr>
<td>Computers</td>
<td>floppy disk drives</td>
</tr>
<tr>
<td>MicroPeripherals</td>
<td>computer equipment and parts</td>
</tr>
<tr>
<td>Hewlett</td>
<td>wafer diffusion</td>
</tr>
<tr>
<td>Packard</td>
<td>wafer diffusion</td>
</tr>
<tr>
<td>Texas</td>
<td>wafer diffusion</td>
</tr>
<tr>
<td>Instruments</td>
<td>drill bits</td>
</tr>
<tr>
<td>SGS-Ates</td>
<td></td>
</tr>
<tr>
<td>Reed Rock Bit</td>
<td></td>
</tr>
</tbody>
</table>
Eastman Whipstock  
Sanyo  
Bakelite  

1981  
Tandon Corporation  
Ford Computers  
Esiscon Chemical  
Emhart Industries  
Varta  
Yokogawa Electric Works  
TRW Airfoil Overhaul Services Ltd  
Garrett Corporation  
Wartsila  
SKF  

1982  
Lubrizol  
Computer Memories Inc.  
Digital Equipment  
Seagate Technology  
Nixdorf Computer  
Otrona  
Eschmann  
King Radio  

1983  
Alfa Laval  
Applied Magnetics  
Cipher Data Products  
Data General  
Esab  
Fuji Oil  
Hewlett-Packard  
Hunt Chemical Asia/Pacific  
TRW-Reda Pump  

directional drilling equipment  
car air-conditioner compressors  
copper-clad laminates  
computer disk drives  
microcomputers  
lubricating oil additives  
glass-making machine components  
high-energy density lithium batteries  
electrical instrumentation  
aircraft gear components  
additives for lubricating oil  
Winchester disk drives  
computer equipment  
Winchester disk drives  
computer workstations  
portable microcomputers  
surgical tables, electro-surgical instruments  
communication equipment  
engineering design/technical service centre for agro-based process industries  
magnetic heads for computer disk and tape drives  
cartridge tape drives for computers  
assembly and test of minicomputer systems and computer software development  
design and manufacture of robotic welding work-stations  
cocoa butter equivalents  
ink-jet printers, personal computers and peripherals  
photo-chemicals  
oil-field submersible pumps  


*Petroleum Refining and Processing*

Of the $1,426 million (in gross fixed assets) in the petroleum refining and processing industry in the 1979-1983 period, a relatively small component of this went into the expansion of primary processing capacity. The more substantial component went into the upgrading and diversification of secondary processing. Special attention has been paid to the need for improved operating efficiency and
flexibility in the face of changing market conditions since 1979. Owing to the substantially increased refining capacity of Indonesia in particular, together with generally depressed demand caused by the global recession, Singapore has found itself in a position of considerable excess refining capacity.\(^{37}\) With projects also under way by traditional customers in the Middle East to expand refining capacity,\(^{38}\) international companies in Singapore have concluded that long term survival depends upon a rapid shift in emphasis to secondary processing.\(^{39}\) Moreover, further diversification of crudes would need to be of high quality and competitive prices to compete with the anticipated Middle East products.\(^{40}\) Under pressure to generate new areas for expansion, there has also been a diversification into oil trading and oil terminalling, areas of less value-added then refining.\(^{41}\)

In addition to the developments in refining described above, in February 1984 the $2 billion petrochemical complex which has been under detailed planning since 1978 was opened at Palau Ayer Marbau. Not only was this the first fully integrated petrochemical complex in Southeast Asia, it was also the biggest single industrial investment in Singapore's history. The complex is comprised of an 'upstream' company which processes natural gas, naptha and other hydrocarbon feedstocks into intermediate chemicals, and four 'downstream' companies transforming these chemicals into a variety of final products. The upstream company is the Petrochemical Corporation of Singapore (PCS), a joint-venture made up of 50% Singapore government equity, 10% Japanese government equity and 40% equity by a consortium of 34 private Japanese companies led by Sumitomo Chemical Corporation.\(^{42}\) The downstream projects in the complex are The Polyolefia Company (Singapore) Pte. Ltd (30% Singapore government equity), Phillips Petroleum Singapore Chemical (Pte) Ltd (30% Singapore government equity), Denka Singapore Pte. Ltd (20% Singapore government equity) and Ethylene Glycols (Singapore) Pte. Ltd (approximately 28% Singapore government equity).\(^{43}\) The government has various private Japanese and US-based partners in these downstream projects.\(^{44}\)
The capacity and range of production of the petrochemical complex is quite considerable for an economy the size of Singapore. Putting the long-awaited complex into place, however, was not achieved without some apprehension, even pull-outs, by international capital. Since planning the project, a dramatic worldwide downturn in demand for petrochemical products, excessive global capacity, and the emergence of competition from Middle East countries have all raised questions about the project's commercial viability. Nevertheless, the huge investment in the complex necessitates that its participants constantly upgrade into higher value-added downstream products in order to be competitive. For its symbolic value alone, heralding the arrival of a new level of technological sophistication, the petrochemical project was viewed by the Singapore government as integral to its new economic strategy. Now that international capital has been successfully wooed to partner the government, however, it is the global market which appears to be the fundamental determinant of the form and extent of international capital investment.

*Electrical/Electronic Machinery*

Behind the petroleum and petroleum products category, actual foreign investment between 1979 and mid-1983 was most heavily concentrated in the electrical and electronic machinery, apparatus, appliances and supplies category, a sum of $998 million (in gross fixed assets). Many of these investments were the outcome of decisions made just prior to 1979 when substantial commitments were made. However, with the electrical machinery and apparatus category also being the most heavily committed for the period from 1979 to mid-1983, it is justified to assert that this group of industries has been the most responsive in the period of the new economic strategy. Added to this, the group's strategic importance to the Singapore economy, and indeed the 'Second Industrial Revolution', warrants a detailed examination of the pattern of foreign investment here since 1979. Of course, in contrast to the previously-discussed group, electrical and electronic
machinery group involves predominantly labour-intensive operations and has therefore been more directly affected by the various policies of the new economic strategy, particularly the corrective wage policy.

Of the considerable actual and committed investment in this group for the period, the overwhelming majority has been concentrated in the electronics industry. Realised fixed investment commitments in 1980 of $316 million have been followed by a record $417 million in 1981 and a further $283 million in 1982 and $306 million in 1983. The average value-added per worker of investment commitments in electronics has also increased from $19,000 in 1979 to $149,000 in 1982, and average fixed assets per worker from $11,400 to $83,000 (in current prices) in the same period.

A characteristic of much of the foreign investment outlayed and committed from 1979 to 1983 in the consumer and component sectors of the electronics industry has been the increasing mechanisation and automation of existing production facilities. Such investments have largely been in automatic component insertion machines in consumer electronics and automatic pattern recognition equipment and automated testing equipment in semiconductors. Other significant developments in forward integration have included the moves by National Semiconductor and Siemens to follow Fairchild's lead and assemble the 64 K RAM, the value-added of which is ten-fold that of the 16 K RAM more commonly assembled in Singapore.

Important as these cases of forward integration were, they generally represented extensions of processes begun before 1979. However, the successful luring of the Italian-based SGS-Ates to establish a semiconductor wafer diffusion plant represented a qualitatively new development. Backward integration through the technologically sophisticated wafer diffusion process has generally been retained by international companies in their home countries or in the markets of the advanced industrial countries. The EDB described the investment by SGS-Ates as representing a "quantum leap" for Singapore's electronics
industry. Managing Director of SGS-Ates, Guido Zargani, explained the move primarily in terms of market considerations. With declining sales in Italy and Europe, the company wished to locate in the Asian region where the potential growth in sales over the next decade was seen as very promising. Zargani contended that the incentives offered SGS-Ates by the Singapore government also constituted a significant lure. SGS-Ates received a ten-year tax holiday, a substantial interest free loan from the EDB, and subsidised training costs from the Skills Development Fund.

The successful attraction of computer manufacturers to Singapore is probably the highlight of the post-1979 pattern in foreign investment. Starting from virtually nothing, by December 1981 about $100 million of foreign investment had gone into computer hardware. A year later, this had already doubled. These investments made a substantial contribution to the increase in domestic exports of industrial electronic equipment of $939 million, or 337%, in 1983. In 1983, domestic exports of computer systems and sub-assemblies grew by a phenomenal 631%, up from $74.9 million in 1982 to $547.3 million. Computer peripheral exports also increased more than four-fold to reach $550 million in 1983. This resulted in the contribution of industrial electronics to total direct exports of electronics increasing from 5.9% to 18.8%.

Apple was the first foreign-based company to manufacture computer components in Singapore. It began manufacturing operations in July 1981, with initial operations involving the manufacture of logic boards and encoders. The plans, however, are for the assembly of printers and disk drives and, finally, the complete assembly of Apple computers. By December 1982, the Singapore plant was providing 75% of the worldwide printed circuit boards for Apple computers. As with most other US-based computer companies, the decision to invest in Singapore by Apple stemmed from a concern that the expansion of existing facilities in the US had become too costly. Thus, in search of an alternative site, Singapore was most attractive for a variety of factors which collectively...
amounted to a very favourable business climate. As Apple's Managing Director, John Sanders, explained: "... We found that no country can provide the combination of infrastructure, technical ability, supporting industries and Governmental agency efficiency, support and incentives that Singapore offers".60

For at least some computer companies, the regional markets have been important to the decision to invest in Singapore. Sord Computer, Japan's second-largest microcomputer company, followed Apple's lead and set up a $16 million operation to assemble its M 23 Mark II model microcomputer.61 Sord's President, Mr T. Shiina, envisaged a strong regional role for the plant and, ultimately, a key role in global exports: "... in the next 5 to 10 years we can develop a very strong microcomputer industry in Singapore. I would like to use Singapore as a base to export our products to Southeast Asia, the U.S., Japan and Europe".62 The Sord operation, however, was closed down in mid-1983 - apparently because there just was not the demand sufficient to justify the capacity of the Singapore plant. The misadventure of Sord may suggest that whilst the long term scope for regional markets is promising, it is currently insufficient alone to support any major computer investment.

The most outstanding feature of the investment boom in computers in Singapore has undoubtedly been the recent spate of plants set up by US disk drive companies. Since 1981, when the first disk drive manufacturer, Micro Peripherals, declared its intention to establish a plant in Singapore, other US-based disk drive manufacturers have followed suite.63 Singapore has already become a major world supplier of disk drives.

An important theme behind the explanation of the different disk drive companies setting up in Singapore is the attractiveness of the government incentives. Beyond this, however, there are some interesting factors, some thematic others not, accounting for their presence. In the first place, the fundamental reason for growth in such plants (regardless of where they have been located) has been the urgent need to quickly expand capacity to keep up with the
tremendous boom in demand. As to why Singapore has been so popular a choice as the particular site for such expansion, a few brief case studies may be helpful.

Floppy disk drive manufacturer Micro Peripheral was reportedly established in Singapore because company officials were impressed with the skilled and disciplined labour force and, especially with a view to the future, the political stability of Singapore. But probably more importantly, the company lacked the cash required to expand and was able to secure a 50-50 joint venture with the local Robin Holdings (Pte) Ltd. The Company was also offered an eight-year tax holiday.

In the wake of this move came Tandon Corporation, already a world leader in the floppy disk drive market. Tandon moved to Singapore for the purpose of final assembly and testing of its disk drives. Managing Director, Hari Apte, explained that one of the company's considerations was to locate in a place where the investment could be implemented in the minimum possible time so that the existing, but volatile, market could be captured while it still existed. Though other sites in the region were considered, the capacity of the Singapore state to keep red tape to a minimum was important; after just three months from the time of the investment commitment the first exports were sent to the US. The single-most important reason for choosing Singapore, however, was the cost advantage of materials to be derived from being there. For a start, Singapore's duty free status meant that the many parts which needed to be imported from the region, and particularly Japan, could be obtained cheaper than they would if being purchased whilst still in the US. Furthermore, importing parts from Japan when based in Singapore avoided the cost of purchasing through intermediaries, as in the US, since sales were made directly with the company. Finally, seeing as the export sales by Japanese suppliers to Tandon entitled those suppliers to export benefits from the Japanese government, Tandon was able to secure more favourable prices for its supplies; having negotiated on the basis that the large sales to Tandon made the benefits possible and Tandon should therefore be entitled to special
consideration. On three grounds then material costs could be reduced. This was very significant since Tandon's Singapore operations are very material-intensive. As much as 85% of production costs are accounted for by material costs, and labour as little as 4%. Labour costs were thus not so important a consideration. Tandon also secured a ten-year tax holiday, an incentive which Apte says simply could not be obtained anywhere else, and a 50% subsidy for worker training costs. Clearly then, there were a number of reasons for Tandon choosing to assemble disk drives in Singapore. With its most labour-intensive operations (that is, the assembly of heads and stepper motors) done by Tandon India at sources of cheaper labour, Tandon was able to reap cost advantages from assembly in Singapore in spite of the relatively high wages.

In contrast to Tandon, some of the companies to have subsequently established plants have committed themselves to somewhat more labour-intensive operations, including head assembly. Seagate Technology, for example, decided in August 1983 that the combined advantages of lower labour, material and overhead costs in Singapore (compared with the US) would give it a cost advantage in the total assembly of Winchester disk drives. More recently, Maxtor Corporation has announced its intention to start-up with the production of sub-assemblies for use in the XT 1000 series of its disk drives and to subsequently embark on complete manufacture. Maxtor's Director of International Operations, Joseph Dibere, placed much importance on the four-fold cheaper labour costs of Singapore (compared with those of the US) in explaining the investment, but said that this was viewed in conjunction with Singapore as a "total business environment". This included the fact that 80% of Maxtor's required components could be obtained within Singapore.

It can be seen from some of the explanations above that different disk drive manufacturers have placed differential weight on the cost advantage of Singapore's labour. Certainly for all companies the material cost advantage of Singapore is a key attraction. Equally, the various cost-cutting government
incentives are universal attractions. It is worth noting too, however, that there is an element of inertia often created when leading international companies begin to locate offshore in any line of production. The disk drive industry is no exception, as the comments by Seaquest Technology's President, Syed Iftikar, about his company's move to Singapore to assemble the world's first removable cartridge Winchester disk drive suggest: "We did not look at Taiwan (Singapore's greatest competitor in the computer manufacturing field) and we did not want to waste time looking for a site. So we followed the leaders and came here."70 Nevertheless, underlying all these investment decisions is the obvious confidence in the broad social, political and physical environment within which business is conducted in Singapore. In particular, in an industry so prone to rapid changes in the size and nature of demand, and where speed of delivery is crucial, the infrastructure of Singapore and the capacity and willingness of the state to quickly mobilise resources and implement investments makes Singapore very attractive. It would appear that the unexpected proliferation of disk drive companies indicates that certain mechanisms and structures exist within Singapore which may render it a suitable site for certain forms of relatively sophisticated and rapidly changing technologies.

