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

..................................

Justin John Pyvis
Abstract

Ports form an essential part of a country's infrastructure by facilitating trade and ultimately helping to reduce the cost of goods for consumers. They are characterised by solidity in physical infrastructure and legislative frameworks – or high levels of “asset specificity” – but also face the dynamics of constantly changing global market conditions requiring flexible responsiveness.

Through a New Institutional Economics lens, the ports of Port Hedland (Australia), Prince Rupert (Canada), and Tauranga (New Zealand) are analysed. This dissertation undertakes a cross-country comparative analysis, but also extends the empirical framework into an historical analysis using archival data for each case study from 1860 – 2012. How each port's unique institutional environment – the constraints, or “rules of the game” – affected their development and organisational structure is then investigated. This enables the research to avoid the problem where long periods of economic and political stability in core institutions can become the key explanatory variables.

The study demonstrates how the institutional pay-off structure determines what organisational forms come into existence at each port and where, why and how they direct their resources. Sometimes, even immense political will and capital investment will see a port flounder (Prince Rupert); or great resource booms will never be captured (Port Hedland); other times, the port may be the victim of special interest pressure from afar (Tauranga). All of these failures, and eventual successes, are traced to changes in each port's institutional environment over time.

This work is particularly relevant to those involved in port planning of all forms, whether dealing with higher-level governance issues or everyday allocation problems. The thesis concludes that for ports, institutions do matter: without understanding the
institutional constraints a particular port faces at a particular point in time, even the best laid plans may go awry.
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Given that this is an historical work, it would not have been possible without the help and support of archivists and librarians from: Archives New Zealand (Auckland, Tauranga and Wellington); Library and Archives Canada (Ottawa); Prince Rupert City & Regional Archives (Prince Rupert); the State Records Office of Western Australia (Perth); University of Victoria (Vancouver Island); University of British Columbia (Vancouver); and the Vancouver Public Library (Vancouver). I thank them all for their sometimes painstaking efforts in aiding my search for original records.

Finally, my family and friends. I would like to thank my mother, Mandy, for her support and tolerance of my presence around the house; and my father, Richard, for the time he spent reading and commenting on my work. I would also like to thank my brother, Kingsley; my girlfriend, Keali; and of course my friends, for their understanding and encouragement throughout.
Chapter 1: Introduction

1.1. Introduction

The great classical economist Adam Smith wrote in the *Wealth of Nations* that "without the disposition to truck, barter, and exchange, every man must have procured to himself every necessary and conveniency of life which he wanted".¹ That short passage highlights how important Smith thought exchange was in improving the welfare of individuals. As facilitators of trade ports therefore play a critical role in any society, growing in importance every day as globalisation increasingly connects people with one another and economies become highly specialised and complex. Today 90 per cent of world trade and 80 per cent in value is carried by ship, yet maritime costs have not declined for two decades.² Ports, as a key component in the maritime transport network, are one place where those potential efficiency gains may be found.

The first ports began to emerge as people discovered new regions, often with diverse climates that produced goods not readily available locally. Gordon Jackson described this process, noting that “as men began to extend their horizons, as population grew and produced surpluses of some goods and shortages of others, trade began to flow wherever water sites were suitable”.³ Since those days ports have grown increasingly important to the lives of people everywhere, allowing for the production and consumption of a range of goods that would not otherwise be available to the average person.

Distance is no longer the barrier it once was. Marc Levinson estimated that once containerisation took hold, a “doubling of the distance shipped – from Hong Kong to

Los Angeles, for example, rather than Tokyo to Los Angeles [sic] – raises the shipping cost by only 18 percent”.\textsuperscript{4} With distance conquered, the key factors became “well-run ports and a lot of volume”, or how to effectively achieve least-cost economies of scale.\textsuperscript{5}

One factor that constrains port efficiency is the institutional matrix that limits the choice set faced by individuals within it. According to the Nobel Prize winning economist Douglass North, institutions can be thought of as the “rules of the game”, guiding economic activity through incentives.\textsuperscript{6} Important also are their enforcement characteristics, as rules that cannot be credibly enforced tend not to be effective.\textsuperscript{7}

Despite the importance of both ports and institutions in facilitating efficient, welfare-improving exchanges, there have been relatively few studies that look at the two in unison.\textsuperscript{8} Although in recent years this has begun to change there still remains a void, in particular of studies that look at institutional change.\textsuperscript{9} Failing to understand the existing institutions that constrain the choice set faced by port actors and how they evolve – for better or worse – may lead to poor outcomes. According to another Nobel Prize winner, the late Elinor Ostrom:

“Policy reform that ignores an existing institutional context is doomed to failure.”\textsuperscript{10}

Chapter 2 surveys the existing port economics literature and then provides an outline of the New Institutional Economics (NIE) framework utilised throughout this study. This dissertation then attempts to broaden the port economics literature by including

\textsuperscript{4} Marc Levinson, \textit{The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger} (Princeton University Press, 2010), 268.
\textsuperscript{5} Ibid., 269.
\textsuperscript{8} Chapter 2.1 surveys the literature.
\textsuperscript{9} Chapter 2.4 provides examples of how the literature is starting to include institutions.
institutions in the analysis of port efficiency, organisation and governance over time. A comparative approach through the use of case studies was selected to achieve this goal to allow for a sufficiently large dataset as well as some institutional diversity. The ports selected were Port Hedland in Western Australia; Prince Rupert in British Columbia, Canada; and Tauranga in New Zealand.

A comparative approach allows one to better capture the dynamic component of economic efficiency – the ability of a port to adapt to changing circumstances – and also the potential benefits and costs a particular institutional arrangement may have in terms of (largely unseen) foregone arrangements.

1.2. Design of the Thesis

Roscoe Pound once stated that:

“Perhaps no institution of the modern world shows such vitality and tenacity as our Anglo-American legal tradition which we call the common law.”

That idea inspired the selection of case studies which all had an Anglo-Saxon, Common Law tradition. In other words, they all inherited their institutions from Britain. While it would have been interesting to compare ports with a completely different institutional heritage, for example the continental European system of Civil Law, the barriers involved in investigating a port where the spoken language is not English were a significant constraint. In addition, by limiting the focus of this study to Common Law locations it was hoped that the institutional diversity that evolved over time would lead to more testable outcomes – i.e., outcomes that can be more easily traced to institutional diversions over time – than if their institutional beginnings were too diverse to begin with.

The three case studies of Port Hedland, Prince Rupert and Tauranga as well as the

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152-year time period were selected for a number of reasons. For one, all three ports are located in colonies of Britain – Australia, Canada and New Zealand. All three were colonised, achieved responsible government and passed their own constitutions at a relatively similar time. Unlike other former British colonies, all three still have variations of the Westminster-style of parliamentary politics. The spoken language in all three is English and they all have reasonably accessible national and local archives, meaning data was available for long periods of time and is not restricted as modern, commercial-in-confidence data can be.

Finally, the lengthy period studied enables the research to avoid a common problem among such studies where long periods of economic and political stability in core institutions can become the key explanatory variables. Institutions are also historically dependent, so a long time frame allows for the examination of institutional evolution, “connecting the past with the present and the future; history in consequence is largely a story of institutional evolution in which the historical performance of economies can only be understood as a part of a sequential story”. History constrains the choice set actors face – both the players and the rule-makers – and so an understanding of the historical context and the status quo is vital for a valid comparison.

Oliver Williamson separates institutional analysis into four levels, or 'tiers', of institutions:

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12 As opposed to, say, the United States which achieved independence significantly earlier and did not adopt a traditional British parliamentary style of government.
Table 1.1: Williamson’s Four Levels of Social Analysis

<table>
<thead>
<tr>
<th>Tier 4 (continuous)</th>
<th>Tier 3 (1-10 years)</th>
<th>Tier 2 (10-100 years)</th>
<th>Tier 1 (100+ years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource Allocation and Employment</td>
<td>Governance (especially contracts)</td>
<td>Institutional Environment: formal rules</td>
<td>Embeddedness: customs, traditions</td>
</tr>
<tr>
<td>Neoclassical / Agency Theory</td>
<td>Transaction Cost Economics</td>
<td>Property Rights / Political Economy</td>
<td>Social Theory</td>
</tr>
</tbody>
</table>

Most of the port literature focuses on Tier 4 institutions or the economics of resource allocation and employment. By contrast, this study takes both a comparative case study approach, and also restricts the analysis to Tier 3 and Tier 2 institutions, that is the transaction (contracts and governance) as well as the formal institutional environment (property rights and political economy).

While this approach may limit the ability to generalise between case studies, it was viewed as an appropriate trade-off to allow for the discovery of institutional change that worked, or failed, at differing times and places. To paraphrase Ronald Coase, the interrelationships that govern the mix of market and hierarchy are extremely complex and are different at various times and places. The empirical work undertaken in this dissertation attempts to uncover the “patterns, puzzles and anomalies revealed by the systematic gathering of data”, involved at various points in time for three ports: Port Hedland; Prince Rupert; and Tauranga.

With all of that in mind, the question that this dissertation sets out to answer is:

**What role did institutions play in the efficiency, organisation and ultimately, the outcomes at Port Hedland, Prince Rupert and Tauranga over time?**

---


17 Ibid.
1.3. Structure of the Thesis

The three ports selected for this comparative case study approach each share a number of commonalities but are at the same time diverse.

Chapter 3 looks at Port Hedland, a port located approximately 1,650km North-East of Perth in Western Australia's resource-rich Pilbara region. It is the world's largest bulk export port but this has only been a relatively recent development. Initially dubbed the "Mangrove Harbour", the port itself has a long history, having first been used by pearl luggers following its discovery in 1863. Today the primary trade is the export of iron ore; the port has always been strongly dependent on hinterland mining connections, and would not exist in its present form without them.

While there has been no real economic analysis of Port Hedland's past, it has been the subject of historical examination. The first such work was Hardie's 1981 book *Nor'westers of the Pilbara breed*, an excellent glimpse at the lives of the people who lived through the booms and busts in the region, including at Port Hedland. That was followed by a more comprehensive treatment of the port itself with Shaw's 2006 book *Moving Mountains: The Evolution of Port Hedland Harbour*. The book is largely an historical narrative, but does contain elements of politics and economics. However, it lacks institutional analysis and so, along with new evidence uncovered from archival sources, is expanded upon in Chapter 3.

Chapter 4 focuses on Prince Rupert, a port in Canada approximately 1,500km North-West of Vancouver, just South of the Alaska-Canada border. It is North America's closest port to Asia by three days and has excellent access to the continent's hinterland through the Canadian National railway. The intermodal (ship to rail) terminal was one of the first completed in North America and was the first to be able to move over 750,000 twenty-foot equivalent units (TEU's) annually.

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The historical literature on Canadian ports is rather sparse, with researchers preferring to examine the nation's railways, an industry that has a wealth of information available. Fortunately Price Rupert's status as a terminus of the Grand Trunk Pacific meant that, along with the abundance of archival material available in the Library and Archives Canada as well as in the Hansard, a comprehensive economic history of the port could be written. Although lacking economic analysis, Leonard's 1996 book *A Thousand Blunders: The Grand Trunk Pacific Railway and Northern British Columbia*, along with Hick's 2003 book *Hays' Orphan: The Story of the Port of Prince Rupert*, were particularly valuable.  

Finally, Chapter 5 examines the port of Tauranga, located in New Zealand's fertile Bay of Plenty region, approximately 200km South East of Auckland on the nation's North island. In 1999 the port became the first in New Zealand to establish a fully integrated inland port service and today it is New Zealand's most technically efficient and profitable port, as well as the nation's largest port by volume and land area.

Most of the research concerning Tauranga has focused on the modern history and New Zealand's port policy in general. The most comprehensive historical study on Tauranga is Hansen's 1997 book titled *History of Tauranga Harbour & Port*. While rather brief, the book contains the best pre-World War 2 historical account of the port. However, Tauranga is also most fortunate to have the most comprehensive archival collection of all of the three ports studied. The quantity and quality of the historical documents available at Archives New Zealand allowed for the discovery of new evidence that facilitated a comprehensive institutional analysis of the port's development over time.

All three ports share in the fact that their successes are only relatively recent – that is, until the 1960s they were at best secondary, relatively ignored, port options. Therefore they are an ideal sample for a case study approach that tries to determine why and

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how they grew into the successes that we see today, as well as analyse failures, if any, along the way. Importantly, it allows for the examination of any change, sudden or incremental, in the port's institutions that may have enabled or delayed their move from obscurity to industry leaders.

It should be added that the examination of institutions is fundamentally different from that of the examination of organisations. This study does not attempt to do the latter, that is, it does not attempt to study the internal workings or strategies of each port organisation, or organisations, in any great depth. Organisations develop in consequence of the institutional framework they operate within and so according to North, “what must be clearly differentiated are the rules from the players”.\textsuperscript{22} North continues:

\begin{quote}
“Modeling the strategies and the skills of the team as it develops is a separate process from modeling the creation, evolution, and consequences of the rules.”\textsuperscript{23}
\end{quote}

While this research is interested in the eventual outcomes of how ports adjust to institutional constraints, such as how integrated a port may be (i.e., how vertically integrated it is), the primary focus is how the institutional matrix may have influenced an organisational structure by limiting the choice set available to actors at the time.

“[C]ontracts and organizations”, notes Aoki, are “supported by a fabric of institutions which define outside options for organizational participants and constrain individual and organizational behaviour”.\textsuperscript{24} It is the institutional “fabric” that constrains particular options and the outcomes that result that is the subject matter of this dissertation. However, it is also acknowledged that in a modern democracy, special-interest groups work to change or maintain their current position, both through the market and

\begin{footnotes}
\footnotetext{22}{North, \textit{Institutions, Institutional Change, and Economic Performance}, 4.}
\footnotetext{23}{Ibid., 5.}
\end{footnotes}
politics. This study is concerned with that process when it involves an attempted change in the institutional matrix at one of the case studies. So while individuals and groups will be analysed as drivers of institutional change (or lack thereof), the inner workings of the “team” itself will not be delved into, as that is a task better left to other branches of economics and the behavioural sciences.

Chapter 2: Theoretical Framework

2.1. Introduction

“I do not think we can hope to understand the problems and policies of our own day if we do not know the problems and policies out of which they grew.” - Lionel Robbins, 1952.

A significant portion of the existing economics literature on ports undertakes static equilibrium analysis; that is, a neoclassical analysis that examines what determines prices in a given (assumed) institutional environment. Governance issues receive attention but how and why the institutions that influence these governance decisions came to exist in their present form is rarely discussed.

However, there is a growing body of economics literature that has brought the role of institutions, defined by 1993 Nobel Prize winning economist Douglass North (shared with Robert Fogel) as the “rules of the game”. These institutions guide economic activity through incentives, bringing them to the forefront of economic analysis. A society's institutions can be thought of as the combination of formal constraints, informal rules and their enforcement characteristics. The goal of institutional analysis is to evaluate the economic efficiency and distributional implications of given institutional structures.

Since institutions are created as an attempt to satisfy goals using incentive structures, the division of labour, rules for entry and exit into an industry, and decision making authorities, all such aspects of institutions should be considered in explaining institutions and their effects. Comparative institutional analysis can be seen as an


\[27\] North, Institutions, Institutional Change, and Economic Performance; North, “Institutions.”

effective way to broaden the neoclassical toolkit and then use this “broadened analytical framework to explain phenomena that had previously seemed impenetrable”.  

This chapter first surveys the existing economics literature relating to ports, introduces the New Institutional Economics (NIE) framework, and discusses the applicability of that framework to the analysis of ports.

2.2. Existing Economics Literature Relating to Ports

In a 2006 chapter reviewing the maritime economics literature to date, Trevor Heaver stated that research in port economics probably began in 1958 with Svendsen’s *Sea Transport and Shipping Economics.* This was then followed by a book that shaped, and still shapes, the way most port economics is undertaken today, Thorburn’s (1960) *Supply and Demand of Water Transport.*

These works and their successors examine microeconomic factors at the port within a given institutional arrangement. Important issues such as the internal cost structure of a port, the role the port plays in the economy (i.e., GDP contribution), and the impact port efficiency has on the entire supply chain are examined.

Pallis et al. estimate that between 1997 and 2008, all of the 395 papers surveyed relating to port economics fell into the following categories:

---


Table 2.1: Existing Port Literature, 1997 - 2008

<table>
<thead>
<tr>
<th>Category</th>
<th>Themes</th>
<th>No. of Papers</th>
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<tbody>
<tr>
<td>Terminal Studies</td>
<td>- Performance Measurement</td>
<td>40</td>
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<tr>
<td></td>
<td>- Operations</td>
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<td></td>
<td>- Strategies</td>
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<td></td>
<td>- Shipping Networks</td>
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<td></td>
<td>- Supply Chain Trends</td>
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<td></td>
<td>- Logistics</td>
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<td></td>
<td>- Information Flows</td>
<td></td>
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<td></td>
<td>- Hinterland Chains</td>
<td></td>
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<tr>
<td>Transport and Supply Chains</td>
<td>- Models and Reform</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>- Role of Port Authorities</td>
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<td></td>
<td>- Industrial Relations</td>
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<td></td>
<td>- Community Cooperation</td>
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<td></td>
<td>- Trends and Developments</td>
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<td></td>
<td>- Development Case Studies</td>
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<td>- Forecasting</td>
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<td>- Economic Impact Studies</td>
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<td>- Expansion Projects</td>
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<td></td>
<td>- Tendering of Services</td>
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<tr>
<td>Governance</td>
<td>- Port Pricing</td>
<td>61</td>
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<tr>
<td></td>
<td>- OH&amp;S Regulations</td>
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<td></td>
<td>- Anti-Trust</td>
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<td></td>
<td>- Supranational Policies</td>
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<tr>
<td>Planning and Development</td>
<td>- Competition</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>- Strategy Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Performance</td>
<td></td>
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<tr>
<td></td>
<td>- Choice</td>
<td></td>
</tr>
<tr>
<td>Policy and Regulation</td>
<td>- Spatial Change</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>- Spatial Networks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Port Cities</td>
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<tr>
<td></td>
<td>- Port Hinterlands</td>
<td></td>
</tr>
<tr>
<td>Competition and Competitiveness</td>
<td>- Comparison</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Strategy Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Performance</td>
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<tr>
<td></td>
<td>- Choice</td>
<td></td>
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<tr>
<td>Spatial Analysis</td>
<td>- Spatial Change</td>
<td>40</td>
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<td></td>
<td>- Spatial Networks</td>
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<tr>
<td></td>
<td>- Port Cities</td>
<td></td>
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<tr>
<td></td>
<td>- Port Hinterlands</td>
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</tbody>
</table>

Comparative institutional analysis is not mentioned; the closest would be a combination of parts of the “Governance” and “Planning and Development” categories, but these tended to deal with static time and place issues rather than constraints over time. The authors do note in a subsequent paper that port economics “is an emerging field that lacks coherence... International comparative research and international cooperation between scholars are still limited”.33

They conclude by stating that “more comparative research is needed on how seaport systems spatially behave under different market environments (e.g. an overall traffic decline due to an economic crisis) and different institutional settings (e.g. the level of

'centralization' of port policy and applicable governance models)."\(^3^4\)

That is not to say that there is anything wrong with the existing port economics literature. It is simply that there is an opportunity, as noted by Pallis et al., for the literature to be *broadened* by adding institutions to the equation. But before developing a framework to undertake that task, the existing literature needs to be examined so that it can be expanded upon.

To achieve that, a table has been developed which condenses the literature into three categories and seventeen sub-themes. The table is presented in chronological order, enabling one to view the evolution of the port economics literature over time. While it would be impossible to list every paper written on the subject, the following table highlights some excellent studies that look at a port within a *given* institutional structure.

**Table 2.2: Condensed Non-Institutional Port Literature Examples**

<table>
<thead>
<tr>
<th>Category</th>
<th>Themes</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricing and Investment</td>
<td>Cost-benefit analysis</td>
<td>Goss (1967)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Goss and Jones (1970)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Heaver (1970)</td>
</tr>
<tr>
<td></td>
<td>Input-Output</td>
<td>Heggie (1974)</td>
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\(^3^4\) Ibid., 468.
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*Detailed references in footnote<sup>35</sup>*

Henrik Stevens was one of the first people to explicitly look at comparative institutions in the analysis of seaports in a book titled *The Institutional Position of Seaports: An International Comparison.* While a noble first attempt, the analysis simply does not go far enough; in trying to cover eight individual ports around the world as well as the entire US industry, the author – out of necessity – could not go into enough detail. In a review of the book, Brian Slack notes that while “a book exploring the dimensions of

the institutional arrangements of seaports is welcome”,

“There is unequal treatment of the ports, from the very complete survey of Rotterdam, to the very general coverage of Antwerp, Hamburg and Durban. While the book contains a wealth of information about the administration of a number of ports around the world, the integration is weak.”

Similarly, a paper that begins to touch on institutional issues is Wayne Talley's study on regulated port labour relative to unregulated port labour. It is a fascinating comparative study, but unfortunately does not draw a connection to the institutional environment that may have led to his result.\textsuperscript{38}

A good indicator of the usual topics examined by mainstream port economics is Coto-Millán, Pesquera, and Castanedo's recent \textit{Essays on Port Economics}, which covers topics on demand, supply, economic impact, cost-benefit analysis and externalities.\textsuperscript{39} Institutional analysis is stressed as an important consideration in a theoretical chapter by Ricardo Sanchez and Gordon Wilmsmeier, but that is where it ends. Institutions matter, but – again, perhaps a sign of the immaturity of institutional analysis in port economics – meaningful empirical studies are scant. The rest of the chapters in their \textit{Essays} are of a static equilibrium nature, examining various types of technical, allocative and economic efficiency at a particular point in time within a given institutional structure. Adaptive efficiency and the institutional heritage are taken as given.

This is a similar theme shared by other major maritime economics textbooks and essay compilations, with both Talley's collection of maritime essays in the \textit{Blackwell Companion to Maritime Economics} and Stopford's \textit{Maritime Economics} textbook, as should be expected, covering what the majority of literature does: a history of shipping; how shipping markets are organised; shipping trade cycles; supply, demand and freight rates; markets for shipping; the economics of shipping companies; transport systems; and forecasting and supply.\textsuperscript{40}

But there are exceptions. In a 1999 article, Goss defined various forms of rent-seeking behaviour at ports and asked whether artificially restricted competition as a result of

\begin{footnotesize}
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port policy enables 'pure' and 'quasi' rents to be extracted by various interest groups. He stressed that it was “necessary to ensure that competition actually exists – within ports and between them”, and that “institutional arrangements, including constraints on contestability”, are paramount to any study that examines port competition. Without institutional analysis, rent-seeking at a port may be well above what traditional models show when institutions are assumed away. Rent-seeking manifests itself not just in potential inefficient outcomes as described by Goss, but also through waste in the process of achieving those outcomes as resources are squandered in competitive lobbying.

However, the port economics literature is not barren of institutional analysis and since Goss' paper, institutions have received considerably more attention. Classic topics such as efficiency, governance, organisations, privatisation, productivity, and property rights; as well as new insights such as path dependency, public choice economics and transaction costs are being covered with increasing frequency and depth, and will be discussed in more detail in Chapter 2.4.

### 2.3. New Institutional Economics

“Appropriately thorough analysis should include an examination of the institutional structure itself in a predictive explanatory sense. [The economist's] task includes the derivation of the institutional order itself from the set of elementary behavioral hypotheses with which he commences. In this manner, genuine institutional economics becomes a significant and an important part of fundamental economic theory.” - James M. Buchanan, 1968

Neoclassical economic theory uses the lens of choice, focusing on “human behavior as

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a relationship between ends and scarce means which have alternative uses”, relying on comparative static techniques to compare technical efficiencies at a port.\textsuperscript{44} From this point of view, the economic problem can be reduced to one where measured \textit{ex post} quantitative and qualitative data can be used to highlight deficiencies and improve upon a given process.

In contrast, while the NIE also views the economic problem as one of resource allocation, this is not the central problem: the real task of the economist is to focus on exchange – the transaction – and the role that institutional arrangements play in facilitating these interactions.\textsuperscript{45} From this point of view, the economy is viewed through the lens of contract where the market is an order consisting of a multitude of both complex and simple exchanges from which mostly uncontrollable, spontaneous outcomes emerge. While measured \textit{ex post} quantitative and qualitative data can be used to identify problems, the NIE does not assume that they are variables subject to control.

As Kenneth Arrow observed, the NIE differs from the old Institutional Economics in that it does “not consist of giving new answers to the traditional questions of economics – resource allocation and the degree of utilization. Rather it consists of answering new questions, why economic institutions emerged the way they did and not otherwise; it merges into economic history, but brings sharper reasoning to bear than had been customary”\textsuperscript{46}.

Institutional analysis should be viewed as complementary, a broadening of the neoclassical framework to include the factors that impact the development and continued operation of a port. Questions such as \textit{why} port organisational structures differ from each other, \textit{why} certain ports developed and others did not, or \textit{why} some

\begin{itemize}
\item \textsuperscript{44} L Robbins, \textit{The Nature and Significance of Economic Science} (London: Macmillan, 1932), 16.
\end{itemize}
ports seem to continuously fail whereas others are beacons of success are all questions that can be better answered by including institutions in the analysis.

According to North, institutions are developed as an attempt to satisfy goals using incentive structures; they are the framework that defines the incentive structure of a society.\(^{47}\) Formal institutions include constitutions, legal and political structures, as well as written contracts and codified standards (e.g., accounting standards) which all serve to reduce risk and uncertainty (lower transaction costs).

“In the jargon of the economist”, North explains, “institutions define and limit the set of choices of individuals. Institutional constraints include both what individuals are prohibited from doing and, sometimes, under what conditions some individuals are permitted to undertake certain activities... They are perfectly analogous to the rules of the game in a competitive team sport”.\(^{48}\)

Informal institutions include the family, associations, culture, customs and norms, conventions, or religious precepts. The defining feature of informal rules is that they are not backed by formal laws but by social custom.

Oliver Williamson provided a useful hierarchy of institutional levels, his “four levels of social analysis”, which help to illustrate the difference between the type of institutions and also how each has traditionally been analysed.

<table>
<thead>
<tr>
<th>Table 2.3: Williamson’s Four Levels of Social Analysis(^ {49})</th>
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<tr>
<td><strong>Tier 4 (continuous)</strong></td>
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<tr>
<td>Resource Allocation and Employment</td>
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<td>Neoclassical / Agency Theory</td>
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The four tiers range from Tier 1’s social or informal institutions – culture, customs,
values, traditions – down to Tier 4 where there is constant, sometimes daily, change. Chapter 2.2 demonstrated that the majority of port economics to date has focused on the 4th level (the ongoing resource allocation process and marginal conditions within the port e.g., physical measures of output and financial performance indicators), with occasional ventures into the 3rd level. This thesis will instead focus primarily on the 2nd and 3rd levels which are the focus of the NIE; in other words, how a port's organisational structure was shaped over time by transaction costs and the institutional environment it exists within.

2.3.1 Transaction Costs

The theory of transaction costs can be traced back to Ronald Coase's 1937 paper “The Nature of the Firm”, where he highlighted the important point that the decision to organise as a firm – indeed, the very existence of firms – is largely determined by the costs of transacting. The decision to organise in a firm as opposed to undertaking all transactions on the open market depends on the relative costs of internal versus external exchange.\(^{50}\) Using the open market has costs such as price discovery, contracting, and enforcement. Internalising these costs in the form of a firm reduces these – especially for highly specific assets – but replaces them with the additional costs of internalising, such as adaptation costs, low-powered incentives for employees (as well as performance measurement, including imperfect measurement and enforcement), and the discovery of information.\(^{51}\) When those costs become too high, a


firm may choose outsource certain transactions rather than further vertically integrating, maintaining an organisational form that still allows it to effectively contract for its more specific assets while using the market to source various inputs.\textsuperscript{52}

Generally speaking, the governance structure or organisational form of a given port – absent political and institutional constraints (Tier 3 institutions) – will largely be determined by how specific, or relationship dependent, are its assets and the transaction costs it faces (Tier 2 institutions).

Institutions influence the transaction costs that a firm faces and therefore constrain the options available to actors. As Coase put it, “if we consider the operation of a sale tax, it is clear that it is a tax on market transactions and not on the same transactions organized within the firm. Now since these are alternative methods of ‘organization’ – by the price mechanism or by the entrepreneur – such a regulation would bring into existence firms which otherwise would have no \textit{raison d’etre}”.\textsuperscript{53}

However, institutions are not something that can be changed overnight. While they can be brought about endogenously through the political process, “an economy may be also locked into an inefficient institutional arrangement due to sunk costs in existing institutions and network externalities among institutions”.\textsuperscript{54} These sunk costs are irrelevant from a neoclassical point of view – sunk costs are sunk – but from a NIE perspective, “the experience [of a sunk cost] may modify anticipations about choice alternatives in the future”.\textsuperscript{55}

These are what are known in the literature as “path-dependent outcomes”, where an elaborate structure of historically derived institutions (of all tiers) constrain the choice set faced by actors – politicians, entrepreneurs, managers, consumers – as they seek...

\textsuperscript{52} Williamson, “Markets and Hierarchies”; Hart and Moore, “Property Rights and the Nature of the Firm.”

\textsuperscript{53} Coase, “The Nature of the Firm,” 393.


to change the status quo.\textsuperscript{56}

2.3.2 Path Dependence

Actors are constantly jousting to better their position by either attempting to change or prevent change to the status quo by altering the institutional matrix (incentive structure) that they face, sometimes accidentally through exogenous means (e.g., new technology) and other times endogenously (e.g., through deliberate political action). This incentive structure determines the quantity and quality of investment in an economy and is at the heart of the NIE: that the choice is between institutions that promote production or those that promote predation.\textsuperscript{57} Path dependent 'lock-in' then constrains the options of would-be reformers, whether working in the political sphere, a regulatory apparatus or at the operational level of a port.

Studies that have investigated this phenomena include David's famous investigation into the QWERTY keyboard; Coase's examination of radio broadcasting spectrum rights in the Britain; Krueger's study on the US sugar industry; Sampson and Spiller's look at telecommunications regulation in Jamaica; Higgs on the Washington salmon industry; Libecap on western mineral rights; Reveley and Tull's comparative analysis of centralised port planning in Britain and New Zealand; Reveley's investigation into path-dependency in New Zealand's port labour markets; Dooms et al. on stakeholder management and path dependence in Antwerp; Engerman and Sokoloff on institutions and path dependency in the Americas; Heffernan on path dependency in the automobile industry; Notteboom et al. on institutional plasticity and path dependency in seaports; Acemoglu et al. on the relationship between institutions and long-run growth; Easterly and Levine on whether it is natural endowments or institutions that enable growth; and Stone, Levy and Paredes' comparative analysis of the regulatory systems of the Brazilian and Chilean garment industry.\textsuperscript{58}


\textsuperscript{58} P.A. David, “Clio and the Economics of QWERTY,” \textit{The American Economic Review} 75, no.
2.4. Applying the NIE to Ports

"Until we realize that we are choosing between social arrangements which are all more or less failures, we are not likely to make much headway." - Ronald Coase, 1964

Ports form an essential part of a country’s infrastructure by facilitating trade and ultimately helping to reduce the cost of goods for consumers. They are characterised by solidity in physical infrastructure and legislative frameworks – or high levels of “asset specificity” – but also face the dynamics of constantly changing global market conditions requiring flexible responsiveness.

A major constraint any researcher faces when using an institutional approach is a long period of political stability in core social and political institutions which then tend to

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become the key explanatory variable of policy outcomes. Both cross-country comparative analysis (e.g., Levy & Spiller) and extending the empirical framework into an historical analysis (e.g., Henisz, Palmer) are ways in which the analyst can ease these constraints. Thus, this thesis undertakes a cross-country comparative analysis, extending the empirical framework into an historical analysis using archival data for each case study from 1860 – 2012. This enables the research to avoid the problem where long periods of economic and political stability in core institutions can become the key explanatory variables.

The NIE takes the view that the credibility and effectiveness of a region’s institutions (national, State, local) would have a direct effect on the success or failure of a given port. Ports that operate in an environment with weak political and social institutions will find reduced performance as a result of lower private investment and less support for efficiency incentives. The goal is to find out why particular port governance models evolved at different places in the world at different times while keeping as many other potential explanatory variables – e.g., legal heritage – constant. Therefore, the case studies of Port Hedland in Australia, Prince Rupert in Canada and Tauranga in New Zealand were selected. None of the locations, historically, were major ports; their successes have been relatively recent. More importantly, they all had the same British institutional heritage. While this could be viewed as a limitation of the study, the enormous number of variables at play and the amount of time covered – and institutional change – turn this into a strength. The case studies will then be used to put differing port governance structures within the broader institutional framework, highlighting why those governance structures might be the way they are and what institutional constraints would-be reformers might face.


62 Elizabeth Maitland, Stephen Nicholas, and Gordon Boyce, “The Economics of Governance:
This view of ports sees their organisational and administrative structure as being shaped by historical, geographical and political factors as well as the diverse economic and social environments that each port functions within. Historically ports, given their high level of “asset specificity” – that is, investments that are not easily redeployed\(^{63}\) – face large transaction costs when attempting to engage in autonomous market contracting.\(^{64}\) Ports, along with similar utilities with similarly high levels of specificity, instead have to rely on a more complex governance structure. They are more likely to engage in incomplete bilateral trading where both parties have a stake in preserving the relationship, be involved in more elaborate forms of dispute resolution, and remove some transactions altogether by organising internally or vertically integrating many services (such as hinterland connections).

Given their asset specificity, ports are also more susceptible to the hold-up problem and rent seeking.\(^{65}\) This is a result of the contractual incompleteness that they must engage in: if circumstances change unexpectedly, the original agreement may no longer be effective. The costs of failing to adapt to such events are defined by Williamson as “maladaptation costs”, where hold-ups occur as trading partners or other interest groups may try to expropriate rents accruing to the specific assets (the port).\(^{66}\) This then results in under-investment unless there are protections for such contingencies in place. In reverse, too much protection – for example, heavy government guarantees on debt or subsidies, or legal barriers to entry – can lead to inefficiency and over-investment. The right governance structure along with strong

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\(^{63}\) Defined by Williamson as “durable investments that are undertaken in support of particular transactions, the opportunity cost of which investments is much lower in best alternative uses or by alternative users should the original transaction be prematurely terminated”. Williamson, *The Economic Institutions of Capitalism*, 55.

\(^{64}\) Riordan and Williamson have noted that neoclassical economics is not well suited to the study of specific investments and instead excels at non-specific, or re-deployable, investments. Riordan and Williamson, “Asset Specificity and Economic Organization,” 367.


property rights, less bilateral dependence (where possible), and a strong institutional environment can all aid to prevent potential maladaptation costs.\textsuperscript{67}

A port's governance structure is therefore determined from the set of \textit{feasible} institutional alternatives they must choose from; or, “the arrangement that protects their relationship-specific investments at the least cost”.\textsuperscript{68}

The choice set available at a given time and place is never a choice between the present situation and some ideal. As Demsetz puts it, “[t]he view that now pervades much public policy economics implicitly presents the relevant choice as between an ideal norm and an existing “imperfect” institutional arrangement. This nirvana approach differs considerably from a comparative institutional approach in which the relevant choice is between alternative real institutional arrangements”.\textsuperscript{69}

It is because of this that efforts to “transplant” governance structures that have worked at a particular place at a particular time to solve problems identified at another place at another time tend to fail when the region has differing social and political institutions. The type of reform undertaken should therefore be dependent on the institutions present at that given time and place; and one way to discover these institutions is by undertaking a comparative institutional analysis through time.

It should be added that while the differing governance structures between ports is well documented in the port economics literature (e.g., Table 2.4), the NIE would define virtually all ports as having a hierarchical, as opposed to a market, governance structure.

\textsuperscript{67} Oliver E. Williamson, \textit{The Mechanisms of Governance} (Oxford University Press, 1996), 14.


Table 2.4: Traditional distinctions of port governance structures

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<td>Landlord Port</td>
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From this transaction cost point of view, all ports would be considered to be on the hierarchical end of the spectrum as opposed to the market end, with the market end resembling something like a pure anonymous spot market. That is because port assets are extremely relationship-specific, in that it is generally more efficient for investment decisions to be made internally, i.e., within a single or small number of firms, as opposed to on the open market. Such a hierarchical structure offers the port greater protection for their investments but comes with additional agency and bureaucracy costs. The optimal governance structure is therefore a 'hybrid' that minimises transaction costs within a given institutional matrix, not some theoretical ideal. Differing institutions will lead to different governance structures between two ports that are otherwise similar. The institutional matrix will also shape the industry as a whole; some ports may not come into existence due to institutional constraints while others may grow beyond what they otherwise would have.