Although the electronics industry has been the major focus of foreign investment expansion since 1979, the electrical industry has also received healthy increases in both the quantity and quality of investments. Largely due to the introduction of higher value-added products and greater automation by international capital,71 productivity in the industry has increased from a rise of just 1.6% in 1982 to 21.3% in 1983.72 One of the by-products of the rapid growth in disk drive assembly has been the establishment in Singapore of a host of foreign-based manufacturers of precision stepper and spindle motors required by disk drive manufacturers.73 Thus, though lower production costs, basically labour costs, remain the main attraction for international capital in the electrical industry, the development of the industry in Singapore is opening up new opportunities to exploit this advantage.
Chemicals

Foreign investment growth in both the industrial and non-industrial chemical groups between 1979 and 1983 was sizeable, $553 million and $261 million respectively (see Table 11 in Appendix). The strong interest by international capital in industrial chemicals was spread throughout the various growth areas of the industry. Specialty chemicals were in particular demand owing to the backward integration of the local electronics industry. Another area of foreign investment expansion was in petroleum-related chemicals, a logical compliment to developments in the petroleum refining industry. Exxon Chemicals invested $80 million in a lubricating oil additives project, the first of its kind in Southeast Asia, to supply the Asia Pacific region. Most of the remaining foreign investment was lured by the demand of the regional oil exploration and production activities for greater and more sophisticated volumes of highly specialised chemicals. In general then, the expansions by international capital in industrial chemicals were primarily motivated by market opportunities in Singapore and the immediate region.

The activities of the non-industrial chemicals group were largely defined by the pharmaceutical industry, particularly by its three main foreign-based companies, Beecham, Glaxochem and Kanegafuchi. During the 1979-1983 period, not only did Beecham expand existing operations, it also began constructing a $30 million plant to manufacture a new range of compound penicillins, called Augmentim. Glaxochem also increased its investment by $10 million to expand capacity in its rantidine hydrochloride (anti ulcer drug) plant, the only one of its kind in the world. Kanegafuchi, which commenced production of amino-acids in 1979, also widened its product range to include valine and phenylglycine (intermediate material for the production of antihistics) in addition to expanding capacity in existing product lines. These three companies had initially been attracted to Singapore as a base for world export by the cost advantages of its cheaper but sufficiently skilled labour. The expansions and upgradings since 1979
suggest that that cost advantage over production in the home country remains in
spite of the corrective wage policy.

Non-Electrical Machinery

The non-electrical machinery group of industries recorded the fourth largest
increase in foreign investment in the 1979-1983 period, a sum of $532 million (see
Table 11 in Appendix). Though this group includes a range of industries, such as
machine tools and industrial machinery, tools and dies, and precision engineering,
there were some common themes to foreign investment. The most obvious of
these was the rapidly increasing investment in more sophisticated capital equip­
ment, especially computerised and computer-related equipment. Investments in
technologies such as numerically controlled (NC) and computer numerically
controlled (CNC) machine tools, industrial robots, and flexible manufacturing
systems and electrical discharge machines (EDMs) have grown exponentially since
1979, contributing to a substantial upgrading in the quality and efficiency of
operations.

Another theme to foreign investments has been the acceleration of
industrial integration, including the actual manufacture of computerised
equipment. The feasibility of these investments has been facilitated by both the
general growth and maturation of Singapore industry. This, in turn, has made it
more cost-efficient for the global export of increasingly sophisticated machinery
parts and components. Thus, in this period such foreign investment projects to
have come on-stream include Emhart Industries' glass-making machine
components, Netstal's injection moulding machine components, and Asian
Machine's pick-and-place robotic arms. Investments in more technologically­
advanced toolings have also been made by Bridgeport through the complete
manufacture of two lines of milling machine heads as well as the assembly of
another CNC milling machine.79 Le Blonde also introduced CNC vertical milling
machines.80 All the above-cited investors intended to export globally. There
was, however, a growing interest in regional markets for machinery and tools which also attracted the interest of international capital. Durametallic, for example, set up operations to service the rapidly expanding Far East markets for engineered machinery needs.81

In addition to the above developments, a new emphasis on process engineering by international capital has been evident since 1979.82 These investments are regionally-oriented and in line with the government's desire to foster knowledge-based industries in which Singapore can maintain regional supremacy.

As well as the upgradings through foreign investment, there have also been sizeable expansions of capacity by such established international manufacturers as NMB, Singapore Time (Seiko) and SKF. The continuing growth of these operations, in conjunction with the above cited upgradings, suggests that, as in the pharmaceuticals industry, international capital has been quick to introduce more advanced technology wherever possible to exploit Singapore's comparative advantage in labour costs in these areas.

Another member of the non-electrical machinery group, oilfield equipment, has also received boosts in foreign investment between 1979 and 1983. Though growth in regional oil exploration ensured continued investment in the support equipment industry, there was also a marked diversification and increased technological content and specialisation characterising new foreign investment, including technical services. Naturally, the regional market continued to be the orientation of most such investments.83 In line with the developments in process engineering, there have also been a number of significant investments by international companies in the knowledge-intensive, high value-added service areas of the oilfield equipment industry.84
Aerospace

One of the priority industries under the new economic strategy is the aerospace industry. In particular, it is the government's objective that Singapore become the region's major aircraft servicing centre as well as a major component manufacturing export site. Towards this objective, a bilateral airworthiness agreement was signed with Federal Air Authorities of the United States in 1980 which was expected to give component exports a boost.

Following 1979 considerable progress was made in the industry. Output value in aircraft equipment, repairing and servicing increased by 108.59%, value-added by 106.25% and exports by 137.42% between 1980 and 1983. Although the government's role in the repair, overhaul and servicing side of operations in particular has been important to these developments, international capital has responded very positively to the government's special incentives and infrastructural provisions. Above all other considerations, however, with labour costs estimated at around half the equivalent cost in Europe or North America, even in the wake of the corrective wage policy, international capital has been able to exploit the relatively skilled labour of Singapore. Apart from expansions in capacity by component manufacturers Sunstrand and Garrett, the major investments by international companies between 1979 and 1983 were in overhauling and servicing.

Other Investments

In the above we have examined those industries in which the most substantial sums of foreign investment have been concentrated since 1979. Of course, even outside these areas there have been significant qualitative developments. In the automotive components industry, for example, some success has been realised in the promotion of Singapore as a site for international sourcing and by 1983 Singapore had earned the status as an export base for automotive electronic components. In medical equipment, Baxter Travenol was joined by Japan
Medical Supplies in the manufacture of medical disposables (in this case blood administration sets) whilst Eschmann, a member of the UK-based Glaxo group of companies, invested in surgical tables and electro-surgical instruments and Scientquip invested in the assembly of benchtop laboratory centrifuges. Two important investments in the food industry included Nestle's $25 million R & D project, known as Eastreco, in product development and process improvement and Fuji Oil's $24 million plant to produce cocoa butter extruder and specialty fats. In precision equipment, the US-based FJW Industries invested in precision optical instruments whilst Wild diversified into stores microscopes and new electro-optical products. Indeed, examples could be found from nearly every industry of qualitatively significant foreign investments.

What we have seen above, then, is that whilst international capital has been particularly active in raising value-added in certain industries, without necessarily introducing 'high technology', this process has been extended to nearly all industries to varying degrees. As we have also seen, however, the motivations behind these different investments have not been identical. In some cases, regional market opportunities have prompted investors to upgrade their products and facilities. In other cases, investors have decided that labour cost advantages can be gained by more fully exploiting Singapore's relatively skilled labour force. Needless to point out, there are many variations between and beyond these themes. Significantly though, in spite of substantially increased wage costs in the period of the corrective wages policy, labour cost advantage remained paramount to a considerable volume of post-1979 foreign investment. Such cost advantages were arrived at, however, by increasingly moving into areas of middle-level technology in which Singapore's labour costs were still more favourable for capital than those of alternative production sites. Naturally investors take into account a wealth of factors in conjunction with labour cost, such as its skill level, the industrial relations climate, availability of fiscal incentives, transportation costs and the capacity of the bureaucracy to swiftly process its proposals.
It could be argued that the above developments confirm the neo-classical argument. After all, the pattern of direct foreign investment has clearly been away from production in which unskilled labour costs are a higher share of value-added to one in which they are less and the skill content of labour is more important. Does this not reflect Singapore's changing comparative advantage? Indeed it does. The problem with this sort of interpretation, however, is that it does not recognise that this shifting comparative advantage and the capacity to exploit it is the product of an array of policies and structures developed over a long period of time. Skill levels, for instance, have risen in large part because of the direct investments and subsidisations by the state in social and physical infrastructure. Thus there is real difficulty in separating state and market - the relationship is extremely ambiguous. What we have seen above though, is that 'non-market' considerations such as fiscal incentives and the rapidity of bureaucratic processes and political stability have, in instances, been important in determining whether investors take advantage of Singapore's lower labour costs in relatively skilled areas. Though the above survey of direct foreign investment does not provide conclusive evidence, it does suggest that investment decisions in higher value-added production might increasingly take account of these considerations. Detailed sectoral analyses would be useful for any more confident observations about changes in the state's bargaining power with international capital in the period of the 'Second Industrial Revolution'. Such studies are not necessary, however, to sustain the general argument made above.

**Investment by Country of Origin**

In absolute terms, the largest foreign investment increases came from US-based capital, $1,662 million, followed by Japan-based capital with $1,050 million and Netherlands-based capital with $443 million from 1979 to 1983 (see Table 12 in Appendix). In relative terms Japan-based capital grew at a slightly faster rate than that of the US, 100% compared to 91%. As we have seen in previous
chapters, this has been the pattern throughout the 1970s. However, as a yardstick of investor response since the new economic strategy was introduced, these figures are somewhat misleading. Much of this actual investment reflects decisions made prior to this strategy. Interestingly then, despite the impressive volume of actual investment by Japan-based capital in the 1979-1983 period, there was a simultaneous fall-off in investment commitments. Whereas commitments stood at $319 million in 1979, they had fallen to just $72 million in 1982 and stood at $160 million in 1983 (excluding petrochemical commitments). Meanwhile, US-based capital generally maintained steady commitments, rising from $260 million in 1979 to $566 million in 1983 (excluding petrochemical commitments) (see Table 14 in Appendix). Thus, the rapid relative gains by Japan-based capital against that of the US appeared to have been halted following 1979.

Table 20: Selected Ratios of Contribution of Direct Foreign Investments in Singapore's Manufacturing Industry by Major Source of Capital, 1983.

<table>
<thead>
<tr>
<th>Ratio</th>
<th>U.S.</th>
<th>Japan</th>
<th>U.K.</th>
<th>Switzerland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value-Added Per Worker</td>
<td>48,453</td>
<td>27,891</td>
<td>65,705</td>
<td>52,776</td>
</tr>
<tr>
<td>Output Per Worker</td>
<td>168,647</td>
<td>87,760</td>
<td>131,887</td>
<td>126,642</td>
</tr>
<tr>
<td>Remuneration Per Worker</td>
<td>9,711</td>
<td>7,401</td>
<td>13,886</td>
<td>10,730</td>
</tr>
<tr>
<td>Capital Expenditure Per Worker</td>
<td>11,686</td>
<td>5,316</td>
<td>9,527</td>
<td>8,559</td>
</tr>
<tr>
<td>Direct Exports to Total Sales</td>
<td>68.10</td>
<td>67.49</td>
<td>74.99</td>
<td>86.20</td>
</tr>
</tbody>
</table>

NOTE: Data for Netherlands unavailable.


As can be seen from Table 20 above, there are evidently some important differences in the use to which capital is put by investors of different national
origins. Many of these characteristics have been identified and explored in earlier chapters. Suffice to say here that though US-based capital did not boast the highest ratio amongst foreign investors of value-added to workers in Singapore, it was still well above the total manufacturing ratio of $36,200 and well above the Japanese level. That US-based capital had the highest ratios of output and capital to workers amongst foreign investors, in spite of not having the lead in value-added per worker, reflected the volume of assembly work in lower value-added production with the use of highly productive and expensive capital equipment. At the same time, however, the value-added of such operations rose considerably after 1979, as we have seen. Moreover, US-based capital also led the field in a variety of skill and capital-intensive projects which have been fundamental to the general increase in the value-added of Singapore industry and, indeed, the emergence of specific priority industries. The most conspicuous such contribution has been in industrial electronics, notably computer hardware. However, through such companies at TRW and General Electric in aerospace, Rockwell International and General Motors in automotive components, Le Blonde and Reed Rockbit in non-electrical machinery, Exon in chemicals, Phillips Petroleum in petrochemicals, Mobil and Caltex in petroleum refining, Airpan and Applied Motion Products in electrical products, Baxter Travenol in medical equipment and FJW in precision optical instruments, US-based capital has been at the fore of qualitative developments in most industries since 1979.

Though EDB data do not provide a breakdown of foreign investment on a country of origin basis for individual industries, surveys conducted by JETRO provide a good indication of the trend amongst Japan-based capital. From the start of 1979 to the end of 1982, a total of 66 new Japanese companies established manufacturing operations in Singapore according to JETRO surveys. Of these, however, 39 were established in 1979 and thereafter there was a rapid decline, with 16 in 1980, eight in 1981 and just three in 1982. Of the 66 new companies in the period, 24 were in the category electrical and electronic products, 13 in
chemical products (which included petrochemicals), nine in ferrous and non-
ferrous metal products.\textsuperscript{91}

Of the 24 new electrical and electronic products companies, few involved
processes either new to Singapore or belonging to priority areas. The majority of
them represented expansions of labour-intensive assembly and manufacturing
processes long-established in Singapore, in such lines as radios, cassettes, stereos,
tape recorders and printed circuit boards. There were some reasonably
sophisticated, though not new, processes introduced involving precision springs,
crystal quartz units, polyester film capacitors and neon glow lamps.\textsuperscript{92} There was
also, however, the investment by Sord in micro computers and peripherals which
represented new technology for Singapore but this was shortlived.

There have, of course, been some significant higher value-added investments
by Japan-based companies established since the 1982 JETRO survey. These
include those by Japan Servo and Nippon Densan in stepper motors and computer
fans. Moreover, there are many Japan-based companies already established in
Singapore which have been active in upgrading operations. Some of these include
Yokogawa Electrical Works and Ace-Daikin who diversified their product range
and JVC, Toshiba, Shintom and Asahi who embarked on projects to automate
production facilities. It nevertheless remains, however, that by comparison with
US-based capital investment in the electrical and electronics industries, Japan-
based capital was overwhelmingly concentrated in lower value-added areas.