Ports have never been organised as pure markets for the same reason Coase noticed firms existed: positive transaction costs. There are multiple solutions to a given

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71 Coase, “The Nature of the Firm.”
problem (one of which is to do nothing) that differ depending on the institutional environment the port operates within. The problems ports face as highly specific assets, as Williamson noted, is one of transacting where long-term or relational contracting is involved.\textsuperscript{72}

The World Bank in their \textit{Port Reform Toolkit} emphasise that when looking to improve port efficiency one of the first steps policy makers should take is to examine the present governance structure.\textsuperscript{73} The toolkit instructs the reader that there are four governance choices for ports: the service port; the tool port; the landlord port; and the private port.

While this is all correct, it ignores institutional constraints between these choices. For example, a government that cannot credibly commit not to expropriate rents \textit{ex post} will struggle to find private capital for a private or landlord port. In that institutional environment, the options would be restricted to the public service, tool port and potentially landlord governance options, but the successful implementation or 'transplantation' of any model would still require further study. Attempts at establishing a private port in such an environment would likely fail, not necessarily in the sense that the port will fail (at least not in the short run), but in the sense that society will face costs above what an alternative model would have offered.

The lesson of the NIE is that societies that provide incentives and opportunities for investment will, \textit{ceteris paribus}, be richer than those that fail to do so.\textsuperscript{74} The purpose is to tackle the questions that neoclassical economics assumes as given; the "big picture as it seeks to understand the determinants of institutions and make policy

\textsuperscript{73} World Bank, \textit{Port Reform Toolkit}.
recommendations about changing them. Everyday issues such as how port charges are clearing the shipping market; how differing shippers, hinterland operators or stevedores impact on port congestion; on how a port influences the prosperity of the local economy; and the environmental costs of the port are well handled by neoclassical economics. Centred on aspects of a port within a given set of legal and behavioural constraints, these are relatively short run issues best dealt with neoclassical models that can provide an idea of what the optimal performance within existing institutional constraints could be. While those issues are very important, they are not the whole story.

Important to the NIE framework is the period being examined. Institutions are not perfectly malleable in the short run. Institutional changes such as property right allocations and legal institutions – especially in a democracy – take longer to be implemented because they have distributional consequences; that is, they are rarely Pareto optimal and many different interest groups are affected. For example, changes to the transportation planning machinery that allows government to take land and decree how other land may be used takes time and impacts a port as well as outsiders. Constitutional constraints take even more time to modify and have an effect on an even wider group of people. Thus, the NIE investigates interactions across a range of interrelated markets over time, appreciating that examining them in isolation is unlikely to produce meaningful results.

Port reform depends on the institutions involved, e.g., constitutional constraints, the legal system and reliability of the courts (ability to reliably enforce contracts), the relative power of different levels of government, and the extent that stakeholders must be consulted. Sometimes devising second-best reforms may be the only option given a particular institutional matrix that a port operates within, if changing the institutional environment to reach a desired governance structure is not possible or will incur too

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many costs in the process. Often doing nothing may be the appropriate strategy until institutional reform can occur.

2.4.1 What is an efficient port?

For the purpose of this thesis, efficiency will be defined in micro-economic terms: that is, efficiency is the ideal distribution of resources in the economy where land, labour, capital and enterprise are perfectly allocated amongst the various wants of individuals in the real world. Knowledge problems, transaction costs, boundedly rational actors, uncertainty, asymmetric information, moral hazard, opportunism and monitoring costs all play a part.

For something as complex as a port it is not sufficient to derive policy conclusions using only static benchmarks on complex, evolving systems where the valuation of diverse inputs and outputs is not clearly understood and where interpersonal utility comparisons must be made. As North has argued, a purely static analysis is almost certain to result in “policy prescriptions that produce results at odds with intentions because policy derived from static theory in a dynamic setting is going to produce unanticipated (and unpleasant) outcomes”. This is because a static approach to measuring the efficiency of a seaport by definition ignores the dynamic component of economic efficiency and the potential costs certain institutional arrangements may have in terms of (largely unseen) foregone arrangements. Dynamic efficiency, which is the efficiency required for any seaport to effectively respond or adapt to exogenous events, must be included in any meaningful analysis. North uses a similar term – adaptive efficiency – and defined it as being:

79 The term adaptive efficiency rather than dynamic efficiency will be used throughout the rest of this thesis. Schumpeterian ‘creative destruction’; Kirznerian ‘entrepreneurial discovery’; and Hayekian ‘knowledge problems’ will be included. It is only by first having institutions conducive to adaptive efficiency that these other processes are able to occur. Hayek, “The Use of Knowledge in Society”; Joseph A. Schumpeter, Capitalism, Socialism and
“[C]oncerned with the kinds of rules that shape the way an economy evolves through time. It is also concerned with the willingness of a society to acquire knowledge and learning, to induce innovation, to undertake risk and creative activity of all sorts, as well as to resolve problems and bottlenecks of the society through time.

In a world of uncertainty, no one knows the correct answer to the problems that we confront and no one therefore can, in effect, maximize profits. The society that permits the maximum generation of trials will be most likely to solve problems through time… Adaptive efficiency, therefore, provides the incentives to encourage the development of decentralized decision-making processes that will allow societies to maximize the efforts required to explore alternative ways of solving problems.”

To further clarify the difference between dynamic or adaptive and static efficiency, note that from the perspective of a static lens, a negative path dependent outcome may appear on the surface to be efficient. That is, an outcome where a seaport or stakeholders within a seaport, due to a number of institutions that evolved in the past (for legitimate reasons at the time), fight socially productive institutional change by allocating resources to the political rather than economic market as their existence depends on the perpetuation of existing institutions. This self-reinforcing path continues until another ‘trigger point’ occurs, itself often the result of a number of smaller events, forcing the path to change. But they are only efficient within a given institutional matrix; great efficiency improvements could still be made through institutional change.

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North, Institutions, Institutional Change, and Economic Performance, 80–81.
For more on how path dependency relates to the selection of institutions, see North, “Institutions.”
This is not hard to understand when it is remembered that the key to the survival of any organisation is to improve their efficiency (i.e., lowering production and transaction costs while boosting revenue) *relative to that of their rivals*. However, if you take a situation where there exists for instance a secure monopoly or oligopoly – an institutional situation created because, rightly or wrongly, it was desired at some point in the past – competition is muted and actors simply do not have to improve to survive.\(^3\) Competition and rent-seeking will still manifest themselves, but they will do so in a socially unproductive way.\(^4\)

If appropriate price comparisons are not available, then static analysis must rely on other aggregates such as profit; however as Sowell observed, even a "small inefficiency can raise the price of a good by much more than the doubling of the profit rate would"; meaning that the costs to society of these sub optimal institutions might be seriously underestimated when following a purely static methodology.\(^5\) Profit, which according to Alchian is an essential tool for entrepreneurs to test potential business plans, can lose effectiveness as a barometer for efficiency under static analysis.\(^6\)

To meet these challenges, this dissertation analyses the temporal dynamics of each case study, allowing for the examination of important changes in investment strategies and governance structures used at each port over time. In the path dependency literature, these changes are usually triggered by a set of events, i.e., exogenous events as well as shifts in the behaviour of various stakeholders and actors in a

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\(^3\) If there are no barriers to entry – if the market is perfectly “contestable” – then large capital costs cannot be considered a barrier but a *cost* of entry that existing firms have already borne. Only costs above this are considered barriers to entry (e.g., discriminatory regulatory barriers). As Brozen has pointed out, the cost may actually be lower for potential entrants as technological improvements would have likely reduced the capital required per unit of capacity. W J Baumol, "Contestable Markets: An Uprising in the Theory of Industry Structure," *American Economic Review* 72, no. 1 (1982): 1–15; Yale Brozen, "Competition Policy in Europe: Stimulus, Nuisance, or Drawback? Comment by Yale Brozen," in *Economic Policy and the Market Process*, ed. K. Groenveld, J.A.H. Maks, and J. Muysken (Amsterdam: Elsevier Science, 1986), 143.


position of power to implement change. A diagram is developed for each case study in the following format, where key events in time are marked as critical for the beginning or break of a path dependent outcome. Particular events such as a new technology or political decisions can trigger a positive or negative ‘lock-in’ (e.g., “Event A”) where a port continue to move down a path (e.g., “Path A”) that, had the event not occurred, it might not have (e.g., “Path B” or “Path C”). This can have long term repercussions, as lock-in might prevent subsequent deviations as well (e.g., B to B2).

Figure 2.1: Theoretical Path Dependence Diagram

Once lock-in occurs, a port may be stuck on that path until another event happens that breaks that path (e.g., “Event A” breaking “Path A”), even if a different path is technically more efficient.


88 This is similar to the concept developed in Reveley, “Path Dependence,” 207.
This framework loosely follows various other studies of institutional change and path dependency, from Liebowitz and Margolis to a number of port-related studies, such as Dooms et al., and their 2012 analysis of path dependency at the port of Antwerp. While not all of the studies that incorporate institutions focus specifically on ports – for example, Oakerson and Parks apply an institutional framework to local public economies – their methodology could be applied to port issues, e.g., Port Authorities.

The following table highlights in chronological order various studies that have included institutions in their analysis of ports.

### Table 2.5: Condensed Institutional Port Literature Examples

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**Detailed references in footnote**[^89]

2.5. Conclusion

“It is not sufficient to contrast the imperfect adjustments of unfettered private enterprise with the best adjustment that economists in their studies can imagine. For we cannot expect that any public authority will attain, or will even whole-heartedly seek, that ideal. Such authorities are liable alike to ignorance, to sectional pressure and to personal corruption by private interest.” – Arthur Cecil Pigou, 1920

Institutional analysis comes to the forefront when the goal is the examination of the way
formal and informal institutions along with their enforcement characteristics work together to ultimately determine the efficiency of an organisation. Therefore, the goal of institutional analysis – and of this thesis – is to examine and evaluate the economic efficiency and distributional implications of given institutional structures over time; that is, to analyse the development of the organisations (agents) involved with Prince Rupert, Port Hedland, and Tauranga, and the various institutional arrangements that they exist within. By understanding the complex interdependent institutional matrix that a seaport functions in that we can begin to know what the appropriate suggestions to improving port performance should be.

As Williams noted while referencing the rush at the end of the nineteenth century to build deep water docks, the latest and greatest, most efficient facilities may not be the most economic investment. Context of time and place is important; there are always trade-offs that must be made and technical efficiency is only part of the story. The governance or ownership structure, the technical performance, the size and power of a port should be explained in the context of the institutional matrix they exist within.

Private is not always better than public and vice versa. Privatisation of a monopoly, for example, may produce worse outcomes if ex post contracting hazards emerge such as the hold up problem. Potential hazards and a thorough cost-benefit analysis that uncovers as many ex post hazards as possible should be undertaken before attempting to alter existing governance structures. This requires an examination of the historical context and why the port is the way it is today before any meaningful changes can be made. Any efficiency analysis, unless specifically mentioning its limitations, should include the dynamics of the institutions in which the port operates in its assessment.

3.1. Introduction

This chapter utilises the framework from the preceding section to determine why certain activities occurred at the port of Port Hedland and how these activities shaped the organisational and institutional structure it operates within today, taking into consideration not just Port Hedland itself but also an examination of the factors beyond the Port that affected its development.

Illustration 3.1: Location of Port Hedland in Australia’s North-West

This includes the institutional pay-off structure that the actors who shaped the development of the port – both directly and indirectly – faced through time; that is, the incentive structure that determined what organisations come into existence – both public and private – and where they directed their resources (i.e., socially productive or

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unproductive uses). The goal is less concerned with specific outcomes and more about the structures and processes that were involved in reaching that outcome. What we want to know is in a situation where the ends are given, how effective were the chosen means – the decision making processes involved – at achieving those ends, and what role did institutions play in shaping these decisions? It can be argued that understanding the role of institutions in structuring the present situation is essential to have any hope of providing reliable policy advice for the future.

The chief concern of this chapter is the port of Port Hedland in the north-west of Western Australia. While the Port Hedland of today is the world’s largest bulk export port with a throughput of 246.7 million tons in the 2011-2012 financial year, this has only been a relatively recent development.94

Illustration 3.2: Aerial View of Port Hedland, October 201095

Most ports around the world evolve gradually, increasing or decreasing their throughput

as populations increase and economies change; it is generally a steady, incremental
process that, at least in old world areas such as the European region, has been
ongoing for centuries. 96 But not Port Hedland. Just 50 years ago, Port Hedland had
more in common with its original name, the “Mangrove Harbour”, than anything
resembling the world’s largest bulk export port. 97 So how did the Mangrove Harbour go
from a place for pearl luggers to shelter from the frequent storms to a bulk export
powerhouse, able to cater to the world’s largest ships? What incentives and constraints
shaped the organisational structure and development of the port? Yes, luck in terms of
resource endowment and the proximity of the port to those resources played a large
part. But there are plenty of other places around the world where in spite of natural
endowments development still fails to occur to this day. To understand how Port
Hedland was able to eventually achieve success requires an examination of the
institutions that shaped the incentives and constraints behind its development.

3.2. The Mangrove Harbour, 1860 – 1880

The Port Hedland of today bears little resemblance to what was dubbed the “Mangrove
Harbour” when it was discovered in April 1863 by Captain Peter Hedland, commanding
officer of the Mystery and his Surveyor-General Charles Cooke Hunt, who decided to
rename the harbour Port Hedland shortly afterwards. 98 A natural, sheltered harbour –
albeit with the minor inconvenience of a tidal sandbar that prevented ships from
passing at low tides – Port Hedland was initially earmarked as a place to land sheep.
But unfortunately for the port, Walter Padbury – a Perth-based businessman and
pastoralist who was funding the voyage – deemed that the nearest inland water supply
was too far away to risk driving sheep immediately after landing. 99 The prospects for

96 For an example of how ports around the world developed and evolved see Yehuda Karmon,
97 Some accounts, such as Edwards, suggest that it was in fact called the “Mystery Harbour”.
Hugh Edwards, Gold Dust and Iron Mountains: Marble Bar & Beyond: The Story of the
98 J. S. H. Le Page, Building a State: The Story of the Public Works Department of Western
Australia 1829-1985 (Perth: Water Authority of Western Australia, 1986), 80.
99 Shaw, Moving Mountains: The Evolution of Port Hedland Harbour, 6.
at Roebourne received a report from his surveyor Charles Wedge stating that both
difficult landside access and limited water were a serious impediment to settlement.\textsuperscript{100}

Shaw came to the conclusion that it was because of this dismal report that “Port
Hedland languished for a further 25 years”, becoming home mostly to pearling
‘luggers’\textsuperscript{101} until the discovery of gold at Marble Bar and Nullagine in the late 1880s
which, when combined with Port Hedland’s favourable location and ability to cater to
the new and relatively large steamships, saw it emerge as a potential export facility.\textsuperscript{102}

3.3. \textbf{Booms, Busts and Institutional Follies, 1880 – 1911}

As a “settled colony” under British colonial law, the infant colony of Western Australia
officially inherited the legal and Constitutional foundations of Britain (British common
law) on June 1, 1829 when the \textit{Interpretation Act of Western Australia} (9 Geo. V, No. XX, section 43) dictated that the colony “shall be deemed to have been established”.

This saw the colony inherit the vast majority of English law and Constitutional principles
that came with it. The colony was subsequently guided by this institutional regime until
the establishment of the \textit{Western Australian Constitution Act 1890}, when Britain
granted Western Australia the right to have its own elected government and
constitution, eventually becoming a State within the Australian Commonwealth on 1
January, 1901.

That the State inherited British law was very important in its response to the eventual
gold boom and subsequent development at Port Hedland. Under British law, the owner
of the land is entitled to all that is below it \textit{except} the ‘royal metals’ of gold and silver
which remain subject to State ownership absent a direct grant to a private party from
the government. In Western Australia this process was relatively straight forward (for
small-scale prospectors) and remained in place until 1982; the interested party could
simply buy a miner’s right for a modest fee enabling him to mine unoccupied crown

\textsuperscript{100} Hardie, \textit{Nor’westers of the Pilbara Breed}.
\textsuperscript{101} A lugger was a small sailing ship with two or three masts and a lugsail on each.
\textsuperscript{102} Shaw, \textit{Moving Mountains: The Evolution of Port Hedland Harbour}, 14.
land for as long as desired provided it was being worked.

3.3.1. The Late-Nineteenth Century Gold Rush

The late nineteenth century was a very interesting point in time for Australia let alone pre-federation Western Australia. The discovery of gold and other metals around Australia led to an influx of population and capital, fuelling a mining and property boom that saw renewed interest in Port Hedland given its proximity to Marble Bar where the Pilbara gold boom was at its most intense. While Port Hedland was the closest port to the Pilbara mines, the government simply did not have the resources to develop it to facilitate a low demand for gold exports. As Spillman reported, auriferous land regulations for larger miners were still uncertain making it impossible to proclaim a goldfield. To compound the problem, the government did not even have official representation in the region until October 1886. This meant that the bulk of gold mining in the Pilbara during the 1880s comprised small-scale miners (often individuals) who generally transported any gold they found over land to avoid the colony's *Duty Upon Gold Act 1886* which, given the State’s inability to enforce it, likely saw the majority of the gold produced in the region during the boom smuggled out rather than declared (the Act collected the paltry sum of £27 while in operation). It was not until the Act was abolished only a year later that the State’s official gold exports began to increase.

This proved costly for any hope of expansion at Port Hedland, as the combination of a lack of clear cut mining rights and the negative incentives to use official export channels in the form of regulations such as the *Duty Upon Gold Act 1886* resulted in “diminished prospects of attracting company investment”, making the task of lobbying the government to upgrade port facilities or attracting private port investors rather

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Regardless, the gold boom would prove to be short-lived with the large inflows of British capital which had driven the expansion eventually drying up in the face of rising interest rates and restrictions on real estate speculation.\textsuperscript{107}

**Figure 3.1: Australia's Terms of Trade, 1880 – 1910\textsuperscript{108}**

Interestingly, the ensuing crisis would have far reaching ramifications leading to a gradual shift in the colony's and later the State's institutional environment that, as we will discover, indirectly helped shape the way Port Hedland and its organisational structure evolved into its modern form.

The reason a seemingly unrelated incident largely isolated to the capital cities can affect something as apparently different as Port Hedland is because the boom in the late 19\textsuperscript{th} century was in fact not isolated to real estate speculators and British investors; it had also seen a massive rise in the number of smaller financial institutions such as building societies and the establishment of government-controlled ‘savings’ banks.


(operating through post offices) which allowed governments to reduce the “recurrent financial crises” they faced at the time, providing them with a “steady flow of funds at moderate rates of interest, not as subject to parliamentary supervision as conventional public borrowing”.109

While this phenomenon was largely isolated to the Eastern colonies, savings banks did begin to appear in Western Australia from 1863, with their numbers reaching 14 by 1971 when all post offices in Australia (excluding Tasmania which had yet to implement an already-approved Act) were used for savings bank purposes.

The introduction of savings banks in Western Australia was achieved because the colonial government between 1850 and 1890 was, according to Black, effectively operating an almost dictatorial system of government where the colonial Governor could single-handedly suspend or remove members of the Legislative Council and withhold assent from any bills passed in the Legislative Council.110

The colonial Western Australian government, now unshackled from its prior constitutional constraints inherited from Britain, bypassed the usual channels of approval to assume a direct role in the advance of certain industries in the colony. In 1863 Western Australia became the first Australian colony to use post offices as savings banks when the Governor passed an Act establishing the Western Australian Post Office Savings Bank, operating through post offices with deposits to be used for ordinary expenditure of the colonial government or to invest in government securities (of which there were none until 1894).

While nothing significant came of the Bank before responsible government arrived in 1890 – the British Treasury maintained watch over the colony’s finances up to that point (the same cannot be said for the Eastern States) – the entry of the State into the

banking industry would prove to have some unforeseen consequences.

The first changes began only a year after John Forrest became the first elected Governor of Western Australia in 1890, which saw the establishment of the Loan Act 1891 (allowing loans for colonial and later State infrastructure spending) and with it an increase in the colony’s debt from £1,367,444 in 1890 to £3,417,339 in 1894, committing “the government to a dominant role in economic development”, with Forrest “keenly aware that he was fostering a pragmatic type of State socialism – a socialisme sans doctrines”. Forrest was eager to make the most of the revenue flowing from the gold mines (indeed, he borrowed against it) which saw the advent of the first land policies, State-owned railways, water supplies (such as the 330-mile Mundaring to Kalgoorlie pipeline) as well as the opening of Western Australia's Agricultural Bank in 1894 to provide subsidised capital to farmers. He was a firm believer in the idea of 'build it and they will come', stating that it was the government's duty to "not sit and wait for traffic, but to create traffic". This was at odds with the State's Engineer-in-Chief, C. Y. O'Connor, who believed the opposite but was a lone voice in a State where the "entrenched ascendancy" was an “old-boy network” used to receiving preferential treatment in the affairs of government.

Back in the Pilbara, the lack of demand for improved facilities at Port Hedland until the late 1890s was understandable given there was virtually no incentive to use it for gold exports. It was not until the larger miners arrived following the 1886 Goldfields Act that interest groups keen to see development at the port began to appear. At the time, a key motivation for infrastructure development (including ports) in Western Australia was the advice – or pressure – from prominent businessmen to the government. The

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112 Black, “Politics and Government.”
113 Anthony G. Evans, C.Y. O’Connor: His Life and Legacy (University of Western Australia Press, 2001), 120.
114 Ibid.
interwoven relationship between government and business was exemplified by the number of legislators that held business interests: out of the 400 members between 1870 and 1930, three quarters “held business interests of some form”.\textsuperscript{116}

Port Hedland was subjected to the same institutional constraints that incentivised the use of political markets to achieve certain goals and so following demand from local businessmen the future town site of Port Hedland was investigated, the deciding factor being a report from R.H. Downes, the District Engineer at nearby Cossack, who agreed with the businessmen and recommended that a survey be conducted of the sandy headland fronting the inner harbour. The result was the eventual gazetting of Port Hedland as a town on October 22, 1896.\textsuperscript{117}

Reports in local papers reveal that as early as October 1892 the shareholders in companies holding mining claims and leases at nearby Marble Bar were conducting their own inspections at Port Hedland. As one correspondent pleaded in the \textit{Western Mail} four years prior to the gazetting, “the whole of the work necessary could be done, including the making of a proper harbour with accommodation for a steamer to come alongside, at a cost of not more than £5,000”.\textsuperscript{118} Whether or not this figure was accurate for the proposed works – it equates to approximately £500,000 in 2012 currency – it does show that the actors interested in seeing the port grow were making their voices heard.\textsuperscript{119} Indeed, the view at the time was that Port Hedland was the only port in the North West where ships could discharge without the use of lighters and was safe and large enough for steamers to navigate.\textsuperscript{120}

In response, the State government eventually commissioned the construction of a jetty and an 8km causeway inland over the mangroves in 1896, fully completed three years


\textsuperscript{117} Shaw, \textit{Moving Mountains: The Evolution of Port Hedland Harbour}, 15.

\textsuperscript{118} “THE NOR'.-WEST GOLDFIELD,” \textit{Western Mail}, October 15, 1892, 31.


\textsuperscript{120} “MINING NEWS,” \textit{The West Australian}, August 20, 1895, 6; “THE NOR WEST GOLDFIELDS,” \textit{Western Mail}, August 23, 1895, 9.
later in 1899 for the purpose of exporting not just the recently discovered gold but also tin and livestock.

Illustration 3.3: SS Albany at the Port Hedland Jetty, October 1898

The project (including the causeway) cost the government £13,500, funded wholly through new borrowings. Initially the primary exports were tin to Singapore and livestock to the South of Western Australia with the first shipment of gold bullion occurring in 1900, well after the Pilbara gold rush had ended.

However, locals at Port Hedland felt that one jetty was not enough and so following the announcement of the first jetty, the miners at Marble Bar and businesses in the Port

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121 “PORT HEDLAND JETTY. A USEFUL WORK.,” Western Mail, October 21, 1898, 29.
123 The population at Marble Bar peaked at somewhere between 5,000 and 10,000 in 1886 only to plummet to 600 by 1887 and 311 by 1901. Malcolm Fraser, Western Australian Year-Book 1902-04 (Perth: Perth, 1906), 437; P.E. Playford, “The Kimberley Gold Rush of 1885-86,” 2004, 35. The Government was so late to the party that by the time the Goldfields Act 1886 became operative – the Act that established some form of mineral rights in the region – the State’s “only goldfield was in decline”. Spillman, “A Matter of Priorities: Colonial Politics and the Administration of Development Policies in Western Australia 1883-1902,” 67.
Hedland Township continued to lobby the government for both a second jetty and railway between the two towns.\textsuperscript{124}

While there was a delay of at least five years the residents of Port Hedland and the miners at Marble Bar were eventually successful. Both a new jetty and a railway were commissioned by the government in 1907, the jetty completed in 1909 (as construction was postponed for a year on funding concerns) for between £10,000 – £11,000 and the 115 mile railway on July 15 1911, at a cost of £300,000 (the initial estimate was £215,000).\textsuperscript{125} Despite optimism that the "iron horse had taken with it prosperity almost everywhere it had gone", and that Mr. Daglish, the Minister for Works, hoped "it would impart new energy, vigour, and life to the pastoral and mining industries of the Pilbarra district", it was not to be.\textsuperscript{126}

Unfortunately for the government this investment proved to be ill fated, with the railway remaining in service until 1951 having never earned a profit in its 40 years of existence. The fact was that gold mining at Marble Bar had become increasingly expensive with both the price of gold falling and input costs rising before the railway was even announced, making the railway a costly mistake for the State. While locals still supported the construction of the railway at the time, there were warnings abound, with even advocates of the railway acknowledging that:

"Those who can recollect the inception of the agitation and its progress for the succeeding five years, will bear out the assertion that justification for constructing this railway appeared greater then than now."\textsuperscript{127}

Meanwhile, gold mining had rapidly grown into the colony’s leading export – increasing from 14.4% in 1891 to 79.3% in 1901 – but that is where it ended as the value of gold

\textsuperscript{124} P.J.H., “THE PILBARRA REGION—ITS PASTORAL LANDS,” Western Mail, June 28, 1902.

\textsuperscript{125} "PORT HEDLAND REQUIREMENTS," The West Australian, February 21, 1908, 5; "PORT HEDLAND REQUIREMENTS," Western Mail, February 29, 1908, 19; "WEST AUSTRALIA," Geraldton Guardian, July 18, 1911, 4; "VIGILANS ET AUDAX," The West Australian, July 19, 1910, 4.

\textsuperscript{126} "RAILWAY EXPANSION," The West Australian, July 17, 1911, 7.

\textsuperscript{127} "THE PILBARRA RAILWAY," Northern Times, September 7, 1907, 2.
production in the region began to decline after that, falling from £8,770,729 to £6,246,848 from 1903 to 1910, a decline of over 40% – and that was a year before the railway was to even open.\(^{128}\)

**Figure 3.2: Value of Gold Production (£Millions), 1901 – 1913\(^{129}\)**

Following the completion of the railway in 1911 the amount of gold being mined in the region continued to stagnate and not much changed at Port Hedland during the railway's entire 40 year life.\(^ {130}\)

The Pilbara gold boom and bust had a massive impact on the Western Australian mining industry, with the number of companies registered in the State declining from 780 in December 1896 to 140 in December 1901; but more importantly in a dynamic world, institutions in one area – especially at the State or national level where actions affect the decision making process of the entire nation – can and often do have an impact, or unforeseen consequences, anywhere.\(^ {131}\)


The increased government involvement in the State’s economic activities would prove to indirectly shape Port Hedland’s future. For despite the before-mentioned increase in spending on public works, the resource-rich Pilbara region had been largely neglected. Adding to the problems faced in the North was that the government’s agents in the region were powerless to respond to local needs; for example, every mining warden had their own advance account to spend on local needs but none was authorised to spend funds without direct ministerial approval. Finally, Port Hedland and the Pilbara suffered because all decisions affecting transport infrastructure provision (railways, roads and ports) were made by the Perth-based Public Works Department which struggled to meet the growing demands of the Perth region, let alone the Pilbara’s mining industry. In just one example of mismanagement, of the £165,000 (plus an additional £15,000 specifically for the Pilbara region) that had been allocated by the government to the goldfields over five years from 1891, £160,553 had been spent within four years, with £27,443 spent on maintaining just one 186km road between Southern Cross and Coolgardie.

While the inflexibility and general unresponsiveness of the colonial and State governments to the transport demands of the Pilbara certainly stifled development, we must look to the more significant issue of the hold-up problem as described in the previous chapter. For even if private developers wanted to invest in Port Hedland (at this stage they were still prohibited by law but the government could have changed that), the “Forrest Government’s commitment to investment interests” – namely,

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132 This has been an issue throughout the history of the North-West. As J. J. Holmes, M.L.C., noted, Western Australia occupies a third of all of Australia but in 1938 had just 1/15th of the population. Therefore, “it was unreasonable to suppose that Western Australia with its limited financial resources could ever hope to fully develop the northern portion of the State”. J. J. Holmes, “NORTH OF THE STATE,” The West Australian, January 19, 1938, 20.


134 In 1934 the problems discussed here were still apparent, with people claiming “we cannot get things done”, as there is a “lack of cohesion” and a “lack of power” when officials are contacted, the proposed solution being the establishment of independent northern states. “How could an Empire wage a war in a number of theatres without delegating authority to a number of generals?” “NORTHERN DEVELOPMENT,” The West Australian, January 9, 1934, 4.
politically connected interests – meant that it would be hard for it to credibly commit not to extract rents from a project with a high amount of asset specificity (large, location-specific investments) such as a port.\textsuperscript{135}

As Mossenson remarked, the Forrest Government was committed to “the wholesale granting of exemptions and the ministerial interference which applied in such cases”; in other words, the institutional environment was one in which the government could ignore existing rights and intervene where it saw fit, creating a kind of uncertain risk profile that any business without the necessary ministerial connections would be frightened of.\textsuperscript{136}

This evidence is in line with the transactional cost theory of public ownership discussed in the previous chapter (as opposed to regulation-based or public interest arguments): given the incentives for opportunism in long-term, or relational, contracts, the State was unable to credibly pre-commit to not expropriate value once investments were undertaken and so investors (there was no shortage of British capital at the time), acting rationally, reduced (or never undertook) investment in the region accordingly. The government was then able to, by necessity but of its own creation, use this as a pretext for controlling investment in the region.

Once the hold-up problem starts, credibility is lost and investment can stagnate for decades; and it is only possible because “infirmities in the institutional environment enabled governments to exploit opportunistically the sunk investment costs of franchise operators, ultimately leading to a general contractual failure that resulted in a form of vertical integration that linked consumers and suppliers, namely high levels of State ownership of such assets”.\textsuperscript{137}


\textsuperscript{137} R. Daniels and M. Trebilcock, “Private Provision of Public Infrastructure: An Organizational Analysis of the Next Privatization Frontier,” \textit{University of Toronto Law Journal} 46, no. 3
Although there were moves throughout the Forrest administration to ensure the continuation of prior policy, where “the Colony is recognised throughout the world as one of the most important fields of investment, by capitalists, not only in the mother country, but of almost every civilised nation”, this short-term, informal policy was limited to mining.\textsuperscript{138}

While this was a positive step, the administration had altered the institutional structure into one where, given the discretionary powers that had been gradually 'unlocked' since 1850 and were being exploited by the Forrest government to achieve its goals of a great agricultural society, could easily be used for other less facilitative purposes in the future, such as a further “progression toward the interventionism which characterised agricultural policy”.\textsuperscript{139} Indeed as Forrest's biographer declared, he was “extraordinarily lucky”, to have the unprecedented opportunities to intervene in economic affairs. But what he may not have realised was that he had altered the State's institutions, and future governments would be more than happy to expand upon the trend he had set.\textsuperscript{140}

3.4. Scaddan's \textit{socialisme sans doctrines} (State Socialism), 1911 – 1918

The election of John Scaddan's Australian Labor Party (ALP) government in Western Australia in October 1911 saw the arrival of a government eager to act on the opportunity that the changes in Western Australia's institutions had enabled. The institutional structure had shifted further towards one that allowed for a stronger and more active, hands-on State. Nations around the world were experimenting with different forms of socialism and Australia was no different. Expanding the work of preceding governments, the 35-year-old Scaddan introduced a more extreme spell of State socialism utilising a more “efficient” way to expand, this time by exploiting a loophole in the constitution to use executive action when parliament was not sitting,

bypassing the State’s Liberal-dominated Legislative Council to undertake public investments and increase State borrowing.\textsuperscript{141} Financed by debt – the Scaddan government in 5 years increased debt by more than the previous 13 years combined – it controversially established various State-owned enterprises and nationalised several private ones.\textsuperscript{142} In one such example, the government used funds from the Loan Suspense Account without prior approval to establish the State Shipping Service (SSS, initially four vessels) in 1912 to counter an alleged ‘meat ring’ in the north.\textsuperscript{143} The government also commenced the purchase of the privately owned and operated tramways, bus services and Swan river ferry in the Perth metropolitan area, shortly followed by the establishment of various dairy farms, sawmills, hotels, quarries, brickworks, abattoirs and butcheries. According one account, the “speed and extent of the government’s entry into the world of business and commerce was something quite new”.\textsuperscript{144}

How did this affect Port Hedland? The structure of property rights in an economy shapes the incentives actors face when looking to capture rents by creating wealth – such as by investing in capital goods – or through transfers – such as by lobbying the government.

When the businesses in Port Hedland and miners at Marble Bar sought a railway connecting the two in the early 20\textsuperscript{th} century the incentives they faced encouraged the use of political markets; the pay-offs were greater for them to lobby the government to construct the railway rather than to construct and maintain it themselves and so they


\textsuperscript{143} The Loan Expense Account was to be used for “advances to public officers… and to pay expenses of an unforeseen nature”. Robertson, “The Foundations of State Socialism in Western Australia: 1911--16,” 311. The loophole was thus interpreting this statement to be one that legally justified Scaddan’s spending for the establishment of several State trading concerns.

\textsuperscript{144} T Stannage, A New History of Western Australia (Intl Specialized Book Service Inc, 1981), 383.
Likewise with the SSS: the service was the brainchild of lobbyists in the Kimberley who petitioned the Premier of the day to establish a “State boat between Fremantle and Wyndham… by running in the interests of the people, and not of the private company would do much to induce settlers to come to this portion of the State”. While this was not acted on immediately, the opportunity was not missed by the incoming Scaddan government who in May of 1912 established the SSS to “provide a regular schedule of calls at the isolated outposts of the State from Fremantle north to Wyndham and south to Eucla”.\(^{146}\)

Like most State trading concerns at the time the SSS lost money every year it was in operation, losing on average an amount equal to almost 50% of expenditures per annum, operating only in the “public interest”.\(^{147}\) While there are reports that some consumers benefited from this and other State owned enterprises, most agree that a combination of “amateurish” management and poor accounting and quality control mean the State Ships project was a failure up until 1995 when it was finally sold to private interests by the Court government, long after the original justification for its existence had expired (there were ample road freight options long before 1995 as well as a more competitive private shipping industry).\(^{148}\) The life of the SSS, if anything, shows how difficult it is to unwind policy once it is entrenched, where powerful interest groups fight for its continuation at the expense of the voting population who are to the contrary a dispersed, disorganised group.

This is in line with the insights of Olson discussed in Chapter 2, where over time entrenched interest groups working to secure a bigger piece of society’s pie results in the ossification of society’s institutions to a point where it has a noticeable effect on

\(^{145}\) In fact, at the time neither was legally able to construct it themselves; the Public Works Act 1902 had officially delegated all responsibility for railway construction and ownership to the Crown.


\(^{147}\) A Kerr, Australia’s North-West (University of Western Australia Press, 1975), 286.

\(^{148}\) G.C. Bolton, Land of Vision and Mirage: Western Australia Since 1826 (University of Western Australia Press, 2008), 101.
economic growth. This path-dependent outcome is broken when a “trigger” event (e.g. economic stagnation) brings about an institutional shift and transition in regulatory and governance regimes. While technological and ideological reasons are also partially responsible, they fail to account for the major shifts seen here. For example, while Scaddan’s ideology certainly shaped the direction in which his government moved the State’s institutions, he only garnished support because voters were frustrated with the previous regime (Olsen’s theory does not discriminate; both regime shifts – whether from market-oriented to statist, or vice versa – can occur). The technological explanation also fails to fully account for institutional shifts: transportation technology had changed dramatically well before the SSS was abolished to a point where it had long outlived its original purpose, yet it persisted.