Certainly the biggest contribution by Japan-based capital to higher value-
added production has been in the chemical industries, notably petrochemicals.
The most significant investments were from Denka Singapore and The Polyolefin
Company in major downstream projects in the Pulau Ayer Merbau complex. In
other developments, Sanwa Chemicals began producing polyamite resin, Nissan
Chemicals plastic raw materials and high purity chemicals, Sun Ace-Kakoh PVC
stabilizer, Nippon Pigment plastic colour compound and concentrate, Singapore
Kensai zirconium and Iwatani Noa Gas set up a plant for industrial and specialty
gases. In pharmaceuticals, Kanegafuchi not only began production of amino-acids but quickly diversified into other intermediate chemicals. 93

Investments by Japan-based capital in ferrous and non-ferrous metals included some reasonably sophisticated technology. Two examples were Nachi Industries' precision cutting tools manufacture, regrinding and heat-treatment plant and Hitachi Powdered Metals' project to manufacture and process powder metallurgy products. 94 Other new companies tended to invest in fairly well established product lines.

Although there were examples of Japan-based capital investment in higher value-added production in the 1979-1983 period, certainly compared with Singapore's other dominant investor, the US, the overall response was rather cool. The explanation for this centres primarily on the contradiction between the Singapore government's new strategy and the global interests of Japan-based capital. In blunt terms, Japan looked to the SEA region to provide opportunities for low cost labour manufacture and was still able to accommodate the higher value added production within Japan. In particular, the corrective wage policy had an especially sobering effect on Japanese investment in Singapore. Following the introduction of this policy there was an immediate and substantial drop in investment commitments. The 1980 level of investment commitments was 56% lower than for 1979 (see Table 14 in Appendix). The Japanese Embassy Commercial Attache to Singapore, Hideo Nagashima, interpreted this as evidence of a general re-assessment of Singapore by Japan-based capital and pointed out that rising wages and labour shortages would not inexorably lead to investment in higher value-added production:

There is little prospect of more sophisticated ventures being established in Singapore ... Japanese firms keep their business in Japan until they lose their competitiveness. Then, they move out to take advantage of lower wages or to establish export markets abroad. 95

Nagashima's observation is of course borne out by the figures in Table 20 where we see that the value-added per worker of Japanese investments was just 58%
that of the US and only 42% that of the UK in 1983. Whereas US-based capital has tended even before, but particularly since, 1979 to move into higher value-added production in Singapore, Japan-based capital has tended to direct its more skill and capital-intensive overseas investments to the US and Europe. This has primarily been motivated by the desire to ensure market access, a constant worry owing to the strength of protectionism and the competitiveness of Japanese industry. This consideration is so important to the Japanese that they are often prepared to forego marginal cost advantages from producing elsewhere, especially when advanced equipment and automation can increase efficiency and minimise labour costs in Europe and the US. Thus, as Singapore's labour costs have risen Japan-based capital has redirected much of its low value-added, labour-intensive investments to Hong Kong, which overtook Singapore in 1980 as a recipient of Japan-based capital, without any commensurate shift in emphasis towards higher value-added production in Singapore.

The comparatively negative response of Japan-based capital since 1979 was not anticipated by the Singapore government and in 1981 two EDB missions were sent to Japan to identify the specific needs of Japanese capital. Amongst other things, the slowdown in Japanese investment interest emphasised the complexity underlying investment decisions. Moreover, it cautioned against presuming that comparative advantage had any necessarily universal meaning to capital. The EDB has no doubt recently come to a greater appreciation of some of the contrasting implications its strategy has for the attraction of capital of different national origins. Indeed, it has not by any means given up on yet luring a significant volume of higher value-added investments from Japan-based companies. This will have to be approached, however, with an acknowledgement of some of the objective and perceived interests of Japan-based capital in order to achieve even moderate success.

As had been the case in the 1970s, the growth of European-based investment was characterised by a relatively high value-added content in a range of
industries, with special emphasis on engineering. Though not always large investments, these companies continued to make a very important qualitative contribution to Singapore's restructuring effort. This is brought out to some extent by Table 20 where we see that both UK and Switzerland-based investment enjoyed higher value-added per worker levels than the US.

In absolute terms, the leading European investors in the 1979-1983 period came from capital based in the UK, with $622 million, the Netherlands, with $443 million, Switzerland, with $109 million, and West Germany with $70 million (see Table 12 in Appendix). The growth in UK investments derived mainly from British Petroleum's involvement in the newly-established Singapore Refining Company's catalytic reformer and hydrocracker projects. Additional investments of significance in the period included upgradings by Beecham and Glaxo in pharmaceuticals and new investments by Hunton International in automotive and Eschmann in medical equipment. Investment by Netherlands-based companies was again dominated by Shell which, as we have seen, was very active in upgrading its refining facilities, and expansion of capacity by member of the Philips group. Major new Swiss investments were initiated by Nestle, SKF, Emhart and Tetra Pak. Increases from West German companies came from Siemens, Brown-Boveri, Varta and Festo, going some way towards cushioning the effect of Rollei's closure in Singapore in 1981.

Finally, although in the context of this chapter we are fundamentally concerned with the response of international capital in the period of the new economic strategy, it should be noted that some progress has been made by locally-based capital. Excluding the petrochemical project in which the government has a sizeable stake, local investment commitments increased more than three-fold from 1979-1983 and the contribution of these commitments to total commitments increased from 12.7% to 29.3%. Particular progress has been made in the supporting industries and electronics and electrical industries, in line with the government's aim of a more integrated industrial base. In supporting
industries, heat treatment services and the production of engineering plastic moulds and fine blankings gained impetus and many companies upgraded their investments through CNC machinery and other automated equipment. In the electronics and electrical industries there has been a spate of investments by locally-based companies in various computer software projects and other areas of new technology, often in joint-venture with international capital.

Conclusion

In the discussion above, it has been argued that, in terms of general manufacturing growth, there has been considerable progress in Singapore since 1979, especially taking into account the effects of the global recession. Moreover, much of this growth has involved a shift towards the production and application of more sophisticated technology. However, the greater productivity of the manufacturing sector, and the economy in general, has not reduced dependence upon guest labour to the extent anticipated by the government. It is apparent not only that rapid economic growth to some extent cancelled out the labour savings accruing from greater productivity, but that the shift towards higher value-added production generated a greater demand for skilled labour than could be provided by the domestic workforce. Nevertheless, in dealing with the problems associated with reducing dependence upon guest labour, the government has shown quite clearly that it is concern over the political implications of guest labour of particular national origins which is uppermost.

We have also seen in this chapter that the generally positive response of international capital in this period has largely facilitated what industrial restructuring has taken place. On the one hand, there has been an increased preparedness by international, particularly US-based, capital to invest in higher value-added production. On the other, there has been a significant reduction of investment in the more traditional, lower value-added labour-intensive industries. Whilst we have seen that the motivations of international capital in
investing in higher value-added production in Singapore are diverse and even company-specific, it is nevertheless evident that there are some dominant themes. A significant portion of higher value-added investments in the period sought to exploit regional market opportunities or were in response to market pressures which deemed different products and processes appropriate for Singapore. These were the predominant considerations in the more capital-intensive industries which upgraded their operations. However, the bulk of investments by international capital in production geared for the export markets of Europe and the US continued to be primarily, though not exclusively, attracted by the cost advantages of Singapore's labour. Despite labour cost increases due to the corrective wage policy, Singapore's labour costs are still lower than those of Western Europe and the US. Coupled with a suitably-skilled labour force and excellent infrastructure, for which the Singapore state has primarily been responsible, this has enabled firms engaged in middle-level technology to cut production costs by locating in Singapore. Thus, by moving out of direct competition with lower wage countries for investment in lower value-added, labour-intensive production, and into competition with higher wage countries in areas of middle-level technology, during the period under review Singapore remained a viable site from which international capital could derive labour cost advantages.

One of the more interesting points to emerge from the above study is that the rapid post-1979 growth in investments in computer hardware, particularly disk drives, owes much to the speed and efficiency with which the Singapore state was able to mobilise resources in support of such investments. It appears that in fast-changing technologies, the capacity of the state to perform this role assumes considerable importance. As considerations behind investment decisions become more varied and complex with the general increase in the technological content of Singapore industry, presumably this capacity will be of even further significance. Such a capacity, in the case of Singapore, derives from a broad set of social, administrative and political conditions, or structures, which have their origins in
the historical circumstances of Singapore’s earlier industrialisation. Over time, these structures have been consolidated and refined. These are the structures which are inferred by investor references to the ‘total business environment’ which, of course, largely determines the extent to which comparative labour costs can be fully exploited.

What I have not tried to do in this chapter is measure the actual extent of state influence over direct foreign investment. The purpose has been more primary: to examine the broad response and considerations of investors to a climate which has been significantly affected by state policy.

Having argued that the response of international capital has been for the most part very positive in the post-1979 period, the reticence of Japan-based capital to make any serious commitment to the restructuring of Singapore industry has important implications. Not only does it alert us to the analytical importance of the differentiation of international capital, it also underlines the need to avoid any reification of the concept of comparative advantage in explaining the new international division of labour. Both of these theoretical points have obvious practical implications for policy.

Though it has been argued above that there has been an accelerated shift towards higher value-added production between 1979 and 1983, it is worth emphasising that the restructuring process began well before this period. This has been documented in previous chapters. What the government did in 1979, in effect, was to acknowledge this by setting about the task of more effectively facilitating the development of this process. According to the government’s reading of the economy the time was right for a more concerted restructuring effort. Subsequent developments have tended to support this reading. This is not to suggest, however, that this was simply acting in response to the market. Given that the whole post-1959 history of Singapore’s industrialisation has been characterised by state intervention to shape the various factors of production, it is analytically tenuous to make a clear separation of state from market. It would
be safer and more accurate to interpret the relationship between state and market as a dialectical one. After all, the restructuring which had begun before 1979 was the product of circumstances over which the Singapore state had exerted a significant influence.

Finally, we should be cautious what projections we make about Singapore's long term prospects for technological upgrading in the light of the 1979-1983 period. Whether the transition to middle-level technology can be consolidated and, in turn, transcended to an ever higher level in the international division of labour is problematical. The very logic of an international division of labour implies a stratification based on unequal degrees of technological sophistication. Being successful in graduating to the 'middle league' is no guarantee of further mobility. Furthermore, the very structure of the international division of labour is dynamic, being sensitive to such unpredictable factors as technological change in the production process. In the 1979-1983 period, however, the government's strategy of exploiting the opportunities available under the existing structure achieved some important economic results.
FOOTNOTES


3. "Target: Wholly S'pore Workforce", *Straits Times*, 1.1.82.


8. ibid., Table 2.1, p.27.


10. "Jayakumar Tells Why Foreign Workers Must Go", *Straits Times*, 7.11.83.


13. ibid.

14. As calculated from Tables 3 and 4 in Appendix.

15. As calculated from Tables 3 and 4 in Appendix.

16. As calculated from Tables 3 and 4 in Appendix.

17. As calculated from Tables 4 and 6 in Appendix.

18. As calculated from Tables 3 and 4 in Appendix.

19. As calculated from Table 7 in Appendix.

20. As calculated from Tables 4 and 6 in Appendix.

21. As calculated from Tables 4 and 6 in Appendix.

23. ibid., Table 35a, pp.56-57.


25. As calculated from ibid.


27. As calculated from ibid., Table 4, p.12.


31. As calculated from Table 14 in Appendix.

32. As calculated from Table 11 in Appendix.

33. As calculated from ibid.

34. As calculated from ibid.

35. As calculated from ibid.

36. The Singapore Refining Company (SRC), government-controlled but containing foreign interest, increased refining capacity by 100,000 barrels per day (bpd) by the end of 1980. Mobil also increased its primary refining capacity through a $90 million programme which involved the revamping and expansion of a crude processing unit from 20,000 bpd to 45,000 bpd capacity. See Economic Development Board, Annual Report 1981/82, p.11 and Errol de Silva, "Redefining Growth", Singapore Business, July 1982, p.27.

37. In 1982 capacity was between 70% and 80% of average actual capacity and some predictions were that by the end of the decade it would be down to 50-60%. See Patrick Smith, "Build-Up to a Bust", Far Eastern Economic Review, 10.9.82, p.74.


40. See Patrick Smith, "In the Wrong Capacity", Far Eastern Economic Review, 10.9.82, p.75; "Mobil Upgrades Yet Another of Its Refinery Units", Singapore Economic Bulletin, March 1984, p.29; Patrick Smith, "In the Wrong Capacity", Far Eastern Economic Review, 10.9.82, pp.74-75; and


45. SPC has an annual production capacity of 300,000 metric tons of ethylene, 160,000 tons of propylene and more than 170,000 tons of such intermediate products as butadine, benzene, toluene and xylene. The expected capacity of the downstream companies includes an annual production of 120,000 tons of low-density polyethylene, 80,000 tons of high-density polyethylene, 87,500 tons of ethylene glycol, 100,000 tons of polypropylene and 5,200 tons of acetylene black. See A.J. Troner, "Singapore Oil Works Plans Long Closure", Asian Wall Street Journal, 31.7.84.


47. In particular, the entry of Middle East producers poses a serious long term threat since the rising value of oil gives countries which produce their own oil and petrochemical feedstock a decided competitive advantage. See Najeeb Jashom and Ronnie Wai, "Keeping One's Chin Up in the Face of Great Odds for $ Billion Petrochemical Plant", Sunday Times (Singapore) 13.12.81.


50. ibid.


53. SGS-Ates reportedly expected to boost Asian sales of its semiconductors by at least 50% per year. See Andrew Tanzer, "Cashing in on Chips", Far Eastern Economic Review, 21.7.83, p.66.


59. ibid.


63. These include: Tandon, Seagate, Sequest, Mantor and Computer Memories. Digital Equipment and Apple have also indicated they intend to move into disk drive manufacture.

64. Lee Han Shih, "Computer Turnabout", *Business Times* (Singapore), 24.8.83.

65. Source: interview.


67. Most of the assembly work for recording heads is subcontracted to Tandon-Indic, a separate company owned by relatives of Sirjang Lal Tandon (the founder of Tandon Corporation). See ibid.

68. "Seagate to Assemble Winchester Disk Drives", *Straits Times*, 22.11.83.