Thus we can see that the transactional cost theory is the most viable explanation for the ownership structure at Port Hedland. For property rights to come into existence and be credible – the government is the sole supplier of property rights in a nation – the potential rents of that property must be high enough so that side payments to actors in a position of power can be made to bring about a change. The fact that there were seemingly no attempts by private parties to develop Port Hedland prior to 1960 indicates that the potential rents (profit potential) were insufficient to justify such pay-offs; it was cheaper to use existing government ports and use the system of political rather than market allocation to achieve desired ends. Once again, this stems from both the inability of the State to credibly commit to long-term relational agreements and a lack of demand and thus profit opportunities required to change this.

The accelerating trend towards heavier government involvement in the economy during the Scaddan government contributed to a continuation and even an increase in the hold-up problem until after the Second World War. Private infrastructure investment will not occur when the pay-offs are greater – even if it means lower efficiency and

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therefore social wealth – to lobby the government for infrastructure funding. It was easier to capture rents by lobbying the State to fund large infrastructure projects than it was to alter the institutional structure and raise capital for private investment. Going forward, government investment in Port Hedland was the only option that remained. A difficult-to-break path dependent outcome had been set in motion where future generations inherit “the artificial structure – the institutions, beliefs, tools, techniques, external symbol storage systems – from the past”.  

3.5. The “Cinderella Section” of Western Australia, 1918 – 1938  

The period between the end of the First World War but prior to the Second World War saw an increase in political interest in the Pilbara primarily for defensive reasons along with a general vibe of dissent towards the Commonwealth; indeed, Western Australia voted to secede in 1933, although constitutional issues prevented it from being enforced.

A major talking point in the late 1920s and throughout the 1930s – perhaps due to an increase in the price of gold – was how best to develop the Pilbara. While Port Hedland does not receive much of a mention, it certainly would have been impacted in one way or another by the outcome of the debate, given that its future depended on the government’s decisions. As early as August 1926, a letter from the Prime Minister Stanley Bruce indicated the willingness of the Commonwealth to take over all of Western Australia north of the 26th parallel, assuming liability for the struggling Western Australian State government’s loan debt of £2.7 million in that territory. Two months later the State Cabinet rejected the proposal, suggesting instead that the Commonwealth take over all territory north of the 20th parallel as well as allocate a minimum sum of money per annum to develop the region, in a similar deal that had

150 North, Understanding the Process of Economic Change, 7:156.  
151 This is a take on the fact that Western Australia has often been referred to as the “Cinderella State”, a story of rags to riches as a result of the repeated mining booms and busts. Brian de Garis, “Cinderella State,” in Historical Encyclopedia of Western Australia, ed. Jan Gothard and Jenny Gregory (Perth: University of Western Australia Press, 2009).  
previously been promised to South Australia when the Commonwealth took over the
Northern Territory in 1911. This amended proposal was declined.

The North West debate continued in the press until the Second World War with not
much resolved. The Western Australian government (and most of the opinion in the
papers) would not believe that the Commonwealth government was seriously
interested in developing the North, having sensational failed in the Northern Territory,
and perceived that the offer was nothing more than a ploy to prevent the secession of
Western Australia.153 154 A lengthy letter to the Western Australian Premier Peter Collier
in 1933 titled The Empty North. Federal Proposals. Secession., by Sir H. K. 'Keith'
Watson, who was himself a leading force behind the secession movement, presented
fourteen points in favour of secession. He portrayed the Commonwealth’s offer as one
that would comprise of “artificial and impossible restrictions imposed by people entirely
ignorant of, and inexperienced in, local conditions in the North, and blind to world
influences”, noting that the Commonwealth’s record in the Northern Territory should “be
regarded as being more reliable than any glowing promises or proposals for the
future”.155

According to Watson local knowledge was the key, with Northern development
requiring “our State government assisted by a Committee of local citizens possessing a
practical knowledge of the needs of the North”.156

However in the end nothing came to fruition as neither party wanted to concede an
inch. The Pilbara continued to be deprived for capital as the Commonwealth starved
the region of funding and offered what most thought was an illusory pot of gold in an
attempt to force the issue ahead of the secession vote as the State government,

153 According to the Payne Committee, the federal government spent £15m over 26 years to
encourage movement to the Northern Territories, but only increased the population by
154 “NORTHERN DEVELOPMENT,” The West Australian, January 9, 1934, 4.
July 24, 1933, 1, No. 1956/0847, Cons. 1545, State Records Office of Western Australia.

Ibid., 3.
already in massive debt, could not afford to develop it itself.\textsuperscript{157} As an account following a visit by Sir John Kirwan, President of the Western Australian Legislative Council in August 1933 bemoaned:

“During the tour we saw country quite unoccupied that would provide food, clothing, and all reasonable requisites and comforts for a population as large as that of the British Isles. That it is rich in natural resources was obvious. Its mineral wealth includes gold, iron, copper, lead, asbestos, antimony, manganese, and mica … With gold at over \£7/14/ an ounce it is not surprising there should be a revival of gold-mining at the old camps. When gold was standardised at \£4/4/11 ½ an ounce scores of mines were abandoned that would to-day, at the enhanced price, pay enormous profits. But the opening up of these old mines needs capital, and capital has not been forthcoming … In spite of the country’s mining, pastoral, agricultural, and horticultural resources, the population of the North and the North-West has diminished rather than increased in recent years. Not mining only has declined, but also wool growing and cattle raising.”\textsuperscript{158}

But capital was forthcoming if it was only allowed. As a 1933 letter to the Premier from the Agent-General Sir Hal Colebatch discusses, there were British Chartered Companies with “£200,000,000 of capital being available here for the purpose [of developing the North]”.\textsuperscript{159} This was widely reported in the media with one of the first reporters to break the news, Alan Moyle, claiming that the funds were to be used to “build railways, towns, roads, to urge wealth from the soil, to breed beef and shear sheep, to mine gold and tin and precious stones and mica”.\textsuperscript{160}

\textsuperscript{157} From 1911-1937 the Federal government provided £7,950,000 in grants to Western Australia, including the North-West (although none was specifically allocated to this region, it was up to the State government), while providing the Northern Territory with £15,000,000 over the same period. “THE NORTH-WEST,” The West Australian, September 30, 1942, 2.
\textsuperscript{158} “An Empty Land,” Sunday Times, July 30, 1933, 18 S.
\textsuperscript{159} Hal Colebatch to Peter Collier, July 20, 1933, No. 1955/0864, Cons. 1545, State Records Office of Western Australia.
\textsuperscript{160} Alan Moyle, “Where Water Is Dearer than Gold,” The Daily Express, August 20, 1933, No. 1956/0847, Cons. 1545, State Records Office of Western Australia.
In a subsequent interview Sir Hal Colebatch highlighted that attracting investment was never about capital but a question of “removing prohibitive restrictions”, and allowing “freedom to trade with the nation’s customers”, following which development of the North West would be “inevitable”.\footnote{161}{Hal Colebatch, “Help Those Already There,” \textit{The Sydney Morning Herald}, July 21, 1933, 9, No. 1929/0171, Cons. 1496, State Records Office of Western Australia; “DEVELOPMENT OF THE NORTH,” \textit{The Daily News}, July 21, 1933, 3.}

The final outcome for the “Cinderella Section” was for the State government to refuse all major offers to develop the North West, being unable to either remove restrictions on development or agree to the terms that would see large portions of land turned over to either Federal or Commercial interests for as some claimed up to 99 years. Thus, with transactional cost issues still deterring private interest and neither the Commonwealth nor the State willing to develop the region, Port Hedland languished until the manganese boom would again raise potential profits and reignite interest in the region.


Development at Port Hedland was non-existent after the Second World War due to low prices for local commodities and therefore a lack of demand for port facilities in the region. The use of Port Hedland for commercial purposes was also hampered when in 1942, following bombing attacks by the Japanese, it was occupied by the military until the end of the War.\footnote{162}{Wendy Birman, “Port Hedland,” in \textit{Historical Encyclopedia of Western Australia}, ed. Jan Gothard and Jenny Gregory (Perth: University of Western Australia Press, 2009), 715.} It was not until the Korean War began in 1950 that the port saw any kind of growth or development in the 20th century. Prices of manganese soared prior to and following the outbreak of the war and with the discovery of the mineral at nearby Woodie Woodie, exports out of Port Hedland commenced in 1953.
Australian manganese exports (Western Australian production comprised over 90% of Australian manganese production until the Northern Territory started producing in the mid-1960s), despite rapidly rising global prices – up 284% between 1940 and the peak in 1957 – failed to react to this price increase in time and thus missed out on the lucrative opportunity. It was not until the Northern Territory began production in 1965 that Australian exports took off, with Western Australia falling behind despite ample supplies (Woodie Woodie still produces manganese today).

While the gold boom in the late 19th century had numerous issues ranging from an infant government to a simple lack of demand for port facilities, we have to ask ourselves why did the State fail to jump at the chance to develop on the back of manganese exports? The conditions in the State were far better than during the 1880s gold boom; the government had matured, the debate over the fate of the Pilbara had been settled in favour of State government controlled development and the Second World War had been over for almost a decade.

We are therefore drawn to the State’s – or in this case, a combination of State and Federal – institutions as the most likely culprits: regarding manganese, it was the Federal government that prevented entrepreneurs from capturing this profit opportunity (both the availability of manganese reserves and the export profit opportunity were known at the time) through the imposition of a very uncertain, virtual trade embargo on manganese exports that heavily favoured established interests at the expense of new entrants. Indeed, at the time rule No. 3 of the Statutory Rules 1949 prohibited the export of manganese without a direct recommendation from the Federal Department of Supply and Development. The Department was responsible for national defence and so control of essential raw materials was bestowed upon it, one of which was manganese (and another was iron ore).

The manganese buying and selling decisions had been stripped from people with the knowledge of how best to use the minerals – in this case, to sell the State's manganese to the United States for more than twice the domestic price – and replaced it with a situation where every single exporter had to seek what would appear to be a very restrictive recommendation from the Chief of a federal department to export their product. The only people with the power to influence the federal government to change this policy – to shift the institutional structure away from one where only the largest, most established players were able to take part to one more facilitative to free trade and exchange where new entrants could challenge the status quo – were the actors empowered by the present structure. In this case, it was BHP who benefited from the regulation as the sole purchaser of manganese in Australia.

The justification for these trade restrictions was one that is familiar to Australia, the same one that had been used in 1938 to justify the iron ore embargo: one that once the

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164 This Department was subsequently broken up, with mineral export decisions controlled by the new Department of National Development. Australia, House of Representatives Debates, 2nd Session, 2nd Period, 22nd Parliament, vol. 42 (Canberra, 1957), 1483.

Japanese threat had subsided after the Second World War, was no longer valid; that Australia had a supply problem and so manganese must be preserved for domestic use.\(^{166}\)

While the federal government maintained that Australia’s manganese supplies would last for at most 25 years, Western Australian explorers were arguing that reserves of manganese were in fact in “ample supply” in the State, with local politicians urging the Federal government to remove its quasi-embargo (quasi- because permits could still be – and were – granted by the Department of National Development in very limited quantities).\(^{167}\) In one scathing attack, Minister Mr. Grayden of Swan criticised Federal government departments for being so far disconnected from Western Australia that its knowledge of the State, in particular the vast availability of chromite and manganese, was so poor that it had placed a ban “on the export of manganese and chrome for no other reason than the fact that it is not known how much manganese and chrome there is in Australia”\(^{168}\).

The controversy surrounding the embargo and the favoured status granted to certain organisations was rife at the time. While the vast majority of mining entrepreneurs in Western Australia were met with a brick wall when applying for an export permit, organisations with connections in the federal government had no such trouble.

In one such example over which there was heated parliamentary debate was the government’s involvement in the Manganese Company, where following an inquiry by the Western Australian Audit Department it was revealed that the government had lost a considerable sum of £62,361. 5s. 2d. in the venture (approximately £3.5 million in 2012 currency).\(^{169}\)

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\(^{168}\) *Australia, House of Representatives Debates, 1st Session, 1st Period, 20th Parliament*, vol. 26 (Canberra, 1951), 708.

\(^{169}\) Allen, Goulding, and O’Donoghue, *Consumer Price Inflation since 1750*. 

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The implications for Port Hedland were obvious: while it was barely surviving on the few exports that were permitted to be shipped from the port, no development was taking place and the future still looked grim. With an export embargo on the most lucrative mineral in the State at the time and with the ports' clients being limited to those with the political power to get their way, infrastructure investment was unlikely to take place. The State government would not invest given its tense budget constraints and private interest was lacking given the transactional cost issues as well as the port’s small throughput, itself a result of the Federal embargo over which it had little control.

Little control because, as people with more knowledge about the North-West at the time were pleading in Parliament, one of the reasons for the export restrictions was the result of a State regulation on prospecting. There were “deposits of manganese in that area [the North-West] which have never been pegged because under the State mining laws if the deposits were pegged a certain number of men would have to be employed in working them”. The State had raised the price of prospecting by requiring deposits to be worked constantly, and no one was “prepared to spend a few thousand pounds a year in producing manganese when it cannot be marketed [as a result of the embargo]”.¹⁷⁰ A vicious cycle, or path-dependent outcome, had been created where the federal Bureau of Mineral Resources was underestimating the quantity of manganese in the North-West on the basis of the limited prospecting activity, itself caused by a combination of the embargo and the State's regulations.

The dire situation that the people at Port Hedland found itself in was evidenced by the following in *The West Australian*:

> “Local authorities said today that Port Hedland was being stifled by an embargo on the export of manganese from Australia… Under the embargo, the B.H.P. dictates the conditions, price and supply of the ore… Authorities operating at

Port Hedland said that America was having difficulty in getting high-grade manganese ore and was experimenting with substitutes."  

It had to be clear that there was neither geological nor political (in the face of war, for example) justification for the continuation of the embargo. The only way such a poor policy can persist is if the institutions governing the players allow it to occur; and with both private and public actors looking out for their own self-interest, we can expect it to persist until certain forces arise that change the incentives faced by the actors involved to induce institutional change. What had happened in the Pilbara was that a path dependent outcome had arisen where the players benefiting the most – in this case, BHP and the politicians and bureaucrats with the discretionary power to enforce the embargo – had no incentive to force a change in the institutions and the players who desperately wanted to – certain State government officials and the vast majority of the Pilbara population they represented – did not have the political clout to enact such a change. State members went as far as to call for a Royal Commission into the Federal government’s actions, with Western Australian Federal Member for Swan Mr. Grayden describing the situation during Federal Parliament on November 10, 1953 as “farcical”, pleading that “mining is to Western Australia what taxation is to Canberra”, and that the future of the State depended on it.  

Unfortunately for Western Australia and Port Hedland, Mr. Grayden’s repeated pleas in Federal Parliament went unanswered and it would not be until the iron ore boom in the 1960s that the incentives were large enough for change to happen and for the path dependent outcome to break. For despite a few local State politicians decrying the actions being undertaken by both their colleagues in the State Parliament, their Federal counterparts and certain organisations such as BHP (all of whom were simply playing the game to the rules they faced at the time), the institutional path had been set and

the manganese boom was not sufficient to alter it.

At the State level, weak property rights surrounding mining titles and related infrastructure in the State meant that the government could use vague clauses in the *Mining Act 1902* enabling discretionary intervention to raise the cost of doing business by causing uncertainty, especially in industries with large fixed costs and high asset specificity. Section 276 of the *Mining Act* was used as a “cudgel to impose its will on the companies who became interested in the Pilbara”, designed to “give the Minister almost dictatorial powers. Whether or not this is desirable, it has had the practical effect of creating a great deal of confusion and uncertainty which in turn has given rise to resentment and charges of injustice”.

Unless the State is constitutionally or legally constrained in its ability to bestow such privileges (and thus private actors will find lobbying less profitable *vis-à-vis* production), it will continue to do so and as we see in the case of Western Australia in the 1950s, its actions in the Pilbara demonstrate that it was not at all constrained. Contracts could be dishonoured *ex post*, with the necessary property rights to finance projects with highly specific assets not available. Described by a *West Australian* correspondent as “a socialist Pilbara plan of confiscation”, even former State Labor Premier John Tonkin was highly critical of the State’s actions in the region, detailing an example of the State picking winners and losers in a speech prior to his 1971 election victory:

“The Government’s mineral policy for the Pilbara involves the deprivation of the rights under law of an occupant of a temporary reserve who has spent a large sum in discovering a payable ore body. Such a policy strikes at the very root of mineral exploitation and savours of bushranging. It must make every occupant of a temporary reserve fearful that he may find himself in a similar position to

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that of Hancock and Wright and be deprived of the fruits of his labour.”

Though following the failures of State socialism the government had reduced its direct involvement in the economy, it had continued to use its powers to regulate industry and assist favoured business interests at the taxpayer’s expense – something not conducive to private investment in highly specified assets.\textsuperscript{175}

At Port Hedland, although some manganese was permitted to be exported at the time it was an extremely inefficient process. A good example of this was in 1953 when the largest shipment of less than 5,000 tons of manganese took 23 days to load on to the Fernbrook.\textsuperscript{176} While this was an incredible feat at the time given the facilities at Port Hedland – the captain of the Fernbrook was a “pioneer”; the first captain who, after undertaking his own daily surveys of the harbour, managed to manoeuvre his ship within the inner harbour without having to move out to sea which was the standard practice at the time – it was poor by international standards.\textsuperscript{177} To put this into a global context, at the same time the Fernbrook was loading its’ decks with 5,000 tons of ore, the facilities in Glasgow’s General Terminus Quay could already handle the simultaneous unloading of two ships with a capacity of 12,000 tons of iron ore each.\textsuperscript{178}

As Rod Fletcher, the field supervisor of the Northern Minerals Syndicate (formed in 1947) said:

\begin{quote}
“The movement of the first shipments of manganese through Port Hedland posed enormous difficulties for the syndicate. Because of the physical limitations of the harbour, the Harbour and Lights Department believed the operation was impossible, but arrangements were made for the ore to be lifted by two ships, the Fernbrook and the Union Power, whose captains were prepared to undertake their own survey within the inner harbour and were quite
\end{quote}

\textsuperscript{174} J.F. Moyes, “Hancock and Wright,” April 1973, 8.
\textsuperscript{175} Robertson, “The Foundations of State Socialism in Western Australia: 1911--16.”
\textsuperscript{176} Shaw, Moving Mountains: The Evolution of Port Hedland Harbour, 21.
\textsuperscript{177} Hardie, Nor’westers of the Pilbara Breed, 224.
One factor explaining this relatively poor performance was the organisational structure at Port Hedland, which was in turn shaped by the institutional structure. Given the outright prohibition of private investment and reluctance of any potential private actors to lobby the government to change this policy, the operation of the port fell to the Harbour and Light Department based in Fremantle, some 1,668km away. Following the Fernbrook’s impressive feat, the Department expressed some ‘concerns’ about the extent to which ships could be loaded in Port Hedland and so immediately put a stop to any further innovations that may have improved efficiency by artificially limiting ship loading capacity. As Fletcher said, this “was a serious hindrance to the expansion of the manganese industry because it required future shipments to be made in smaller ships, which had an adverse effect on the shipping rates”.

This was to continue for some time, as no investment in its port facilities took place until in October 1957 following the federal government’s relaxation of regulations to allow the export of a third of all proven reserves, the State’s Public Works department was provided with £23,300 to extend the Port Hedland jetty and reconstruct various berths, completing the works in August 1960. Prior to this upgrade, facilities at Port Hedland were insufficient to cater to the demand from the Wittenoom Gorge asbestos mine, let alone the throughput the export of manganese would have provided had it been permitted.

It was once again actors reacting to potential profit opportunities that created this institutional shift; as Fletcher put it, the “Northern Minerals Syndicate was directly responsible for the easing of the restrictions because of its exploration programme and mine development”. The Syndicate had spent a “great deal of capital” in improving

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179 Hardie, Nor’westers of the Pilbara Breed, 223.
180 Ibid., 224.
182 Ibid., 147:221.
183 Hardie, Nor’westers of the Pilbara Breed, 225.
the infrastructure in the North-West, such as providing access to Port Hedland through a 284km road to the port from its Ragged Hills manganese mine.\textsuperscript{184}

But as with the gold boom in the late 19\textsuperscript{th} century, this was too little too late, with 1957 proving to be the peak of the manganese boom as prices of the mineral reached US$121/ton. The Pilbara’s manganese production then peaked in June 1962 at $2,945,000 as export prices continued to decline and production costs escalated.\textsuperscript{185}

Somewhat ironically, two years following the peak of the boom in May 1959 North-West Minister Charles Court visited and personally inspected the facilities at Port Hedland, declaring them unacceptable, but the eventual upgrades proved inadequate. Indeed, one proposed plan was to upgrade the facilities to cater to ships of 10,000 tons but by the time the report was completed in 1960 it was deemed to be obsolete, as not only had shipping technology outpaced the plan but the boom was well and truly over.\textsuperscript{186}

\begin{quote}
"In every way the story of the manganese industry is one of the tenacity and determination needed to overcome enormous handicaps. Government restrictions made it difficult to get the project started at all. The mine was in harsh, inhospitable country. The loading facilities were demanding and frustrating. Physically it was really tough on men and machines."
\end{quote}

With more than half of Port Hedland’s population being involved in the manganese export business and the Port continuously losing out to foreign exporters during the important, early stages of the boom given their competitors lower production costs and more efficient facilities, the port was never really able to capitalise on it. It would not be until 1974 that manganese prices would again reach the heights seen in the 1950s.

Port Hedland had ample opportunities to expand and capture a significant share of the world export market but it did not. The answer lies in a combination of the institutions

\begin{flushright}
\textsuperscript{184} Australia, \textit{House of Representatives Debates, 2nd Session, 1st Period, 20th Parliament}, 46:23.  \\
\textsuperscript{185} Hardie, \textit{Nor’westers of the Pilbara Breed}, 225.  \\
\textsuperscript{186} Shaw, \textit{Moving Mountains: The Evolution of Port Hedland Harbour}, 23–24.  \\
\textsuperscript{187} Hardie, \textit{Nor’westers of the Pilbara Breed}, 222.
\end{flushright}
that govern the port and the fact that the profit opportunities for what would have been an expensive project were simply not large enough to encourage actors to alter these institutions. As Davis et al. point out in their landmark paper *Institutional Change and American Economic Growth*, institutional change is induced by private needs (profit incentives) – people’s desire to capture economic rents. They note that:

“It is the possibility of profits that cannot be captured within the existing arrangemental structure that leads to the formation of new (or the mutation of old) institutional arrangements.”

But the process of changing institutions is not free; there are numerous private costs such as learning costs (writing new laws and regulations), lobbying costs, and the cost of potential taxes. People will only begin to fight for a change in the existing institutional arrangements when the net pay-offs exceed the benefits of remaining within the status quo. The most likely way for this to happen would be for some kind of external trigger to occur that raises the potential profits to a level greater than the costs of inducing institutional change. This equilibrium-upsetting event – and the discovery and soaring prices of iron ore would prove to be such an event – raises the benefits of having exclusive control and less ownership uncertainty, leading to lobbying for institutional change to a point where a new equilibrium is reached (where the benefits of even more control and certainty are outweighed by the high pay-offs required). This is what we saw with the Northern Minerals Syndicate during the manganese boom and while they failed to significantly alter the institutional structure, they set the process in motion, something the future entrepreneurs of the iron ore boom would come to be thankful for.

3.6.1. Protectionism and the Iron Ore Embargo

While the gold industry was exempted from income tax at the time, tin, bauxite, iron, copper, lead, and manganese faced taxation that did not permit them to get “a reasonable return for the hazardous and speculative nature of the investment”.

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Prospectors were also prohibited from being granted mineral claims as the State had “frozen all iron ore deposits both known and those yet to be found”.  

Officially announced by the Commonwealth government in May of 1938 and implemented through an amendment to the Customs Regulations from July 1, 1938, the Federal iron ore embargo remained in place until December 1960 when the Commonwealth government announced that due to new information, it would consider the granting of licences for iron ore export.  

While this chapter is not concerned with the political rationale for the embargo, it was a critical piece of legislation that affected the development of Port Hedland for the entirety of its duration and so must be examined. The embargo also highlights how vulnerable large investments can be to government policy at all levels and the potential costs investors and entrepreneurs face because of the risks and uncertainty as well as the costs of under-investment that society bears as a result. It is not just embargoes which distort private investment decisions but actions at all levels of government from competition policy, labour laws and environmental regulation all the way to local planning and zoning rules. The more predictable and less ad-hoc the rules are, the lower the risk for investment and the closer the level of investment will be to the optimal.  

The iron ore embargo had the effect of not only lowering the profit potential of exploiting existing iron ore reserves but also the effect of wiping out virtually any incentive to prospect for additional reserves. Private interest was “effectively extinguished, and increase in knowledge of national resources was doomed to

190 Blockley, Reid, and Trendall, “Geological Aspects of Australian Iron Ore Discovery and Development.”  
There was also no reason for existing interests with a large amount of skin in the game, such as BHP, to protest the embargo as they were, it turned out, largely unaffected by it. Blockley et al. noted that “there were no strong reasons for that company [BHP] either to object to the embargo or to seek new ore supplies: it had ample reserves for its own long-term future, neither its existing export contracts for iron ore nor its continuing export of pig iron and scrap were immediately affected, and finally a potential export competitor had been eliminated overnight”.

Monopolists such as BHP were comfortable with the existing status quo. BHP was able to operate “efficiently” – that is, produce steel at a lower cost than its competitors – as a result of unrivalled access to the cheapest coking coal and manganese in the world. This access was achieved through political means, as BHP had obtained a number of privileges from the State such as the iron ore-rich Cockatoo and Koolan Islands “in return for a small royalty”. Another privilege was the prohibition of Australian suppliers of steel inputs from exporting their product. For example, the global price of manganese in 1952 was £25 a ton against £8 in Australia, destroying any incentive for people to go “hundreds of miles into the outback of Western Australia… for such a return”.

“Will the Minister for Trade and Customs say whether it is true that the Government is restricting the export of manganese ore? If so, is the Minister aware that mining companies in Western Australia could double the production of manganese if they were permitted to export the ore, and that the present restriction on production is one of the factors responsible for the high cost of

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194 Ibid.
The desire for further government protection of any private enterprise – or lack of protest when it is proposed – is especially true when the corporation in question is already dependent on the government for preserving its position by artificially restricting competition, such as BHP was. For this is the only way a monopolist can maintain its market position over time without being so efficient as to deter competition; as Baumol demonstrated, even for natural monopolies once you factor time into the equation, “the heroes are the (unidentified) potential entrants who exercise discipline over the incumbent, and who do so most effectively when entry is free”.\textsuperscript{198}

The only way the incumbents can prevent entry is by “behaving virtuously, that is, by offering to consumers the benefits which competition would otherwise bring. For every deviation from good behaviour instantly makes them vulnerable to hit-and-run entry”.\textsuperscript{199}

In other words, in a market with no artificial entry barriers (regulations) if a monopolist is preventing entry by providing goods and services at or below a price that perfect competition would otherwise bring then the ‘problem’ does not exist outside of the economist's model.

While BHP was undoubtedly using its politically-granted status as the nation’s steel producer to influence policy, it was merely playing the game within the rules that it confronted. It is the institutions that set the rules governing the players and BHP was ‘winning’, even if the outcome was a socially undesirable one. In a scathing account of the way BHP operated under the shield of government protection, Hughes notes:

“The Broken Hill Proprietary’s monopoly position has inevitably influenced its decision making, not in the direction of unduly high prices or profits as the proponents of nationalization feared, but rather in its failure to promote an...”

\textsuperscript{197} Australia, \textit{House of Representatives Debates, 1st Session, 3rd Period, 19th Parliament}, vol. 11 (Canberra, 1951), 394.


\textsuperscript{199} Ibid.
adequate rate of growth, its failure to take risks and to show enterprise. Yet in this respect the company has been far from unique in the Australian setting; rather it has shown a reliance on government support and a reluctance to leave the safe havens of the domestic market which is a heritage of a hundred years of government assistance and tariff protection.\textsuperscript{200}

It was not until the price of iron ore rose to such a level – increasing by over 200% in the twenty years after WW2 – that, despite the government protection afforded to the incumbent monopolists and a lack of tenement or more secure property rights for explorers guaranteeing that they would receive at least some gains from their discoveries, people began to explore for iron ore in secrecy.

**Figure 3.4: Iron Ore Price, 1945 – 1965\textsuperscript{201}**

As Blockley et al. point out, “the impossibility of obtaining any legal title to discoveries meant that an unusual degree of secrecy was maintained, and this has resulted in a dearth of contemporary documentary evidence [of iron ore deposits]”.\textsuperscript{202}

\begin{itemize}
  \item \textsuperscript{200} H Hughes, *The Australian Iron and Steel Industry 1848-1962* (Melbourne University Press Melbourne, 1964), 192.
  \item \textsuperscript{202} Blockley, Reid, and Trendall, “Geological Aspects of Australian Iron Ore Discovery and Development,” 279.
\end{itemize}
This all had important implications for Port Hedland. Given its location, the future of Port Hedland depended on iron ore exports. However, despite the removal of the iron ore embargo in 1960, a prosperous future would prove to be anything but certain.

3.7. A Change in Direction, 1957 – 1970

The conventional history of Port Hedland assumes that no significant development occurred at the port until the mid-1960s because there was no iron ore to export (at a profit) up until that point. But that is only half the truth. There was a gold boom in the late 19th century followed by a manganese boom after the commencement of the Korean War and the miners in both cases would have jumped at the opportunity to use the port, only to be disappointed by high transaction costs which proved prohibitive. This was because in both of those booms, but more so during the manganese boom, government policy delayed the entrepreneurial response to rising commodity prices and thus no work was done to upgrade Port Hedland’s facilities to cater for them. The end result in both booms was for more efficient foreign miners and ports reaping the rewards of the boom while Western Australia missed out. In both cases, virtually no private investment occurred and all government-funded upgrades to the port occurred after the boom had peaked or did not occur at all, meaning that not only did Western Australia miss out but that taxpayers had to bear the burden of the mistakes. There is no reason to think that anything different would have happened with the removal of the iron ore embargo unless there had been a fundamental change in the State’s institutions that solved the transactional cost issues, creating an institutional environment where private investors felt confident that the State would commit ex ante not to expropriate their assets ex post. As Acemoglu et al. observed:

“Although the efficiency of one set of economic institutions compared with another may play a role in this choice [between good and bad institutions], political power will be the ultimate arbiter. Whichever group has more political
power is likely to secure the set of economic institutions that it prefers."^203

Aided by a booming Japan which drove iron ore prices through the roof – the Japanese steel industry was importing 7,000,000 tons of iron ore in 1957 and at the time this was expected to increase to 20,000,000 by 1965 – the political pressure mounted on the government by special interests, both domestic and international, to first lift the embargo and then provide some kind of legal title to iron ore was immense.^204

Without property rights, "it is not worth while to locate new deposits because the ore cannot be exported and cannot be sold", even when “there are in sight supplies of iron ore sufficient for hundreds of years".\(^205\)

Incredibly, between 1953 and 1960 Australia had increased the value of her exports by just 1 per cent. In the same period of time, the value of world trade had increased 36 per cent; the United Kingdom increased export value by 30 per cent; West Germany by 120 per cent; and Japan by 170 per cent.^206 The rest of the world had begun to shed their protectionist shackles, but Australia lagged behind.

“One of the reasons why we are short of iron ore", said Senator Victor Seddon Vincent in 1958, "is that the Western Australian Government has frozen all iron ore reserves, either known or yet to be discovered".\(^207\)

Senator Vincent was commenting on the peculiar situation the State and the mining industry found themselves in at the time. The federal embargo on iron ore had eroded the incentive to prospect for iron ore as the amount the monopsonist buyer, BHP, was

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willing to pay was below the cost of production for North-West iron ore. This had led to
the perception in both Canberra and Perth that supply was limited, and so the Western
Australian government “froze” all iron ore reserves, both found and not yet discovered,
to preserve supply in case of war. “In other words”, notes Vincent, “if I were to discover
a new deposit of iron ore in Western Australia, I would not be given a mining title to it
by the State Government. I would not be allowed to mine the ore or sell it... If the State
Government did something to give an incentive to prospectors and exploration
companies so that we could build up our iron ore reserves, it would have no trouble in
obtaining [federal] permits to export large quantities of iron ore”.

Table 3.1 tracks the progression towards the eventual lifting of the iron ore embargo
and emergence of Port Hedland as a world leading bulk export port.

Table 3.1: Institutional Change and the Development of Mineral Rights in Western
Australia, 1956 – 1982

<table>
<thead>
<tr>
<th>Year</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1956</td>
<td>Western Australia requests an export licence for 50,000 tons at Koolyanobbing and is refused(^{209})</td>
</tr>
<tr>
<td>1957</td>
<td>Western Australia enters into provisional agreement with Japan to export 1m tons of iron(^{210})</td>
</tr>
<tr>
<td>1957</td>
<td>Western Australia applies for a permit to export iron ore from Tallering(^{211})</td>
</tr>
<tr>
<td>1960</td>
<td>Commonwealth iron ore embargo partially lifted</td>
</tr>
<tr>
<td>1960</td>
<td>Western Australia allows independent prospecting in certain areas</td>
</tr>
<tr>
<td>1961</td>
<td>Western Australia deems Port Hedland “unacceptable” for iron ore exports</td>
</tr>
<tr>
<td>1961</td>
<td>Western Australia lifts the blanket reserve on mineral discoveries</td>
</tr>
<tr>
<td>1963</td>
<td>Commonwealth iron ore embargo completely lifted</td>
</tr>
<tr>
<td>1963</td>
<td>Western Australia reviews initial iron ore tender; Port Hedland selected by MGMA</td>
</tr>
</tbody>
</table>

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\(^{208}\) Ibid.

\(^{209}\) This was excess ore that needed to be disposed of and could have been used to fund an expansion at Wundowie charcoal iron works rather than using further loan funds. Western Australia, *Legislative Assembly Debates, 1st Session, 22nd Parliament*, vol. 147 (Perth, 1957), 1461.

\(^{210}\) Ibid., 147:983.

\(^{211}\) Ibid., 147:1460.
<table>
<thead>
<tr>
<th>Year</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td>First State Agreements provide some legal title to iron ore</td>
</tr>
<tr>
<td>1970</td>
<td><em>Port Hedland Port Authority Act</em> passed</td>
</tr>
<tr>
<td>1982</td>
<td>Western Australian <em>Mining Act</em> provides specific tenement for large-area mineral exploration</td>
</tr>
</tbody>
</table>

The lobbying for a removal of the embargo was a joint effort from the Western Australian government and private interests, both of which saw the potential profits that the iron ore industry could provide if only the embargo could be lifted. The private effort was led chiefly by the Japan-based Duval and Company who had contracted former politician Sir Arthur Fadden to lobby parliament on its behalf. Indeed, the State government submitted its first application for an export licence on the 16th of November, 1956 and, even though it was declined, by 1957 had both entered into a provisional export agreement with Japan and had tentatively begun calling for iron ore export tenders in direct conflict to the Federal embargo which was still in place. The deal would have provided the State with a royalty of £1 per ton, with BHP paying its current rate of 1s. 4d. and the Japanese paying the remaining 18s. 6d. as well as BHP’s undisclosed charges. This offer was declined by the Commonwealth who cited the 1938 embargo and its “far-fetched” numbers regarding the State’s iron ore reserves as justification.

Undeterred, a second application was made, but this time it was refused on the grounds that the Commonwealth, searching “very deeply for excuses… queried very much whether the anticipated profit would be made by the State. It asked why, if such profit could be made, some private individual or private company had not entered into the field”.

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214 Ibid.
Even without a successful application from the Commonwealth, the miners were partially successful on December 3, 1960 when the embargo was relaxed, ushering in a rush of exploration that would sweep aside any concern that iron ore supplies in the State were at all limited.\(^{215}\)

However, the State government still maintained a blanket reserve on all discoveries of iron ore, meaning that even if a company or individual discovered a significant deposit there was no guarantee that it could be exploited – and as we saw earlier, the State had a track record of taking discoveries from prospectors and handing them over to the politically-connected monopolists in the form of BHP\(^ {216}\). In 1960, the interests of BHP were still of paramount importance to those in power. “I know that the Broken Hill Proprietary Company Limited is launching a mammoth expansion programme”, said Mr. Whittorn during Parliament, “and our thoughts regarding the export of mined minerals must be methodically planned so that the Broken Hill Proprietary Company Limited is satisfied with regard to supplies for present and future needs... I believe our Government should materially assist in the plans of the company”.\(^ {217}\)

It was not until following the partial removal of the embargo that the most important step towards securing mining property rights took place: early steps towards the iron ore State Agreements, the first of which were formalised in 1964 to Mount Goldsworthy, Mount Newman and Robe River. While the State wanted to do everything itself, it simply did not have the expertise or resources to undertake such a task and so every

\(^{215}\) Even though as late as September 1960 the Federal government was staunchly holding to the claim that Australian supplies would last at most 30 years. Australia, *House of Representatives Debates, 2nd Session, 2nd Period, 23rd Parliament*, vol. 38 (Canberra, 1960), 1134.

\(^{216}\) As Charles Edward Barnes made clear following the partial removal of the iron ore embargo: “I do not think it would be desirable for it [BHP] to do so [take control of Australia’s iron ore] in any case, because, after all, this Government supports free enterprise, and the basis of free enterprise is efficient competition... I counsel the Government that, in future, no more leases of iron ore should be granted to one company in Australia so that it will get a stranglehold on all the resources of this country.” Australia, *House of Representatives Debates, 2nd Session, 2nd Period, 23rd Parliament*, vol. 48 (Canberra, 1960), 3486–3487.

aspect of the mining industry was contracted to private interests. As one account notes, “the persistence of their lobbying was beginning to have some effect and, emboldened, they [the State government] took the step to call for tenders. It was sound thinking”.

At Port Hedland, the government had planned to expand the facilities to cater to the upcoming iron ore boom as outlined in a 1960 report; however, the report was obsolete by the time the government was willing to act on it, as it catered only to 14,000 ton ships rather than the 40,000-60,000 tons the mining companies desired. But unlike during the gold and manganese booms, this time the mining companies would not take ‘we cannot afford it’ for an answer and so even though the project was deemed “beyond the resources of the State”, the government – heavily influenced by vested interests seeking potential profits from the record iron ore price – decided that “the onus would be on the mining companies to undertake the port development themselves or search for a more viable location”.

The government achieved this by issuing a tender for the mining, transport and shipment of ore from Mt Goldsworthy, with all facilities and improvements (including any work done at Port Hedland) ceding to the government upon completion of the mining at Mt Goldsworthy, as well as a royalty per ton shipped to be paid to the State. Despite these added costs, six companies submitted tenders to mine Mt Goldsworthy under those terms.

This proved to be just the beginning, with the Mt Goldsworthy Agreement becoming “the pattern for all subsequent agreements with the Western Australian government… a model on which the four remaining so-called ‘pioneer agreements’ were based – Hamersley, Newman, Robe and Deepdale”. The State government also began granting numerous temporary reserves for iron ore prospecting with each carrying exclusive rights for two years and the guarantee that, if iron ore was discovered,

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220 Ibid., 30.
prospectors would be able to seek a mining title for it.

It seemed that what Port Hedland had failed to achieve in both the earlier gold and manganese booms was finally about to be realised – a State government had provided enough assurance and therefore confidence to private investors that their rents would not be expropriated *ex post*. However, despite the government delegating the port selection and development to the winners of the Mt Goldsworthy tender, North West Minister Court still had the final say as to the location of the port and in December 1961 he advised the Shire Council that Port Hedland could, as Shaw noted, “not be developed economically to take the size of bulk carriers that were required for the iron-ore export trade”, as “all expert opinion consulted by the government had ruled out the possibility”, with the only option being to build a new iron ore facility elsewhere.\(^\text{222}\)

It was not until almost two years later in November of 1963, five months after the Commonwealth government had completely lifted the iron ore embargo which allowed for significantly larger export quotas, that the State Parliament passed a bill allowing the original winners of the Mt Goldsworthy tender, Mt Goldsworthy Mining Associates (MGMA), to renegotiate the terms of the tender and to choose an export facility other than the government-selected Depuch Island. MGMA, after conducting its own surveys of the proposed ports, decided on Port Hedland.\(^\text{223}\)

Port Hedland’s future was finally secured when, following BHP’s examination of Mt Whaleback in 1966 and the subsequent discovery of high-grade ore far exceeding prior estimates, it agreed to buy five to eight million tons of iron ore per year and to become a 30% partner in the venture. In January 1967, Mt Newman Mining Co Pty Ltd (MNM) was established as a wholly owned subsidiary of BHP, comprising:

- Pilbara Iron Limited (CSR) – 30%;
- BHP Minerals Limited – 30%;

\(^{223}\) Ibid., 33.
• AMAX Iron Ore Corporation – 25%;
• Mitsui-Itochu Iron Pty Ltd – 10%; and
• Seltrust Mining Corporation Pty Ltd – 5%.

From there the joint venture constructed a 426 kilometre railway between the mine at Mt Whaleback and Port Hedland, a 140-hectare train unloading, tertiary crushing, stockpiling, reclaiming and ship loading complex and an entire new suburb at the town of Port Hedland, Cooke Point.224

Port Hedland was also aided by the advent of the “bulk revolution” that had occurred “in the wake of rapid economic growth [in Japan]”, increasing economies of scale allowing Port Hedland to expand rapidly.225 With Japanese demand forcing commodity prices up and simultaneous maritime transport cost reductions, Port Hedland was well placed.

However, none of that would have been possible without institutional change. It was not until the enactment of some of the earliest State Agreements, the first appearing in 1952 at the Kwinana Oil Refinery, that potential private investors in large infrastructure projects could maintain some confidence that their rents would be protected. In the Pilbara, the most notable were in the form of the:

• IRON ORE (MOUNT GOLDSWORTHY) AGREEMENT ACT 1964;
• IRON ORE (MOUNT NEWMAN) AGREEMENT ACT 1964; and
• IRON ORE (ROBE RIVER) AGREEMENT ACT 1964.

The most likely reason for the twelve year lag in the implementation of the first iron ore agreements given they did exist was State government policy: no individual or corporation would seek a more secure title for their mineral rights when, at the time, prospecting was virtually illegal due to the State’s blanket which protected the incumbent monopolies from competition. This combined with a relatively low iron ore price and the Commonwealth’s 1938 export embargo lowered the profit potential to a

224 Ibid., 54.
point where there would be no demand for such an agreement: the Federal embargo and State blanket had to go first.

These agreements represented the first time that private investment in port infrastructure in the Pilbara became viable, with the government committing to keep its hands off of investor's assets in exchange for an agreed amount of royalties.

State Agreements were only made possible because the profit potential was so large to break the path-dependent outcome and induce a change in the Federal and State institutions. It would not have been possible to achieve the same during the prior two booms; the profit potentials were not high enough to induce actors to pay off those with the required political clout to get it done. It was only with iron ore and the enormous profit potential that it represented that these syndicates were able to pay off the relevant actors, guaranteeing to build all of the transport infrastructure (roads, rail and ports) as well as commit to very healthy royalties that would allow the political actors to reduce the pressure on their budgets and redistribute revenue elsewhere in the State, in exchange for secure property rights. For the first time in its history, Western Australia was no longer a “claimant State”, regaining “its full status within the federation”. 226

226 A “claimant State” was one that received more in benefits than it sent in taxation to Canberra. Western Australia has not been a “claimant State” since the Port Hedland began exporting iron ore in 1968-69. Don Lipscombe, “1960-1979,” in A History of Commerce and Industry in Western Australia, by Peter C. Firkins (Perth, W.A.: University of Western Australia Press, 1979), 144.
It is remarkable how many times Port Hedland looked like it would fall into obscurity; whether because of government neglect, poor institutions that would not facilitate private investment; or a failure to find – and guarantee – adequate private capital to finance the incredibly expensive dredging and infrastructure costs. But as early as 1971 Port Hedland had become Australia’s largest export port, at which point the final change in governance took place with the State government transferring the administration of the port over to the Port Hedland Port Authority with the passing of the Port Hedland Port Authority Act 1971.

3.8. The Port Hedland Port Authority, 1970 – 2012

The modern day port of Port Hedland was developed and operated by the consortium until 1970 when the Port Hedland Port Authority was constituted. Six other Western Australian ports were also developed and operated privately, all requiring “very significant capital expenditure to make them operable”. The major ones included Dampier, Barrow Island and Yampi.228


228 W Cumming, An Economic Appraisal of Australian Port Administration (Committee for Economic Development of Australia, 1977), 11.
The transition to governance by a Port Authority – a wholly government-owned entity operating as a separate body corporate (known as a Government Trading Enterprise or GTE), with its own board of directors appointed by the responsible Minister, was an important step in Port Hedland’s history. Port Authorities can be viewed as hybrids that have characteristics of both public and private organisations in that their ownership and their control are public but their boards have significant industry representation.\(^2\)

While on the surface the establishment of an Authority to oversee the mining companies at Port Hedland may have appeared to be the State trying to expropriate private rents, it was in fact anything but. Prior to the establishment of the Port Hedland Port Authority, port operations and development at Port Hedland only had minor oversight from the State Harbour and Lights Department, which concerned itself with cargo handling, stevedoring and operating State harbour facilities in the region.\(^3\) Thus the transfer was mutually advantageous: the mining conglomerates could transfer operational responsibility to the State (they were, after all, mining companies and not port operators) while receiving immense financial gains because of the way the tax code was written at the time. Provisions in the *Income Tax Assessment Act 1936-1975 (Commonwealth)* relating to the mining industry had a significant effect on investment in private mining ports. Cumming notes that:

“The provisions of the Act related to expenditure on the transport of minerals. While allowing special deductions to be made for expenditure on railways and roads, it did not allow deduction of expenditure on certain port facilities – namely, initial dredging and navigational aids.”\(^4\)

Cumming continued, using Port Hedland as an example:

“The significance of the cost is illustrated by the development of Port Hedland by Mt Newman Joint Ventures and Goldsworthy Mining Limited both of which

\(^2\) Western Australia, *Port Hedland Port Authority Act*, 1970.
\(^3\) Kerr, *Australia’s North-West*, 225.
constructed and operated separate facilities. In the case of Mt Newman Joint Ventures, expenditure on dredging accounted for 24 per cent of the total cost of the project (including mine development) up to the date of the first export shipment. 232

It was through negotiation between the two major companies involved and the State government that a statutory Port Authority was established to operate the port.

Those tax incentives were eventually changed with the Income Tax Assessment Act 1997 (Commonwealth) to include port facilities within the transport facilities definition (s. 40.870), although this was well after Port Hedland’s most significant development and so the outcome that did take place can be viewed as a successful one given the choice set available at the time.

While every other Port Authority was required to cover working expenses out of revenue irrespective of the tonnage handled, the structure of the Port Hedland Port Authority was different, with major working expenses covered with revenue from the “Port Improvement Rate” which is levied on iron ore shipments:

“The Port Improvement Rate is charged on the tonnage of iron ore shipped by mining companies through the port; the proceeds are returned directly to those mining companies as repayment of the capital value of the assets transferred to the Port Hedland Port Authority at its inception in 1971.” 233

This organisational structure was a deliberate attempt to allow the mining companies to maintain a semblance of control over their interests despite giving up their absolute property rights at the port. In addition, the mining companies were able to lower their cost of funding for port infrastructure, as the State provided the Port Authority with a guarantee of obligations, enabling the mining companies – acting through the Authority

232 Ibid., 21–22.
– to borrow at a rate for low-risk investments.\footnote{234}{Western Australia, *Port Hedland Port Authority Act*, VII, sec. 55.}

Given their importance to Port Hedland’s future and the structure of the Authority’s revenue being wholly dependent on iron ore levies, the mining companies maintained their control over the investment decisions at the port, as “the influence of a small number of port users (e.g. the iron ore companies at Hedland) on the revenue of the port authority is substantial. Therefore, it is understood that such users will have an influence on, and indeed will bear some responsibility for, major development programmes involving the port’s common facilities.”\footnote{235}{Bureau of Transport Economics, *A Study of Western Australian Ports*, 27.}

While this might incur the ire of those in government who believe that it operates the port, it was a very deliberate plan on behalf of the mining syndicates to protect their interests. They had virtually guaranteed that they would maintain private control over the iron ore jetties and wharves within the now-public port as well as a large influence over major infrastructure decisions, all at a reduced cost.

Finally, the mining companies maintained complete control over their own railways (vertical integration), allowing them to coordinate investment decisions with respect to export demand. What they did not want to operate – functions such as stevedoring, navigational aids and pilotage – were left to the Port Authority to perform.\footnote{236}{Ibid., 34–35.}

This is all in line with the transactional cost interpretation of public ownership and regulation. The need for State Agreements that granted control of operations to the mining companies and a Port Authority largely independent of the politics of the day stemmed from the high transaction costs involved in the region. The capital that was invested in the iron ore projects and transport infrastructure to facilitate exports was largely non-redeployable, leaving investors extremely vulnerable to \textit{ex post} opportunism by trading partners, consumers and the government (both State and Federal). Likewise, if the government granted the mining companies exclusive rights
they (and the residents of the Pilbara) themselves could be vulnerable to opportunistic behaviour.

The solution was the hybrid-model of organisation we see today: the mining companies largely maintain operational control and exclusively fund infrastructure investment but the State prevents opportunistic behaviour by maintaining ultimate control through the Port Authority. This solved the contractual problem that had prevented investment in the region for a century: to induce investment, the State and mining companies came up with contractual arrangements that provided credible assurances that neither party would behave opportunistically \textit{ex post}.\textsuperscript{237}


In late 2010 a “high level, wide-ranging review” of Western Australia's ports was commissioned by the State government, the outcome of which was the February 2012 announcement that seven of the State's eight existing port authorities will be amalgamated into four regional port authorities.\textsuperscript{238}

The Port Hedland Port Authority will merge with Dampier, the proposed new ports at Anketell and Ashburton North; and the ports at Cape Preston, Port Walcott, Varanus Island, Barrow Island, Airlie Island, Thevenard Island and Onslow to form a new ‘Pilbara Ports Authority’.

Details of this proposal have been scant; the State released a brief document titled \textit{A Vision for Western Australia’s Ports} to go with the 2012 announcement which contained an implementation plan consisting of:

\begin{itemize}
\item 2012 – Consultation with industry and port customers, draft legislation, development of policy framework.
\end{itemize}

\textsuperscript{237} Williamson, \textit{The Economic Institutions of Capitalism}, 327–384.
2013 – Present legislation to Parliament, consultation continues.

2014 – Implementation begins with a staged approach, the announcement of the first regional port authority depending on current contracts and impacts on industry and port customers.239

The 2011 Western Australian Port Governance Review on which this decision was based is still confidential and will likely remain so for the foreseeable future, as the author's Freedom of Information request was rejected on the grounds that “disclosure would reveal the deliberation or decisions of an Executive body”.

But what is relevant to this dissertation and is most interesting about the governance reform decision announced by the State is that governance, from a transactional cost economics point of view, exists to mitigate conflict and realise mutual gains – to lower transaction costs.240

The object of a comparative analysis is not to obtain absolute measures of efficiency or transaction costs, but to determine the factors that alter transaction costs between alternative forms of governance. The goal is, to paraphrase Coase, to fully consider how alternative governance structures will work in practice, not in their idealised forms.241 Thus, the government must have recognised – or perceived – that the existing governance structures could be improved upon with amalgamations.

But can we be sure? Ex ante we know why Port Hedland is organised the way it is; the current governance structure was adopted to mutually benefit both the mining companies in the Pilbara and the State government, something that had not been possible for over a century. Moreover, given the high level of asset specificity surrounding ports, a lot of care should be taken to understand the attributes of the contracts that enable transactions to take place before a drastic overhaul of the existing

system is undertaken. Simply showing that the existing situation is flawed (and as the
previous section of this Chapter recognises, it is) is not enough evidence to then
conclude that an alternative structure – in this case horizontal integration through
amalgamation – is superior. After all, all modes of organisation are flawed so careful
attention must be paid to the strengths and weaknesses of each. Alternatives need to
be examined comparatively and not in isolation. If after careful comparative analysis
no superior feasible mode can be described then until something better comes along
the status quo should be maintained.

There is no one-size-fits-all port governance model. The success or failure of a
governance structure is contingent on the institutional environment it operates within.
The structure at Port Hedland is one where despite it being a statutory authority owned
by the Western Australian government is in fact heavily influenced and financed by the
large mining companies that operate out of it. It was not established on static efficiency
grounds but out of contractual necessity. Before a mining company will invest funds in
a mine it needs to be assured that, for example, the port or railway owners will not
subject it to hold-ups. Likewise, the (potential) port and railway owners want to be sure
that the mine owner will not demand a price below what would give them a reasonable
return on the highly specific and expensive infrastructure required.

It may be that the government is now able to overcome these institutional hurdles,
perhaps through renegotiating State Agreements or through some other means. If it
does go with the current proposal, it must be careful not to repeat the mistakes of the
Grand Trunk Pacific (GTP) and Prince Rupert, where rigid contractual obligations in the
face of levels of demand below expectations caused the venture to fail. If the mining
companies are still to finance new infrastructure investment, the State must also be
mindful of what public guarantees are offered so as to prevent excessive levels of
investment.

243 Williamson, The Economic Institutions of Capitalism, 408.
Whatever the outcome, the decision to centralise the region's port authorities should not be taken lightly. While de-duplication can reduce costs, the failures of the National Harbours Board (NHB) in Canada and New Zealand Ports Authority (NZPA) in New Zealand should be heeded; central port authorities can succumb to the temptation of “picking winners”, cross-subsidisation and tend to have a reduced ability to adapt to changing conditions (“adaptive efficiency”). If public funds are to replace – fully or partially – mining company investment in the port, then the government must place strict constraints on the new Authority to prevent subsidisation, and over-building, at the region's ports. Appropriate representation and constraints should also be in place to prevent potential capture by the ports being regulated. Such an outcome would result in scarce resources being diverted to sub-optimal areas where marginal productivity is lower, with the regulators, mining companies and foreign importers, not the taxpayer, the likely beneficiaries.\textsuperscript{244} While opening segments to competition through institutional change now that commitment problems are less problematic would likely provide a better long-term outcome for taxpayers, if amalgamation goes ahead then State-wide public-interest opportunity costs must be heeded when future investment decisions are being made.

Chapter 4: Prince Rupert 1860 – 2012

Build it and They Will Come

4.1. Introduction

“Let me assure you that Prince Rupert is destined to become one of the great cities of the continent.” – Canadian Prime Minister 1896 – 1911, Sir Wilfrid Laurier

Located on Canada’s Pacific Coast in the Province of British Columbia, Prince Rupert has the world’s second deepest naturally ice-free harbour and is the closest North American port to Asia by three days. In 2012 it employed over 2,330 people with a throughput of over 22 million metric tonnes, an increase of 15.3% over 2011.

Illustration 4.1: Prince Rupert’s Location and Primary Trade Routes

The Prince Rupert Port Authority plans to increase that to 100 million tonnes by 2020 to meet growing demand in Asia, making it one of the largest international ports in North America.


But as recently as the 1990’s, the development of Prince Rupert was anything but certain. The Fairview container terminal, one of the first dedicated intermodal terminal (ship to rail) in North America and the first to move over 750,000 TEU's annually, was only completed in 2007, over 100 years after the Prince Rupert site was selected as the terminus for the Grand Trunk Pacific railway (GTP) in 1903. The site had previously been occupied by a 1977-completed breakbulk facility, which was replaced by two bulk terminals (Ridley Terminals and Prince Rupert Grain) on nearby Ridley Island in 1984 and 1985.

This chapter examines the institutions that shaped the incentives and constraints behind the development – and lack of development – of the port of Prince Rupert through time. It first details Canada and British Columbia’s constitutional and legal background, followed by an examination of Canada’s great railway boom and the effect it had on the small town of Prince Rupert. Finally, it draws from this institutional history to show how the modern port of Prince Rupert got to where it is today.


In 1850, an official government census recorded the population of British Columbia to be 51,525 – or about 1.60% of the soon-to-be Canada’s total population (at the time Canada had not yet federated and was still British North America). But it would be well after 1860 when development of Canada’s Pacific coast began. West coast population growth was largely driven by the gold rush at the time, evidenced by the fact that after the rush in 1871, British Columbia’s population had fallen to 36,247 or less than 1% of
Canada’s total population. However, Canada’s Atlantic coast has a long and vibrant history from well before 1860 and to properly examine Prince Rupert – a Pacific port – one must take into account not just the transport, infrastructure and shipping policies at the time but also the events that led to their creation. As North wrote, past events matter not only because they help to shape the opportunities available in the present but also because they shape ideology and expectations. Path-dependent outcomes can be created by past actions and institutional “lock-in” can occur, where an inefficient outcome will persist until an event or series of events create a shock large enough for it to “break”.

Ports and shipping in Canada have a vibrant history from 1860 – indeed, it has been dubbed the Atlantic “golden age of sail”, post-Industrial Revolution, seven years before Canada’s Confederation and just prior to what one might call the “modern times”. The title of this section (“the golden age of sail”) is drawn from Sager and Fisher’s comprehensive history of the Canadian Atlantic shipping industry between 1820 and 1914. The authors describe these five decades between 1850 and 1900 as a period when the Atlantic coast of Canada saw almost continuous growth in its shipping industry, peaking in 1879 with the fourth largest merchant fleet in the world behind only Great Britain, the United States and Norway. Although important for Canadian history, the Canadian Atlantic coast shipping industry and its influence on Canadian institutions alone could fill this entire chapter. But, this chapter is about the Pacific coast and the port of Prince Rupert and so attention must be focused there.

255 Sager and Fischer, *Shipping and Shipbuilding in Atlantic Canada, 1820-1914*. 93
British Columbia was proclaimed a British colony in August of 1858 following a letter from the Colonial Secretary Sir Edward Bulwer Lytton who recommended that the government “erect at once a New Colony there”, as there had been a “recent discovery of Gold in the Neighbourhood”. \(^{256}\) British Columbia’s population at the time was somewhere in the vicinity of 50,000 – 55,000, a very low number which puts the density somewhere in the region of 0.14 – 0.15 people per square mile in 1858. \(^{257}\) Indeed, all of British North America at the time was sparsely populated, with an estimated density in 1858 of somewhere between 0.72 – 0.96 people per square mile.

**Table 4.1: Population of British Columbia and Canada, 1855 – 1881** \(^{258}\)

<table>
<thead>
<tr>
<th>Region</th>
<th>Census Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1855</td>
</tr>
<tr>
<td>British Columbia</td>
<td>55,000</td>
</tr>
<tr>
<td>Canada</td>
<td>2,436,297</td>
</tr>
</tbody>
</table>

This all had implications for the type of institutions established in both Canada and British Columbia. A British colony, Canada’s institutional structure was, similarly to that of the United States, Australia and New Zealand, initially developed by Britain. All of these land masses were relatively poor at the time of British colonisation – an important determinant of the type of institutional structure each would inherit. As economists Acemoglu, Johnson and Robinson defined, the colonisation strategy used by Europeans depended on the environment they encountered. \(^{259}\) In prosperous places, Europeans introduced or maintained pre-existing, or what they call “extractive” institutions; that is, institutions that facilitated exploitation such as local slave labour in mines and plantations as well as any existing taxation schemes. In contrast, in places such as Canada with a relatively agrarian local population and a large, sparsely settled

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\(^{258}\) Ibid., sec. A2–14.

land area, the British colonised in large numbers and created “inclusive” institutions. These institutions of private property and common law (the British proclaimed that “English Law” was in force in British Columbia in 1858) helped to facilitate the early trade, commerce and industry in the Province.

The institutions established in Canada therefore shaped the policies and factor endowment that developed (capital formation, both physical and human). People (men) could vote, own land, obtain an education (Canada had an 82.5% rate of literacy by 1861; in comparison even by 1870 the U.S. was only at 80%) and could enjoy some protection from expropriation of their property through land titles sold or granted by the pre-federation colonies.

This is further evidenced by the land policies put in place by the British at the time. Given that enforcement was lacking, the primary drivers of development were more likely to be basic demand (farming opportunities) and new technology allowing development of new land and so institutions had to be developed to accommodate this. In British Columbia, this took the form of the *Land Ordinance Act 1865* which allowed individuals to acquire up to 160 acres of uninhabited land (and prior to that was the *Gold Fields Act 1859*, proclaimed to provide land rights amidst the 1850’s gold rush).

Despite all of this, prior to Confederation British Columbia and Vancouver Island (they united in 1866) were still, compared to the Atlantic coast which had thrived on trade with Britain and Europe, relatively undeveloped. In similar fashion to John Forrest's overarching influence on Western Australia, British Columbia and Vancouver Island

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261 “Lacking the resources to enforce official policy, the imperial and, especially, colonial authorities found it necessary to accede to some degree to local opinion and practice.” Michelle Vosburgh, *Transatlantic Subjects: Ideas, Institutions, and Social Experience in Post-Revolutionary British North America*, ed. Nancy Christie (Montreal & Kingston: McGill-Queen’s University Press, 2008), 370.
were essentially ruled by James Douglas, who “exercised almost total authority”.\textsuperscript{263} He quickly embarked on massive infrastructure projects, constructing roads throughout the colony that it could not support, leaving “a burden of debt unpalatable to British authorities”.\textsuperscript{264} This left the colony in the precarious position and one that would lead to the Canada that we see today.

For in 1867, the \textit{British North America Act (BNA Act)} was passed by the British parliament, forming what was called the Dominion of Canada by Confederating the Provinces of Canada (Quebec and Ontario), Nova Scotia and New Brunswick. Shortly afterwards British Columbian groups such as the “Confederate League” sought to join the Dominion as a “means to secure Representative Institutions with Responsible Government for this Colony”.\textsuperscript{265} \textsuperscript{266} They were eventually successful when, following the 1869 confederation of Rupert’s Land and the North West Territories after being acquired from the Hudson’s Bay Company and the Province of Manitoba joining in 1870, British Columbia agreed to confederate in 1871.\textsuperscript{267} While Britain had granted British North America (Canada) responsible government in 1848, responsible government was lacking in the West until this point and with deteriorating finances the choice became one of whether to join Canada or the United States (the United States had just purchased Alaska).\textsuperscript{268} The decision to join Canada was made primarily because the Dominion offered to wipe out its debts and, more importantly, to eventually construct a transcontinental railway to the Pacific coast.\textsuperscript{269}

\textsuperscript{264} Ibid., 102.
\textsuperscript{265} \textit{The British Colonist}, August 26, 1868.
\textsuperscript{266} Although, as the deputy Under-Secretary for Colonies T. F. Elliott put it, “[G]ranting responsible government to a little Community like Vancouver would be a mockery and a scramble”. Kennedy, “The Colonial Despatches: 1450, CO 305/26, P. 571; Received 12 February 1866,” December 16, 1865. Quoted in Peter Busby Waite, \textit{The Life and Times of Confederation, 1864-1867: Politics, Newspapers, and the Union of British North America} (Toronto: University of Toronto Press, 1962), 314.
\textsuperscript{267} The Province of Canada was first, followed by Prince Edward Island in 1851, New Brunswick in 1854 and Newfoundland in 1855. The Western Provinces remained under Crown control until Confederation.
\textsuperscript{268} Barman, \textit{The West beyond the West}, 96.
\textsuperscript{269} Ibid., 101.
The push for a Confederated Canada was also, as Andrew Smith argued, driven by a number of British investors who risked losing large sums of capital on their existing colonial railways. The Grand Trunk railway was close to bankruptcy and being intimately intertwined with British investors, the Canadian Provinces and their politicians, and eventually the unified Canada from the beginning, there was a powerful impetus to save it. A Confederated Canada with a centralised government would allow them to continue to finance their colonial investments on the London bond market, as States with strong political power yet still within the British constitutional framework were deemed less risky.

It was a similar motivation that also played a key role in the abolition of the Provinces in the capital-starved New Zealand, and to a lesser extent in Australia's federation. All three maintained their links to Britain through their constitutions and the Privy Council for many decades after achieving independence, and the need for British capital was an important factor.

Canadian Confederation did not come without costs. As Sir Richard Cartwright noted when negotiations were occurring for British Columbia’s inclusion in the Dominion, “with the solitary exception of Sir Hector Langevin, who had spent a few weeks there, not a single minister had ever set foot in British Columbia”.

Using this to its advantage and with the East keen to have it join to unite Canada and prevent the encroachment of the United States on the West, British Columbia agreed to

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join the Dominion of Canada only if certain terms were agreed upon. The key items in the British Columbia Terms of Union, from the point of view of the port of Prince Rupert, were:

- The Dominion will undertake to secure the commencement simultaneously, within two years from the date of the Union, of the construction of a railway from the Pacific towards the Rocky Mountains, and from such point as may be selected, East of the Rocky Mountains, towards the Pacific, to connect the seaboard of British Columbia with the railway system of Canada; and further, to secure the completion of such railway within ten years from the date of the Union.
- The payment to British Columbia a sum of 100,000 dollars per annum to cover the cost of any required public lands along the line of railway throughout its entire length in British Columbia.

What the British Columbian newspaper had envisioned as "The iron horse [that] shall traverse the continent", was now a reality and with it began what would become a Canadian rail construction boom far in excess of anything seen during the Maritimes’ "golden age of sail".

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273 It was also rumoured in the British Columbian at the time that the United States was about to purchase the colony (The British Columbian, April 17, 1867. This was also the impetus for the original Confederation, as this speech in the Nova Scotia Assembly’s Debates and Proceedings made clear: “The whole police [sic] of the United States has been acquisition of territory. Their ambition is insatiable. ... If we remain disunited ... the time may come when we shall have the British flag lowered beneath the stars and stripes, and the last gun fired from the Citadel as a British fort.” Waite, The Life and Times of Confederation, 1864-1867: Politics, Newspapers, and the Union of British North America, 271.


275 This is a summary only.


277 The British Columbian, October 10, 1866.
4.2.1 Institutional Change and the *British North America Act*

The bargaining ability shown by British Columbia was, although not directly, a result of the institutions established by the British decades earlier. Indeed, one of the early Acts passed by the new Dominion government, the *Dominion Lands Act 1872*, continued where the British had left off by providing small, free blocks of land for settlers so long as they lived or worked on said land. This new liberal homesteading Act was put in place as a national policy amid fears that anything less would divert scarce settlers South to the United States. It seemed to work, as by 1901, 87.1% of rural Canadians owned their own land.\(^{278}\) This led to a mini population boom in not just Canada (1871 – 1901 population growth of 45.6%) but also in British Columbia, which went from a small, dispersed population in 1871 that was still below its 1851 gold-rush levels, to 178,657 – a nearly five-fold increase (392.9%) in 30 years.

However, the inclusion of British Columbia in the *BNA Act* was not agreeable to everyone. Prior to federation, Canada’s first Prime Minister John A. Macdonald wrote in a private letter that he “would be quite willing, personally, to leave that whole country a wilderness for the next half-century, but I fear if Englishmen do not go there, Yankees will”.\(^{279}\) Likewise, local (British Columbian) press expressed their doubts, adding that “a little reflection would serve to show that the great North-West can never be governed by a central government of which the seat would have to be on the banks of the Ottawa”.\(^{280}\)

Macdonald’s distaste for British Columbia was not unique to that Province; in drafting the constitution (*BNA Act*), Macdonald had plans to correct the “error” that the United States had made during the formation of its constitution, stating that its “primary error”,

\[W\]as that each State reserved to itself all sovereign rights save the small


\(^{280}\) *Leader*, January 27, 1860.
portion delegated. We must reverse this process by strengthening the General Government and conferring on the Provincial bodies only such powers as may be required for local purposes… Thus we shall have a strong and lasting government under which we can work out constitutional liberty as opposed to democracy and be able to protect the minority by having a powerful central government.”

Privately Macdonald had similar ambitions, writing in a well-known private letter to M.C. Cameron that:

“If the Confederation goes on you, if spared the ordinary age of man, will see both Local Parliaments and Governments absorbed in the General Power.”

While initially bestowing large powers to the central government (in exchange for the before-mentioned provincial concessions in the *BNA Act*), D. E. Smith noted that this power would not last. Contrasting Canada’s constitution with that of Australia’s, Smith says that Australia’s political system initially embraced “bicameralism and a disposition to entrench constitutions from change, as well as federalism and responsible government along British parliamentary lines”, but Canada’s shared only the latter, enabling a “predisposition to executive dominance at both levels of government”.

Indeed, the system established by the *BNA Act* did not resemble a traditional federal system where the central and State (Provincial) governments would have clearly defined, constitutionally protected powers to prevent the encroachment of the other. Instead Canada adopted a system that was, in the words of Goldwin Smith, “not a federation, but a kingdom”; a system that would (or it was believed would) “extinguish the independent existence of the several Provinces”.

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284 Goldwin Smith, “The Proposed Constitution for British North America,” *MacMillan’s*
Concerns in the media at the time also reflected this idea. The *Montreal True Witness*, for example, observed that the vague definitions on the separation of what was “local” as opposed to “general” was “attempting to ‘define the powers’ of a government intentionally armed with indefinite power”.

“We of the Maritime Provinces,” wrote the *Yarmouth Tribune* “are required to give up, not only… self-government won nearly thirty years since from the officials of Downing Street, but rights and powers… which we have enjoyed for more than a century… The loss of self control will be as total and complete as the loss of revenue.”

By agreeing to the terms of confederation, the institutional structure in British Columbia was altered from one where executive power was controlled by the colonial government (or, to be precise, local representatives of Britain) to one where Ottawa would now be making a lot more of the executive decisions – at least initially.

One of the key features of the *BNA Act* that would ultimately shape the future of Prince Rupert was the express granting of rights to the Dominion or a “declaratory power” by sections 108, 92(10)(c) and 91(29) that enabled the central government to assume jurisdiction over a local work by declaring the work to be “for the general advantage of Canada”.

The two sections interacted to play an important role in the eventual development of Prince Rupert. The first was that the central government could, at its discretion, make any laws viewed to be for the general benefit of Canada under s. 91(29) of the *BNA Act*. The exact passage gives the Canadian Parliament the power:

“[T]o make laws for the peace, order and good government of Canada”.

Section 92(10) allows the federal government to declare any “local works or

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286 *Yarmouth Tribune*, June 27, 1866.
undertakings” to be of national importance, therefore removing them from provincial jurisdiction. The exact passage reads that:

“Such Works as, although wholly situate within the Province, are before or after their Execution declared by the Parliament of Canada to be for the general Advantage of Canada or for the Advantage of Two or more of the Provinces.”

Finally, section 108 of the *BNA Act* states that:

“[T]he public works and property of each Province enumerated in the third schedule to this Act shall be the property of Canada.”

Item two in the third schedule was “public harbours”. While this only affected “public harbours” that existed at the time of federation, the *Harbours and Piers Act 1877* would rectify that to allow the “Governor in Council”, under section 849 to:

“[B]y proclamation, -

(a) declare to be a public harbour any area covered with water within the jurisdiction of the Parliament of Canada; and,

(b) extend the area of any existing public harbour in Canada.”

While there has been some conjecture as to what exactly a “public harbour” is – for example, the Judicial Committee of the Privy Council in the first fisheries case declined to give any general definition of what constituted a “public harbour” within the meaning of the above provisions of the *BNA Act* – there was no doubting that, once declared, they would fall under federal jurisdiction.288

It did, however, say that the “term used refers only to public harbours existing as such at the time when the Provinces became part of the Dominion of Canada”. Likewise, in the Supreme Court of Canada case of Attorney-General for Canada v. Ritchie

Contracting and Supply Co., the court found that the definition of what was considered a “public harbour” was quite broad. It determined that the definition included any port where:

- ships anchored there for safety, and found shelter and anchorage;
- it is a natural harbour and has been and now is used as a harbour; and
- it is called and classed as a harbour in all old records containing matters of general geographical notoriety.289

While this ambiguity was never really resolved, the general understanding at the time was that all harbours were in the jurisdiction of the Dominion whether declared or not (as under the Harbours and Piers Act 1877 any harbour could be proclaimed within the jurisdiction of Canada at any time). Likewise, all railways that could be construed as being for the “general advantage of Canada”, or “two or more of the Provinces”, which given the long-distance nature of railways would prove to be most of them, could and were removed from Provincial jurisdiction.

These constitutional clauses would later prove to have huge implications for the future of Prince Rupert. However, an important clarification must first be made here – mostly that “within the jurisdiction” of the Canadian central government does not necessarily mean public ownership; it rather means that the works are subject to central regulation which includes anything from public ownership and operations to fully private ownership and operations. It simply means that the central and not provincial government decides, or at least has a large influence on, the organisation forms that evolve for a given “work”.