70. As quoted in Lillian Chew, "Exports of $500M Disk Drives by 1984", *Straits Times*, 26.2.83.

71. The range of electrical products has been expanded and upgraded through such projects as BBC Brown Boveri's production of low voltage switchgear, Chloride's sealed recombination electrolyte batteries, Yokogawa Electric Works' electrical instrumentation and Ace-Daikin's split-unit air-conditioners and high-efficiency fincoils. Two members of the giant US-based General Electric group, GE Housewares and GE Hermetic Motors, have also invested heavily in automated equipment in the production of appliance components, fractional horsepower motors and hermetically sealed motor plants. The Japan-based Sanyo has also automated its production of air conditioners and microwave ovens. See Economic Development Board, *Annual Report 1983/84*, p.37, *Annual Report 1982/83*, p.33.

73. US-based companies Airpax and Applied Motion Products and Japan-based Japan Servo and Nippon Densan have all invested in such operations. The two Japan-based companies have also invested in the production of computer fans. See Economic Development Board, *Annual Report 1982/83*, p.33.

74. The most significant foreign investments in specialty chemicals were: Dynachem Singapore which expanded its capacity for epoxy moulding compounds; Hunt Chemical Asia/Pacific which began manufacturing photoinaging chemicals; and National Oxygen, a joint-venture of Japanese and Singapore partners, which began the production of basic and specialty gases for the electronics industry. See Economic Development Board, *Annual Report 1983/84*, p.17.


76. Nalco SE Asia, for example, expanded and upgraded its facility to manufacture a more diverse range of water treatment and oilfield chemicals. See Economic Development Board, *Annual Report 1983/84*, p.17.


82. Examples of such investments include: Esab’s design and manufacture of robotic welding work stations; Fairchild Test System’s establishment of a system integration centre for automation testing equipment; Paxall’s technical servicing, engineering design and assembly of packaging machines; an engineering design/technical service centre for Agro-based process industries. See Economic Development Board, *Annual Report 1983/84*, p.23.

83. Baker Sand Control and Screen Products thus both not only began the production of well screen products for regional markets but introduced geothermal gate valves as well. In this period, the Reed Rockbit Company of Houston also established a US$17 million rockbit plant as a means of more cost-effectively reaching fast-growing markets in the Asia Pacific region by virtue of Singapore’s strategic location. Employing computerised tools, the plant was expected to generate a value-added per worker of $200,000. Not all investments, however, have been confined to regional market orientation. TRW-Reda Pump has committed itself to the manufacture of oilfield submersible pumps and related components for world markets with the establishment of an integrated feeder plant. See Economic Development Board, *Annual Report 1980/81*, p.23; Economic Development Board, "Singapore’s Key to Seed Rock Bit’s US$100M World Expansion Plan", *Singapore Investment News*, September 1981, p.1; and Economic Development Board, *Annual Report 1983/84*, p.21.
84. Dowell Schlernberger established its regional oilwell laboratory service facility in Singapore in 1982. Norton-Christensen and Teleco, both specialised technical service companies, have also introduced specialised and sophisticated measurement–while-drilling (MWD) services, while Baker Marine has formed a joint-venture with the Singapore-based Promet, called Self-Elevating Platform Management (SEPM), to provide offshore engineering equipment design services. See Economic Development Board, Annual Report 1981/82, p.25, Economic Development Board, "First Offshore-Design Company Formed", Singapore Investment News, September 1982, p.3.


86. These included the establishment of: General Electric (USA) Aviation Service Operations' blades and vanes facility; FAS-Orient's repair and overhaul of hydraulic flight control systems and components; TRW Incorporated's (USA) operation to repair and remanufacture aircraft equipment; Dunlop Aviation's (Far East) service, repair and overhaul of aircraft wheels, brakes and other engineering components; Hawker Pacific's small engine repair operation; and Pratt & Whitney's Asian service and support facility for heavy maintenance and after sales service for its PT6 and JT13D engines. See Economic Development Board, Annual Report 1983/84, p.25.


89. ibid., p.17.


93. Japan Trade Centre (JETRO), Singapore, 1983.

94. ibid.

95. As quoted in Frieda Koh, "Singapore Policy on Wages is Seen Discouraging Investors From Japan", Asian Wall Street Journal, 17.3.81.

97. Hsung Bee Hwa, "Big Jump in Japan's Investment in Singapore", *Straits Times*, 31.8.82.

98. See Anne Koh and Lee Siew Hua, "New Wave of Hi-Tech Japanese Investment", *Straits Times*, 4.1.85.

99. As calculated from Table 13 in Appendix.

CHAPTER 12

THE ECONOMIC AND POLITICAL PROBLEMS OF THE 'SECOND INDUSTRIAL REVOLUTION'

Introduction

It was shown in the previous chapter that Singapore has experienced significant economic progress under the 'Second Industrial Revolution' but not quite of the order anticipated by the PAP. It was pointed out that this reflected both a misreading of the perceptions and interests of international capitals and the impact of the global recession. It is argued in this chapter, however, that domestic political problems for the PAP stem from a range of policies in support of the new industrial strategy, and not just the general failure of the manufacturing sector to realise the very ambitious objectives set by the government.

Apart from investigating the social and political problems which the new industrial strategy has posed for the PAP, this chapter considers whether Singapore's changing political economy might render the PAP's traditional style of government less effective in securing absolute political hegemony. In short, this chapter looks at the problems of political legitimacy associated with the 'Second Industrial Revolution'.

Singapore's Economic Predicament

Inevitably, Singapore's close integration with the markets of the advanced capitalist economies of the US and Europe has adversely affected its export of manufactures and economic growth with the onset of global recession. After an impressive but short-lived revival in 1984 in response to an upturn in the US, economic growth in Singapore plummeted dramatically. From an overall economic growth rate of 8.2% in 1984, for the first time in 20 years this fell to zero growth in the second quarter of 1985. As a result, there was a sharp
increase in the number of retrenchments in Singapore in 1985.\textsuperscript{2} Needless to say, continued retrenchments would, amongst other things, pose serious problems for the PAP's efforts to arrest the electoral swing against it.

Important as the recession is to Singapore's ailing economic condition, it is not the complete explanation. Rather, Singapore's problems have been accentuated by the PAP's economic strategy which, in effect, put all of the eggs in one basket. Having placed so much store in the capacity of the government's policies to induce a rapid restructuring of the manufacturing sector to lead economic growth, the PAP has made two significant errors. First, it has over-estimated the speed with which restructuring can occur. As we have seen, the government's willingness to push for more technologically advanced production through higher wages was ultimately moderated to accommodate the more cautious attitude of international capital. Moreover, in the case of Japanese-based capital, we saw that despite the government's efforts to define Singapore's comparative advantage in higher value-added production, different capitals have their own specific needs and interests which influence their calculation of comparative advantage. Second, in the process of attempting to create the conditions for accelerated upgrading in the manufacturing sector, the PAP took for granted the development of the more traditional sectors of the economy. These sectors, however, have been subjected to severe strains which have been compounded by policies of the 'Second Industrial Revolution' or undermined by a depth of regional economic nationalism not anticipated by the PAP.

The PAP's over-estimation of the pace of industrial restructuring has now been acknowledged by Prime Minister Lee Kuan Yew. He has come to recognise that objective limits posed by Singapore's size, location, workforce and the interests of international capital cannot be easily resolved. Thus, whereas at first he was optimistic about the longer term possibilities for high technology in Singapore, in October 1984 he conceded that the republic could at best hope for servicing the peripherals of high technology developed by the West.\textsuperscript{3} This
realisation, coupled with an appreciation of the general growth problems caused by the recession, has seen the PAP place renewed emphasis on wage restraint in 1985. A specially-appointed Economic Committee headed by the Prime Minister's son, Lee Hsien Loong, established to study long term solutions to the erosion of Singapore's competitiveness, placed special focus on wages. In its interim report, it was pointed out that total wage costs rose by an annual average of 10.1% during 1978-84, during which time there was a 4.6% average growth in productivity. Unit labour costs rose by 40% in US dollar terms after 1980, compared with 10% for Taiwan and negligible increases in Hong Kong and South Korea. These economies are Singapore's competitors for middle-level technology investments. In addition, the high wage policy contributed to increased operating costs in a host of domestic service areas in which scope for labour replacement is either limited or inappropriate, such as tourism.

The 1985 NWC thus recommended a 3-7% wage increase (4% group offsetting). However, by August, as many as 25 private and 25 public sector unions representing over 200,000 workers had undertaken to forego any increases at all for the year. Lee has subsequently called for a two-year halt to wage increases to enable the restoration of competitiveness. Not only does this policy reversal recognise that Singapore will not move up the technological ladder as quickly as was originally projected, it also admits to the problems posed by the high wage strategy for the non-EOI sectors of the economy.

At the same time as the PAP has pursued its 'Second Industrial Revolution', some of the traditional foundations underlying Singapore's economic structure have been in serious decline. As we saw in the last chapter, Middle Eastern competition in petroleum refining and the establishment of large-scale refining capacity by traditional customers Malaysia and Indonesia represents a challenge which Singapore cannot match in the longer term. While the PAP did not take the development of this industry for granted, having made every effort to promote its competitiveness and upgrading, it did not bargain on the extent to which its
neighbours would give priority to their own petroleum industries. Thus, whilst theoretically Singapore may enjoy a comparative advantage over other regional refiners, this has not stopped the loss of business resulting from economic nationalism. The decline of the labour-intensive shipbuilding industry has also been hard hit by wage increases, thereby compounding its problems in surviving the global slowdown of the industry.\textsuperscript{8}

The tourist industry has also slowed remarkably since 1981. From growth of 10.4\% in 1981, tourist arrivals expanded by just 4.5\% in 1982 and actually fell by 3.5\% in 1983.\textsuperscript{9} Hotel occupancy rates have fallen to 75.5\% in 1983 and retail shops dependent upon tourism have suffered badly, many being forced to close in 1984.\textsuperscript{10} Though the recession has slowed tourist trade, the lack of price competitiveness of the industry has seen custom lost to Hong Kong.

If the PAP operated on the assumption that these structurally declining industries would be compensated for by the emergence of Singapore as the regional financial headquarters it has little to be content with so far. A survey conducted in late 1985 which polled chief executives of banks in East and Southeast Asia found Singapore well behind Tokyo and Hong Kong, and just in front of Sydney, as the perceived site of most future business expansion.\textsuperscript{11} As a strategy, then, the 'Second Industrial Revolution' may have been based on an overly optimistic estimation of international capital's perception of Singapore as an investment site - both in the manufacturing and service sectors.

If there was any doubt that the depth of Singapore's economic problems went beyond the difficulties of foreign-based export-oriented industries in manufacturing, the unprecedented suspension of the Singapore Stock Exchange by the government in late 1985 must have dispelled it. This followed failed attempts to rescue the financially troubled Pan Electric Industries Ltd.\textsuperscript{12} Liquidity problems, however, have been the downfall of an increasing number of local companies, including the government's most frequently-cited example of a local high-technology manufacturer, Lamipak Industries Pte Ltd.\textsuperscript{13} During the first
eight months of 1985, the Singapore High Court declared 363 companies bankrupt, up by 20% on 1984. Meanwhile, registrations of new local companies during 1985 declined by 49% from a year earlier to 171.14

In summary, then, it is evident that the economic problems confronting Singapore are complex and go further than the externally-imposed constraints on the export-dependent manufacturing sector, significant as they are.

**Domestic Political Contradictions: The Problem of Legitimisation**

Associated with, and in addition to, the economic problems emanating from the dynamics of the international economy, as well as those pertaining to the structural decline of Singapore's traditional non-manufacturing base, the PAP is now facing important long term political challenges. Chief among these is the task of political legitimisation amidst the new economic and social circumstances of modern Singapore. The PAP is encountering unprecedented difficulty in gaining acceptance for policies in support of its industrial strategy and reconciling the electorate to the most prolonged and serious economic downturn since the PAP took office. This legitimisation problem reflects more than the new objective pre-requisites of Singapore's industrial programme, it also reflects the different historical experiences and expectations of Singapore's younger generation of voters. There is evidence of growing electoral alienation with the government and even the beginnings of some form of limited parliamentary opposition in Singapore. For the time being the PAP retains its effective monopoly of state power. Unless the trend in electoral disaffection is redressed in the longer run, however, the capacity of the state to act with haste and precision in support of a clearly defined industrial strategy exploiting opportunities availed by the dynamic new international division of labour may be weakened. Given that such problems have surfaced at a juncture when the PAP's Second Generation leaders are scheduled to take command of the Party, Singapore's political economy has obviously reached its most uncertain moment in decades.
Measures to Control Opposition

The PAP has always shown a special interest in the perceptions of its constituency and the means by which these can be shaped. However, in the 1980s the Party is confronted with a new set of historical circumstances. The changing structure of Singapore’s population is rapidly entrusting far more electoral responsibility in the hands of younger Singaporeans. Thus, whereas previously the rolls were dominated by people over 40 years of age, by the time of the 1984 election, voters who had not reached their 20s at the time of the 1964 race riots were expected to comprise 40% of the electorate and as much as 70% by the time of the 1989 election.

The changing structure of the electorate holds significance for the PAP and Singapore politics. Lee openly recognised this, contending that voters of his generation knew from historical experience how the PAP had weathered great turbulence to lead Singapore to stability and prosperity: "They were old enough to remember the riots and revolution, the intimidation and assassinations, the strikes and demonstrations, the disruption and destruction of the 1950s and 1960s". Lee associated much of this turbulence with the existence of strong opposition parties but accepted that younger Singaporeans who did not consciously experience these political events did not necessarily share his convictions. According to Lee, such voters "have no idea how destructive an opposition can be". He added: "They feel they are missing something". Apart from the different historical experiences of this generation within Singapore, many of the younger Singaporeans have also studied overseas in such countries as Australia, New Zealand, Canada and the United States where they have observed that high material standards of living are not traded off against political liberty. To the considerable regret of Lee and his senior colleagues, the Party's own research led them to the conclusion that a more sizeable parliamentary opposition was something of an inevitability. Not only was there the more sympathetic view of the younger voters to the notion of opposition per se as politically desirable, there was the spectre of difficult
economic times ahead and the implementation of various unpopular austerity measures which would provide scope for opposition gains.