This was quite different from the Port Hedland experience in that in Australia the States had ultimate control over the ports and harbours within their borders with no influence from the federal government. While Port Hedland – being thousands of kilometres

289 The Attorney-General For Canada v. Ritchie Contracting and Supply Co., 52 S.C.R. 78 (Supreme Court of Canada 1915).
North of Perth – experienced similar difficulties to Prince Rupert in the sense that infrastructure investment decisions were being decided by people who had never actually been to the respective ports, this is a key institutional differential that would play a decisive role in the ports future.

Finally, with railways being considered as the duty of the central government in the “general interest of Canada” (with, it should be added, immense public support) and with an obligation to complete a transcontinental railway as part of the 1871 addition of British Columbia, the great Canadian railway boom began. The new dominion government (with the support of the Provinces) would now embark on an endeavour that would not only shape the fortunes of Prince Rupert but that was to be, as Peter Waite put it, “the symbol of the new meaning of Canadian”. 290

4.3. British Columbia and the Canadian Railway Boom, 1871 – 1901

“Almost every government from 1854 onward had been deep in rail-ways. In New Brunswick, one is tempted to think, politics were railways.” - Peter G. Waite, 1962 291

By the time Canada federated in 1867, the North American railway boom was well and truly under way. In 1850 there were only 66 miles of railway in British North America but by 1860 the length had grown to 2,065. Federation, which facilitated further expansion by allowing for government guarantee’s on British and New York capital together with the addition of British Columbia in 1871 saw that the expansion of this figure would be inevitable. 292

As Charles Belford wrote at the time, (virtually) the only thing on the public’s mind was the creation of new railways:

“Party politics do not run high. There are no great questions dividing parties and

291 Ibid., 243.
the battles of Parliament are mainly of a personal nature, except when railway matters are introduced."²⁹³

As part of the 1871 confederation of British Columbia, the Dominion government had promised British Columbia that a railway to connect the West would be started within two years and completed within ten. Politics or nationalism, not economics, formed the justification for the railway. It was seen to be paramount to encourage settlement in the west and to avoid the encroachment of the United States, a threat that did not exist in Australia or New Zealand.

While certain economic benefits were cited such as vague referrals to trade with the orient, politics was the primary factor. As Mr. Charles Tupper was quoted in the 1882 Report of the Canadian Pacific Railway Royal Commission:

“That the Pacific Railway would form a great Imperial highway across the continent of America, entirely on British soil, and would provide a new and important route from England to Australia, to India and to all the dependencies of Great Britain in the Pacific; as also to China and Japan.”²⁹⁴

Viscount Monck, the first Governor General of Canada, highlighted additional (potential) benefits and that – as was the belief at the time – the railway would pay for itself in no time at all (the debts for the first transcontinental railway were guaranteed by the British Government):

“The great work will add a practical and physical connection to the legislative bond which now unites the Provinces comprising the Dominion, and the liberality with which the guarantee for the cost of its construction was given by the Imperial Parliament is a new proof of the hearty interest felt by the British people in your prosperity.”²⁹⁵

²⁹³ Charles Belford, Leader, August 16, 1864.
²⁹⁵ Canada, Debates of the House of Commons, 1st Session, 1st Parliament (Ottawa, 1867), 105
Interestingly, unlike the previous government railway in the Intercolonial, the Canadian Pacific Railway (CPR) was to be, from the start, a private endeavour (or should perhaps best viewed as a public-private partnership (PPP) in modern terminology).

The reason why the Canadian government opted for a PPP model as opposed to a vertically integrated (public ownership) model was, as Armstrong and Nelles have documented, the major and very public failure of the government owned-and-operated Intercolonial Railway. They note that,

“The Intercolonial Railway became a byword for inefficiency: the route was selected through parliamentary logrolling, and its employees were chosen through political patronage."

Thus when the time came to fulfil its constitutional obligations and construct a railway to the Pacific,

“Most Canadians agreed that it would be best to encourage a private syndicate to undertake the task (through a combination of land grants and direct subsidies) to ensure efficient management.”

The failure of and reasons behind the Intercolonial Railway are well known. Most authors put it down to a combination of caps on rates, uneconomical (politically determined) routes during construction, political appointees to management, higher wage rates, and general corruption. Even proponents such as E.B. Biggar were only able to justify the railway on political grounds, noting it “was created for a public and
national service and not to make money out of its operation”. Ex post, the expansion of the railway has been called a standard case of “defensive expansion”, examples of which existed in the United States as well with lines such as the Union Pacific.

Ultimately all of these factors combined to leave the company in constant financial trouble. Cruikshank notes that the Intercolonial never paid “a substantial return on its capital, or to meet its operating expenses in 19 of its first 40 years”, and estimates from Dunn suggest that, between 1867 and 1914, the Intercolonial had cost the Canadian taxpayer a total of $348,089,518.

This issue of inefficiency was raised numerous times in the Canadian Parliament. During the fourth session of the eighth Parliament, the Hon. Mr. Charles Arkoll Boulton compared the earnings on the Intercolonial with that of the PPP model of the CPR, showing that the earnings per mile on the Intercolonial were just 78 cents compared to $1.43 on the privately operated CPR. He then vented his frustration:

“I do not know that it is an honest policy to place a burden on one portion of the community in order to lighten it for themselves… I do not see why one part of the population should be supported at national expense and become a charge on the rest of the community.”

Apparently the only justification for the railroad was political, namely that:

“[The government reports] it [the Intercolonial] was carried on on the same basis as it had always been – that it was treated as a national road and, being a national road, it was not called on to do more than pay its running expenses. I

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301 Dunn, “The Failure of Government Ownership in Canada.”
302 Canada, Debates of the Senate, 4th Session, 8th Parliament (Ottawa: S.E. Dawson, 1899), 197.
What is clear is that, unlike in Australia and New Zealand (who had not had public railway failures to the same extent at this stage), by the time it came to building a transcontinental railway, the public had lost faith in pure government enterprise.\textsuperscript{304} The failures of Canadian bonded debt in the 1850s and 1860s had left painful memories and so "a method which had the semblance at least of limiting the government's obligations to fixed and predictable amounts", was selected.\textsuperscript{305} Thus, on the 5\textsuperscript{th} of February 1873, a Royal Charter was signed by the Governor General for a private Sir Hugh Allan-led company (the CPR) to construct a railway within ten years from 20 July, 1871. The company was granted 50,000,000 acres of land and a subsidy of $30,300,000, payable in instalments.\textsuperscript{306} However, just over eight months later, the company defaulted and executed a clause in its charter that allowed it to walk away without penalty.

The construction of the CPR continued by using a series of government contracts to private parties, an endeavour the 1882 Royal Commission into its construction labelled as "a Public Work at a sacrifice of money, time and efficiency… [with] extensive purchases made with much less regard to economy than would have happened under similar circumstances in a private undertaking."\textsuperscript{307}

Once constructed, the CPR was generally a financial success, with most studies reporting that even after ongoing government subsidies the railway was both privately and socially profitable.\textsuperscript{308} The story was not the same, however, for the transcontinental

\begin{thebibliography}{99}
\bibitem{303} Ibid.
\bibitem{304} Armstrong and Nelles, "The State and the Provision of Electricity in Canada and Australia, 1880-1965."
\bibitem{305} Easterbrook and Aitken, \textit{Canadian Economic History}, 419.
\bibitem{307} Ibid., 495.
railways that would follow: the Grand Trunk Pacific (GTP) and the government’s National Transcontinental Railway (NTR).

4.4. **Build It and They Will Come: Charles M. Hays and the Grand Trunk Pacific, 1901 – 1917**

By the early 1900’s, the Canadian people (and competing rail operators) had been growing increasingly frustrated by the CPR’s perceived monopoly in the transcontinental trade. Thus, when the election of 1904 arrived the issue of building a second transcontinental railway across Canada was the focal point, with the proponents under the leadership of Wilfrid Laurier winning out. Its proposal was for the Dominion government to build the line from Winnipeg to Quebec past northern Ontario and for the Grand Trunk Railway, under a new entity called the Grand Trunk Pacific (GTP), to build and operate a line from Winnipeg to the Pacific. Acting on various demands from provincial representatives and an unwillingness of the Grand Trunk to finance what was always going to be an unprofitable section of track, Laurier proposed that the government would build the Eastern section of the new transcontinental from Winnipeg to the Maritimes, while the Grand Trunk would build the western section from Winnipeg to the Pacific. Once completed, the Eastern section would remain in government hands but the operations would be fully leased to the Grand Trunk for fifty years, free of charge for the first three years and at 3% on the cost of construction thereafter.

According to the original charter, the GTP’s Pacific terminus was to be “Port Simpson or another suitable location”, following the Yellowhead Pass west on the route mapped out by Sandford Fleming’s 1873 survey for the CPR, which had to build on an alternate

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route for political considerations. Speculation was soon rife with the “rapidity with which they [lots at Port Simpson] sell increases as the actual imminence of the importance of the little city grows more certain”. Port Simpson was considered a certainty to be “the Terminus of the Grand Trunk Pacific Railway, the Coming Metropolis of Northern British Columbia and the Rival of Vancouver and Seattle”.

Unfortunately for the speculators, it would turn out that although Charles M. Hays was publicly sprucing Port Simpson (and the media was doing its best for Kitimat), he was already drawing up plans for Prince Rupert to be the GTP’s Pacific terminus. As an official from the GTP noted when the Prince Rupert site was announced, the two alternatives – Port Simpson and Kitimat – had already been “grabbed up by speculators, who put hold-up prices on their holdings”, which made Prince Rupert an even easier decision for the GTP.

The GTP’s methods did not pass without scrutiny. Indeed, the actions at Kaien Island became the subject of an investigation by the Province (which ultimately found that they acted “in due course and according to the law”), where two “speculators”, Messrs Peter Larson (a railway magnate) and James Anderson (from Victoria) acquired, all up, over 10,000 acres of Kaien Island from the Provincial government at the standard rate for third-class land at the time of $1 an acre. Shortly after the acquisition, Mr. Larson travelled to Montreal and sold the concession to the GTP for $40,000 – a deal, paid for by the federal taxpayer and not the Province, that was particularly valuable as it included the provision to divide the foreshore into blocks of no less than 1,000 feet,

313 “Port Simpson, B.C., the Terminus of the Grand Trunk Pacific Railway, the Coming Metropolis of Northern British Columbia and the Rival of Vancouver and Seattle: Some of the Advantages of Its Location”. George P. Baldwin, “Original Port Simpson Land Syndicate” (British Columbia, 1892).
314 Revelstoke Herald, September 7, 1905, 1.; also the Daily Ledger, April 2, 1906., which noted “Land… is being taken up rapidly by settlers who are familiar with conditions, and who claim that Kitimaat looks a far more likely terminus than Kaien Island”, even though there was no work going on.
meaning that whatever blocks of land the Province selected would be rendered “almost valueless”.  

Once it had acquired the land, the GTP needed a way to secure the waterfront as the Province under the *Land Act* had first choice of blocks.  

The GTP figured out that by dividing the lots into large, 1,000 foot blocks, it would be able to force the Province into a predicament where, while it could limit the GTP to 3,000 feet of continuous waterfront by selecting a middle block, doing so would also destroy the value of its land. The GTP believed an unbroken waterfront of 6,000 feet was “absolutely necessary to the proper development of the terminal”, and would stop at no lengths to achieve that goal. Thus began a period of intense lobbying, with the final result being the acquisition of a 24,000 feet of waterfront with two blocks exceeding 6,000 feet and right-of-ways through the government’s blocks. As a newspaper referring to the government’s negotiators put it at the time, “never before has there been so much bolsuter [sic] on behalf of the people and so little gained for them… These men have blundered badly”.  

While these “speculators” were much maligned at the time, they were in fact still entrepreneurs, searching and finding discrepancies between the current price (what the Province was selling the land for) and what they anticipated the future price would be. There is nothing wrong with this activity; if any criticism is to be laid it is that they could have been performing an entrepreneurial activity that, instead of extracting rents from the taxpayer – which is where the GTP’s land purchasing capital ultimately came from

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316 *Hedley Gazette*, March 22, 1906, 2; *Hedley Gazette*, July 12, 1906, 2; *Boundary Creek Times*, January 18, 1907, 1.  
317 Section 32 of the *British Columbia Land Act 1884* states: “Provided, also, that in the event of any of the lands hereby granted being divided into town lots, one-fourth of the blocks of lots, to be selected as provided in section 32 of the Land Act, shall be re-conveyed to Us and Our successors.” *British Columbia, Legislative Assembly Debates, 3rd Session, 10th Parliament*, vol. XXXV (Victoria: Richard Wolfenden, V.D., 1906), lxix.  
319 *The Empire*, February 27, 1909.

Despite the controversy over land purchases, in November 1905 the GTP publicly announced that “Kaien Island, in the Skeena River, has been chosen, and the company will not swerve from its decision to make a great port at that point at the dictation of a few men who may desire to speculate in city lots. The company holds that as regards trade with the far East, Kaien Island has an advantage of several hundred miles over the more southerly route”.\footnote{Moyie Leader, November 11, 1905, 3.}

A Kaien Island special committee was formed to negotiate a price for the remaining provincial lands and the B.C. provincial house accepted the report of the committee on Saturday the 10\textsuperscript{th} of March, 1906, agreeing to the terms of $1 per acre.\footnote{Atlin Claim, March 17, 1906, 1.}

In all, the GTP had acquired approximately 24,000 acres at Prince Rupert, including virtually the entire water frontage along Kaien Island totalling 55 miles. This ensured that the GTP secured “virtual control of the port”, with any rivals to “experience considerable difficulty in gaining access to the water and thus set up a competition which in the case of railways is often disastrous to both rivals”.\footnote{Frederick Arthur Ambrose Talbot, \textit{The Making of a Great Canadian Railway} (London: Seeley, Service & Co. Limited, 1912), 314–315.}

The harbour would have a perfectly straight entrance with a width of 2,000 feet at its narrowest point; it was completely rock free and had a minimum depth of 36 feet at low tide, with 1,500 feet still available at a 60 foot depth.\footnote{British Columbia Magazine, 1912, 601.}

Debates between the GTP, provincial and federal governments over land rights would
continue, often ending up in the courts, until Prince Rupert was declared a public harbour by the Privy Council on October 12, 1910. This “preposterous” declaration, according to Frank Leonard, “made the federal government rather than the Province proprietor of the foreshore”. The result was the immediate handover of 2,000 feet of waterfront property that the GTP had already leased to private interests, requiring the GTP to transfer 1,500 feet of city waterfront in another block as well as the adjacent block before the government would relinquish its reserve. All up, it took almost ten years for the GTP to secure the waterfront blocks that it had originally selected, during which time “the GTP had lost revenue from current leaseholders, been unable to enforce its traffic clause, and had not provided accommodation for other businesses wishing to locate on the waterfront”.

The GTP, excluding the section of the waterfront now reserved for the federal government, had complete control over the port of Prince Rupert. While under the BNA Act its activities still fell under federal jurisdiction and so good relations had to be maintained, it was still essentially a private endeavour (the large government stake in the GTP itself notwithstanding). This was an important institutional issue concerning the GTP: the potential of both federal and provincial interference in its operations. While the Provincial government had no jurisdiction over the GTP itself, it was in a position to influence virtually all of the firms that would use the line. In one such example, a potential pulp exporter responded to a request by the Prince Rupert Port Development Commission for it to relocate some of its business North by stating that “I do not know how the Government of British Columbia would feel if some tonnage were to be diverted… for shipment out of Prince Rupert. I have a feeling that… [it] would not

327 Ibid., 139.
328 Any legal contract could be overruled “for the general advantage of Canada”, meaning the GTP had to rely more on personal ties than on legal contracts to provide assurances that the terms of the transaction were be met by both parties. G.R. Carroll, Jerry Goodstein, and Antal Gyenes, “Organizations and the State: Effects of the Institutional Environment on Agricultural Cooperatives in Hungary,” Administrative Science Quarterly 33, no. 2 (1988): 233–56.
be exactly happy about such a change”.\textsuperscript{329}

The competition between Prince Rupert and Vancouver was linked directly to that between the GTP and CPR. However, this competition did not manifest itself in innovations, lower prices, differing organisational structures or other attempts to “win” as we so often see in the private sector. The competition between these two railroads took place in Ottawa and in the offices of the Provincial governments. Transcontinental freight rates were fixed; entry and exit into the industry was restricted; and if any sphere of government was not taken into consideration by management then hold-up problems could occur.\textsuperscript{330}

Thus both the GTP and CPR, as well as the ports of Vancouver and Prince Rupert, had to conform to a certain governance structure to remain in the good graces of the State, if they wished to preserve their monopoly privileges, qualify for continued State funds and political support. The vertically integrated organisational structure of the railways was, in a sense, forced upon them by the institutional environment they operated within as they had to “compete not just for resources and customers, but for political power and institutional legitimacy, for social as well as economic fitness”.\textsuperscript{331}

The transcontinental Canadian railways were a product not of market forces but of political will and so that was the arena where competition took place. The structure of the institutional environment that they operated in was one with multiple groups of actors competing on various fronts, from private investors based mostly in the UK and railway operators in Canada to several layers of public authorities that were themselves competing with each other (Provincial, Provincial-federal and local-Provincial-federal competition). The distribution of power among all of these actors changed with time, as

\textsuperscript{329} J. Guthrie to W.J. Scott, Private Letter, (June 10, 1969), 983-13, Prince Rupert City & Regional Archives.

\textsuperscript{330} Olson, \textit{The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities}, 75.


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did the fortunes of the railways and ports.

One of the outcomes of this competition was a very vertically integrated structure where rail infrastructure, operations, ports and even steamships all fell within the same organisation. There are many reasons why a firm vertically integrates, from the risk of post-contractual opportunistic behaviour to the frequency of exchange and asset specificity.\footnote{Klein, Crawford, and Alchian, “Vertical Integration, Appropriable Rents, and the Competitive Contracting Process.”} Railroads and ports have high levels of asset specificity; for private capital to invest, there must be an appropriate balance between potential gains and potential losses (i.e., risk).

High levels of asset specificity raise transaction costs because the exchange in question depends on a specific person, specific location, or specific physical assets. In the case of Prince Rupert, the port is in a fixed location, its assets are extremely difficult to liquidate or transfer, and its continued existence was dependent on the good graces of actors within both the GTP and government. Therefore the ability for the port to bargain \textit{ex post} was low and the potential for opportunism high. Thus, it becomes efficient to either organise the port within a more hierarchical governance structure, or as Yoram Barzel points out, form long-term relationships using contractual guarantees, allowing for more precise measurement as a result of separate financial accounts, and for rights to be enforced through the courts (assuming a strong legal system, which Canada had).\footnote{Y Barzel, “Organizational Forms and Measurement Costs,” \textit{Journal of Institutional and Theoretical Economics} 161, no. 3 (2005): 357–73.}

We saw both of these in the case of Prince Rupert: long-term contracts were established with the government in the form of significant guarantees (so that the government also had a large stake in the game, so to speak), monopoly privileges, and various other concessions such as land grands, rate limits and service requirements. Additionally, the entire railway was vertically integrated from East to West, with every single town site, port or transhipment hub along the route owned and operated by the
railway or a subsidiary (e.g. the Grant Trunk Development Company).

Illustration 4.2: The Controlling Interests at Prince Rupert

The requirement for the vertical integration of the GTP (ports, town sites, and the rail line itself) was written into its mandate as part of Chapter 71 of the Statutes of Canada 1903. In the agreement that was signed on the 29th of July 1903, a number of obligations were imposed that left Edson J. Chamberlin, the last President of the GTP, to describe the entire operation as “an impossibility… it was always impossible”. In the same interrogation, he went on to say that:

“We are bound to make the same rates from Halifax and St. John as are made to Boston and Portland, and we are bound to provide steamships on the Atlantic and on the Pacific to take care of any business offering.”

334 Henry L. Drayton and W.M. Acworth, Royal Commission to Inquire into Railways and Transportation in Canada Fonds, Re Grand Trunk Pacific Railway. (Ottawa, February 1917), 166, RG33-12, Library and Archives Canada.
"We can no more carry out that contract with the Government than anything in the World. How are we going to raise money to build those Steamships? How are we going to build Steamships? How are we going to carry the burden if we are forced to carry all that stuff all the way down there are Boston and Portland rates? It was always impossible."  

The creation of the GTP and the port of Prince Rupert under such a complete contract was, in hindsight, a mistake. Forecasting is no easy task and the exuberance in Canada in the early 1900’s – from 1896 to 1914 Canada had the world’s fastest growing western economy, with GDP per capita increasing by nearly 80% – led the owners of the Grand Trunk into agreeing to terms that would barely be economically viable at the best of times.  

While the optimism concerning railways was prevalent throughout Canada at the time – the Drayton-Acworth Commission of Inquiry Into Railways and Transportation in

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335 Ibid., 167.
337 Ibid.
Canada admitted that “at least it may be said for them [railway entrepreneurs] that almost the whole population of Canada shared their expectation”, there were also sounder heads highlighting the risks. One such person was Andrew Blair. Blair, who resigned from his post as Minister of Railways and Canals following the official announcement of the GTP in 1903, warned that “the idea… that the whole western country can be filled with railways… is not well founded”. He advised the government, but was ignored, not “to rush with headlong haste to authorize the construction at enormous cost of two lines of railway through the same country”.

Indeed, the entire business model of the GTP rested on the monopoly privilege that it wrongly assumed it would have in North West Canada. Mr. Chamberlin noted that:

"[T]he Grand Trunk Pacific Officials of that day would never have gone into it if they had thought a competing line would be built alongside their line all the way through. They thought they would have a chance to go ahead for fifteen years, year after year. If they had thought that instead they would have had competition immediately all the way through, I am sure they would never have entered into the agreement.

I say that the situation would not have been nearly as bad as it is now if the Government had not subsidized another line paralleling ours all the way through, to which they gave larger guarantees than they did to the Grand Trunk Pacific, and in addition gave them $18,000 a mile cash."

Chamberlin was speaking about the competition his railway faced from the Canadian Northern, a railway that Lewis and MacKinnon noted was financed “almost exclusively with debt”; indeed, it was a railway deliberately designed by its promoters “to choose a

338 Drayton and Acworth, Royal Commission to Inquire into Railways and Transportation in Canada Fonds, ixii.
340 Drayton and Acworth, Royal Commission to Inquire into Railways and Transportation in Canada Fonds, 169.

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debt-equity ratio which increased the likelihood of failure, because by doing so they increased the expected government transfers”.  

By using guaranteed bonds rather than outright subsidies to finance the second and third transcontinental railways the government transferred the risk of failure onto itself, effectively lowering the maximum loss potential for equity holders, increasing their expected net returns. This made the unprofitable railways profitable *ex ante* as private investors became willing to finance the undertakings with the knowledge that, in the scenario of insolvency, they would have their capital returned to them.  

It was a classic example of what can happen when poor contracting decisions leave a party open to the pitfalls of “moral hazard”.  

Thus it was understandable that investors showed, from the outset, “little interest in… accountability”, as “they enjoy government guarantees”.  

According to one critic at the time, the endeavours of the Canadian Northern and the GTP “has not been surpassed in shamelessness in the railway annals of any country”.  

From an institutional viewpoint, the problems at Prince Rupert began the moment the GTP’s contract with the government was signed. This was a long-term contract, the type of contract that Ronald Coase warned is “less possible and, indeed, the less desirable it is… to specify what the other contracting party is expected to do”. Unlike the State Agreement at Port Hedland which set the rate of State royalties but otherwise left the mining companies free to go about their business, the GTP's contract was extremely complete and inflexible.

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342 This assumes, as was the case in Canada at the time, that the institutional structure is one where the guarantor – the federal government – has the credibility to honour its obligations.


This contractual feature made it almost impossible for the GTP to adjust strategy according to market demand. In just one example, when asked if the GTP could send traffic through Portland instead of through Halifax so as to make a profit on that route, Mr. Chamberlin replied that it could not, as a schedule in Chapter VI of the Statutes of Canada 1903 forced the GTP “to go on with all that tremendous outlay and to carry that load, and yet not get a dollar of benefit from it”, or it would be a “fraud on the agreement”. 347

The GTP found itself “trapped”; like so many other railways in Canada at the time, it was unlikely to ever turn a profit. But this was not a case of opportunism by the government. The contract was also poorly designed from the government’s point of view. 348 By providing direct subsidies and especially by guaranteeing the debt of the railways, the government increased the attractiveness of these projects but also created a set of perverse incentives that doomed them to failure. As George Glazebrook concluded, neither the GTP nor CPR would have been possible without government guarantees as investors knew that the returns were simply not there. 349 They were not built for economic reasons but for normative ones (i.e., Canadian unification). But the only way this could happen was if the Canadian government could attract capital – Canada herself a relatively new nation was heavily reliant on foreign, especially British, capital – was to guarantee the returns on it so as to divert that capital from more productive uses and into Canadian railways.

Investors rightly believed that the Privy Council would force the Canadian government to honour any contracts it signed and so were more than happy to invest in the endeavour, regardless of the fact there was no virtually no hope of generating the traffic required to service the debt.

347 Drayton and Acworth, Royal Commission to Inquire into Railways and Transportation in Canada Fonds, 163.
348 Assuming good intentions on the part of the government officials.
Investors had almost no incentive to monitor their investments as the rate of return was guaranteed: success or failure was irrelevant; they would achieve the same returns regardless. Likewise those involved in the promotion, construction and operation of the railways not only had no incentive to be frugal, but in fact faced the opposite incentive: the incentive to allow costs to blow-out as much as possible to maximise their private gains. They were also contractually insulated from private losses; as Currie noted:

“As the Government would guarantee bonds up to one-half the cost of the road, hard-pressed promoters were tempted to inflate their costs, effectively force the Government to assume responsibility for more than its proper share of the actual expenditure, and reduce the real value of the assets against which, under the Guarantee Act, the Government held a first mortgage.”

The entire saga was one that, given a different institutional environment, would not have failed on the scale that it did. The construction of the CPR, while economically premature, was justified on normative, nationalistic grounds from a ‘Canadian’ point of view. However, the construction of the railways that followed it – especially the GTP and its port of Prince Rupert – was certainly a waste of resources.


Following the collapse of the GTP and the recommendations of the Drayton-Acworth Report, every railway in Canada other than the CPR and provincially-owned railways were nationalised and merged into the Canadian National Railway (CNR) under the CNR Act 1919. In what would be an important decision for Prince Rupert, the CNR decided to use its Vancouver terminal rather than the GTP’s terminal at Prince Rupert, downgrading it to a branch line. One of the key reasons was that, in spite of being closer to the Orient as far as ocean shipping time was concerned, Prince Rupert was

351 W.J. Scott, “Draft Speech” (Prince Rupert Port Development Commission, Undated), 4, 983-13, Prince Rupert City & Regional Archives.
272km further away by rail from the grain farmers in the Prairies.

Canada had on September 6, 1897 implemented what was known as the “Crow” rates, a law that capped Eastbound rates on grain and Westbound rates on a variety of products in exchange for a subsidy to the CPR to build a line from Lethbridge in Alberta through the ‘Crow's Nest Pass’ to Nelson in British Columbia. This was a line that was at the time economically unviable but politically valuable. Initially this rate did not cause any major distortions; indeed, competition between the railways would actually push the market rate below the Crow Rate’s cap until the First World War arrived, which in 1918 saw the law suspended due to rampant inflation as the government struggled to finance its war efforts with traditional means.\(^{353}\)

However once inflation had subsided and the worldwide 1920s post-war boom – the “Roaring Twenties” – had arrived, the agreement was partially reimposed in 1922. It came into full effect in 1924, only to be scrapped in 1925 and replaced with a statute that set all rates on grain and flour moving from all points on all lines West of Thunder Bay at their 1899 level, even for lines that did not exist at the time.\(^{354}\) By 1983, over 50 commodities were still moving West at the statutory 1899 rate.\(^{355}\)

The results of this policy were as an economist would expect: that price controls would leave the railways unable to operate certain Westward lines at even break-even levels, the lines would be abandoned or if legally required to operate them, left in a state of disrepair, in much the same way that rental price control distorts the market for housing.\(^{356}\) Indeed, the railways were left with “no incentive to invest in new facilities and equipment linked to the grain trade, or even to maintain existing ones.”\(^{357}\)


\(^{355}\) Norrie, “Not Much to Crow about: A Primer on the Statutory Grain Freight Rate Issue,” 435.


\(^{357}\) Norrie, “Not Much to Crow about: A Primer on the Statutory Grain Freight Rate Issue,” 436.
What this meant for Prince Rupert was that suddenly the additional 272km in distance relative to Vancouver from the Prairies became a cost that the railways were not willing to bear at an identical freight rate, even if the shipping costs to the orient were lower and overall transport efficiency would have been greater. Thus, the CNR virtually abandoned the Prince Rupert line. To make matters worse, the construction and operation of a grain terminal at Prince Rupert, undertaken by the federal government and opening on 29 January 1926, ironically created yet another reason not to use the port. This was because the Prairie grain syndicate (the Canadian Co-operative Wheat Producers Limited), established by grain growers to be their sales agent, used a system of 5-year contracts whereby all wheat was turned over “to the Pools under arrangements which left little room for the private trader”.358

As described by Mr. J. Spicer, Vice President of the CNR’s Mountain Region, the major problem with the Prince Rupert grain elevator was that it had always been government owned and was thus ineligible to join the private grain syndicate that had been controlling grain exports since 1923. According to Spicer, the Board of Grain Commissioners and the Canadian Wheat Board were well aware of this, but were “reluctant to take business away from the [syndicated] elevator companies”, adding that “the elevator would receive more use if owned or leased by one of the elevator companies”.359

The government elevator at Prince Rupert was described in the House of Commons as “just about as useful as a fifth wheel on a wagon”, given that it cost the federal government $1,329,000 to construct at a port that in 1924 moved only 26,237 tonnes of freight, 4% that of Vancouver (676,942 tonnes).360 Another member regarded it as having “at present… absolutely no justification”.361

358 Easterbrook and Aitken, Canadian Economic History, 501.
359 J Spicer, “Minutes of the Meeting of the Prince Rupert Port Development Commission” (Prince Rupert Port Development Commission, October 19, 1971), 983-13, Prince Rupert City & Regional Archives.
360 Canada, Debates of the House of Commons, 4th Session, 14th Parliament (Ottawa, 1925), 3527.
361 Ibid., 3527.
There were also doubts about whether the government should have ever got involved. “Nearly all the elevators comprising the 65,000,000 bushel capacity at the head of the lakes were built by private capital, noted Mr. Manion, and “wherever grain elevators have been required for the business of the country, private capital has been only too happy to build them… if there was really demand for an elevator at Prince Rupert private capital would have come forward for that purpose.”^362

History would prove them correct; the grain elevator at Prince Rupert only loaded nine ships from 1937 – 1951 for a total of 63,382 tonnes of grain, serving primarily as an overload facility for Vancouver.^363

Table 4.2: Grain Received at the Prince Rupert Elevator, 1927 – 1936 and Prince Rupert Imports and Exports, 1921 – 1934^364

<table>
<thead>
<tr>
<th>Year</th>
<th>Bushels Received</th>
<th>Total Imports</th>
<th>Total Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1921</td>
<td>-</td>
<td>$1,800,000</td>
<td>$2,200,000</td>
</tr>
<tr>
<td>1922</td>
<td>-</td>
<td>$1,300,000</td>
<td>$7,000,000</td>
</tr>
<tr>
<td>1923</td>
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<td>1924</td>
<td>-</td>
<td>$1,700,000</td>
<td>$15,700,000</td>
</tr>
<tr>
<td>1925</td>
<td>-</td>
<td>$1,300,000</td>
<td>$15,800,000</td>
</tr>
<tr>
<td>1926</td>
<td>-</td>
<td>$1,400,000</td>
<td>$15,400,000</td>
</tr>
<tr>
<td>1927</td>
<td>5,643,074</td>
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<tr>
<td>1928</td>
<td>8,005,918</td>
<td>$1,000,000</td>
<td>$27,000,000</td>
</tr>
<tr>
<td>1929</td>
<td>2,501,046</td>
<td>$1,100,000</td>
<td>$19,700,000</td>
</tr>
<tr>
<td>1930</td>
<td>1,118,835</td>
<td>$1,400,000</td>
<td>$11,100,000</td>
</tr>
<tr>
<td>1931</td>
<td>373,638</td>
<td>$900,000</td>
<td>$8,000,000</td>
</tr>
<tr>
<td>1932</td>
<td>1,151,096</td>
<td>$550,000</td>
<td>$8,100,000</td>
</tr>
<tr>
<td>1933</td>
<td>139,278</td>
<td>$450,000</td>
<td>$5,200,000</td>
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^362 Ib., 3528.  
^363 Hick, Hays’ Orphan: The Story of the Port of Prince Rupert, 39.  
<table>
<thead>
<tr>
<th>Year</th>
<th>Bushels Received</th>
<th>Total Imports</th>
<th>Total Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1934</td>
<td>1,091,904</td>
<td>$470,000</td>
<td>$4,200,000</td>
</tr>
<tr>
<td>1935</td>
<td>1,229,888</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1936</td>
<td>998,887</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

The CNR owned almost the entire waterfront at Prince Rupert, and given the “Crow Rates”, there was little incentive for either the CNR to develop Prince Rupert themselves nor for any investors to buy or lease the land and take up the task given the those incentives. There was also no incentive for the Province to encourage the utilisation of Prince Rupert, with a study by M.W. Menzies Group Ltd. estimating that development at Prince Rupert could cost the Province’s BC Rail up to 80% of its traffic to the CNR.\(^{365}\)

Finally, the risk involved in an investment at Prince Rupert was significant; the State’s (both provincial and federal) susceptibility to interest group pressure was high, especially concerning railways and ports, the result of which was higher transaction costs and inefficient institutions governing Prince Rupert.\(^{366}\) The institutions governing Prince Rupert were more heavily influenced by social and political factors than economic ones and since the cost of transacting in a political market is high, political actors maintain a large degree of discretion, meaning that unless a project was backed by a powerful political actor or actors, the transaction costs would likely be too high for it to succeed.\(^{367}\)

As John F. Young pointed out, the federal government did not do much to offset the


high transaction costs that prevailed at Prince Rupert.\textsuperscript{368} It played it safe, when in Young’s opinion even “a federal endorsement of the status quo for a seven year period might have been sufficient to encourage investment from private sources… since any alteration of the existing regulations or shifts in federal involvement could seriously jeopardize the potential for earnings”.\textsuperscript{369}

The federal government and the CNR (a federal government railway) were either unwilling or simply unaware of the need to credibly commit not to expropriate rents \textit{ex-post} from any investment at Prince Rupert. With the Province facing disincentives to any expansion at the port, Prince Rupert would fade into obscurity. As W.J Scott put it, by “1939 our fine natural harbour was still undisturbed by deep-sea shipping, still 500 closer to the Orient than Vancouver, still the terminus of a Trans-Continental Railway but still a fishing community, the Halibut capital of the World”.\textsuperscript{370}

\section*{4.6. The War Boom, 1939 – 1945}

By 1939, the port of Prince Rupert lay in a state of disrepair, “plans for docks, hotels and other projects… shelved or scrapped”, with the town having become “a fishing village”.\textsuperscript{371}

The global price of wheat had fallen over 80 percent from its peak and Canada’s railroads, once a source of euphoric national optimism, had saddled the nation with debt.\textsuperscript{372}

According to Mr. E.W. Beatty, Chairman and President of the CPR at the time, the “experiments of the past have left us with a publicly owned system which has a debt of no less than $2,895,799,134, as of December 31, 1933… No serious student of economics – not even those who warmly advocate great expenditures of public funds

\textsuperscript{369} Ibid., 53.
\textsuperscript{370} Scott, “Draft Speech,” 2.
\textsuperscript{371} Ibid.
\textsuperscript{372} Hick, \textit{Hays’ Orphan: The Story of the Port of Prince Rupert}, 35.
as the road to the revival of business – has ever suggested that anyone can benefit by
the operation of publicly owned utilities at a great loss.” 373

However with the advent of World War Two, suddenly there was another nationalistic rather than economic justification for the railroads: the transport of U.S. and Canadian troops to the Pacific along with supplies to aid in the war effort. 374 In a personal account, Richard Neuberger describes the scene as one where:

“Over the once glori ous Grand Trunk Pacific route to Prince Rupert were
carried the men and equipment to repel the first invasion of North American soil
since 1812. Soon the hillsides were covered with barracks. The docks were
choked with bulldozers, power shovels, field artillery and emergency rations.