As we saw in Chapter 10, a change in PAP attitude towards the question of opposition was expressed in November 1982. This had been explained in terms of the need for sharpening up the skills of the PAP's own backbenchers. However, as time passed the PAP became more vocally committed to the idea and espoused more general positive gains from constructive political opposition. By April 1984, even First Deputy Prime Minister S. Rajaratnam, who had earlier claimed that oppositions ensured "bad government", was calling for a "sound, sane, rational opposition in parliament ... to engage in intelligent debate ... to highlight policies ... to expose shortcomings". Subsequently, in July, the government introduced legislation providing for 'non-constituent' parliamentary seats which ensured that after the next election there would be at least three opposition MPs. Under the government's amendment to the constitution, if the opposition parties carry fewer than three constituencies, 'non-constituency' seats are offered to defeated opposition candidates in order of their vote tallies until the minimum quota of three opposition parliamentary seats is filled. However, as distinct from MPs elected in the normal way, these 'non-constituency' MPs are denied voting rights on all the important matters of parliamentary business - budgeting and financial bills, constitutional amendments and no-confidence motions. It was indeed within very definite parameters that these MPs were expected to function. Lee's parliamentary speech introducing the proposed amendment made that abundantly clear. He ridiculed the systems of various parliamentary democracies elsewhere in which opposition parties played a prominent role, juxtaposing these against the more admired Chinese tradition, under which it was anathema

... that the emperor's mandate should depend on the counting of heads. Rather it depended on the chopping of heads. And that mandate was exercised not through a rabble in a legislature but through a strictly quality-controlled mandarinate.

That Lee was not inviting any genuine opposition which might operate outside the government's narrow parameters was emphasised by his warning that any
constituency which made the mistake of voting in an opposition candidate would have to "learn to live" with its choice. As if to dispel the existing opposition MP as a model, J.B. Jeyaretnam came in for a caustic and damning attack from Lee.

The PAP's move amounts to recognition that the existence of an opposition might be both politically expedient and unavoidable. However, if it acts now to institutionally determine the form and function of opposition politics, it might ensure that the existence of an 'opposition' poses no threat to the PAP's long term hegemony. In other words, genuine opposition may be nipped in the bud.

Lee's concern to safeguard the PAP's stranglehold on power well into the future was further underlined by suggestions in 1984 that other constitutional changes may be in line. Lee speculated that the currently ceremonial role of President might be upgraded so that there is a mechanism to curb the financial activities of future governments, if need be:

As the constitution now stands, if there is a freak election and a coalition government is formed, all the reserves are available [to the government] ... you can go out on a spending spree for five years and you can become a broken-backed government.

Lee talked of a special Presidential Committee for the protection of the reserves, estimated to be in excess of $20 billion. Given such powers, the President would need to be directly elected by the people rather than appointed by the government of the day.

Amongst other things, the mooted constitutional change has opened up speculation that Lee himself, who had already indicated he did not want to continue as Prime Minister beyond 1988, might be interested in the position. This would afford Lee an opportunity to hand over the mantle of Prime Minister but still oversee the initial period of Second Generation rule. The more fundamental importance of the proposal in terms of the Singapore political system, however, is that it opens up the theoretical possibility that a popularly-elected non-PAP government can be blocked by a PAP President. So far there have been no concrete moves to affect the proposed constitutional amendment,
which may imply that Lee is still thinking through the timing of his own departure as Prime Minister.27

Unpopular Policy and the 'Great Marriage Debate'

Whilst the changing age structure of the electorate is perceived by the PAP hierarchy as a possible avenue to be exploited by opposition parties, the PAP also did a good job itself of alienating the electorate in the build-up to the December 1984 general elections by introducing several unpopular policies in support of the 'Second Industrial Revolution'. The degree of protest and criticism which these measures aroused was new to modern Singapore. The government appeared to grossly under-estimate the likely opposition to its policies, raising questions about the effectiveness of the government's grassroots contacts.

In early 1984, recommendations in the Blue Paper compiled by the Committee on the Problems of the Aged, headed by Health Minister How Yoon Chang, prompted a general concern and dismay amongst the electorate. Taking into account increased life expectancy and the country's labour shortage, it was recommended that the age of retirement, and therefore the age at which withdrawals from the CPF could be made, be raised from 55 to 60 years of age and later to 65 years. At the time, workers were paying 23% of their monthly wages into the CPF.28

It was a common practice for the government to float its proposals before enacting major legislation. Accordingly, through the local press the public was invited to comment on the Blue Paper recommendations, the Straits Times setting up special telephone hotlines in conjunction with coverage of written contributions from the public. Though this coverage had no doubt been officially encouraged, the uniform public outcry against the proposals led to an abrupt closing of hotlines just four days later with no explanation as to why. The government wished to hear no more.29 It had been caught out by the strength of the public's opposition. Public concern was not allayed, however. This was reflected in the grilling NTUC
officials faced at a three-day ordinary delegates' conference during the May Day weekend from the rank-and-file over the CPF and retirement age proposals. There was genuine fear amongst workers that the government was about to put paid to life-long retirement plans and deny them access to their hard-earned savings which, in any case, received a comparatively poor interest rate of 6.5%.

Although the PAP denied opposition charges that the government needed to hold on to CPF contributions longer to help finance the MRT rail system, it did not provide any detail about the use to which the CPF contributions were being put. Hence, all the government managed to do was raise doubts in workers' minds as to whether they would ultimately receive their sum and when. The exercise did nothing to endear the trust of the Singapore electorate.

If the government had actually risked its popularity on the CPF issue out of concern to swell the ranks of Singapore labour required for the 'Second Industrial Revolution', the same motivation led the government to even greater unpopularity following Lee Kuan Yew's National Day rally speech in August 1984. Lee drew on data from the 1980 Census of Population showing that the trend amongst many women university graduates was to apparently foreshake marriage and children in favour of professional careers. He pointed out that whereas women with no education produced an average of 3.5 children, the rate diminished in line with educational qualifications, university graduates averaging just 1.65 children. This variation in fecundity was perceived by Lee as a serious threat to the whole fabric of Singapore's economy and society. If this trend continued, "Levels of competence will decline", claimed Lee. "Our economy will falter, the administration will suffer and the society will decline". Lee's pessimism was founded on two assumptions. First, he viewed intelligence as a function of heredity. Second, it was assumed that in the 25 years of PAP rule all the intelligent people had risen to positions of power, authority and wealth owing to the meritocratic structures put in place. As a result, the middle class/working class split now coincided with the division of intelligence in Singapore society. Thus, Lee called on
women university graduates to produce more babies. It was, Lee argued, their national duty to do so.\textsuperscript{36}

The problem, as Lee saw it, was being exacerbated by the demands of Singapore's changing economy. The higher technology content was generating demand for more skilled workers. These, however, were being increasingly recruited from abroad, not just because the rate of economic growth exceeded the growth in the workforce per se, but because sufficiently able and intelligent Singaporeans to fill these jobs could only come from the limited ranks of the highly educated themselves.\textsuperscript{37} This elitist assumption was not a new ideological expression, remembering that in 1967 Lee had claimed that every society depended for its survival on the talents of a mere 5\% of the population.\textsuperscript{38}

Moreover, the obvious alternative solution to the demand for more skilled workers did not fit comfortably with Lee's current designs to wind-down the state's social welfare role. To reject the notion that intelligence is simply a function of genetic factors and accept that expanded opportunities for all sectors of society, particularly the most disadvantaged, will unearth the required talent implied a very different role for the state. Not only would this involve additional cost to the state in expanding infrastructure in specific areas of need, it would require the state accepting the responsibility to even up the inequalities in the distribution of resources in Singapore society. The PAP view, however, was that inequality was both just and functional since it reflected merit. As we have seen in Chapter 10, according to the PAP leadership, nothing could be more harmful for Singapore's economic and social future than for the state to expand its social welfare programmes.

Lee's speech sparked considerable public discussion and criticism in what was quickly coined by the \textit{Straits Times} as the "Great Marriage Debate". Following invitations by the \textit{Straits Times} and Singapore's other English-language daily, the \textit{Singapore Monitor}, readers flooded the press with assorted points of view but, significantly, of an overwhelmingly disapproving tone. In particular, the
targets of Lee’s call (female graduates) appeared to be anything but receptive to the Prime Minister’s plea, resenting both the elitist assumption behind Lee’s argument and the social engineering implied in his proposed ‘solution’. There was clear rejection of Lee’s nature-nurture thesis for which, readers argued, there existed no scientific basis.

Despite the government’s recognition of public criticism, it announced that offspring of highly-educated mothers with three or more children would be given priority entry for their children to the top pre-primary and primary schools as from July. Previously, following the ‘stop at two’ campaign introduced in 1972 and the subsequent sterilisation programme introduced in 1974, subsequent children of all women were given lowest priority in school placement. Under the new rules, women who have not attained either university entrance level or secondary leaving level educational qualifications will still have to produce sterilisation certificates to ensure placement for third children. This policy initiated a new round of public criticisms, with special condemnation of the discrimination this represented against children of underprivileged backgrounds who, as some people pointed out in letters to newspaper editors, were in far greater need of access to better schools than their counterparts from more wealthy families. Within just one week the National University of Singapore Student Union (NUSSU) had gathered 2,100 signatures petitioning against the policy, attacking the notion that only the intelligent can breed intelligence as a genetic fallacy and condemning the elitism crystallised in the new rules. Within days the Nanyang Technological Institute Students’ Union (NTISU) compiled its own petition, levelling similar criticisms, with its female signatories adding that they had no intention of taking advantage of the new school rules.

Whilst the government may have been surprised and disappointed in the public response it had aroused, it was certainly not about to be swayed by any of it. Instead, it stepped-up propaganda measures to lend support to Lee’s thesis.
The state also assumed a direct role as matchmaker among its civil servants, having set up a special task force, the Social Development Unit (SDU), for the job. In March 1984, Finance Minister Dr Tony Tan announced in his budget speech the introduction of a 30% tax relief for working mothers with a university degree and a third child. Subsequent to this, the government announced that from 1 June it would pay $10,000 to less-educated and low-income mothers under 30 years of age should they volunteer to be sterilised after their first or second child. The money would be paid into that person's CPF, only to be used for the purchase of a HDB flat. Thus, whilst trying to entice the educated on the one hand to breed more children, on the other the PAP was trying to dissuade Singapore's poorest, least-educated citizens from the same.

Through the government's various initiatives and proposals to deal with problems arising out of the new industrial strategy, then, it managed to arouse the resentment of both the middle and working classes. Both were especially sensitive to endeavours to resolve fiscal pressures associated with the 'Second Industrial Revolution' by tampering with the CPF. Moreover, even where the PAP's scheme to generate the required brain power favoured the middle class, it only served to highlight the widening gap between official ideology and the thinking of much of this class.

1984 General Election

Not surprisingly, the PAP's unexpected defeat in the 1981 Anson by-election prompted a sense of urgency about securing a strong mandate at the next general election. Thus, although an election was not necessary until 1985, signs of an early election surfaced by November 1983. As events unfolded, however, the PAP sensed an early election inappropriate once the unpopularity of its selective breeding and education, early retirement and CPF policies became clear. As a result, the government actually delayed the election until December 1984.
Preparation for the election included the announcement of 26 new candidates in batches throughout 1984. Amongst the last batch was the Prime Minister's son, Lee Hsien Loong. So as to underline the extent to which the 1984 election marked the further advance of the Second Generation leadership, Lee Kuan Yew pointed out that six of these new candidates were fit to be "more than MPs". Lee Hsien Loong, who had risen to Brigadier-General in the Singapore Army, was identified as one of the six.48

Understandably, the raising of the age limit for CPF withdrawals, the elitist policy regarding graduate mothers, the Medicare Scheme, and the streaming of school children at early primary school were all defined as major issues in opposition party campaigns. The high cost of HDB flats was also a central issue. So too was the idea that parliamentary opposition was in itself desirable to check the executive authority of government. The Workers' Party also devoted some attention to the stifling of labour independence, or 'neutering' of the labour movement as they called it, which had been consolidated under the 'Second Industrial Revolution'.49

The PAP never satisfactorily defused any of the fundamental issues raised by the opposition parties, choosing instead to almost exclusively push the theme of the PAP's record of stable government and economic achievement.50 As the election results suggested, however, to many of the new generation of voters on the 1985 rolls, this theme evoked little sentiment. Instead, the PAP's failure to address the controversial issues focused on by its opponents underlined the Party's arrogant assumption that only it was capable of ascertaining and defining the perceptions and aspirations of the electorate. Thus, choosing largely to bypass or treat superficially a number of genuine electoral concerns, Lee called on voters to appreciate that above all, the purpose of the election result was to convey a signal to overseas investors that there would be a continuation of the sort of political stability and predictability which underpinned its economic success. Referring to the ushering in of Second Generation leaders to the helm, Lee commented that "I
have assembled a team", appealing to electors that "You have to give a signal to investors that you can strike a rapport with this team". 51

To the PAP's disappointment, the 1984 general election results showed that Jeyaretnam's Anson victory in 1981 was not an isolated expression of disillusionment with the PAP. Rather, the 1984 results accelerated an already nascent trend towards greater opposition support in general. Not only did the PAP fail to recapture the seat of Anson and lose another, the first losses in any general election since 1965, but it suffered a 13% swing against it in the share of total valid votes cast. Whereas the PAP polled 77.7% in 1980, its share dropped to 64.8% in 1985. Meanwhile, the vote was raised from 22.3% to 35.2% for opposition parties. In the process, not only was the WP's Jeyaretnam returned with an increased majority but the SDP's Chiam See Tong improved his vote share from 40% in 1980 to 60.4% in 1984 to take the seat of Potong Pasir.52 In each case, these candidates defeated capable young PAP candidates, Ng Pock Too and Mah Bow Tan, both of whom Lee Kuan Yew had earlier earmarked for big things.53 Neither could these PAP defeats easily be dismissed as the result of problems specific to individual constituencies. After all, the WP improved its share of the total vote from 29.2% in 1980 to 41.9% in 15 seats in 1984. The BS too improved its share from 27% to 38.2% between the two elections for the seats it contested. As a result of this general swing towards opposition parties, there were at least another five constituencies in which opposition candidates came close to victory. In Jalan Kayu, the WP's M.P.D. Nair lost by just 571 votes. The WP subsequently rejected the government's offer of this seat under the new constitutional amendment.54
Table 21: Election Results, 1984

<table>
<thead>
<tr>
<th>Party</th>
<th>Number of constituencies contested</th>
<th>Total valid votes in constituencies contested</th>
<th>Votes cast for Party</th>
<th>Percentage of votes 1980*</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAP</td>
<td>79</td>
<td>876,565</td>
<td>568,310</td>
<td>64.8% 83.2% 39.7% 77.7%</td>
</tr>
<tr>
<td>WP</td>
<td>15</td>
<td>264,721</td>
<td>110,868</td>
<td>41.9% 56.8% 33.2% 29.2%</td>
</tr>
<tr>
<td>SUF</td>
<td>13</td>
<td>254,989</td>
<td>87,237</td>
<td>34.2% 47.8% 25.8% 19.0%</td>
</tr>
<tr>
<td>UPF</td>
<td>8</td>
<td>136,411</td>
<td>27,217</td>
<td>20.0% 27.7% 0.8% 12.0%</td>
</tr>
<tr>
<td>BS</td>
<td>4</td>
<td>63,378</td>
<td>24,212</td>
<td>38.2% 43.8% 34.8% 27.0%</td>
</tr>
<tr>
<td>SDP</td>
<td>4</td>
<td>69,695</td>
<td>32,102</td>
<td>46.1% 60.3% 38.6% 30.7%</td>
</tr>
<tr>
<td>SJP</td>
<td>2</td>
<td>44,701</td>
<td>10,906</td>
<td>24.4% 24.6% 24.3% 16.0%</td>
</tr>
<tr>
<td>IM</td>
<td>1</td>
<td>15,697</td>
<td>359</td>
<td>2.3% -- -- --</td>
</tr>
<tr>
<td>SMNO</td>
<td>1</td>
<td>13,146</td>
<td>4,768</td>
<td>36.3% -- -- 19.5%</td>
</tr>
</tbody>
</table>

* Party's percentage of valid votes in constituencies contested.

Source: "Mah: SDP Win a Nation-Wide Phenomenon", The Sunday Times (Singapore), 23.12.84.

Whilst the loss of two seats by the PAP hardly presented any practical problems for government in a 79-member assembly, and certainly did not in itself constitute political instability, the PAP's leadership took the results very seriously. Indeed, the PAP's reaction was quite revealing, not only illuminating the leadership's intolerance of genuine parliamentary opposition but its disdain for the one-person one-vote system itself. Just six hours after the polls closed Lee threatened a revamping of this system to prevent the possibility of the PAP being toppled. Although he talked of such a revamping as a means of avoiding symbolic protest votes inadvertently bringing down a government, there is little doubt he was more concerned with limiting the constitutional possibility of any longer term preference for opposition parties and policies.

It is necessary to try and put some safeguards into the way in which people use their votes to bargain, to coerce, to push, to jostle and get what they want without running the risk of losing the services of government, because one day, by mistake, they will lose the services of the government. 55
Of course, there was no evidence that such a possibility of accidentally voting a government out of office existed. If Lee was not cynical in such a pronouncement then he was at least remarkably paternalistic in presuming that either he or the PAP could best decide what the electorate really wanted. Second Deputy Prime Minister Rajaratnam went so far as to interpret the voters exercising their right to vote for opposition candidates as a form of blackmail. He emphasised that the government would not be "strong-armed" into making policy changes in response to ballot pressure.  

Already we have examined some of the issues pursued by the opposition parties in the 1985 election campaign which help us understand the result. Apart from specific policy issues, however, letters subsequently invited by the Straits Times revealed that many readers resented what they perceived to be a paternalistic and authoritarian style on the part of the PAP leadership.  

The presence of Jeyaretnam in parliament has served to illustrate this style. The arrogant and dismissive treatment both of Jeyaretnam and of the issues he has raised in and out of parliament has been coupled with government threats that electorates not returning PAP candidates could receive inferior public services. This suggests an effective political opposition is a notion which clearly lays outside the political philosophy of the PAP. Such a view apparently fits less comfortably with today's increasingly middle class electorate. More than this, the election results also suggest that this class can no longer be easily persuaded to indefinitely continue to accept material sacrifice for long term goals.  

Though the PAP's political security in the immediate future is assured, the recent decline in support does raise a number of important questions about the longer term. First, it now appears that in spite of its comprehensive links with grassroots networks, the PAP is less effective than it once was in ascertaining the aspirations of the masses. The increasing concentration of power in the hands of professionals and technocrats may have contributed to this. Moreover, the various
structural links with grassroots organisations have, over time, become more exclusively channels of command rather than gauges of opinion. Second, the composition and experiences of the electorate have changed. Ironically, some of these circumstances arise out of the very success of the PAP's industrial strategy which generated a relatively affluent middle class accustomed until now only to rapid material improvements in living conditions. After all, Singapore's 550% increase in per capita income over the past 25 years is second only to the increase of Saudi Arabia.\textsuperscript{58} How adequately the Party responds to these new circumstances will have a considerable bearing on both the PAP's future and Singapore's political culture. Arguably many of the irritations and disillusions of the electorate accounting for the swing to opposition parties could be allayed by mild reforms. After 25 years of supremacy, however, the PAP shows all the signs of being too rigid to accommodate such changes. Thus, faced with the option of either relaxing or intensifying authoritarianism to maintain social control, it is quite possible that the latter will be favoured by the PAP, even taking into account the assession to power of the Second Generation leadership.\textsuperscript{59}

A major challenge confronting the PAP, then, is that of sustaining political legitimacy when the traditional basis for this, economic growth, is both taken for granted by the electorate and likely to be limited in the immediate future. The PAP has itself contributed to the potential legitimisation crisis by consistently portraying economic performance as the sole yardstick of good government. In its utilitarian and economistic theory of government, the PAP has never embraced non-economic values, especially those appealing to political liberalism. It now finds itself the victim of its own ideology, not matching up to its stated definition of good government and unable to comfortably justify its monopoly of power on more abstract grounds. This is not to suggest that we can expect a rapid political demise for the PAP. For one thing, the superstructure put in place by the PAP over the last two and a half decades ensures a certain degree of continuity. The comprehensive PAP control and influence in all spheres of Singapore society is
unlikely to be dismantled easily or quickly. Moreover, as we have seen above, the PAP is quite capable of further exploiting these existing social relations to repress the emergence of political opposition resulting from the sharpening of domestic economic and political contradictions.

Conclusion
In summary, Singapore's particular strategy to exploit the new international division of labour has contained important economic contradictions which are now compounding the difficulty of the global recession. As if the threat to economic growth is not itself enough to pose political problems for the PAP, the strategy has also alienated the electorate with unpopular social policies in support of the new phase of industrialisation. Some of these policies derived from the contradiction between fiscal pressures on the state associated with the new economic strategy and the continuation of the state's welfare role which is being exacerbated, but not instigated, by the world recession. In short, Singapore appears to have reached a watershed in its political economy, one which has been hastened by the policies of the 'Second Industrial Revolution'.
FOOTNOTES


5. ibid., p.63.


10. ibid., p.67.


14. ibid.


16. As quoted in "Beckoning Opponents in From the Cold", Asiaweek, 10.8.84, p.13.


20. ibid.
22. ibid.
23. See "Beckoning Opponents in From the Cold", Asiaweek, 10.8.84, p.13.
25. ibid.
26. ibid.
28. V.G. Kulkarni, "In A Rage Over Age", Far Eastern Economic Review, 19.4.84, p.84.
29. ibid.
31. At the time, accumulated CPF contributions amounted to approximately $20 billion. See "Concern Over the Workers' Fund", Asiaweek, 11.5.84, p.35.
32. ibid.
34. As quoted in ibid.
35. Lee drew on a study conducted at the University of Minnesota to claim that inherited determinants accounted for 80% and the environment only 20%. See ibid.
36. For the full text of Lee's speech see "Talent for the Future", Straits Times, 15.8.83.
39. Second Deputy Prime Minister S. Rajaratnam, for example, tried to give Lee's speech a new interpretation. He tried to convince people that Lee's real concern was that children in large families with uneducated parents lacked the appropriate environment to develop their capacities. However, he also reconfirmed his faith in the genetic determination of intelligence, claiming that to produce one able person, one needed at least 100,000 people and a population of five million for a genius. See "Lee Makes a 'More Babies' Call", Asiaweek, 2.9.83, p.41 and V.G. Kulkarni, "Designer Genes", Far Eastern Economic Review, 8.9.83, p.24. Lee himself even had
to acknowledge the public outcry and toned his views to assert: "However capacious the hardware (nature) without the software (nurture), not much can be made of the hardware". As quoted in Quah, 1984, p.180.

40. "Breeding A Talent Elite", Asiaweek, 10.2.84, p.18.

41. For extracts of letters see "Breeding the Brightest", Asiaweek, 2.3.84, p.23.

42. ibid., pp.24-25.

43. The Singapore Broadcasting Commission (SBC) canvassed the views of the controversial genetecist Professor H.J. Eysenck who, quite obviously, concurred with Lee. This was followed by various sympathetic programmes by the SBC, including a four-part series entitled "Genes and Your I.Q." and the commissioning of a 16-part serial demonstrating how incomplete life is for unmarried women. Newspapers and magazines also ran appropriately sympathetic features on the government's ideas. See Quah, 1984, p.181 and "Breeding A Talent Elite", Asiaweek, 10.2.84, p.18.


45. "Some Money for Bright Mommies", Asiaweek, 16.3.84, p.43.

46. To qualify, neither spouse could have completed high school nor could a family's monthly income exceed $1,500. Should either spouse's monthly income exceed $750, even should the total family income be below $1,500, the family would also be ineligible. See V.G. Kulkarni, "Some Are More Equal", Far Eastern Economic Review, 21.6.84, pp.31-32.

47. In November 1983, the Party's organising secretary, Goh Chok Tong, called on all PAP MPs to recommend candidates for the next general elections. This was followed by the announcement that the new candidates would be revealed in batches starting in early 1984. In December 1983, Lee Kuan Yew also added to speculation by referring to the need for the redrawing of electoral boundaries and contending that there would be no need for a by-election to fill the vacant seat of Havelock brought about by the death of Hon Sui Sen. See Lee Lai To, "Singapore's Continuous Search For Quality", Southeast Asian Affairs 1984, p.285.


49. See "What Went Wrong for PAP", Straits Times, 29.12.84.

50. An inordinate amount of attention was devoted to the fact that 1985 was the 25th anniversary of Singapore's self-government. Amongst other things, the celebrations of the 25th year included a National Exhibition at the World Trade Centre depicting the successes of the last 25 years. The cost of this exhibition was $18 million. See ibid.


53. ibid.
54. Ahmad Osman, "WP Says 'No' to Non-Elected Seat Offer", Straits Times, 5.1.85.

55. As quoted in "PM Replies to Voters' Signal", Straits Times, 24.12.84.

56. See ibid.


59. Following the December 1984 election, there were a number of significant leadership changes in cabinet. The only remaining Old Guard of independence-era ministers remaining with Lee Kuan Yew were S. Rajaratnam and Edward Barker, both of whom have indicated they wish only to serve half a term. Importantly, Goh Chok Tong was elevated to First Deputy Prime Minister, an appointment which has been widely interpreted as indicative of Lee's successor. This, however, has not totally allayed speculation that Lee may delay his retirement to give his son, Lee Hsien Loong, time to take over the helm. Lee Hsien Loong was appointed Junior Minister of Trade and Industry in the new cabinet. In other changes, Ong Teng Cheong replaced S. Rajaratnam as Second Deputy Prime Minister and Richard Hu Tsu Tau was to replace Dr Tony Tan as Finance Minister after the 1985 budget. Dr Tan was to resume the position of Minister of Trade and Industry as well as assume education and health posts. Reappointments included: E.W. Barker, Minister of Law; Teh Cheang Wan, Minister of National Development; S. Dhanabalan, Minister of Foreign Affairs and of Community Development; Ahmad Mattar, Environment Minister; Yeo Ning Hong, Minister of Communications and Information; S. Jayakumar, Minister of Home Affairs; and Yeo Yock Suan, Senior Minister of State. See Stephen Duthie, "Singapore Cabinet Augurs Few Changes", Asian Wall Street Journal, 2.1.85.
CONCLUSIONS

The primary focus of this thesis has been the state and its role in the industrialisation of Singapore. As argued in the first chapter, there is a conspicuous dearth of such analysis and the dominant accounts of NIC industrialisation have tended to ignore, downplay or misrepresent the role of the state. In short, treatment of the state has been theoretically inadequate. The fundamental assumption of this thesis has been that such inadequacy represents a serious flaw in the understanding of successful industrialisation through incorporation into the new international division of labour.

Two broad views have therefore been challenged in this study. The first pertains to neo-classical and rational choice theories, which largely depict politics and economics as separate domains. These analyses steer us away from the state or encourage an interpretation of state policy as a technical rather than political process. The second view, most clearly but not exclusively represented in dependency theory, obscures the complexity of political forces which define and condition the state's industrial policy. In explaining the influence of the state over Singapore's pattern of industrialisation, together with the circumstances which have made this possible, this study has endeavoured to transcend these weaknesses. Through the development of six central propositions, this thesis has in effect argued that NIC industrialisation can best be explained in terms of two complementary theoretical approaches. It confirms the importance of theories depicting the evolution of a new international division of labour, but it also emphasises the primacy of the state in facilitating incorporation into this structure and the endogenous factors making this possible.

According to the first proposition, and contrary to the rational choice argument, Singapore's incorporation into the new international division of labour, and its subsequent industrialisation, cannot be explained simply in terms of 'good' policies. Part II of the thesis demonstrated this point. Here it was explained that
after self-government, the PAP was firmly committed to an ISI strategy. The failure of political merger with Malaysia soon forced a reconsideration of strategy. Further, it happened that this crisis occurred at a particular juncture in the development of international capitalism which presented Singapore with a viable alternative. In other words, the feasibility of the EOI strategy is historically-specific rather than universally valid. Hence, Part II showed in particular how the internationalisation of production by electronics companies underscored Singapore's initial post-independence industrialisation. This is no insignificant point given that rational choice theory prescribes the adoption of policies without appreciation of historical opportunity. What I have shown in the case of Singapore is that certain objective conditions have made these policies conducive to rapid industrialisation. As I will also argue later, however, these objective conditions can change, thereby bringing into question the appropriateness and effectiveness of the same policies elsewhere.

The second proposition outlined in the first chapter also related to historical specificity but focused on domestic rather than international factors. It asserted that, even in the context of favourable external conditions (the emergence of a new international division of labour), domestic socio-political factors determine the inclination and capacity to exploit them. This, it was argued, provided a more satisfactory explanation for why only certain developing countries have been successfully incorporated into the new international division of labour than the notion of 'good' or 'bad' policy choice being the decisive factor. Aside from the failure of merger, Singapore's incorporation had much to do with its specific class formations and the existence of a state which enjoyed a high degree of relative political autonomy. In particular, the early structure of the Singapore economy under British rule militated against the establishment of a significant industrial bourgeoisie. The small industrial bourgeoisie, which did exist in the mid-1960s, was also politically impotent and could pose no challenge to the PAP in the pursuit of its EOI strategy. This situation contrasts sharply with Indonesia, for instance, where the local bourgeoisie and bureaucrats successfully exerted political pressure
to resist, rather than facilitate, the EOI strategies advocated by technocrats. This study has maintained, however, that it is precisely the absence of close integration with the bourgeoisie, and labour, which has enabled the PAP state to act so decisively in implementing and supporting the EOI strategy. Corporatism in Singapore's case, however, was not subsequent to incorporation into the new international division of labour but a prerequisite for it.