Fuel drums stood everywhere.” 375

The arrival of the war saw the Prince Rupert taken over by the military and the dry dock – first constructed by the GTP in 1915 with a 20,000-ton floating dock – was once again put to work, it having been “used partly as a cow pasture” prior to the war. 376 During the war effort, the Prince Rupert dry dock not only provided repairs for Pacific vessels (over 400) but also assembled corvettes to 10,000 ton freighters (15 freighters in total) in addition to assembling four minesweepers for the Royal Canadian Navy. 377

But the problems at Prince Rupert were never about a lack technical expertise. It was the mix of incentives established by its institutional environment – from the BNA Act bestowing jurisdiction of the port to Ottawa, the CNR’s incentives not to use its line due to the Crow Rates (again related to the BNA Act), all the way down to the vested interests at Vancouver and the Province’s competition with Ottawa and therefore refusal to consider Prince Rupert as a Pacific Terminal, else ruin its BC Rail.

373 John J. Cornwell to The Baltimore and Ohio Railroad Company, Public Relations Department, December 21, 1934, RG33-12, Library and Archives Canada.
374 Barman, The West beyond the West, 278.
376 Canada, Debates of the House of Commons, 1st Session, 20th Parliament (Ottawa, 1945), 150.
The war boom at the port would prove to be temporary; as soon as the war was over, whatever assets could be salvaged were dismantled and moved out of Prince Rupert. The United States’ Jones Act, which had been suspended during the war, was put back in place and meant that foreign vessels (Canadian) could no longer carry materials between Alaskan harbours, ruling Prince Rupert out as a transhipment port to send goods to and from Alaska. By one estimate, this raised shipping costs to Alaska by 112.5% – $40.80 from Prince Rupert as opposed to $86.70 from Seattle – although even without the Jones Act, the CNR would not have been on board unless provided with concessions given the rail rates were identical at the time.\(^{378}\)

The drydock reverted to CNR ownership, although it still had no interest in developing the port; it was focused on its other, more profitable (due to below-cost fixed Western rates\(^{379}\)) and politically valuable lines.\(^{380}\) Outsiders were not even able to discern who actually had day to day control of the port, such was the indifference shown by the CNR and the State. As Mr. Archibald put it in the House of Commons, “When you approach the government they tell you to go to the CNR, and when you go to the CNR they tell you to go to the government”.\(^{381}\)

“Each time there has been an attempt of any kind at port development in the city of Prince Rupert in one of the finest harbours on the west coast”, described Mr. Howard in the House of Commons, “it has been blocked by the Canadian National. Each time a proposal has been put forward to do something worth while with that port, the Canadian National, which controls the waterfront, has said, “We are not interested in doing anything – in assisting, in giving up prerogative right or doing anything at all worth while to develop the port”.\(^{382}\)

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\(^{379}\) The “Crow Rates” were still in effect and had become even more severe with the wartime inflation.


\(^{381}\) Ibid., 244.

For while the CNR did not want to give up the valuable land it had at Prince Rupert, it was not particularly keen on it developing either, as the Westbound rail rates had been made artificially unprofitable by the federal government.

4.7. Institutional Changes and a Chance for a Revival, 1945 – 1985

Following the war little occurred at Prince Rupert. The Celanese Corporation of America through its Canadian subsidiary Columbia Cellulose Limited constructed a pulp mill at the site in 1947 but, other than the rather dormant government grain terminal which in the decade from 1960-1970 loaded an average of just 17 ships per annum, nothing much changed, other than a further dismantling of infrastructure and the sale of the CNR’s dry dock to Seattle in 1955 as there “did not seem to be anybody else available who was interested in taking over the dry dock”.³⁸³

However while the port itself remained much unchanged, there was a slow institutional change occurring in Canada which would eventually see Prince Rupert capitalise on the opportunity presented and emerge as a potential export powerhouse.

The first such change was that of the central government’s jurisdiction over “national harbours”, as defined by the *BNA Act*. The Prince Rupert foreshore was still largely owned by the CNR. However, while technically a “public harbour” under the *BNA Act*, Prince Rupert did not fall under the jurisdiction of Canada’s National Harbours Board (NHB) but rather the Department of Transport, although at that stage this fact was largely irrelevant. For the NHB was a body that interests in Vancouver believed in 1952 was “not being carried on in the manner intended by the original act”.³⁸⁴ While “various public bodies, including the city council, have united to urge that this additional dredging be done without further delay”, the NHB was deaf to their needs, even as some “vessels have had to wait outside the harbour until the tide was right to permit

them to come in”.385 This was because, according to Mr. Green in the *House of Commons*, “With the setting up of the national harbours board the local people lost control… I do not believe the present difficulty would have arisen in Vancouver harbour if there had been a local advisory council operating”.386

According to a 1932 report by eminent British port engineer Sir Alexander Gibb that provided the foundations of the NHB:

> “I strongly advocate a local advisory council… It is essential to avoid emasculating the local administration, since no centralized control can replace an efficient and active local administration, or the special knowledge and initiative of the local business community, both of which are vital to a port’s prosperity.

> It is invaluable in exploring the possibilities of local markets, in carrying out advertisements and propaganda and in co-operation with interests likely to promote industrial developments. Finally, a local council provides a useful check on the tendency of more or less permanent officials to become stereotyped or arbitrary.”

This recommendation was not implemented when the NHB was created; full control remained in Ottawa and Pacific ports, especially Vancouver, grew increasingly frustrated. Finally in 1952, actors at Vancouver began what would be the first step towards regaining local control, getting approval from Ottawa to establish “a voluntary committee” at the port of Vancouver, “made up of various bodies such as the merchants’ exchange, the board of trade, the Canadian Manufacturers Association and the shipping people”. While this committee would have “no legal status”, it was the first step to achieving a change in the institutions that had governed Canada’s ports since

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385 Ibid., 2287.
386 Ibid.
387 Ibid.
the *BNA Act* was first signed in 1867.\(^{388}\)

Indeed, by 1957 Vancouver had 31,433 vessels arrive, some 60% of the total number of arrivals at all ports under NHB control (49,421), comprising some 40% of the total tonnage arriving and departing in Canada. Yet only 6% of the NHB’s annual maintenance budget was spent at Vancouver and just 5% of total spending on capital development was allocated there.\(^{389}\) The sum of $207,860 spent on maintenance at Vancouver was less than that at the port of Churchill, a port which is only ice-free for 88 days a year and handled a total of 132 vessels in 1957; Churchill was, however, heavily promoted in Ottawa by the influential provincial government of Manitoba.\(^{390}\) According to Mr. Payne in the *House of Commons*, Vancouver was Canada’s “Cinderella port. As far as the former minister of transport was concerned, it was hidden 3,000 miles from Ottawa and across the Rocky mountains. That was the measure of concern that was given to this industrial and commercial facility...”\(^{391}\)

Out of the 18 British Columbian seats in the 1945 federal Parliament, Prince Rupert (Skeena) was represented by one member.\(^{392}\) By comparison, Vancouver had six members in the Vancouver area alone, with two more in the immediate vicinity (Vancouver Island). It is then no surprise that if Vancouver was having trouble influencing Ottawa – federal Parliament had 263 members in 1945, so the Vancouver voice represented just over 2% of the elected Parliamentarians – Prince Rupert was not even on the radar.

Arguably the number of Parliamentarians a region has should not affect the development of a port; however, ports were institutionally locked in the jurisdiction of the federal government. Thus without a significant voice in Ottawa pushing for port

\(^{388}\) Ibid., 2547–2548.


\(^{390}\) Ibid.

\(^{391}\) Ibid.

reform or local development, it was unlikely that anything would change.

However, post-WW2 Canada was in the process of transforming her institutions in a direction contrary to other Western nations such as Australia and the US. While the federal governments of all three nations grew in wealth and power relative to the Provinces (or States) during the war, the balance of power in Canada moved far more in the direction of the Provinces than in Australia or the US in the post-war period.\footnote{Hogg, \textit{Constitutional Law of Canada}, 105.}

The point is, according to Canadian legal historian Peter Hogg, “that the distribution of powers in the Constitution of Canada is much less favourable to federal power than would be suggested merely by comparing the text with that of the American or Australian Constitutions”.\footnote{Ibid., 120.}

The power gained by the Provinces at the expense of Ottawa was achieved through the judiciary rather than through legislation passed in Ottawa. It was this, according to David E. Smith, “which slackened the federal political sail and empowered the provincial governments… [today] of the unit governments in the three Anglo-American federations (Canada, Australia and the US) the Canadian Provinces are by far the most powerful”.\footnote{Smith, \textit{The Invisible Crown: The First Principle of Canadian Government}, 13.}

While the federal government today still maintains the power to confiscate assets “for the general advantage of Canada”, this power was used less frequently post-war and was last used in the \textit{Teleglobe Canada Reorganization and Divestiture Act 1987}, c.12, s. 9.\footnote{Hogg, \textit{Constitutional Law of Canada}, sec. 22.8.}

Admiring the success of Vancouver’s Port Committee which had at least aroused Ottawa’s attention, Prince Rupert established its own committee in 1966 called the “Prince Rupert Port Commission”. One of its first aims was to have a representative of the NHB visit the port as since its inception in 1936, not a single official from the NHB
had set foot in Prince Rupert.\textsuperscript{397} However, it was not long until Mr. Pickersgill, the
Minister for Transport, was invited to visit and he promptly expressed his dismay at the
state of the port:

\begin{quote}
“I don’t think, as a Canadian, I am very proud of the look of the waterfront in
Prince Rupert and as Minister of Transport I am not proud of it. I want to be
proud of it and I want to have a better looking waterfront there or at any rate
plans in being and being carried out for a better looking waterfront there before
I come back again and I want to come back again soon.”\textsuperscript{398}
\end{quote}

There was still a financial incentive to use Prince Rupert, with freight costs for
industries in the North significantly lower than those to Vancouver (Table 4.3).

\textbf{Table 4.3: 1966 Freight Costs (per 100lb), Vancouver vs. Prince Rupert}\textsuperscript{399}

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Vancouver</th>
<th>Prince Rupert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vanderhoof</td>
<td>$0.48</td>
<td>$0.32</td>
<td></td>
</tr>
<tr>
<td>Prince George</td>
<td>$0.45</td>
<td>$0.31</td>
<td></td>
</tr>
<tr>
<td>Houston</td>
<td>$0.51</td>
<td>$0.29</td>
<td></td>
</tr>
<tr>
<td>Smithers</td>
<td>$0.53</td>
<td>$0.27</td>
<td></td>
</tr>
<tr>
<td>Terrace</td>
<td>$0.59</td>
<td>$0.15</td>
<td></td>
</tr>
</tbody>
</table>

Wharfage and handling fees were also “not too much different here [Prince Rupert]
from Vancouver”, the only thing lacking were the facilities to handle it.\textsuperscript{400}

It would not be until after 17 February 1970 when a public announcement was made
about plans to establish a Port Authority in Vancouver that things in Prince Rupert
began to look up.\textsuperscript{401}

\textsuperscript{397} Jack Pickersgill, “Minutes of the Meeting of the Prince Rupert Port Development
Commission” (Prince Rupert Port Development Commission, April 20, 1967), 983-13,
Prince Rupert City & Regional Archives.
\textsuperscript{398} Ibid.
\textsuperscript{399} R.O. Clefstad et al., “Memo on Meeting Held at Crest Hotel” (Prince Rupert Port
Development Commission, October 1, 1966), 983-13, Prince Rupert City & Regional
Archives.
\textsuperscript{400} Ibid.
\textsuperscript{401} Mr. Mark Rose, Canada, \textit{Debates of the House of Commons, 2nd Session, 28th Parliament}
(Ottawa, 1970), 8651.
Vancouver had been officially lobbying the federal government for local autonomy since 1952 and finally succeeded nearly twenty years later when it became a Port Authority. This was something originally recommended in the 1963 Glassco Royal Commission, which was critical of Ottawa’s management of Canadian ports. The report stated that:

“Control of the seaports and airports now under review is centralized in Ottawa. This results in criticism of standards adopted for capital works – too lavish to be economic but short of what local pride demands – of services provided, and of charges therefor... The geography of Canada being what it is, your Commissioners are of the opinion that the aim should be to foster local pride and promote local participation.”

This all came to a head in 1971, by which time Vancouver was the busiest port on the West coast of North America, exporting mostly bulk commodities. This throughput created problems that become very well known, even in Ottawa, when for example due to a lack of berths over 20 ships had to lay idle in English Bay for weeks. “Vancouver can’t do anything without a nod from Ottawa”, reported John Clarke, and “[we] are puzzled by what they regard as a persistent lack of urgency in Ottawa’s attitude... [We] have sought dock improvements, more up-to-date equipment, more container facilities not only as local amenities but as vital necessities for the good of the country as a whole”.

The Prince Rupert Development Commission, seeing Vancouver gain some autonomy as a Port Authority, began lobbying for inclusion under the NHB so as to achieve Port Authority status for itself. As a letter to the Vancouver Port Authority makes clear, “our group is attempting to gather information on how a Port Authority, such as the one at Vancouver could be established here in Prince Rupert”. If Prince Rupert had a Port Authority, the Commission thought, “we feel that the present deggregated [sic] condition

403 Canada, Debates of the House of Commons, 4th Session, 28th Parliament, 818.
of our harbour could be cleared up and laws enforced to help keep the harbour clean of
debris".\textsuperscript{404}

So it was to be when on 23 March, 1972, the Hon. Donald C. Jamieson, Minister of
Transport, announced in the \textit{House of Commons} that "the port of Prince Rupert will
become the tenth National Harbours Board port... I am looking forward to inviting
representatives of the community to serve as members of the Port of Prince Rupert
Authority, which will be created at the earliest possible opportunity".\textsuperscript{405}

In addition to committing to form the Prince Rupert Port Authority, the NHB established
for the first time an office in Winnipeg to "serve western Canadian requirements",
having had up until that point no office west of Ottawa, some 4,847km away from
Prince Rupert and 4,358km from Vancouver.\textsuperscript{406}

These developments and institutional changes were driven by new exogenous as well
as endogenous circumstances: the former involving the emergence of Japan as a
source of exports as well as the mass adoption of containerisation; and for the latter, an
institutional shift in Canada away from centralised control in Ottawa towards a more
distributed, decentralised system where the Provinces increasingly held power.\textsuperscript{407}

Pressure from entrepreneurs eager to export to Japan in the late 1960's and early
1970's was a key factor in forcing the federal government's hand to include Prince
Rupert into the NHB. Investors were lining up to invest at Prince Rupert, with Prince
Rupert Port Commission documents revealing letters of interest from Sumitomo Shoji
Canada Ltd. to those from McLean's Shipyard Ltd., the Foundation of Canada
Engineering Corporation Ltd. (undertaking a feasibility study for a Japanese interest),
Mitsui and Company (Canada) Ltd., Bunge Corporation (a grain exporter), McIntyre

\begin{footnotesize}
\begin{tabular}{l}
\textsuperscript{404} E.R. Gordon to Brian Gardiner, August 4, 1971, 983-13, Prince Rupert City & Regional
Archives. \\
\textsuperscript{405} Canada, \textit{Debates of the House of Commons, 4th Session, 28th Parliament}, 1071–1072. \\
\textsuperscript{406} Ibid., 1072. \\
\textsuperscript{407} The "delay in providing adequate common-user facilities at Vancouver... resulted in
substantial loss of container traffic to Seattle". I Wallace, "Containerization at Canadian
\end{tabular}
\end{footnotesize}
Porcupine Mines Ltd. (bulk loading facilities), Rocklen Development Corp. Ltd. (bulk loading facilities), and Western Wharves Ltd. (deep sea shipping facilities).\textsuperscript{408}

There was also pressure from the Province, with Premier Bennett remarking in 1968 that: “if the CNR would sell that rail line to British Columbia, we would see to it that Prince Rupert had a port like no other port anywhere.”\textsuperscript{409}

Bennett’s ‘unofficial’ offers continued until 1971, when the CNR finally responded by stating:

“They suggest they would buy our main line between Prince George and Prince Rupert for a dollar. But it isn’t for sale for a dollar. We aren’t likely to entertain a proposal which disposes of an integral part of our main line in northern B.C.”\textsuperscript{410}

In addition, it reminded the Premier that:

“A takeover by the B.C. government is impossible because the line falls within federal jurisdiction. Statutes prevent such action.”

Concerning the private interest, McIntyre Porcupine Mines Ltd came closest to actually succeeding where so many before had failed. McIntyre Porcupine Mines Ltd., “would, if it was decided to go ahead [development of Ridley Island], do its own financing and operation of the facilities. These facilities would be designed for bulk loading of coal, mineral concentrates, and similar products and pulp, paper, and lumber products were not compatible”.\textsuperscript{411}

In addition, McIntyre “will welcome any monies spent on access and services but would rather spend their own money on actual site to keep their own engineering etc [sic]".

\textsuperscript{408} to Prince Rupert Port Development Commission, “Various Letters,” n.d., 983-13, Prince Rupert City & Regional Archives.
\textsuperscript{410} \textit{Unnamed Newspaper}, May 31, 1971, RG30, Library and Archives Canada.
\textsuperscript{411} W. Killbourne and McIntyre Porcupine Ltd., “Minutes of the Meeting of the Prince Rupert Port Development Commission” (Prince Rupert Port Development Commission, August 7, 1970), 983-13, Prince Rupert City & Regional Archives.
from being interfered with”.

Its offer was to build a facility with a capacity of 3 million tons of coal annually, capable of handling 10 million tons without additional capital expenditure. Vessels up to 200,000 tons deadweight would be handled at the proposed facility (drawing around sixty feet) and McIntyre wanted to finance the entire site preparation, equipment and docks costing an estimated $14 million, but would require the government to supply an access road.

Unfortunately for Prince Rupert, by 1972 the deal fell through when the Japanese client at the other side of the deal halved the amount of coal originally required in the face of an economic slowdown.

Figure 4.2: Japanese Crude Steel Production, 1967 – 1987

“It did not look good for Prince Rupert”, according to Mr. Scott, “as this quantity was not feasible for development of a bulk loading facility at Ridley Island, unless there was [sic] other participants… unless there was Federal Government subsidization or others could be found to utilize a facility the shipments would be made through Neptune

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412 Ibid.
413 Ibid.
Terminals in Vancouver.\footnote{W.J. Scott, “Minutes of the Meeting of the Prince Rupert Port Development Commission” (Prince Rupert Port Development Commission, June 26, 1972), 983-13, Prince Rupert City & Regional Archives.}

Although this development was ultimately unsuccessful, the attention given to Prince Rupert from numerous private interests, the ever-improving lobbying abilities of the Prince Rupert Port Commission and an increasingly anxious Province – British Columbia had announced the intention to construct a coal handling facility on Howe Sound against the wishes of the federal government – saw the NHB finally take control of the port, and this would prove to only be the beginning.\footnote{W.J. Scott, “W.J. Scott to Dave Barrett,” Private Letter, (February 12, 1973), 983-13, Prince Rupert City & Regional Archives.} The institutional “lock-in” that had prevented development at Prince Rupert since the Second World War had been partially broken, only to be replaced with what would turn out to be an equally poor outcome.\footnote{Arthur, “Competing Technologies, Increasing Returns, and Lock-in by Historical Events.”}

The first step in the transformation was the federal government's purchase of the remaining private land at Prince Rupert, owned by Western Wharves Ltd. This was completed in July 29, 1970 and helped facilitate the NHB's takeover of the port.\footnote{Hick, Hays' Orphan: The Story of the Port of Prince Rupert, 58.} The move to an NHB Port Authority saw an immediate resurgence in Prince Rupert, not in demand for services but in federal attention, with the government allocating an initial $5m to improve the infrastructure at the port.\footnote{Mr. Jamieson, Canada, Debates of the House of Commons, 4th Session, 28th Parliament, 1072.} However, the value of this investment was questionable at best. There was a “lack of planning in connection with the takeover by the NHB“. No one knew “who and what was to be taken over… Coupled with this the planning for new facilities, the fire, the setting up of a new administration and the CN involvement were making it difficult for them to get straightened out let alone keep
us properly informed”. Nonetheless, there was a renewed optimism at Prince Rupert, with one magazine titling an article “The Port with a Future”, with the rather optimistic subtitle of “In fact, things are happening so quickly that it is expected further developments will be announced before this article is printed and circulated”.422

The provincial government had also agreed to join what was called a “joint transportation development program”, a “framework of federal-provincial co-operation”.423 The idea was to provide joint financial aid for railways, ports and highways, with Prince Rupert being the subject of a “comprehensive joint program for port development… including the location, size, type and timing, general cargo and bulk commodity terminal facilities… [with] port authority or port commission operating arrangements… required as soon as possible”.424

But NHB control was hardly an improvement; its interests were firmly established in Ottawa and the governance rules for NHB-controlled ports saw very little room for local input or autonomy. Any expenditures over $50,000 would require approval from Ottawa and decisions regarding tolls, storage rates, new construction, property management and personnel would also be run out of Ottawa.425

At Prince Rupert the period between 1973 – 1977 had seen three phases of construction lead to the creation of the 46-acre Fairview breakbulk terminal for the export of various commodities, from frozen fish to lumber. Located alongside CNR track, it consisted of a 1,400 foot-long dock offering 45 feet of water at low tide, and a

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420 There was a fire on 10 June 1972, which destroyed the 1,600 foot wooden ocean dock initially constructed in 1920. Hick, Hays’ Orphan: The Story of the Port of Prince Rupert, 38–39.
423 Mr. Guay, Canada, Debates of the House of Commons, 1st Session, 29th Parliament (Ottawa, 1973), 4917.
424 Mr. Guay, ibid.
63,000 square foot cargo transit shed at a cost of $28.6 million. But the real
development was to come from the Province’s promise of a “super port” at Prince
Rupert to cater to both coal and grain.

On the coal side, although the McIntyre Porcupine Mines Ltd., coal facility at Prince
Rupert in the late 1960s – early 1970s had failed to eventuate, by the late 1970s the
demand for coal from Japan was booming again and interest had been rekindled in the
region.

**Figure 4.3: Real Coal Prices, 1959 – 1979**

British Columbia had a large supply of coal and so the higher world prices led to
discussions between miners, the Province, the federal government and the CNR about
the idea of Prince Rupert becoming the chief beneficiary of the Canadian coal
expansion. It was the most economical option available, with the University of British
Columbia estimating that coal movement along the Province’s BC Rail to Vancouver
would cost as much as 50% more than a comparable movement along the CNR's

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426 Mark Wilson, “Tonnages Tumble, But Western Canada Prepares for Recovery and
Beyond,” *Harbour & Shipping*, October 1975, 36, RG30, Library and Archives Canada.
427 Laurie Jones, “Ridley Island a Coal Port...maybe...,” *The Daily News*, September 27, 1976,
RG30, Library and Archives Canada.
Prince Rupert line.\textsuperscript{429} So began the planning for a coal terminal on Ridley Island, just South of Prince Rupert.

At the same time, a six company consortium of grain exporters was negotiating with the federal government for the development of a terminal on either Ridley Island or Kaien Island. On July 30, 1979 a “memorandum of understanding” was signed by the consortium and the federal government, pledging to develop a $120 million terminal, with construction to begin in 1981.\textsuperscript{430}

The consortium, led by the Alberta Wheat Pool and Cargill Grain working with the British Columbia Development Corporation (BCDC) had in 1977 earmarked a site at Casey Point for a new grain terminal. However, the NHB disagreed and in 1978 released a “Master Plan for Ridley Island”, prepared by CBA Engineering and Carr and Donald Associates, allowing for two grain terminals and a coal terminal on Ridley Island.\textsuperscript{431}

The plan was immediately condemned by the BCDC as it would cost $30 million more than the site it had decided upon and take 1-3 years longer to construct. The two groups involved, the NHB and the consortium, both had strong reasons to avoid the others' site: the consortium because the BCDC site would ship grain sooner, cost less, and put it in control of “a private fiefdom in the NHB-administered port”; and the NHB because development at Ridley Island would allow it to maintain full control over the activities in the port.\textsuperscript{432}

The issue was eventually settled by the newly established Grain Transportation Authority, which gave control of the old government grain terminal to the Alberta Wheat Pool and recommended Ridley Island as the site for the new grain and coal terminals. The estimated additional cost was $20 million with a delay of 6 months. The consortium


\textsuperscript{430} “Construction of B.C. Grain Terminal to Start by 1981,” \textit{The Citizen}, August 1, 1979, 36.

\textsuperscript{431} Hick, \textit{Hays’ Orphan: The Story of the Port of Prince Rupert}, 98.

\textsuperscript{432} Ibid., 108.
(now “Prince Rupert Grain Ltd.”) accepted the Ridley Island site but only after the federal government had agreed to meet all additional costs over the BCDC site.\textsuperscript{433} There were a number of problems to follow due to inflation and low quality foundational material which raised construction costs. These issues resulted in the need for the Alberta government to fund over 80\% of the total costs, an amount of $240 million compared to just $26 million by the federal government and $60 million by the consortium. In addition, it would have to pay 40\% of any overrun in costs, with British Columbia paying 60\%.\textsuperscript{434} Despite these cost overruns, the new grain terminal was eventually opened on May 16, 1985, with the old terminal shut down shortly thereafter.\textsuperscript{435}

The coal port took a while longer to be constructed. The first contract – a conditional letter of intent – was signed by Denison Mines Ltd., of Toronto on September 25, 1976 for five million tons of coal from a Japanese steel making consortium. However, for the Province to agree to provide the infrastructure upgrades necessary – it had agreed to fulfil the federal government's road access commitment – it required an assured contract for ten million tons.\textsuperscript{436}

At the time, the 150-acre Ridley Island location was operated by Neptune Terminals Ltd., who in 1975 acquired it in the form of a lease from the federal government, which had previously acquired the Ridley site from the Province using its constitutional power for port development “for the general advantage of Canada”. Neptune had an option for a two year extension, but beyond that it was up to the NHB to decide what happened at the port.

But by 1979, Denison and Teck were quite concerned. They wanted to build and operate the new terminal themselves but the NHB was refusing to negotiate, insisting

\textsuperscript{433} Ibid., 109; Mark Wilson, “It’s a Rough Ride on the Rails to Prince Rupert,” \textit{The GAZETTE}, March 8, 1982, F15.


\textsuperscript{436} Wilson, “Carrying Coals Will Fuel B.C. Port Growth.”
on the port operations being managed by the federal government. According to BC Industry Minister Don Phillips:

“The problem is the National Harbours Board and Federal Commerce each want to create a profit centre at the port, while the coal producers are willing to do the shipping for cost.”437

The NHB was insisting that its operator of choice run the port so as to recuperate the entire amount of federal infrastructure investment.

Meanwhile, Denison had joined with Teck Corp., BP Coal, Petro Canada and Minalta in 1980 with the hope of signing a 15-year, $3.5 – $5 billion deal with the Japanese steel industry, contingent on the coal terminal at Ridley Island being ready.438

On February 8, 1981, this hope was realised when Denison and Teck signed a 15-year, 7.7 million tonne (6.7 tonnes of coking coal; 1 million tonnes of thermal coal) deal with a Japanese steel mill consortium, with the contract specifying that exports must begin out of Prince Rupert by October, 1983.439 This forced the NHB to act and it immediately called for proposals from parties interested in constructing the new terminal, with the condition that the operator recoup the full infrastructure costs.

The NHB eventually decided on Federal Navigation and Commerce Ltd. (FedNav), of Montreal, to construct the terminal. However, the NHB announced this before it had agreed to terms with the coal miners, leaving Denison and Teck frustrated and looking elsewhere. The BC government, keen to see development start as soon as possible and also frustrated with the delays and the NHB, offered the coal companies the provincially-owned Kaien Island site for its coal terminal.440

Don Phillips at the time said the “NHB ignored the realities of the terms of the coal contracts and ignored the coal companies themselves. The result is we have a nominated operator (Federal Commerce) who can't come to terms with Teck and Denison. Is this a reasonable way to handle economic development in this country?”

This led to the NHB – unwilling to call for new proposals and as it would turn out, about to be made obsolete – to compromise and eventually sign a new deal with FedNav and the coal companies in October 30, 1981. By 1984, the Ridley Island coal terminal was to have a guaranteed throughput capacity of 7.7 million tonnes and the capacity to move 22 million by 1990. While the deal had finally been signed and coal would soon be exported, the troubles at the Ridley Island coal terminal were just beginning.

The NHB had formed Ridley Terminals Inc., to operate the terminal, to be 90% owned by the federal government and 10% by FedNav. However, the terms agreed to – described by Hick as achievable only because of FedNav's “friends of the government and especially the NHB” – were “quite incredible”.

FedNav borrowed the entirety of its $23 million 10% stake in Ridley Terminals, with 80% of it guaranteed by the federal government and the remaining 20% by the NHB. It would receive a guaranteed 20% after tax dividend per annum on this investment, regardless of the port's performance, and was entitled to 70% of port profits if any were made. Finally, it would be an equal shareholder and if the federal government wanted to buy it out of this contract, it could do so at a cost to the federal government of its entire $23 million investment plus all unpaid dividends compounded annually, resulting in a growth in the buyout cost of over $700,000 a month.

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441 Ibid.
442 Parliament was debating the Canada Ports Corporation Act, which would have abolished the National Harbours Board.
443 Hick, Hays' Orphan: The Story of the Port of Prince Rupert, 145.
This created the incentive for FedNav to prevent progress at Ridley Island, operating the terminal “inefficiently and [sic] force the federal government to buy out its shares at a high price”. 447 Despite the newly-formed Ports Canada wanting the contract to be bought out in 1985 and a Commons Transport Committee recommending it be bought out in 1987, it wouldn’t be until 1991 when FedNav forcibly exercised its put option on the deal that control was restored to Ports Canada, with FedNav receiving a final payout of $60 million on its no-risk 10 year investment. 448

Ultimately the NHB's control over Prince Rupert would not last long. Other ports in Canada, particularly Vancouver, had also been growing increasingly frustrated with the NHB. It was the growing political influence coming from Vancouver and the fact that independent ports under the *Harbour Commissions Act 1964* were out performing the ports that were under the “stultifying control” of the NHB that pressure began to mount in the Canadian parliament. This, as well as competition from “the vigorous Port of Seattle, [where] decision making is concentrated within a few hands, all of them to be found in Seattle… which has tax raising powers, is free to go to the money market or can finance growth out of revenues”, forced Ottawa to begin working on delegating control over the nation’s ports to local authorities. 449

Under the proposed changes, “overall control of the ports will still rest with Ottawa, if only in order to see that developments hang together in the furtherance of national goals and are not in conflict”, but autonomy would finally be granted first in the form of local Port Authorities under the NHB and later with the *Canada Ports Corporation Act 1983*, which allowed former NHB ports to become Local Port Corporations (LPCs). 450

Mr. Jamieson, the Minister of Transport, admitted that the current system was not working when he said, while announcing the changes:

449 Wilson, “Tonnages Tumble, But Western Canada Prepares for Recovery and Beyond,” 33.
450 Ibid.
“All Canadian ports have different problems and decentralization would enable local authorities to deal with their own special problems in each area.”

This change of attitude was not down to one individual; it was the result of the factors discussed earlier that broke the institutional “lock-in” at Prince Rupert – indeed, in Canada – and forced an institutional response by the federal government. It was only because of “several major industrial developments in central and northern British Columbia, and… an acute lack of facilities at the port of Prince Rupert”, as well as the problems at Vancouver which resulted from the NHB’s inability to respond to containerisation that the institutions governing Prince Rupert were able to be changed.

The disastrous management of Ridley Point was one of the last acts undertaken by the NHB. On February 24, 1983, the Canada Ports Corporation Act was passed and by late 1983, Prince Rupert had been given assurances that it would be granted Local Port Corporation (LPC) status in 1984. This would create, as Ken Krauter, the Prince Rupert port manager at the time described, “a port operation [at Prince Rupert] which is able to respond quicker to changing markets and operating conditions”, and that it “will be more responsive to existing and future clients”.

LPC status provided a port with local autonomy, as opposed to the previous organisational structure where management was controlled by Ottawa, provided it was financially self-sufficient. LPC ports had five to seven local members on their board and were allowed to issue contracts for up to $10 million without approval from Ottawa, engage in property management, new construction, contract and tendering, setting of

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451 Mr. Forrestall quoting Mr. Jamieson, Canada, Debates of the House of Commons, 4th Session, 28th Parliament, 816.
452 Ibid.
454 The debts of NHB ports, amounting to some $742 million, were assumed by the federal government by order in council on January 15, 1981. This made it easier for the former NHB ports to become financially self-sufficient and qualify for LPC status. Mr. Pepin, Canada, Debates of the House of Commons, 1st Session, 32nd Parliament (Ottawa, 1982), 19689.
rates, personnel and other administrative freedoms not previously afforded to them.\textsuperscript{455} While still maintaining a “balance between autonomy and accountability”, i.e. Ottawa still had ultimate control, it was viewed positively by virtually every Canadian port with Joe Scott, chairman of the Prince Rupert Port Authority, noting that while not ideal “it’s certainly a start in the right direction, and we have an opportunity to work toward a far superior system”.\textsuperscript{456}

The end of the NHB's reign, described by BC Economic Development Minister Don Phillips as one which “reflects a history of confrontation and sluggishness rather than co-operative and responsiveness”, had arrived and finally Prince Rupert would get some autonomy.\textsuperscript{457}


The abolition of the NHB and grant of local autonomy to Prince Rupert in 1984 saw for the first time local control established at the port of Prince Rupert. This was the result of a change in the institutional environment in Canada as a nation, a move in the direction “closer to that of the Reagan government in the US”, than what had existed when the NHB was in power.\textsuperscript{458}

However, at the same time these institutional changes were taking place, the global price of coal began to fall on the back of increased supply and falling demand for steel in Japan, with Prince Rupert's coal exports peaking in 1985.

\textsuperscript{455} Ports Canada, “New Autonomy for Growing Port.”
\textsuperscript{456} Birnbaum, “Ports Glad to Have Bigger Say,” D–3.
\textsuperscript{457} Mark Wilson, “Unhappiness with Federal Policy Expressed in B.C.,” The GAZETTE, April 12, 1982, F–12.
In addition, there was still the lack of waterfront control causing problems for Prince Rupert with the CNR owning the majority of it. “I’m rather embarrassed to see we at the port are responsible for the water-front development”, noted Bob Tytaneck, Prince Rupert General Manager and CEO, as “we own only 10 per cent of the inner waterfront property”.460

Canada continued to move further towards a smaller-government model in the 1990s, with deregulation in 1987 and then the full privatisation of the CNR in 1995 taking place.461 This brought about a change in attitude from the railway, one that saw it start to slowly cooperate with Prince Rupert port and begin to utilise its assets in the region for profit.

Nevertheless, the port of Prince Rupert continued to meander along as slumping coal prices and stalling grain exports reduced the demand for and further port upgrades.

There were a number of proposals throughout the 1990s to move the Kaien terminal

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closer to the Prince Rupert township, but none of these “rather grandiose plans” ever came to fruition.\textsuperscript{462} It would not be until the mid 2000s that a rapidly developing China would see the increased demand for coal and wheat once again reignite the prospects of Prince Rupert as a major port.

In another change to the institutional environment that Prince Rupert operated within, the federal government provided Prince Rupert with further independence by changing it from a Port Corporation to a Port Authority with the \textit{Canada Marine Act 1998}, effective from May 1, 1999. Table 4.4 highlights the main changes.

\begin{table}[!ht]
\centering
\caption{Canada Marine Act Key Changes\textsuperscript{463}}
\begin{tabular}{|l|l|}
\hline
Canada Ports Corporation Act & Canada Marine Act \\
\hline
7-person federally-appointed Board of Directors. & Board of 7-9 members, with a majority chosen by the government in consultation with users. \\
Federal approval needed to develop and implement projects over $10 million or to award service contracts over $1 million. & Free to sign contracts and leases with interested parties to operate ports (railways, road easements, licences for utilities, other services). \\
& Free to set tariffs and fees for any ships, vehicles, persons or aircraft using the port, plus all goods loaded, unloaded or transhipped at the port. May also set rates for Port Authority services such as wharfage, berthing and harbour dues. \\
Had to lobby for government infrastructure subsidies & No government guarantees or subsidies available; free to seek funds on private capital markets to finance projects. \\
Dividends paid to the federal government & A proportion of gross income paid as a stipend to the crown. \\
\hline
\end{tabular}
\end{table}

This change in governance combined with a now-cooperative CNR allowed the Prince Rupert Port Authority (PRPA) to move forward and take advantage of the unique situation it found itself in. For Prince Rupert was in the fortunate position in that it already had a 53 acre terminal at Fairview for container storage that could, for a relatively low cost compared to other ports, be modified to provide in-demand container handling capacity.\textsuperscript{464} In 2005, this was exactly what happened, with the PRPA and CNR working jointly on the Fairview Terminal Conversion Project, a $170 million dollar

\textsuperscript{462} Hick, \textit{Hays’ Orphan: The Story of the Port of Prince Rupert}, 174. \\
\textsuperscript{464} Hick, \textit{Hays’ Orphan: The Story of the Port of Prince Rupert}, 198.
expansion to create a handling capacity of 500,000 TEUs per annum at Fairview (expanded to 59 acres). Phase 1 was completed in October 31, 2007, with Phase 2 due to be completed by 2015 at an estimated cost of $650 million, having recently received environmental approval. Phase 2 will expand Fairview to 80 acres and provide a capacity of 2 million TEUs per annum along with upgraded rail facilities and an expanded wharf.