The fact of a relatively autonomous state capable of playing a leading role in implementing an EOI strategy is obviously important. How that role is gauged is equally important. This question is at the core of the third central proposition of the thesis which demonstrated that the PAP state has played a critical role in fostering extra-economic conditions favourable for EOI. In particular, the institutional control over organised labour and the general taming or elimination of political opponents has contributed to the availability of a disciplined labour force with reduced bargaining capacity. In this way, the state has contributed towards lower wage costs and the fullest exploitation of this resource. As many of the discussions of the PAP's relations with opposition groups indicated, often this influence is very indirect. It is nevertheless of great significance. Neoclassical economics broadly defined, cannot accommodate such important influences since such factors as political repression do not fit comfortably with quantitative models of comparative advantage. This is not to deny, of course, that the effect of extra-economic factors is extremely difficult to assess. On the evidence presented in this thesis, however, it is not unreasonable to contend that, the state's circumscription of organised labour has made a major contribution to industrialisation. It has also been seen, though, that the speed and flexibility of the bureaucracy has also played its part in facilitating investment. There are historical and political factors accounting for this. The period of British colonial rule established a state apparatus which was potentially useful to PAP industrial plans. This included a civil service which was not just accustomed to a technical and supportive relationship with government, but one which was corruption-free.
The PAP never had to contend with any serious political forces whose power base was located within the civil service. Finally, the state has vigorously promoted ideological support for the activities of international capital. We can only ignore these functions of the state at the expense of understanding the totality of the context within which rapid industrialisation has occurred.

The fourth central proposition of the thesis, that the state has, through various forms of intervention, helped shape Singapore's comparative advantage, is not unrelated to the above point. In effect, extra-economic intervention represents an indirect influence on comparative advantage. Simultaneously, the PAP state has consistently engaged in a host of more direct forms of influence. These have been detailed throughout the study and include direct investment, the provision of social and physical infrastructure, the provision of below-market or even interest-free finance, generous tax exemptions and other assorted forms of direct and indirect subsidisation of costs in preferred areas of production. The emphases and degrees of such intervention have changed over time, with finance packages and tax assistance assuming greater significance in the period of the 'Second Industrial Revolution' due to the greater capital intensity and longer gestation periods associated with higher value-added production. The aim and effect of the intervention has however remained constant: to induce a pattern of investment which might otherwise not have taken place, or taken place at a later time. Certainly state intervention has rendered Singapore a more attractive investment site than it otherwise would have been. At the same time, it has been shown that, particularly in the period of the 'Second Industrial Revolution', the state has contributed to the difficulties of certain forms of production. Through the high wage policy, immigration policy and the Skills Development Fund levy, the demise of low-skill, labour-intensive production has been hastened.

In short, then, this study confirms the view of those such as Lim that the PAP state has helped create Singapore's comparative advantage in the new international division of labour. This interpretation clearly rejects neo-classical understanding of comparative advantage as something 'outside' government.
Attention has been drawn to the ambiguity of the relationship between state and market. The evidence of the thesis suggests they are not neatly-divided entities but interrelated and mutually-defining. This is not the same as claiming that the Singapore state has mapped out the course of industrialisation, nor that its policy objectives have always achieved the intended results. For sure, government policy has taken into account market trends and operates within objective limits, but the market itself is nothing but concrete actors whose investment decisions are significantly influenced by state policy. This is particularly so in a society such as Singapore where the state's influence extends to all spheres of social, political and economic activity. To establish the degree of state influence over comparative advantage with greater precision than has been necessary in this thesis, a range of individual sector studies which investigate the bargaining power of the state would be helpful. Hopefully the macro analysis presented here may lay the groundwork for future sectoral studies which are compatible with the theoretical points of this thesis. Amongst other things, such studies would need to recognise that, owing to the socio-political and historical specificity of different economies, bargaining power, and indeed the political will to bargain with multinational corporations, cannot be explained solely and possibly not even primarily in terms of industry-specific characteristics.

The fifth proposition demonstrated in this thesis is the inseparability of the technical demands of participation in the new international division of labour from the domestic political economy. In the early part of the thesis considerable attention was given to how institutionalised labour control was a functional requirement of entry into the new international division of labour. Not all states have been able to satisfy this requirement in a manner as proficient as that of the Singapore state. In recent times, however, the state's measures to secure participation in the new international division of labour, indeed at a higher rung in its technological ladder, have involved more complex ramifications. As explained in Part IV, the heavy state expenditure outlays required to implement the 'Second
Industrial Revolution' have resulted in attempts by the PAP state to reduce its traditional welfare commitments. I have been reluctant to identify this as a 'fiscal crisis' because the government's considerable foreign reserves could provide, at the very least, a means of delaying the 'crisis' into the distant future.¹ The government's management of these reserves does suggest, however, that it will only call on them as a last resort. Thus, its first priority is to confront the political challenge of cutting welfare spending. The preliminary evidence shows, however, that this will not be easy and cautions us against making predictions about Singapore's future political economy based only on past performance and experience. The question which will need close attention in future research then is how the PAP resolves this problem and the degree to which domestic political conditions may, or may not, restrict the financial capacity of the state to underwrite economic development.

Turning briefly to the final proposition of this thesis, it has been suggested that the pattern of investment by different international capitals further complicates the meaning of 'comparative advantage'. It was demonstrated in Chapter 11 that the patterns of investment by Japanese and US-based capitals contrasted significantly in response to the policies of the 'Second Industrial Revolution'. Comparative advantage is therefore not universally valid in its meaning and, at least in the case of Japanese-based capitals, is weighed against non-cost considerations such as perceived long-term market access. Amongst other things, such findings should encourage circumspection in the use not only of the concept of 'comparative advantage' but also the 'new international division of labour'. Neither are consistent, compelling and exclusive realities but helpful generalisations warranting specification.

Finally, and somewhat more speculatively, the experience of Singapore in the period of the 'Second Industrial Revolution' does not seem to suggest that Singapore is about to achieve a dramatic qualitative leap in its industrial progress. On the evidence of Chapter 11, we could only say that there has been a significant, but not spectacular, increase in the value-added of investments. The
big boosts in R & D work which the government hoped to attract have not yet materialised. Whether Singapore proves an attractive alternative site for genuinely sophisticated high technology production remains to be seen. Thus one question which future research might fruitfully pursue is whether or not Singapore is beginning to exhaust the possibilities of EOI based on the attraction of lower labour costs.

The question of the longer term possibilities of the Singapore model obviously belongs to a broader investigation of the new international division of labour itself. Recent structural and technological changes to the conditions underlaying international investment would need to be taken into account. In particular, the tendency towards increased market protection by the major economies of the world and the extension of automated production processes have the potential to affect qualitative changes to the development of international capitalism. Should such tendencies fully mature, the EOI models of development could be rendered historically obsolete.

The first of these major threats to the EOI strategy, protectionism, is of course not new. We have seen how the PAP development plan for the 1980s was in part precipitated by the desire to minimise the effects of such a tendency by moving out of low value-added labour-intensive production. The new problem, however, is not just that unemployment in the centre has led to political pressure to retain some labour-intensive forms of production. Rather, there is increasing evidence that the world monetary system is incapable of coping with a genuinely liberal world trade order. This derives from the sharpening of contradictions between the different world economies and manifests itself in unstable international exchange rates. As Thurow points out, continued and expanded global economic integration requires the major industrial countries to co-ordinate their monetary and fiscal policies and to limit movements in exchange rates between major currencies.² For the world's major economic actors, however, such an approach would produce difficult economic and political pressures and
challenges. The US's relative decline in international manufacturing competitiveness, the seriousness of unemployment in Europe, and the structural interdependence of the Japanese economy which undermines its capacity to absorb imports would all appear at this stage more likely to be resolved by selective withdrawal from international competition than by mutual efforts to foster international trade and economic integration.\textsuperscript{3} Industry after industry is progressively being affected by the protectionist trend - textiles, clothing, footwear, steel, cars, consumer electronics. In particular, the growing use of non-tariff barriers (NTBs) threatens global economic integration. The extent of NTBs more than doubled in the US between 1980 and 1983 and increased by 38\% in the European Community.\textsuperscript{4} As Table 21 below indicates, a greater share of industrial country imports from developing countries has been subject to NTBs than imports from other industrial countries. These figures do not take account of the tightening of existing NTBs so in all likelihood underestimate the increased resort to formal trade barriers to developing country exports.\textsuperscript{5} The point is that the end of the world recession need not necessarily witness the return of export opportunities for developing countries, even if they have shifted their production emphasis to higher value-added manufactures.

\begin{table}[h]
\centering
\caption{Share of Imports Subject to Non-Tariff Barriers in Industrial-Country Markets, 1983}
\begin{tabular}{lrrr}
\hline
Market & \multicolumn{3}{c}{Percentage of imports from:} \\
 & Industrial & All developing & Major \\
 & countries & countries & borrowers \\
\hline
EC & 10.2 & 21.8 & 24.9 \\
Japan & 9.3 & 10.5 & 9.6 \\
United States & 7.7 & 12.9 & 14.5 \\
All industrial countries & 10.5 & 19.8 & 21.9 \\
\hline
\end{tabular}
\end{table}

Note: Data are based on 1981 weighted averages for all world trade in all products except fuels.

The second major threat to the EOI strategy, the tendency towards automation, is just beginning to take root. Up until now, automation of production processes has not reached such maturity as to cancel out the benefits of cheaper labour in developing countries. Now, in industries such as electronics and textiles, however, the process has in some cases reached that point. Cho, for example, points out that one analysis of the manufacturing cost per integrated circuit by electronics companies in Hong Kong and the US showed that the installation of automatic bonding machines with pattern recognition would virtually eliminate the offshore advantage.6 Already such companies as Motorola and Fairchild Camera and Instrument Corporation have moved production lines from Hong Kong and South Korea back to the US where modern computer-controlled assembly of chips reduces costs to the same level as at the offshore sites.7 More recently, Fairchild has returned its assembly operations from Singapore and Indonesia back to Portland in the US. Whereas a Southeast Asian worker can wire up to 120 integrated circuits to their frames in an hour, one of the 34 automated machines in Portland can wire 640 circuits per hour. Seeing as one person is able to monitor eight of the new machines, the output per person is therefore 5,120 circuits per hour.8

Clearly, the increased productivity of labour and the reduced portion of labour to total production costs brought about by automation threatens the competitive advantage of lower wage export bases. Whilst this tendency is as yet only in its infancy, its maturation would have profound implications for the EOI economies of the Third World. Aside from the consequent reduced economic growth, this would represent a serious obstacle to any further transfer of technology which is so important to the general industrial expertise of these countries. How far this tendency develops and how developing country governments respond is of course open to speculation. One possible pressure arising from increased automation though would be for even more active efforts by NICs to subsidise production both directly and indirectly in order to attract investment.
The two points raised above should be taken into account in any assessment of the significance of the current world recession which has hit developing countries in general, and NICs in particular, quite hard. For developing countries as a whole, exports of manufactures grew at an impressive rate of 10.6% a year between 1973 and 1980, but for the period 1980-1983 the rate was only 6.9% a year. The Asian NICs, however, have suffered especially sharp reductions in export earnings – a problem which at the time of writing is only intensifying. In 1985, for the first time, the growth of exports of the NICs actually fell behind the growth of world trade. As a result, these heavily export-dependent economies experienced significant declines in GNP growth. Having been accustomed to annual GNP growth rates of 8-10% for nearly two decades, Taiwan, Hong Kong and South Korea had growth rates ranging from 4-6% for 1985. Singapore suffered the most severe downturn, its economy actually shrinking by 2%. Without doubt, the severity of these declines has been fundamentally determined by the fall in demand from the advanced industrial economies. Owing to the rise in protectionism and the structural changes outlined above, it might be overly optimistic to expect another recovery of the sort which followed the 1973-1975 recession. Further, the last decade in the advanced capitalist economies has seen capital succeed in reasserting greater control over labour and reductions in real wage levels. The wage gap between NICs and these economies has therefore narrowed to some extent. This could further arrest the tendency to move offshore. In short, a combination of historical circumstances could give rise to a new phase in international capitalism which would make it extremely difficult for the experiences of the NICs to be duplicated by other developing countries and could limit the scope for further advances by the NICs themselves. What Singapore has achieved in the last two-and-a-half decades is the product not just of a specific set of domestic but international circumstances. Both are dynamic and difficult to predict.
In conclusion, it is worth re-iterating that the primary contribution of this thesis has been an attempt to clarify the nature of the state's involvement in the industrialisation of Singapore and the uniqueness of the historical and socio-political conditions facilitating this involvement. Because of the uniqueness of these conditions, it is not valid to extrapolate that incorporation into the emerging new international division of labour through an EOI strategy is the most appropriate path, or even a possible path for developing countries in general. Moreover, we should be particularly discerning in the use to which we make of studies of NICs, or indeed any economy, which uncritically employ the neo-classical notion of comparative advantage. In demystifying the industrialisation process it can be seen that concrete actors in concrete conditions, and not abstract laws, determine development. As in the case of Singapore, the state has been a critical actor. As such, it has been a serious theoretical omission in the past not to give it systematic treatment.
FOOTNOTES


3. ibid.


5. For example, the Multifibre Arrangement is continually tightened when it is renegotiated.


7. ibid., p.73.