From the start, the Fairview expansion was “a joint project”, according to Mr. Andrew Mayer (Vice-President, Commercial and Regulatory Affairs, PRPA). It was funded “from the federal government, the provincial government, a substantial contribution from CN Rail, and the Prince Rupert Port Authority”.

Today, the organisational structure at Prince Rupert is quite diverse. The Port Authority operates under what could best be described as a “landlord” model, leasing its land to private (and public) users for long periods of time with the goal of making a profit.

The Fairview Container Terminal land is owned by the PRPA but the terminal itself is operated by Maher Terminals, a private company, under a 30 year lease agreement.

Ridley Terminals Inc., is a federal crown corporation operating the coal terminal on Ridley Island, dealing directly with the CNR as coal arrives on rail from afar. It has a 30 year lease which expires on March 31, 2039, with an option for another 20 years.

Finally, the grain terminal at Ridley Island is owned and operated by Prince Rupert.

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467 Mr. Andrew Mayer, House of Commons, Canada, 2013: 1st Session, 41st Parliament (Ottawa, 2013), 1535–1540.

468 Brooks, “The Governance Structure of Ports.”

469 Mr. Andrew Mayer, House of Commons, Canada, 2013: 1st Session, 41st Parliament, 1535–1540.

Grain Ltd., itself owned by a consortium of exporters.\textsuperscript{471}

It would appear that Prince Rupert, 100 years after Sir Wilfrid Laurier had declared it was destined for great things, is beginning to live up to its potential. But this was only possible through a change of institutions at the federal level. Unlike Port Hedland where there was under-development due to the inability of the State to credibly commit prior to State Agreements with the mining companies, or Tauranga where the political influence exerted by Auckland stifled progress, Prince Rupert suffered from over-development and then neglect for the better part of a century. The institutions that governed Prince Rupert simply did not create the incentives for an efficient port. It would take 30 years of institutional change, driven largely by exogenous factors unrelated to the port, for the right institutional structure to be in place to accommodate a successful port at Prince Rupert.\textsuperscript{472}

Favourable natural endowments and a great deal of infrastructure investment went only so far; without the right institutional structure – the framework that shapes the interactions between people and the development of society – even an immense amount of public and private investment in a port can result in failure and ultimately avoidable costs that society has to bear.

\begin{flushright}
\textsuperscript{471} Alberta Wheat Pool, Saskatchewan Wheat Pool, United Grain Growers Ltd., James Richardson & Son, Ltd., Cargill Ltd., Manitoba Pool Elevators.
\textsuperscript{472} The 'right' institutional structure does not mean 'optimal'; rather, we are seeking the least-worst structure that is possible given current constraints. Williams and Coase, “Discussion,” 195.
\end{flushright}
Chapter 5: Tauranga 1860 – 2012

Forging a New Path

5.1. Introduction

Located in New Zealand’s Bay of Plenty, the port of Tauranga is New Zealand’s largest port in terms of volume, with a throughput of over 19 million tonnes of cargo and nearly a million TEUs in 2013. The harbour itself covers a vast area of over 200km², with 274km of shoreline.

Illustration 5.1: Port of Tauranga Location

Originally used by the Maori people prior to the arrival of Europeans at Tauranga on board Captain Gilbert Mair’s Herald in 1826, the port has a long history of both successes and failures; there was certainly no guarantee that it would today be New Zealand’s largest port.

In the early days of colonisation New Zealand’s institutions were very immature. The nation was initially proclaimed a colony of Great Britain in 1841 following the 1840 Treaty of Waitangi, constituted in 1852, achieved sovereignty in 1857 but was still

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474 Hansen, History of Tauranga Harbour & Port, 9.
476 Hansen, History of Tauranga Harbour & Port, 11.
477 Approximately 240 Maori chiefs signed the agreement with the British, granting “to Her Majesty the Queen of England absolutely and without reservation all the rights and powers of Sovereignty which the said Confederation or Individual Chiefs respectively exercise or possess, or may be supposed to exercise or possess over their respective Territories as the sole Sovereigns thereof”, and reserving the Maori “full exclusive and undisturbed
legally subordinate to the United Kingdom until 1947.

Both New Zealand and Tauranga underwent numerous institutional changes between 1860 and 2012; changes that would both directly and indirectly shape the fate of the port of Tauranga. The port changed hands from its original use by the Maori prior to 1860; European takeover during the Maori land wars in 1864 which even saw the port temporarily blockaded; to private and local council ownership; various harbour boards; and eventually in 1988 it became the Port Corporation we see today.478

5.2. The Early Days, 1860 – 1912

By 1860, New Zealand had its own constitution and had been a sovereign nation for three years. Like Australia and Canada, New Zealand's constitution was determined by the extension of sovereignty from Britain.479 Table 5.1 on the following page highlights New Zealand's transition from colony to Dominion.

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478 Hansen, History of Tauranga Harbour & Port, 10.
479 Philip Austin Joseph, Constitutional and Administrative Law in New Zealand (Law Book Company Sydney, 1993), 30.
Table 5.1: New Zealand's Constitutional Evolution, 1840 – 1987

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1840</td>
<td>Treaty of Waitangi signed.</td>
</tr>
<tr>
<td>1841</td>
<td>Proclaimed a Colony of Great Britain.</td>
</tr>
<tr>
<td>1846</td>
<td>New Zealand Constitution Act enacted then suspended by the Gov. General.</td>
</tr>
<tr>
<td>1852</td>
<td>New Zealand Constitution Act enacted.</td>
</tr>
<tr>
<td>1857</td>
<td>Responsible government granted; NZ Parliament can modify the Constitution.</td>
</tr>
<tr>
<td>1858</td>
<td>English Laws Act enacted.</td>
</tr>
<tr>
<td>1907</td>
<td>“Colony of New Zealand” became “Dominion of New Zealand”.</td>
</tr>
<tr>
<td>1923</td>
<td>New Zealand permitted to conduct its own international trade negotiations.</td>
</tr>
<tr>
<td>1931</td>
<td>Statute of Westminster Act tabled.</td>
</tr>
<tr>
<td>1987</td>
<td>Constitution Act enacted.</td>
</tr>
</tbody>
</table>

New Zealand's original constitution, first enacted in 1852 following the initial 1846 Act's passing and immediate suspension by the then Governor General Sir George Grey, created for New Zealand a General Assembly including the Governor, Legislative Council (appointed), and a House of Representatives (elected).  

This constitution was not open to amendments through the General Assembly, a rule that was changed by the Imperial Parliament with the passing of the New Zealand Constitutional Amendment Act 1857.

The most important fact about the events above was that even though New Zealand had officially become an independent Dominion in 1907, power ultimately rested in Britain until 1947. Up until that point, the British-appointed Governor-General had enormous responsibilities: the ability to act as representative of both the British and be the sole voice of New Zealand's views towards the Imperial government; to hold the

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official coding ciphers; and exercise sole discretion over what information from Britain was passed on to the New Zealand parliament.\textsuperscript{482}

The uncertainty around New Zealand’s independence was demonstrated by the fact she was mentioned in the 1898 Australasian Federation Conference, with Australia considering her a State of Australia in the constitution:

\textit{“The States” shall mean such of the Colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the Northern Territory of South Australia, as for the time being are parts of the Commonwealth, and such Colonies or Territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called a “State.”}\textsuperscript{483}

New Zealand began the process towards federation and true sovereignty before both Australia and Canada, but was the last nation to achieve that end. This was because those in positions of influence in New Zealand were well aware that abandoning ties with Britain too early would result in transaction costs that would prove to be insurmountable for foreign capital to invest. Without the assurance that any disputes would be settled in British courts under British law, foreign investors would face increased costs of transacting in New Zealand in the form of regime uncertainty, raising the risk of the investments and the ex \textit{ante} returns necessary to invest. The small nation with an immature government would simply be unable to credibly commit not to expropriate any capital invested on its shores. Mutual gains from trade are then not exploited and both the British investors and New Zealand people would be worse off.\textsuperscript{484}

As Mr. Justice Richmond, a Supreme Court of New Zealand judge for 29 years wrote in

\textsuperscript{482} NZ Parliamentary Library, \textit{New Zealand Sovereignty}.
\textsuperscript{483} E.G. Blackmore and C.C. Kingston, \textit{The Commonwealth of Australia Constitution Act}, 1898, sec. VI.
\textsuperscript{484} These transaction costs were so high that, despite the “large outlay in travelling expenses [that] would be apparently inevitable”, transaction costs were so prohibitive that it was still considered worthwhile. \textit{Australasian Federation Conference, Debates, 1st Session}, Constitution Conventions (Adelaide: Parliament of Australia, 1897), 972.
a March 11, 1891 letter to Sir Henry Parkes:

“British capital is, and it is to be hoped will continue to be, largely invested in these colonies... However fair colonial judges and juries may have shown themselves, it is inevitable that persons resident in the United Kingdom, or in other colonies, who should find themselves worsted in litigation before a colonial court from which there was no appeal [to a British court], would, in many cases, both feel and express a doubt that justice had not been done them, and would be ready to impute the decision against them to local prejudice and favoritism.

The confidence with which investments of all sorts are now made in Australasia by people at home must be largely due to the knowledge that rights of property will be dealt with here by the Law Courts on British principles of justice, and subject to final review by one of the highest English courts. I conceive that this confidence must certainly be impaired if we constitute ourselves a foreign country in regard to the administration of justice.”

The delay in achieving independence was not because of a lack of desire to become a sovereign nation, but out of a desire to keep transaction costs low so that foreign capital would remain confident in the new colony of New Zealand.

485 Sir Joseph Abbott, ibid., 970.
The 1927 Yearbook concluded that:

"With the settlement of the regular colony in 1840 there was evident an inflation of imports, occasioned by the amount of capital the new colonists brought in for the development of the country... the value of imports continued to be greater than exports until 1886... [from which point] exports began to form a preponderating feature of the total trade.

The excess of imports from 1853 to 1870, and again from 1872 to 1886, can definitely be traced to the importation of capital in those periods."

Maintaining the ability to credibly commit was essential; without that knowledge investors would have been less willing to commit to development projects in New Zealand at the prices (interest rates) that actually occurred. This can, of course, be taken too far, as happened in Canada with the over-investment in its transcontinental railway system. If a government artificially reduces the ex ante returns required for an investment by, as in Canada, guaranteeing the debt of investors while able to credibly commit to repay any losses, investors are far more likely to get involved in projects that

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are economically wasteful.

These were all important developments for the port of Tauranga. In Canada, the constitution delegated control of Prince Rupert to the federal government while in Australia, the land at Port Hedland was governed by the State of Western Australia. Prior to the implementation of the Constitution Act 1852, New Zealand’s wharves were owned and operated by local councils as well as private individuals and organisations.

The constitution created six Provinces but in relation to shipping and ports maintained federal control of:

- Imposition or regulation of custom duties “of any goods at any port or place in the Province”.
- “Imposition of any clues or other charges on shipping at any port or harbour in the Province”.

Under the terms of the constitution the Provinces would be responsible for the land around the port. The Waste Lands Act, 1858 further solidified this power and recommended general land management and sale practices for the Provinces as well as granting both land control and revenue to the Provincial councils.

These powers were strengthened by the Marine Act, 1867 which gave the Provinces the power to define the limits and boundaries of any wharf, quay, pier, or dock within the Province. However, mismanagement by the Provinces which saw money “poured out… with a lavish hand”, leaving the finances of the Provinces in “hopeless disorder”. This created the political opportunity for the federal government – which had always seen itself and the Provinces “as rivals rather than co-operating powers” – the impetus needed to take power away from the Provinces. The financial state of the Provinces were not aided by the North Island Maori wars fought throughout the 1860s.

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490 W. J. Gardner, “The Effect of the Abolition of the Provinces on Political Parties in the New Zealand House of Representatives, 1876-7,” 1936, 43.
further depleting the Province's coffers.\textsuperscript{492} The Provinces of the South island, even though not involved in the Northern wars, had by 1868 paid far more towards the war than the North and began to protest. The threat of secession was a very real possibility, further adding to the incentives to either strengthen the federal government or abandon the idea of a unified New Zealand.\textsuperscript{493}

With the election of 1870 looming, New Zealand’s Treasurer under Premier William Fox, Julius Vogel, promoted a “policy of public works” as the solution to New Zealand’s woes.\textsuperscript{494} Originally a proponent of Provincialism as a member of the Otago Provincial council before joining the House of Representatives,\textsuperscript{495} he had once proclaimed:

\begin{quote}
“New Zealand is a peculiar country. You cannot go over its geographical configuration. You cannot bring the two ends nearer than they are. There will always be a certain amount of isolation in different parts until the iron horse runs through the two Islands.”\textsuperscript{496}
\end{quote}

Vogel, having worked his way into a federal position of power, sought to achieve that goal. The idea was to attract immigrants by making the colony attractive through transportation infrastructure (railways) financed through State borrowing. Vogel largely succeeded, with New Zealand's public debt between 1870 – 1898 increasing six-fold as “hundreds of miles of railways and roads were made, [and] immigrants were imported by State or poured in of their own accord”.\textsuperscript{497} It was the first case of “State Socialism” in New Zealand, something that also occurred in Western Australia.\textsuperscript{498}

The voters of New Zealand clearly agreed: the 1870 elections saw Vogel's party

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New Zealand Herald, September 3, 1874, 2.
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He had previously described the idea of abolishing the Provinces as a “clap-trap argument”. “Mr Vogel On Provincialism,” Auckland Star, September 18, 1874, 3, National Library of New Zealand.
\end{flushright}

\begin{flushright}
Ibid.
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Robertson, “The Foundations of State Socialism in Western Australia: 1911--16.”
\end{flushright}
conclusively retain power.\footnote{Gardner, “The Effect of the Abolition of the Provinces on Political Parties in the New Zealand House of Representatives, 1876-7,” 45.} However, the wealthier Southern Provinces of Otago and Canterbury were not willing to take part in what amounted to a subsidy to the “impoverished northern Provinces”, and it was that opposition as well as the “position of pensioners of the Central Government”, that most of the Northern Provinces found themselves in, that would prove to be decisive in changing New Zealand’s institutional structure.\footnote{Ibid., 46.} Thus the political theme in New Zealand shifted again and became a battle between the 'Abolitionists' and the 'Provincialists', with the 'Abolitionists' eventually prevailing with the passing of \textit{Abolition of Provinces Act 1875} under the now-Prime Minister Vogel.\footnote{The Act did not take effect until January 1, 1877.}

Meanwhile at Tauranga, a Mr. John Chadwick had, with permission from the government, constructed the second wharf at Tauranga, dubbed “Chadwick’s Wharf” by the Department of Public Works. This was a privately funded and operated wharf which Mr. Chadwick and some of his neighbours constructed only after receiving “the requisite authority to collect the usual tolls and dues”.\footnote{John Chadwick to G. McLean, 1877, R19980408, Archives New Zealand, Wellington.} This permission he sought from the Commissioner of Customs in Wellington, as well as the Town Board of Tauranga and Marine Department. The wharf was eventually proclaimed “Victoria Wharf” by the Governor and Mr. Chadwick’s authority to collect tolls and dues was officially gazetted in 1878.\footnote{Governor J. Ballance, “A Proclamation: Boundaries of Victoria Wharf at Tauranga Defined.” Chadwick to McLean, 1877.}

Mr. Chadwick’s wharf was not of the highest quality. It was rapidly assembled on the back of a petition from Tauranga residents and was regarded as a project of “considerable importance to this district”, as it was having trouble receiving supplies from Auckland.\footnote{Chadwick to McLean, 1877.} While it served a purpose, one commenter noted at the time that it “is notoriously not worth more than the bare materials of which it is composed”.\footnote{“The English Language in Relation to the Victoria Wharf,” \textit{Bay of Plenty Times}, 1885, R19980408, Archives New Zealand, Wellington.}
The passing of the *Abolition of Provinces Act 1875* and the *Land Act 1877*, which altered the institutional environment in which New Zealand's ports operated by abolishing Provincial control, replacing it with local Land Boards and other authorities, changed the development path of the port of Tauranga again.

The former operations of the Provinces were not replaced by management out of Wellington as seen in Canada with numerous Ottawa-based bureaucracies. Instead of centralising, New Zealand subdivided the duties of the former Provinces – something that was already under way with the creation of various local authorities such as road, harbour and river boards – to “some hundreds of boards and councils”.  

Table 5.2: Number of harbour boards and local authorities in New Zealand, 1875 – 1920

<table>
<thead>
<tr>
<th>Year</th>
<th>Harbour Boards</th>
<th>Total Local Boards</th>
<th># of Vessels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1875</td>
<td>-</td>
<td>23</td>
<td>-</td>
</tr>
<tr>
<td>1880</td>
<td>24</td>
<td>72</td>
<td>-</td>
</tr>
<tr>
<td>1885</td>
<td>24</td>
<td>93</td>
<td>1,556</td>
</tr>
<tr>
<td>1890</td>
<td>21</td>
<td>116</td>
<td>1,489</td>
</tr>
<tr>
<td>1895</td>
<td>23</td>
<td>190</td>
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</tr>
<tr>
<td>1900</td>
<td>26</td>
<td>217</td>
<td>1,229</td>
</tr>
<tr>
<td>1905</td>
<td>39</td>
<td>270</td>
<td>1,254</td>
</tr>
<tr>
<td>1910</td>
<td>33</td>
<td>297</td>
<td>1,197</td>
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<tr>
<td>1915</td>
<td>45</td>
<td>332</td>
<td>1,287</td>
</tr>
<tr>
<td>1920</td>
<td>42</td>
<td>352</td>
<td>1,451</td>
</tr>
</tbody>
</table>

This was not without controversy; critics noted that they were not bastions of innovation.

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and experiment and in fact lagged “far behind the central authority”, creating “so many stumbling-blocks”, with the problem being that the “rate-payers' franchise is more restricted”, than what councils in England faced at the time.  

This was an issue of institutional design; without an appropriate governance structure that considers political representation, control and enforcement, efficiency, and local self-determination, local public bodies can be just as inefficient as the worst central government.

At Tauranga, one of the first acts of the empowered Tauranga Borough Council was to attempt to purchase Victoria Wharf from Mr. Chadwick. This was partially achieved in 1878 but took until 1890 for the matter to be settled, with Mr. Chadwick seeking arbitration and eventually being awarded £777. 12s. 3d. in compensation.  

But this was only the beginning of the problems the wharf would cause the Borough. 

The Borough, now managing both the Victoria Wharf and the original 1870 Town Wharf but not in possession of either as the Marine Department had taken ownership, believed it could charge any goods landed on the crown-owned foreshore whether or not they used the wharf. However, legal advice concluded that the law did not empower the Borough “to make a bylaw providing for the levying of dues on anything landed on the foreshore”.

Not only did the Borough have to make restitutions for the erroneous charges it had levied on people unloading on the foreshore, but the lack of ownership of the two

508 Reeves, The Long White Cloud, 330.
510 George Allport to H.A. Sharp, June 24, 1904, R19980408, Archives New Zealand, Wellington; Unsigned, “Particulars of Tauranga Wharves” (Marine Department, Wellington, November 4, 1913), R19980408, Archives New Zealand, Wellington.
512 George Allport to H.A. Sharp, October 18, 1904, R19980408, Archives New Zealand, Wellington; George Allport to R. Howell, August 9, 1905, R19980408, Archives New Zealand, Wellington.
wharves meant that it was impossible to acquire finance to upgrade either in the face of surging demand. It “would be difficult for the Council to raise this amount [£2000 – £3000] with the wharf owned by the Government”, one Borough Council member told the Minister of Marine, noting that “large quantities of goods were landed thereon [the foreshore] without paying dues”. 513

Even the Minister of Marine himself considered “no Government lending department would advance money on the wharves as the administration stood at present, as the security was not good enough”. In the first indication of what was to come, he suggested that “it might be advantageous for a Harbour Board to be formed”. 514

The shipping community too was growing concerned at the increasingly inadequate facilities at Tauranga. The manager of the Northern Steamship Company remarked that:

“I must call the attention of your Chamber to the great need for enlarged berthage accommodation at the town wharf, to enable vessels to discharge more rapidly than at present. If this were done, and another shed erected, I feel sure the result would be a great boon to the commercial public of Tauranga. The Maketu and Matata trades, as you may be aware, have increased considerably of late and our officers often have difficulty in finding space to discharge cargo at Tauranga. I should be glad, therefore, if your Chamber would take this matter up and impress its importance on the local authorities, as the difficulty of which you complain.” 515

All of these forces – the inability of the Borough to borrow or otherwise finance harbour developments and the pleas of the business community – culminated in the Tauranga Harbour Act 1912. This Act empowered the new board to acquire the existing wharves

513 Minister of Marine, “Tauranga Town Wharf,” Marine Department Correspondence, (January 24, 1908), R19980408, Archives New Zealand, Wellington.
514 Ibid.
and, in the subsequent *Tauranga Foreshore Vesting and Endowment Act 1915*, also solved the issue of people loading on the foreshore without paying harbour dues by providing ownership of the land (and critically, the ability to enforce it) to the Harbour Board.

### 5.3. Slow and Steady, 1912 – 1945

In 1911, Tauranga only had a population of 1,346. In similar fashion to Port Hedland and Prince Rupert, a relative lack of success or development during the period when other ports were rapidly expanding would allow it to avoid capture and a path-dependent outcome where interest groups – labour, local government (cross-subsidisation), business groups – drive up costs to the point where it struggles to compete without ongoing government assistance.\(^{516}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Tauranga</th>
<th>New Zealand</th>
<th>As a % of New Zealand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1874</td>
<td>579</td>
<td>344,984</td>
<td>0.17</td>
</tr>
<tr>
<td>1878</td>
<td>793</td>
<td>458,007</td>
<td>0.17</td>
</tr>
<tr>
<td>1881</td>
<td>1,253</td>
<td>534,090</td>
<td>0.23</td>
</tr>
<tr>
<td>1886</td>
<td>1,148</td>
<td>620,451</td>
<td>0.19</td>
</tr>
<tr>
<td>1891</td>
<td>1,055</td>
<td>668,651</td>
<td>0.16</td>
</tr>
<tr>
<td>1896</td>
<td>1,018</td>
<td>743,214</td>
<td>0.14</td>
</tr>
<tr>
<td>1901</td>
<td>945</td>
<td>815,862</td>
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</tr>
<tr>
<td>1906</td>
<td>1,047</td>
<td>936,309</td>
<td>0.11</td>
</tr>
<tr>
<td>1911</td>
<td>1,346</td>
<td>1,058,312</td>
<td>0.13</td>
</tr>
<tr>
<td>1916</td>
<td>1,685</td>
<td>1,149,225</td>
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<td>1921</td>
<td>2,241</td>
<td>1,271,664</td>
<td>0.18</td>
</tr>
<tr>
<td>1926</td>
<td>2,549</td>
<td>1,408,139</td>
<td>0.18</td>
</tr>
<tr>
<td>1936</td>
<td>3,387</td>
<td>1,573,810</td>
<td>0.22</td>
</tr>
<tr>
<td>1945</td>
<td>4,712</td>
<td>1,702,298</td>
<td>0.28</td>
</tr>
</tbody>
</table>


Although officially becoming a port with the passing of the *Tauranga Harbour Act 1912* which saw a 9-member board appointed to oversee the Port of Tauranga, the lack of population and relatively undeveloped state of Tauranga at the time meant that there was very little activity at the new port. Interestingly, given the size of Tauranga's hinterland (Rotorua, for instance, covered 9,500 square miles), the representatives of the Board were still comprised almost solely of port users in Rotorua, rather than those in the port's immediate rating (taxing) boundary, as was the case with most other ports in New Zealand. This was an early, if accidental, institutional foundation that would have a large influence in how the port operated in the future.

The rapidly expanding union movement which saw the establishment of the Maritime Council, a spin-off of J. A. Millar's Seamen's Union, was not yet present at Tauranga. By the time the Labour Department started recording detailed statistics in 1921, the cost of New Zealand's strikes to the economy in that year alone was estimated at 119,200 working days. It was therefore fortunate that this culture, given Tauranga was unaffected by any of these strikes, did not exist to the same extent it did at the larger ports such as Auckland. This was purely a matter of chance; due to a lack of demand, no development had taken place at Tauranga until the Tauranga Harbour Board constructed a new wharf in 1925 – the Railway Wharf, opposite Monllmouth Redoubt a quarter of a mile north of the Town Wharf. The wharf had a seaward face of 320 feet with a berthing depth of 14 feet.

Prior to that, the only major bit of activity was when the White Island Agricultural

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518 Two appointed by the Governor, two elected by the Borough Council and five elected from the County Council areas.
Chemical Co. Ltd., had sought and was granted approval to build a private 400 foot jetty at Sulphur Point, with the condition that “The Board may require its removal at any time without compensation [and] the payment of an annual rental of £10”. However, Tauranga was not without problems. Shipping trade in New Zealand had slowed down considerably since the First World War, with New Zealand subsidising rail traffic both because rail was viewed as essential to her future, but also because in times of war it was deemed safer to move as much freight inland as possible. Internal traffic that used to ply the New Zealand coast was instead transferred to inland rail, with ports being partially centralised to minimise risk with the key beneficiaries being Auckland and Wellington.

Thus, several smaller ports such as Tauranga saw rapid declines in traffic. As the *Report of the Railways and Coastal Shipping Committee 1945* showed, between 1925 and 1938 trade fell by 41 per cent at Hokianga; 28 per cent at Kaipara; 59 per cent at Mangawai; 100 per cent at Whitianga; 60 per cent at Thames; and 60 per cent at Tauranga. This was understandable given the number of registered vessels in New Zealand had declined from 314 in 1919 to 114 in 1944, a decline of some 64 per cent.

There were also divisions appearing in the now 10-member Tauranga Harbour Board and in 1927 W.S. Short was appointed Commissioner by the Governor-General to report on “matters connected with the Tauranga Harbour Board”. The board was unable to come to an agreement as to whether or not a wharf at Mount Maunganui should be constructed.

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527 “W.S. Short Commissioner Appointed by His Excellency Governor-General to Report on Matters Connected with the Tauranga Harbour Board,” *Bay of Plenty Times*, May 9, 1927, 1, R19979701, Archives New Zealand, Wellington.
Illustration 5.2: Port of Tauranga, December 2013

The inquiry concluded with the following resolution being unanimously accepted by the board:

“That if and when the Tauranga Harbour Board has made satisfactory arrangements for the institution of a business or businesses to its satisfaction (preferably with the White Island Products Limited, or its equivalent) at the Mount, to warrant the erection of the said Wharf... passed by a majority of those present [Harbour Board members]... the Minister be recommended to give his approval of the work”.

The debate over whether or not expansion should take place on the Mount Maunganui side of the harbour or the Tauranga side was one that would soon emerge again.

5.4. “Rotorua’s Port”, 1945 – 1965

“Nature had bestowed on Tauranga a sheet of water which had not been used to any great extent... I say Tauranga will be a city in 10 years if it is allowed to advance as it should.” – Chairman of the Tauranga Harbour Board, Mr. P.S. Densem, 1946.

Following the Second World War, the New Zealand government engaged in a public-private partnership with a company called Tasman Pulp and Paper, to construct and operate a large newsprint, pulp and timber mill. The proposed mill was isolated and so the government began exploring options for rail, road, housing, power and most importantly for Tauranga, an export port. That led to a report by Mr. Andrew Murray, an engineer hired to investigate Tauranga Harbour as a potential export port, concluding in 1945 that “[t]he acute shortage of ground readily available for development as an industrial area is very evident in Tauranga.”

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529 W.S. Short Commissioner Appointed by His Excellency Governor-General to Report on Matters Connected with the Tauranga Harbour Board,” 2.


531 In New Zealand a “city” is defined as a geographical area with over 100,000 inhabitants.


534 “Acute Shortage of Sites,” Bay of Plenty Times, November 30, 1945, R19979701, Archives
However, the Mount Maunganui site which was within the Tauranga Harbour Board’s territory, had ample land available for development. So one year later when the Tauranga Harbour Board requested a transfer of 99 acres of crown land (Public Works Department) at Mount Maunganui, the resident engineer at Tauranga advised the government against it as the “question can only be resolved when the policy with regard to a deep water port is known”. In addition, Cabinet documents reveal that the government was hesitant to grant the Board any authority to purchase lands for purposes other than “what is necessary for harbour management”, as the “precedent thus created could be an undesirable one from the Government point of view when dealing with possible similar applications from other Boards”.

Rotorua – the region from which most of the port of Tauranga’s users came from – was not content with the decision. “There is no doubt that Rotorua and Tauranga have a community of interests and the establishment of a deep sea port will strengthen the ties of not only these districts, but of other districts in the Bay of Plenty”, noted Mr. Alach, the Tauranga Harbour Board’s Chairman. According to government reports prior to suggesting Mount Maunganui as the location for the port for the Bay of Plenty, no port could be developed cheaper than Tauranga.

Adding to the uncertainty was the fact that there was also another division in the Tauranga Harbour Board, this time between the Chairman, Mr. Alach, and the Secretary, Mr. E.V. Wall. The impasse was created when Mr. Alach dismissed Mr. Wall for a number of incidents he considered unsatisfactory, a decision the 10-member board was divided over 5 to 5, creating a situation where the Board could not function

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536 Minister of Lands, “Memorandum for All Members of Cabinet” (Ministry of Lands, January 18, 1956), 4, R15422452, Archives New Zealand, Wellington.

537 Ibid.
as it could only make decisions with a majority vote. The government's investigating officer, reporting to the Minister of Marine, proposed three solutions to solve the impasse but ultimately recommended amending the Harbours Act to allow for an 11-member board. The eleventh member would be elected by the Mount Maunganui Borough which was currently unrepresented, the advantage being "that it removes all responsibility from the Government in the matter of the Board's policy and throws the solution entirely on the elected representatives". 538 Despite these recommendations, the changes were not adopted as Mr. Wall and his allies reconciled their differences with Mr. Alach, allowing it to operate normally again.

However, even though it had the advantage of being a low cost port, the Tauranga Harbour Board was also very aware that given the financial constraints constitutionally imposed on it, it could not expand unless contractual guarantees were provided by private companies. The “State as the largest owner of exotic forests”, noted Mr. Wall, meant that “other owners of plantations and shipping companies could make no plans to use Tauranga unless they knew what provision the board was prepared to make to accommodate trade”. 539

While the board was willing to adopt a plan to provide some guidance to those private parties, any such plan “would not commit the board or the harbour district to its fulfilment unless these assurances of trade sufficient to pay for the work were given by the parties referred to”. 540 The Board, as stated in resolutions tabled to various local bodies in 1946, sought to “provide port facilities at Tauranga... [to] relieve congestion at the port of Auckland... providing the guarantees of trade sought from private interests and the State are fulfilled”. 541

The Board repeatedly asked the government whether or not it was considering its port

538 “Tauranga Harbour Board - Impasse” (Marine Department, Wellington, September 23, 1946), R19980267, Archives New Zealand, Wellington.
540 Ibid.
for the export of State Forest timber or were planning to rail it directly to Auckland, but were continuously left in the dark as to the government's intentions. As a Memorandum for the Minister of Works notes:

“If the produce of these forests [State Forests in the Bay of Plenty hinterland] is likely to be exported from the Dominion then the Board has good reason to anticipate the requirements necessary in the handling of shipping and export from the harbour, but before it can embark on the necessary works, it is essential that it have knowledge of any policy for the working of the forests, especially as to whether the timber will be sent to Tauranga or elsewhere for shipment.”

A year later, the Board still had no answer, with the Chairman pleading to the Minister of State Forests to make available “the Government's decision in this matter”, so that “the Board can take the necessary steps to prepare plans for any developments that may arise out of the opening up of the Timber Trade”. By 1948 the media was increasingly commenting on the possibility of a deep water harbour at Tauranga, but the Board was steadfast in that “until the report of the experts [from the Works Department] is available it is impossible for the board to make any decision in the question [of port facilities]”.

Mr. Alach intimated that the Board had been left uninformed and that the Auckland Harbour Board had made inquiries “as to the suitability of the Auckland port for the export of timber... It appeared as if the Auckland port was out to grab everything possible”, he remarked, noting “that there was one thing in the Tauranga board's favour, and that was the congestion at the Auckland port... [and] the fact that the

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542 J.A.S. O'Brien, “Memorandum for the Minister of Works” (Marine Department, Wellington, August 15, 1946), 1, R19979701, Archives New Zealand, Wellington.
543 J.D. Alach to Minister of State Forests, July 7, 1947, R19979701, Archives New Zealand, Wellington.
department must consider all possible export ports".  

The Secretary for Marine also expressed concern at a plan to dissolve the Tauranga Harbour Board and leave control of the port to the (proposed) amalgamated Borough of Tauranga and Mount Maunganui. “From this Department’s point of view”, Mr. Smith noted:

“[l]t would be unsound to have a Borough Council in charge of the Harbour when all the contributing or adjacent local Bodies are as much, or more, a concern with the efficient administration of the harbour... it would be a retrograde step to dissolve the Harbour Board.”

“You [Tauranga] have proved that you can handle the timber”, said Mr. V. C. Florey, Rotorua County Council Chairman, “and we have the timber for you to handle”. The biggest obstacle was that the “roads existing and proposed between Tauranga and the inland areas were not sufficient”.

This was because the Railways Department had previously bought a private road transport operator which had serviced the Rotorua – Tauranga route on behalf of the Northern Steamship Company, but had immediately discontinued the service. “This had meant a serious loss to the board, which felt that the department was also a loser because the road service to Rotorua was not now patronised as it might be”, remarked a letter from the Tauranga Harbour Board to the Minister of Works.

A committee was appointed by the government to decide between Tauranga and Whakatane for the proposed deep sea “Bay of Plenty port”. “We were very concerned


546 W.C. Smith, “Memorandum for the Secretary of the Local Bodies’ Commission, Internal Affairs Department” (Marine Department, Wellington, April 22, 1949), R19979701, Archives New Zealand, Wellington.


at the delay”, stated Mr. Alach, “for we have been receiving numerous enquiries from New Zealand and overseas companies which we could not answer until the location of the port had been decided”.  

The proposal at Whakatane was never a serious option and never had the support of the Bay of Plenty local authorities. It would have seen to the creation of an artificial harbour just 60 miles from Tauranga requiring a “very large sum of public money”. This was confirmed by the engineer's report, which estimated that Whakatane would cost £4 – £5 million to develop while Tauranga could be converted into a deep-water harbour for £200,000 – £950,000, with no rates required from local bodies. Annual charges at Tauranga would be £37,600 initially before rising to £128,000 while Whakatane would require £219,000 before rising to £336,000.

But a decision continued to be delayed. By 1953 Mr. Alach was still unable to make “any promises of early activity”, as “over the past four years... arrangements had been made with the Government to proceed with the work, but a number of obstacles... caused continuous delays”. These, he noted, were primarily the result of a change of government and the counter-proposal to build a port at Whakatane, something the government had still not decided for or against.

The uncertainty around Mount Maunganui due to the government's indecision over the establishment of pulp mills in the region and the urgent need for capacity saw plans put

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550 Development at Tauranga was supported by the Tauranga Harbour Board, Tauranga Borough Council, Te Puke Borough Council, Opotiki Borough and County Council, Rotorua Borough and County Councils, Te Aroha Borough Council, Waihi Borough Council, Piako County Council, Matamata County Council, Putaruru Borough Council and the Ohinemuri County Council.


552 “Rotorua Support for Tauranga as the Port for Bay of Plenty,” Bay of Plenty Times, October 26, 1950, R19979701, Archives New Zealand, Wellington.


554 “Port Will Definitely Go At The Mount, Says Board Chairman,” Te Puke Times, February 6, 1953, R19979701, Archives New Zealand, Wellington.
in place to extend the Tauranga Railway Wharf by 150 feet in 1951. The Harbour Board drafted the plans and sought urgent approval by the Marine Department's engineer on April 12, 1951. It was considered “extremely difficult to handle the trade now offering at the existing wharf”, and the Harbour Board needed its plans to be approved before it could borrow £26,000 and commence the extension. The plans were promptly approved on June 22, 1951, with the Governor-General signing off on the project.