APPENDIX OF TABLES
## APPENDIX OF TABLES

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<th>Title</th>
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<td>7.</td>
<td>Value-Added Per Worker by Industry, 1959-1983</td>
<td>560</td>
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<tr>
<td>15.</td>
<td>Selected Major Indicators of Pioneer Firms of Singapore, 1961-1983</td>
<td>572</td>
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<td>17.</td>
<td>Trade Unions and Membership, 1960-1983</td>
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<td>19.</td>
<td>Rate of Wage Increases, Productivity Growth and CPI, 1972-1981</td>
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<td>Singapore Government Equity Participation in Companies</td>
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Table 1: Selected Principal Economic Indicators, 1959-1983

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### Table 2: Selected Ratios of Principal Manufacturing Statistics, 1959-1983

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### Table 3: Industrial Output by Industry, 1959–1983

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TOTAL MANUFACTURING | 15,317.4 | 17,518.2 | 19,666.7 | 25,133.7 | 31,657.9 | 36,787.1 | 36,667.4 | 37,221.5 |

Table 4: Value-Added of Industrial Establishments by Industry, 1959-1983

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TOTAL MANUFACTURING 142.8 142.1 171.0 197.7 245.4 275.6 341.4 408.6 472.4
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**TOTAL MANUFACTURING** | 604.5 | 848.5 | 1,093.7 | 1,366.5 | 1,782.3 | 2,540.6 | 3,528.2 | 3,411.1
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**TOTAL MANUFACTURING**

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*Sources: Department of Statistics, Singapore, Report on the Census of Industrial Production, 1959-1983*
Table 5: Direct Exports by Industry, 1960-1983

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Table 6: Workers Engaged in Industrial Production by Industry, 1958-1983

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<td>4,578</td>
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<td>270</td>
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<td>n.a.</td>
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<td>135</td>
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<td>678</td>
<td>769</td>
<td>810</td>
<td>871</td>
<td>1,007</td>
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<td>462</td>
<td>562</td>
<td>634</td>
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TOTAL MANUFACTURING EXCL RUBBER PROCESSING | 25,606 | 27,414 | 26,481 | 27,381 | 34,622 | 39,344 | 45,535 | 51,066 | 56,625 |
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TOTAL MANUFACTURING EXCL RUBBER PROCESSING

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TOTAL MANUFACTURING EXCL RUBBER PROCESSING

Table 7: Value-Added Per Worker by Industry, 1959-1983

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TOTAL MANUFACTURING EXCL RUBBER PROCESSING 19.1 20.4 21.2 23.8 29.9 34.5 34.0 36.2

Table 8: Gross Domestic Product by Industry, 1960-1983

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* Preliminary figures.

Table 9: Manufacturing as a Percentage of Total Gross Domestic Product, 1960-1983

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<td>21.6</td>
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*Preliminary figure

Table 10: Foreign Investment in Gross Fixed Assets, 1965-1983

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<tr>
<td>1970</td>
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<td>995</td>
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<td>1971</td>
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<td>1975</td>
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<td>1976</td>
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<td>1977</td>
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<td>Mid-1983</td>
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</table>

*Reclassification of foreign investment.

## Table 11: Cumulative Foreign Investment in Manufacturing by Industry Group, 1970 - mid-1983

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<td>116</td>
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<td>27</td>
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<td>90</td>
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<td>153</td>
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<td>64</td>
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<td>46</td>
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<td>41</td>
<td>63</td>
<td>52</td>
<td>57</td>
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<td>42</td>
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<td>77</td>
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<td>249</td>
<td>316</td>
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<td>23</td>
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**Million Dollars**

|          | 1970  | 1,575 | 2,283 | 2,659 | 3,054 | 3,380 | 3,739 |
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<td>194</td>
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<td>97</td>
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<td>106</td>
<td>137</td>
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<td>72</td>
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<tr>
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<td>60</td>
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<td>88</td>
<td>78</td>
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<td>531</td>
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<td>76</td>
<td>72</td>
<td>70</td>
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<td><strong>TOTAL</strong></td>
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<td>6,349</td>
<td>7,520</td>
<td>8,593</td>
<td>9,607</td>
<td>10,514</td>
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Data for 1974 to 1978 are not comparable with that of previous years on account of reclassification of companies according to the Singapore Industrial Classification, 1969.

Data for 1979-mid-1983 are not comparable with that of previous years on account of reclassification of companies according to the Singapore Standard Industrial Classification (Revised 1978).

*Sources of foreign investment were reclassified as from 1982.

### Table 12: Cumulative Foreign Investment in Manufacturing by Country of Origin, 1970 - mid-1983

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<td>1,238</td>
<td>1,324</td>
<td>1,907</td>
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<td>2,763</td>
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<td>10,514</td>
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<td>*EC, of which</td>
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**Sources of foreign investment were reclassified as from 1982.**

Table 13: Net Investment Commitments in Manufacturing by Industry, 1972-1984

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Note: Net investment commitments refer to gross commitments less projects withdrawn or uncertain as at 31 December 1984.

Table 14: Net Investment Commitments in Manufacturing by Country of Origin, 1972-1984

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### Table 15: Selected Major Indicators of Pioneer Firms of Singapore, 1961-1973

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<th>Establishment No.</th>
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**Sources:**
- Nyaw Mee-kau, Industrial Growth and Export Expansion in Singapore, Hong Kong: Kingsway International, 1979, Appendix Table A-33, p.188.
### Table 16: Industrial Stoppages and Trade Disputes, 1960-1983

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<td>1965</td>
<td>30</td>
<td>3,374</td>
<td>45,800</td>
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<td>1966</td>
<td>14</td>
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<td>10</td>
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<td>-</td>
<td>-</td>
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<td>1971</td>
<td>2</td>
<td>1,380</td>
<td>5,449</td>
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<td>10</td>
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<td>5,380</td>
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<tr>
<td>1975</td>
<td>7</td>
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<td>4,853</td>
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<td>1976</td>
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<td>1,576</td>
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<td>-</td>
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</tr>
<tr>
<td>1983</td>
<td>-</td>
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</tbody>
</table>

**Note:** 1. Figures related to man-days lost within the period shown, irrespective of whether or not the stoppages began in that period or earlier.

2. Figures include the two-day general strike in October involving approximately 19,700 workers and 34,300 man-days lost.

3. Figures from 1979 exclude dispute on refusal to negotiate and union recognition.

**Sources:**
Table 17: Trade Unions and Membership, 1960-1983

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<thead>
<tr>
<th>Year</th>
<th>Unions</th>
<th>Members</th>
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<td>144,770</td>
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<tr>
<td>1961</td>
<td>124</td>
<td>164,462</td>
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<td>122</td>
<td>189,032</td>
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<td>1963</td>
<td>112</td>
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<td>1964</td>
<td>106</td>
<td>157,050</td>
</tr>
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<td>154,052</td>
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<tr>
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<td>97</td>
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<td>1973</td>
<td>92</td>
<td>191,481</td>
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<tr>
<td>1974</td>
<td>90</td>
<td>203,561</td>
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<tr>
<td>1975</td>
<td>89</td>
<td>208,561</td>
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<td>1976</td>
<td>91</td>
<td>221,936</td>
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<td>1978</td>
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<td>236,907</td>
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<td>1979</td>
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<td>83</td>
<td>243,841</td>
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<td>1982</td>
<td>89</td>
<td>214,337</td>
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<td>1983</td>
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Table 18: Consumer Price Index, 1961–1983
Annual Percentage Changes

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<th>Year</th>
<th>Per Cent</th>
<th>Year</th>
<th>Per Cent</th>
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<td>1975</td>
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<td>1976</td>
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<tr>
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<td>1977</td>
<td>3.2</td>
</tr>
<tr>
<td>1966</td>
<td>2.0</td>
<td>1978</td>
<td>4.8</td>
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<td>1967</td>
<td>3.3</td>
<td>1979</td>
<td>4.0</td>
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<td>1968</td>
<td>0.7</td>
<td>1980</td>
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<tr>
<td>1969</td>
<td>-0.3</td>
<td>1981</td>
<td>8.2</td>
</tr>
<tr>
<td>1970</td>
<td>0.4</td>
<td>1982</td>
<td>3.9</td>
</tr>
<tr>
<td>1971</td>
<td>1.8</td>
<td>1983</td>
<td>1.2</td>
</tr>
<tr>
<td>1972</td>
<td>2.2</td>
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</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>(i) NWC Wage Increases</th>
<th>(ii) Cumulative Compound Wage Increases</th>
<th>(iii) Actual Cumulative Wage Increases</th>
<th>(iv) Cumulative Productivity Growth Rate</th>
<th>(v) Cumulative CPI Growth Rate</th>
<th>(vi) Cumulative Compound (v)</th>
<th>(vii) Cumulative Compound (vi)</th>
<th>(viii) Sum of (vi) + (viii)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8.2%</td>
<td>8.2%</td>
<td>2.1%</td>
<td>2.1%</td>
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<tr>
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<td>17.7</td>
<td>9.59</td>
<td>18.4</td>
<td>3.6</td>
<td>12.1</td>
<td>19.6</td>
<td>22.1</td>
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<td>36.8</td>
<td>17.81</td>
<td>39.5</td>
<td>3.4</td>
<td>15.9</td>
<td>22.3</td>
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<td>45.0</td>
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<td>58.2</td>
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<td>64.5</td>
<td>6.88</td>
<td>77.6</td>
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<td>27.2</td>
<td>3.2</td>
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<td>126.0</td>
<td>13.03</td>
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<td>149.3-158.3</td>
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<td>163.0</td>
<td>4.1</td>
<td>45.3</td>
<td>8.2</td>
<td>98.4</td>
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</table>

* The actual rate of change of monthly earning for all industries is not available for 1972. It is assumed to be 8%, using the NWC recommendations as a guide.

Table 20: Degree of Implementation of NWC in Each Sector/Industry
By Percentage of 'Benefited' Employees

<table>
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<tr>
<th></th>
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<th></th>
<th></th>
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<th></th>
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<tbody>
<tr>
<td>Sector/Industry</td>
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<td></td>
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<td>1. Private Sector</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Agriculture, forestry and fishing</td>
<td>30-39%</td>
<td>40-49%</td>
<td>30-39%</td>
<td>50-59%</td>
<td>40-49%</td>
<td>90%</td>
<td>60-69%</td>
<td>60-69%</td>
<td>70-79%</td>
<td>90%</td>
</tr>
<tr>
<td>2. Mining and Quarrying</td>
<td>50-59%</td>
<td>40-49%</td>
<td>60-69%</td>
<td>50-59%</td>
<td>60-69%</td>
<td>90%</td>
<td>80-89%</td>
<td>70-79%</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>3. Manufacturing</td>
<td>50-59%</td>
<td>50-59%</td>
<td>60-69%</td>
<td>60-69%</td>
<td>70-79%</td>
<td>90%</td>
<td>80-89%</td>
<td>80-89%</td>
<td>80-89%</td>
<td>90%</td>
</tr>
<tr>
<td>4. Construction</td>
<td>20-29%</td>
<td>20-29%</td>
<td>30-39%</td>
<td>30-39%</td>
<td>40-49%</td>
<td>90%</td>
<td>60-69%</td>
<td>60-69%</td>
<td>70-79%</td>
<td>90%</td>
</tr>
<tr>
<td>5. Commerce</td>
<td>20-29%</td>
<td>20-29%</td>
<td>40-49%</td>
<td>40-49%</td>
<td>50-59%</td>
<td>90%</td>
<td>70-79%</td>
<td>70-79%</td>
<td>70-79%</td>
<td>90%</td>
</tr>
<tr>
<td>6. Transport, Storage &amp; Communications</td>
<td>40-49%</td>
<td>50-59%</td>
<td>60-69%</td>
<td>60-69%</td>
<td>60-69%</td>
<td>80-89%</td>
<td>80-89%</td>
<td>70-79%</td>
<td>70-79%</td>
<td>90%</td>
</tr>
<tr>
<td>7. Finance, Insurance etc.</td>
<td>20-29%</td>
<td>20-29%</td>
<td>60-69%</td>
<td>50-59%</td>
<td>60-69%</td>
<td>90%</td>
<td>80-89%</td>
<td>80-89%</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>8. Community, Social &amp; Personal Services</td>
<td>50-59%</td>
<td>50-59%</td>
<td>60-69%</td>
<td>50-59%</td>
<td>50-59%</td>
<td>80-89%</td>
<td>80-89%</td>
<td>70-79%</td>
<td>70-79%</td>
<td>90%</td>
</tr>
<tr>
<td>9. Total Private Sector</td>
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<td>40-49%</td>
<td>60-69%</td>
<td>50-59%</td>
<td>60-69%</td>
<td>90%</td>
<td>80-89%</td>
<td>70-79%</td>
<td>70-79%</td>
<td>90%</td>
</tr>
<tr>
<td>11. Public Sector</td>
<td>60-69%</td>
<td>60-69%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>Total (Private &amp; Public Sector)</td>
<td>50-59%</td>
<td>50-59%</td>
<td>70-79%</td>
<td>60-69%</td>
<td>70-79%</td>
<td>90%</td>
<td>80-89%</td>
<td>80-89%</td>
<td>80-89%</td>
<td>90%</td>
</tr>
</tbody>
</table>

1. 'Benefited' employees refer to employees who benefited from the NWC recommendations or received the equivalent.
2. Estimated ranges based on weighted average.

Source: Chew Soon Beng and Rosalind Chew, "Incomes Policy: The Singapore Experience", Mimeo, National University of Singapore, 1983, Table 2,
## Table 21: Sources and Uses of Development Fund, 1955-1983/84

<table>
<thead>
<tr>
<th>Year</th>
<th>Balance (Beginning of Financial Year)</th>
<th>Sources</th>
<th>Uses</th>
<th>Others</th>
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<td></td>
<td></td>
<td>Total</td>
<td>Consolidated Revenue Account</td>
<td>Consolidated Loan Account</td>
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<td>1956</td>
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<td>20.0</td>
<td>-</td>
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<td>30.1</td>
<td>218.2</td>
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<td>1,988.7</td>
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1. Refers to financial year 1st January 69 to 31st March 70. From 1970, figures refer to financial year 1st April to 31st March.
2. Based on budget estimates.

Table 22: Singapore Government Equity Participation in Companies

<table>
<thead>
<tr>
<th>Name of Company</th>
<th>Company’s Paid Up Capital ($'000)</th>
<th>Percentage of Government Shareholding*</th>
<th>Unlisted or Listed</th>
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<td><strong>I Holding Companies</strong></td>
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<td>7 Singapore Textiles Industries Ltd</td>
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<td>8 Sugar Industry of Singapore Ltd</td>
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<td>12 Chartered Industries of Singapore Pte Ltd</td>
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<td>13 Ordnance Development &amp; Engineering Co of Singapore Pte Ltd</td>
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<td>1</td>
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<td>Singapore Zoological Gardens</td>
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<td>4</td>
<td>Parkland Golf Driving Range (Pte) Ltd</td>
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<td>International Development &amp; Consultancy Corporation (Pte) Ltd</td>
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<td>5</td>
<td>Urban Development &amp; Management Co (Pte) Ltd</td>
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<td>Primary Industries Enterprises (Pte) Ltd</td>
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</table>

* Government includes statutory bodies

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<tr>
<th>Author</th>
<th>Title</th>
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<tbody>
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<tr>
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</tr>
<tr>
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