However, the extension of the wharf did not go as planned. In 1952 the Harbour Board revised its loan application to £12,000 and changed the proposal from the 150-foot concrete extension to the South to a 105-foot timber extension to the north. This last minute change was brought about by a visit from the Transport Minister on June 18, 1951, in which “the opinion was expressed that in view of Port Development at Mr. Maunganui, heavy expenditure in increasing the capacity of the Tauranga wharf to cope with timber trade was not justified”.

The Murupara scheme was going ahead and so the deep-sea port at Mount Maunganui was deemed necessary to have such a facility to accommodate the “most spectacular instance of State intervention in the first two postwar decades”.

That soon led to the Department of Works commissioning an economic justification for establishing a deep water port at Tauranga in 1948, which concluded that:

- Rail haulage to Auckland would cost an additional £54,000 per annum per thousand board feet (MBF) of logs.
- The annual cost of harbour facilities in Tauranga is estimated at £30,000.
- Paper and pulp shipments would also save an estimated £6,000 per annum through Tauranga as opposed to Auckland.
- Shipping additional logs through Auckland would require the construction of another wharf.

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555 W.J. Walker to Marine Department, “Railway Wharf Extension,” April 12, 1951, R19981197, Archives New Zealand, Wellington.
556 Bay of Plenty Times, March 14, 1951, R19981197, Archives New Zealand, Wellington.
• The report concluded that the annual savings of developing a deep sea port at Tauranga were estimated at £35,000.\textsuperscript{559}

The Chief Investigating Engineer reaffirmed those estimates and went further in recommending that Mount Maunganui should be the preferred site, as development would be £100,000 cheaper; annual costs £3,000 less; have better facilities for expansion both on the water side and land side; and it would be easier and cheaper to develop for vessels of greater draft in the future.\textsuperscript{560}

In 1950 it seemed the government had decided that the Murupara project would no longer involve the State to the point previously thought. As a confidential report by the Commissioner of Works in 1950 noted,

\begin{quote}
“One of the principal reasons for this arrangement [State constructing Tauranga then handing it over to the Port Authority] was the fact that the products from the State development at Murupara were expected to account for the greater part of the trade of the port for many years.

Now that the exploitation of the forest is likely to be on a different basis, the State's immediate interest in a port at Tauranga is considerably less, and it is probably better under these circumstances for the Tauranga Harbour Board itself to undertake the port works.

There is no other site in the Bay of Plenty where a harbour could be constructed or maintained at lesser cost than at Mr. Maunganui.”\textsuperscript{561}
\end{quote}

“The major ports were national affairs and it was possible that the Mount installations would also grow into that category”, but for the time being, Mr. F.D. Donovan – a member of the Tauranga Harbour Board, thought that “eventually [after construction]
the Mount wharf would be the responsibility of ratepayers... In the meantime the
Government was carrying on and would hand over to the Tauranga Harbour Board on
terms that had been negotiated”.

Mr. F.N. Christian, speaking at the 1953 Harbour Committee of Inquiry but unaware of
the government's plans for Murupara, rightly pointed out that the economics for Mount
Maunganui were not there. He said that “As businessmen, would the board prefer to
build a wharf at Mount Maunganui at a cost six times as great as that to extend at
Tauranga which could handle the bulk of the trade through the port?”

Despite such concerns, the end result was the passing of the November 4 1953 Deed
of Agreement with the Crown to finance the development of a 1,400 foot concrete
wharf at Mount Maunganui, but with the Tauranga Harbour Board to “eventually repay
every penny.” The wharf was completed on July 1, 1958 with a depth of 31 feet at
low tide. It was officially gazetted as “The Mount Maunganui Wharf”.

The Board’s Chairman, Mr. Alach, was a firm believer in the idea that a port had to
finance itself from shipping revenue. As a critic of this policy remarked, “the policy of
the [Tauranga] Harbour Board, as expounded by its chairman, Mr J. D. Alach, has been
that the port must live on its shipping revenue, and the board has claimed as a great
virtue the abolition years ago of 'the harbour rate', while the development of port
facilities has been almost negligible in comparison with what has been done
elsewhere”. One of the reasons for this cultural development at the port was that the
region of Rotorua, the port’s largest user, was in the Tauranga port district but did not

562 “Early Construction Expected: Tauranga Wharf Extension,” Te Puke Times, June 19, 1953,
R19981197, Archives New Zealand, Wellington.
563 “Town Wharf to Be Extended to North,” Bay of Plenty Times, June 25, 1953, R19981197,
Archives New Zealand, Wellington.
564 New Zealand, Legislative Council and House of Representatives Debates, 2nd Session,
565 “Draft Tauranga Harbour Board Loan and Empowering Bill, 1959” (Tauranga Harbour Board
Internal File, July 30, 1959), R15422455, Archives New Zealand, Wellington.
566 “Harbour Policy,” Bay of Plenty Times, October 7, 1953, R19979701, Archives New
Zealand, Wellington.
pay rates to finance it.\footnote{Development of Harbour," February 7, 1946.} This was not seen as an issue by the Board because “wharfage receipts [are] ample to meet all maintenance and administrative charges.”\footnote{Mr. J. D. Alach, “Bay of Plenty Port,” \textit{The Rotorua Post}, October 8, 1949, R19979701, Archives New Zealand, Wellington.}

Interestingly, by 1953 the board was comprised of professionals, farmers, business people with only two having had experience at sea.\footnote{“Town Wharf Extension Plan Defended.”} Representation came from Matata (1 member); Maketu and Te Puke (2 members); Waimapu, Te Puna and Katikati (2 members); Tauranga Borough (1 member); Rotorua Borough (1 member); and the federal government (2 members).\footnote{Mr. J. D. Alach, “Bay of Plenty Port,” \textit{The Rotorua Post}, October 8, 1949, R19979701, Archives New Zealand, Wellington.} It also maintained a strong opposition to rating the land within the port's district, as it believed that “the Port is mainly servicing newsprint, pulp, sawn timber and logs”, almost none of which came from within the port's rating zone.\footnote{A.H. Nordmeyer, “Draft Cabinet Paper: Tauranga Harbour Board” (Office of the Minister of Finance, January 12, 1959), 2, R15422455, Archives New Zealand, Wellington.}

But this soon became a problem as legally for every pound of capital expenditure the Board was only able to raise 1 penny from each of the Tauranga Borough and Tauranga County, as well as three farthings from Matata Riding of Whakatane County, for a total of 23/4d or 2.75% of all capital expenditure.\footnote{Mirrielees, “Tauranga Harbour: Present Facilities and Future Development.”} For loans, the Harbour Board was constrained by the \textit{Harbours Act 1908}, \textit{Harbours Amendment Act 1910}, the \textit{Local Bodies Loans Act 1913} and the \textit{Tauranga Harbour Board Empowering Act 1919}, which required the Board to obtain “consent of the ratepayers of the Harbour District”, prior to being approved for a loan.\footnote{C. Lowe, “Memorandum for the Minister of Marine” (Tauranga Harbour Board, October 12, 1920), R19979701, Archives New Zealand, Wellington.} All harbour works had to be approved by the Marine Department before being undertaken.\footnote{O’Brien, “Memorandum for the Minister of Works,” 1.} In addition, the Board could not raise any money without legislative authority.\footnote{“Financing Cost Of Work Involved In Major Scheme For Tauranga Harbour,” \textit{Bay of Plenty Times}, August 24, 1948, R19979701, Archives New Zealand, Wellington.} But unlike other local authorities around New Zealand, Tauranga was also constitutionally unable to levy any significant rates on the
local population and instead had to rely exclusively on harbour dues to finance operations.  

This placed the Board in a tough situation. Trade through Tauranga was growing at a rapid pace, with Treasury expecting the tonnage to double during the five years to 1964. However, the board was still legislatively restricted from raising capital itself; the 1953 Loan Agreement with the government as part of the Mount Maunganui project prohibited the Board from taking on any more debt until the outstanding balance of £1.4 million was repaid, even if it had revenue surpluses sufficient to cover interest and sinking costs of any new construction.  

Eventually, Treasury and the Tauranga Harbour Board both agreed that 1,200 feet of additional berthage would be required at Mount Maunganui. Cabinet decided that the best way forward was to relax the legislative constraints on the Board, partially releasing it from the 1953 constraints and forming a Heads of Agreement “as a basis for co-operation between the Government, Tasman Pulp and Paper Ltd. and the Tauranga Harbour Board”. Tasman Pulp and Paper Ltd. would provide a loan of £500,000 subject to Tasman exports having priority at the port, with the Board issuing raising the remaining £500,000 through the issue of public debentures. The Heads of Agreement and alterations to the 1953 Agreement were approved by Cabinet on February 2, 1959. 

At the same time there was significant Japanese interest in the use of Tauranga to

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576 Town Wharf Extension Plan Defended,” Bay of Plenty Times, August 8, 1953, R19981197, Archives New Zealand, Wellington.
577 Treasury estimates showed that the Tauranga Harbour Board had revenue surpluses large enough to pay off both the amount specified in the 1953 Loan Agreement as well as new capital expenditure of £585,000 through the issue of public debentures, with an “increased margin of revenue available for further capital extensions at a later date”. Nordmeyer, “Draft Cabinet Paper: Tauranga Harbour Board.”
578 Ibid., 2.
579 The government would advance the required capital to the Board until finance was acquired.
export logs to Japan. Treasury reports note that the Tauranga Harbour Board came to an agreement with the Japanese interests that if they could find the capital to finance a new wooden wharf then the Board would give them sole right of use for loading logs for up to 10 years with nominal wharfage charges.582 This was because the Japanese – Tokyo Menka Kaisha – who had agreed to lend the Board £100,000 for the construction of the wharf, were stifled by the government's restrictions on local authorities seeking external investment funds.583

However, if the Japanese were going to construct the wharf themselves then they required certainty in the form of a long-term contract and guarantees from the New Zealand government to increase the number of import licenses so that Japanese ships, which had been arriving almost empty, would be able to secure more balanced loadings. The government declined the offer and the “whole proposal [was] dropped”.584

A.D. McIntosh, the Secretary of External Affairs, noted that the whole incident raised the “general question of Japanese investment in New Zealand”, and that “the suggestion that gift finance might have been made available by Japan is even more delicate”.585

Tasman Pulp and Paper Ltd., as part of its agreement to finance half of the cost of the wharf, had its privileges contractually secured in an agreement with the Crown and Tauranga Harbour Board that granted it a 20-year priority of 600 feet of berthage along with storage space at the date of the Agreement. This priority would be upgraded to 1,000 feet of berthage, if required by the Company, upon completion of the 1,200 foot wharf upgrade.586

582 A.B. Taylor, “Memorandum for the Minister of Finance: Japanese Log Trade” (Treasury Department, January 5, 1959), R15422455, Archives New Zealand, Wellington.
583 A.D. McIntosh, “Japanese Shipping At Mt. Maunganui” (Prime Minister’s Office, February 12, 1959), R15422455, Archives New Zealand, Wellington.
584 Ibid.
585 Ibid.
But this agreement was not allowed under the *Harbours Act 1950*, under which a Board could not grant such a long priority without first going to the public with a tender for lease. Even then, certain cargoes and vessels could not be prioritised. The “accepted principle of Harbour Boards”, at the time in New Zealand, was that “the first ship to arrive gets the first berthage available”. The stakes involved at Tauranga – the government considered the port’s upgrade as a matter of important “national development” – were so high that for the first time these provisions were changed.\(^{587}\) But to do so, the Harbour Board had to seek parliamentary approval. This was achieved with the *Tauranga Harbour Board Loan and Empowering Act 1959* which overruled the *Harbours Act 1950* and allowed the contract to become reality.

However, it was not all one-sided. The Tauranga Harbour Board had its own provisions which made sure that safeguards were in place that ensured any unused space would be available to other shipping, “and for the re-establishment by the Board of any alternative priority berthage at another site if the Board requires the berthage now allotted to the Tasman Company for other purposes”.\(^{588}\)

At the time, a tanker occupying a berth for less than 24 hours would bring the Board £2,000 in revenue, but a log ship that sits in a berth for 24 days only paid half that. This was because the berthage “rent” was fixed at 1d per ton per working day. Under the “first come, first served” mandate in the *Harbours Act 1950*, if all three berths at Tauranga were occupied by log ships it would “completely disrupt all other trade of the port”, resulting “in a disastrous fall in port revenue, leaving the board two alternatives – either strike a harbour rate to make up any deficiency existing after the 'establishment period' or to increase the wharfage charges on logs to an extent which could only have the effect of killing a trade which is of great national importance”.\(^{589}\)

By this stage the growth at Tauranga had been phenomenal.

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\(^{587}\) Ibid., 3.
\(^{588}\) Ibid., 2.
However, New Zealand's institutions were struggling to keep up. For Tauranga to expand – that is, to borrow – it had to have an Act of Parliament passed (a Loan and Empowering Bill). In just eight years between 1954 and 1962, Tauranga had to do this four times. “I wish to dispel from the minds of members any thought that the Tauranga Harbour Board is seeking to expand its port before such expansion is really necessary”, assured Mr. Welsh in a Parliamentary speech. “The pressure on the port's facilities is so great that it is necessary to provide overdue extensions. It is not unusual to see four or five ships anchored in the roadstead awaiting a berth”.  

The seven berths at Tauranga were occupied for, on average, 30 days in a 31 day month, an occupancy rate of nearly 97 per cent which was the highest in New Zealand.

This growth led to the appointment of a Commission of Inquiry on August 23, 1962 into Tauranga's land access which had not kept up with the pace of the port. The Commission recommended that £3 million be spent to 1970 by the Ministry of Works

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590 Port of Tauranga, *Port Trade and Statistic Information*.
592 Ibid.
on upgrading the road facilities to the port of Tauranga, with a further £2.36 million required between 1970 – 1980. It also advised the Railway Department to complete the Kaimai Deviation which would shorten the distances to Tauranga considerably. 593

Table 5.4: Kaimai Deviation594

<table>
<thead>
<tr>
<th>From</th>
<th>1962 Mileage to Tauranga</th>
<th>Kaimai Deviation Mileage to Tauranga</th>
<th>1962 Mileage to Auckland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morrinsville</td>
<td>86</td>
<td>54</td>
<td>102</td>
</tr>
<tr>
<td>Waharoa</td>
<td>102</td>
<td>40</td>
<td>118</td>
</tr>
<tr>
<td>Putaruru</td>
<td>123</td>
<td>61</td>
<td>139</td>
</tr>
<tr>
<td>Kinleith</td>
<td>141</td>
<td>79</td>
<td>160</td>
</tr>
<tr>
<td>Rotorua</td>
<td>155</td>
<td>93</td>
<td>171</td>
</tr>
<tr>
<td>Cambridge</td>
<td>112</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Frankton</td>
<td>104</td>
<td>72</td>
<td>85</td>
</tr>
<tr>
<td>Te Awamutu</td>
<td>120</td>
<td>88</td>
<td>100</td>
</tr>
</tbody>
</table>

While the deviation would cost £5 million, the commission regarded the savings in internal transport costs to be, from the “broader national viewpoint”, worthwhile. It also noted that an “important consideration” was the immediate savings of £1.841 million which would be achieved on the existing line by having the deviation in place. 595

Finally, the Commission strongly advised that regulation 29 (2) of the Transport Licensing Regulations 1960 not apply to any railways servicing the Bay of Plenty. Regulation 29 (2) protected the railways from road competition. While the Commission advised that this regulation should be abolished for all transport operators, it only recommended that it be omitted for new transport development. The "road transport

594 Ibid., 17.
595 Ibid., 18.
operators working in the Bay of Plenty are giving efficient service at reasonable costs and with full regard to their customers' interests”, and it did not want to see that competition eroded.\textsuperscript{596}

The Kaimai Deviation tunnel would ultimately be completed in 1976 at a total cost of $26 million, massively reducing inland transportation costs to Tauranga relative to Auckland.\textsuperscript{597}

### 5.5. **Amalgamation, 1965 – 1985**

The environment in New Zealand in the 1950s and 1960s was one of trying to centralise a number of services that were currently run by local government to avoid ‘wasteful duplication’ of infrastructure and services.\textsuperscript{598} One such attempt was the Local Government Commission, a body initially established in 1946 designed to review the ongoing functions of the numerous local government authorities.

However, this first attempt proved to be a complete failure; the Commission set to work “with the gusto of a cartographer mapping hitherto unexplored territory”, but in attempting to reorganise local government in Christchurch and Auckland it crossed a political line and was promptly abolished in 1951.\textsuperscript{599}

A second attempt was made with the *Local Government Commission Act 1953*, but this body achieved very little given it had far fewer powers than the 1946 version. It was reconstituted in 1961 following a 1960 parliamentary Select Committee with the *Local Government Commission Act 1961*, which reinstated both the powers the original body possessed as well as additional ones. The justification was that between 1946 and 1960 leading up to the reconstitution the number of local bodies in New Zealand had increased by 300, demonstrating the inadequacy of the previous commission at

\textsuperscript{596} Ibid., 21.
\textsuperscript{598} Rimmer, “The Changing Status of New Zealand Seaports, 1853–1960.”
achieving its goals.\textsuperscript{600}

In 1965 the Local Government Commission investigated the Bay of Plenty region and recommended that the Whakatane Harbour Board and the Ohiwa Harbour Board be abolished, with their functions transferred to the Tauranga Harbour Board. The Tauranga Harbour Board would then be reconstituted to the Bay of Plenty Harbours Board, consisting of 16 members as follows:

- 1 elected member for the Country of Opotiki and Borough of Opotiki
- 1 elected member for the Borough of Whakatane
- 2 elected members for the City of Rotorua
- 2 elected members for the County of Rotorua
- 2 elected members for the County of Whakatane and the Boroughs of Kawerau and Murupara
- 2 elected members for the County of Tauranga and the Borough of Te Puke
- 1 elected member for the Borough of Mt Maunganui
- 2 elected members for the City of Tauranga
- 3 elected members for the County of Matamata and the Boroughs of Matamata and Putaruru\textsuperscript{601}

This proposed change would have increased the representation of the port's users on the Board. While the Commission's advice was not acted on immediately, eventually a slightly modified version was enacted culminating in the August 24 \textit{Bay of Plenty Harbour Board Act 1970}. The duties and authority of the Board were not much changed from when it was the Tauranga Harbour Board; however, the composition of the Board had, and it now comprised:

- 2 elected members for the City of Tauranga
- 1 elected member for the Borough of Mount Maunganui
- 2 elected members for the Borough of Te Puke and the County of Tauranga

\textsuperscript{600} Mike Reid, “Amalgamation in New Zealand: An Unfinished Story?,” \textit{Public Finance and Management} 13, no. 3 (2013): 249.

• 2 elected members for the Rotorua District (Urban)
• 2 elected members for the Rotorua District (Rural)
• 1 elected members for the Borough of Kawerau and Part of Whakatane District
• 3 elected members for the Boroughs of Matamata, Putaruru, Tokoroa and the County of Matamata

Rotorua, along with the other major regions that exported from Tauranga, finally had its port.
Illustration 5.3: 1961 Port of Tauranga’s Economic Service Area

5.6. **Containerisation, 1975 – 1977**

By 1975 containerisation was well on the way to revolutionising the global shipping industry.603 The port of Tauranga, now under the control of the Bay of Plenty Harbour Board, was keen to expand into this growing industry. As Gordon Jackson put it, "every port authority wishing to remain in business in a serious way began equipping container berths". 604

In New Zealand, while Auckland had seen $20 million of port container investment approved by the government over the six years prior, Tauranga's applications to expand into containers – beginning in 1968 – were repeatedly refused.605

> "There are several investment decisions by major Port of Tauranga users such as the Dairy Industry, Forest Industry etc., pending at this time. Many of the investment decisions are directly related to the decision as to whether Tauranga will become a container port... The uncertainty as to the future of Tauranga as a container port has also produced uncertainties in terms of pending future multi-million dollar regional stock/storage investments."

Other than the costs imposed on port users by the uncertainty created around Tauranga's future, the biggest argument in favour of Tauranga as an export port was the congestion at Auckland that had been ongoing since the 1950s. The port of Auckland already had two container terminals and was proposing to build a third at a cost that greatly exceeded Tauranga's proposal. On the other hand, Tauranga had ample space to cope with additional throughput; the log trade that had previously been a staple at the port had declined to the point where forecasts only expected, at most, a...
recovery to 25% of the previous highs.\textsuperscript{607}

Much like the containerisation scenario that Prince Rupert faced in the sense that the facilities were already in place, Tauranga had 44 acres of space immediately available for a container terminal (30 acres available as part of Phase 2), with a 1,000 foot quay suitable for container operations also available.\textsuperscript{608}

The Bay of Plenty Harbour Board argued that only through “a healthy competition between ports, especially where inland transport economics are favourable”, could you “ensure that port labour costs are maintained at the lowest possible levels compatible with efficiency and a fair deal to watersider labour”.\textsuperscript{609} This point was made in light of international events where inland container backup areas had created an extension of higher watersider pay rates at inland terminals along with demands for exclusive watersider labour at all inland container handling points, resulting in “bitter industrial disputes and in some cases national port strikes... lasting months”.\textsuperscript{610}

Tauranga had no such constraints; indeed, the 54 acres of available consolidated backup area meant that no inland container depots would be required.

The proposed governance model selected by the Harbour Board differed from that of other New Zealand ports in that it was deliberately designed to avoid conflict. The initial proposal was for the container terminal to be owned by a consortium made up of the Harbour Board, the stevedoring companies, user shipping lines, as well as the Watersiders Union, “if possible”.\textsuperscript{611}

The Union was a strong supporter of this plan, acknowledging that due to the seasonal nature of Tauranga’s trade the condition that casual employment would be the primary employment structure was essential, with union participation aiding to “minimise the

\textsuperscript{607} Bay of Plenty Harbour Board, “Proposed Tauranga Container Terminal.”
\textsuperscript{608} Ibid.
\textsuperscript{609} Bay of Plenty Harbour Board, “Bay of Plenty Harbour Board’s Visual Presentation of Its Appeal,” sec. 2, pt. 6, 12.
\textsuperscript{610} Ibid., sec. 2, pt. 6, 11.
\textsuperscript{611} Bay of Plenty Harbour Board, “Proposed Tauranga Container Terminal,” sec. 4.
normal industrial problems of the introduction of a Container Terminal and produce a
better degree of co-operation and understanding between management and labour". 612

One shipping company in a letter to the Minister of Transport Sir Basil Arthur noted that
it found the “watersiders Union most co-operative, and within their own authority they
would certainly do all they can to allow us to work two shifts, but whether Government
Legislation at that time would allow this or not is a matter of speculation”. 613

At the time investment decisions had to be approved by the New Zealand Ports
Authority (NZPA), an entity established with the New Zealand Ports Authority Act 1968
with the idea that it would regulate capital spending (sec. 13) to prevent spending that
was outside the “national ports plan”. The Authority was established with the best of
intentions as an attempt to stem the apparent duplication of infrastructure that
individual ports, acting in local interests, were undertaking. 614

However, in reality the Authority was quickly influenced by interests in Auckland and
Wellington. One of the biggest problems was that the NZPA never developed a
“national ports plan” and so, as noted by King, “it is hard to see on what grounds the
Authority can judge proposals... except on an ad hoc basis with reference to only the
viability of the specific project concerned”. 615 There was simply no standard economic
nor political criteria from which to judge applications from individual ports.

In the first four years of the Authority’s existence, 56.3% of capital expenditure
approved was for Auckland and Wellington (Section 13 (1) of the Act required the
Authority’s permission for any capital expenditure over $150,000; $250,000 for
Auckland and Wellington). 616 Admittedly they were the two largest ports at the time,
however together they only handled about 39.5% of the total tonnage in New Zealand

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612 Ibid.
613 A.C.A. Gilmour to Basil Arthur, “Polish Ocean Lines - Port of Tauranga,” July 25, 1975,
R10384546, Archives New Zealand, Wellington.
Sinclair, “The Impact of Changing Cargo Handling Techniques on South Island Ports”
(Doctor of Philosophy, University of Canterbury, 1973), 42.
616 Ibid., 43.
and future expansion was limited by their geography. More economical, lower-cost alternatives to pouring more capital into Auckland and Wellington were available, such as the Tauranga proposal.

Despite these advantages, the Authority refused to approve Tauranga's application. In a letter addressed to Sir Basil Arthur, Minister of Transport, F.W. James of the Steel and Tube Company of New Zealand Ltd., expressed his displeasure in no uncertain terms:

"We have found through bitter and expensive experience that the Port of Auckland has not been a successful port for the discharge of cargo destined for the Bay of Plenty and Waikato... We feel that the extension of the Auckland Harbour Board's container terminal will not ease the situation but in our view the present unsatisfactory position would be worsened by the extra cargoes such extensions would generate.

The Bay of Plenty Harbour Board has ample land available for the successful operation of a container berth and we were most disappointed to learn of the Port Authority's decision... Because of the land already available for storage and handling of containers at Mount Maunganui such congestion would not occur at this port. In addition, the Kaimai tunnel, when completed will provide a fast, economical inward and outward route for the Waikato and South Auckland areas."


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Zealand Waterside Workers' Federation all made similar points, with the latter stating that the decision “will have the inhibiting effect and inevitable result of a stealthy ring-bark”.  

Illustration 5.4: 1975 Newspaper Comic Critical of the Auckland Harbour Board's Influence

Auckland was struggling to cope with its current trade volume, with the average delay at the Auckland container terminal from August – December 1974 being in excess of 24 days per container. The minimum delay from the time of off-loading from the vessel to the completion of devanning of the contents was 13 days, with a maximum delay of 48 days.

Even when the well-documented congestion at the port eased, the delays persisted as the number of containers devanned per calendar day fell progressively with congestion.

619 E.G. Thompson to Basil Arthur, August 27, 1975, 2, R10384546, Archives New Zealand, Wellington.
levels. “It seems apparent therefore”, notes a 1975 study on Auckland's container devanning, “that the reduction in congestion has not produced the devanning performance efficiencies at the container terminal which might have been expected following the reduction in congestion and the availability of additional shed space... If such a course is persisted with [additional handling through inland expansion at Auckland] it can in itself finally negate the whole benefit to the nation of the adoption of containerisation as a complete transport system”.

The whole situation at Auckland and in New Zealand in general was not aided by the actions of waterfront labour. According to the Waterfront Industry Commission’s annual report, in 1972-73, the average turnaround of container ships was 5.31 days; by 1973-74, it had risen to 7.55 days. This was caused primarily by a “reluctance of watersiders to work a three day shift, the lack of container handling equipment and the industrial climate on the water front”.

Tauranga's Mayor, Mr. R.A. Owens, described the situation as one where “Auckland is endeavouring to build an empire which, just as surely as that of the Romans, will fall – it will kill itself with its own weight”. He pleaded with the government to, “in the national interest... [to] weigh it up, over and above the power of the Auckland members of Parliament”.

Unfortunately for Mr. Owens and Tauranga the Transport Minister, as the appeal authority, upheld the decision of the NZPA on March 24, 1976. This decision was made on the back of a socio-economic study done by the Ministry of Transport with assurances from the Auckland Harbour Board that “they expect no insurmountable problems in this area [congestion], and I have no reason to doubt that assurance.”

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622 Ibid.
624 “Tauranga’s Mayor Says His Town Has to Have Container Port,” Evening Post, August 8, 1975, R10384546, Archives New Zealand, Wellington.
626 C.C.A. McLachlan, “Statement from the Hon. C.C.A. McLachlan” (Department of Transport,
Judge K.G. Arthur, the former chairman of the NZPA and chairman of the commission set up to evaluate Tauranga’s first major deep-water expansion in 1950, commented on the decision by remarking that Auckland did not have the space for its container berth “but will never change and admit it”. As chairman of the 1950 inquiry he was assured by the Auckland Harbour Board that “its upper harbour development would be finished in a few years and it would take all the trade Tauranga could handle”. Yet by 1976 that development had yet to begin and Tauranga was New Zealand’s leading export port.

The Bay of Plenty Harbour Board was understandably upset. It was quick to point out errors totalling over $3 million in the Ministry of Transport’s socio-economic analysis, sums which had proven to be a decisive factor in the appeal’s failure. Businesses were also quick to criticise the decision, with the Federated Farmers of New Zealand adding that even with the error, it “will cost a great deal more than $3 million to get our produce up to Auckland”, and that there is a “deplorable situation [in] which [there] exists a $2 million crane in Wellington has been sitting idle for 2 years, because of an argument as to who should work it. What good is a major port to anybody when this state of affairs can render it useless?”

These complaints continued to flow and in 1977 the New Zealand Co-op Dairy Company, New Zealand’s largest dairy company, also appealed the decision against the Bay of Plenty Harbour Board. Its submission estimated that it was losing $1 million annually by having to ship through Auckland instead of Mount Maunganui, adding that only “the joint follies of the Ports Authority and the Auckland Harbour Board”, could ignore the issues involved in moving freight through “some of the most congested arteries in N.Z.”
Support was widespread; an internal Ministry of Transport memo dated September 14, 1977 listed the following correspondence:

Table 5.5: Actors Supportive of the Tauranga Proposal

<table>
<thead>
<tr>
<th>Letters Supporting the Bay of Plenty Harbour Board’s Appeal</th>
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<tbody>
<tr>
<td>Maritime Services and Stevedore Ltd.</td>
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<tr>
<td>Bay of Plenty Co-operative Fertiliser Co. Ltd.</td>
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<tr>
<td>Bay of Plenty Stevedoring Co. Ltd.</td>
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<tr>
<td>The British Phosphate Commissioners</td>
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<tr>
<td>SeaTrans Consolidated (N.Z.) Limited</td>
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<tr>
<td>The New Zealand Farmers’ Fertiliser Company Ltd.</td>
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<td>Dominion Salt (N.Z.) Ltd.</td>
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<td>Maritime Carriers New Zealand Ltd.</td>
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<td>Bay of Plenty Fruitpackers Ltd.</td>
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<td>N.Z. Lumber Co. Ltd.</td>
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<td>The New Zealand Co-operative Dairy Company Ltd.</td>
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<td>Te Awamutu Co-op Dairy Co. Ltd.</td>
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<tr>
<td>Federated Farmers of N.Z. Bay of Plenty Province Inc.</td>
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<tr>
<td>Mt. Maunganui and Tauranga Waterside Workers Industrial Union of Workers</td>
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<tr>
<td>Tatua Co-operative Dairy Company Ltd.</td>
</tr>
<tr>
<td>Sunny Park – Hinuera Co-operative Dairy Company Ltd.</td>
</tr>
<tr>
<td>The New Zealand Harbour Boards Employees Union</td>
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<tr>
<td>New Zealand Forest Products</td>
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<table>
<thead>
<tr>
<th>Letters Written Through the Bay of Plenty Harbour Board Expressing Qualified Support</th>
</tr>
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<tbody>
<tr>
<td>Nedlloyd (N.Z.) Ltd.</td>
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<tr>
<td>New Zealand Unit Express</td>
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<tr>
<td>Shaw Savill Line</td>
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<tr>
<td>Blueport A.C.T. (NZ) Ltd.</td>
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<tr>
<td>Union Steamship Company of New Zealand Ltd.</td>
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<tr>
<td>New Zealand Meat Producers Board</td>
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</table>

The memo noted that the only body in New Zealand that supported the Ports Authority decision was the Auckland Harbour Board. The main argument put forward by Auckland in its submission was that 85% of its (Auckland's) costs are fixed and so must be recovered from users. It feared that competition from the more efficient and flexible...

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630 Lodges This Appeal,” 1977, 2, R10384549, Archives New Zealand, Wellington.
632 Ibid.
Tauranga would decimate its financial position, somewhere in the region of $1.4 – $3.5 million per annum.\textsuperscript{632}

Finally on December 7, 1977 in what was described in an internal memo as a “controversial decision”, the Minister of Transport for the first time overruled a NZPA decision. The Secretary for Transport advised the Minister that it would be “unwise and unnecessary for you to state that you found the new evidence presented as persuasive because although it is likely to be found more palatable by the Ports Authority it may not be so acceptable to the Auckland Harbour Board who did not see this new evidence or comment on it”.\textsuperscript{633} The new evidence the Secretary was speaking of was a revised financial analysis which eliminated the $3 million cost error from the previous study.\textsuperscript{634}

In all, the NZPA had “failed dismally at central planning of port development”.\textsuperscript{635} It was quick to heed the advice of the Auckland and Wellington status quo while attempting to prevent ‘duplication’ of infrastructure even when the market was crying out for and willing to pay for it. It had misunderstood how competition worked and in an attempt to increase efficiencies by centralising the industry, actually worked to reduce it by stifling the competitive process.

5.7. Decentralisation and Waterfront Reform, 1977 – 1989

While the victory of the Bay of Plenty Harbour Board in 1977 to be granted container port status ensured the future of Tauranga, there were still a number of institutional issues in New Zealand that were coming to a head. Two of the biggest issues were waterfront labour and the centralisation of New Zealand’s ports that had occurred under the reign of the NZPA.

\textsuperscript{632} A.J. Healy, “Summary of Points Made Concerning the Ports Authority Decision by Parties to the Ports Authority’s Deliberations and by Parties to the Appeal” (Ministry of Transport, September 21, 1977), 2, R10384549, Archives New Zealand, Wellington.

\textsuperscript{633} Secretary for Transport, “Bay of Plenty Multi-Purpose Container Crane Appeal” (Ministry of Transport, November 27, 1977), R10384549, Archives New Zealand, Wellington.

\textsuperscript{634} A.J. Edwards, “Bay of Plenty Harbour Board Multi-Purpose Container Crane” (Ministry of Transport, December 7, 1977), R10384549, Archives New Zealand, Wellington.

\textsuperscript{635} Reveley and Tull, “Centralised Port Planning,” 155.
On October 1, 1975 New Zealand introduced a “Port Service Charge”, a fee to be charged to port users determined by the average of all New Zealand port handling costs. While this initially eased the problems facing the larger ports such as Auckland and Wellington who were able to over-man and under-utilise facilities as a result of prior labour agreements, it placed an increasing burden on the more efficient secondary ports. These secondary ports were no longer able to compete on price through lower handling costs. With costs centralised, competition was fought on turnaround instead of price and the larger ports were able, through their influence with the NZPA, to invest in “vast amounts of capital on wool store facilities, cranes, land reclamations for container parks and a variety of peripheral necessities. The more invested, the more unlikely that secondary ports will come into their own again and the more certain that the huge, unnecessary internal freight bill will grow”. 636

New Zealand had also centralised its waterfront labour force with the Waterfront Industry Commission (WIC), an entity established during the Second World War. 637 The WIC pooled all waterside workers together effectively cross-subsidising labour costs between different ports. 638 Workers were allocated to individual ports by the WIC for up to 5 months with guaranteed payments to any underutilised workers made out of the National Administration Fund, a fund financed by a levy on the national port wage bill and a charge on container traffic. 639 Reveley has argued that this system, while manageable but far from perfect, reached a breaking point with the advent of containerisation which reduced the labour-intensiveness of waterfront work. 640 It only continued for so long because institutional “lock-in” had occurred through the creation


of a self-reinforcing path-dependent outcome caused by the establishment of inefficient labour market institutions.\textsuperscript{641}

Under containerisation, labour needed to be directly and continuously employed but this was not possible under the Container Terminals agreement between the WIC and the unions. Perversely, as with capital expenditure where the only competition that could take place was through over-investing, the only competition that could take place on the labour front was through “special agreements” outside the WIC between individual shippers and labour unions.\textsuperscript{642}

In New Zealand, both of these incentives – the pooling of capital and labour costs – worked to centralise key costs faced by ports in New Zealand to the point where they were unable to compete on these fronts by reducing costs and improving efficiencies. Inefficient ports were not revealed as they were automatically cross-subsidised by more efficient ports (or at least, inefficiencies would grow and persist for a long time before being discovered). By the mid-1980s, waterfront labour costs averaged around $950 for a 28-hour week with no overtime, two-thirds higher than the national average of $575 for a 40-hour week inclusive of overtime.\textsuperscript{643}

As North put it, because “various kinds of markets (political as well as economic) have different margins at which competition can be played out, the consequence of the structure we impose will be to determine whether the competitive structure induces increasing economic efficiency or stagnation.”\textsuperscript{644} Competition will always take place; institutions determine where this competition occurs and whether that competition is unproductive (rent-seeking) or productive (welfare-improving). In the case of ports in 1977 New Zealand, a significant amount of competition was of the welfare-reducing variety where Port Authorities, shipping companies and stevedores had to compete not

\textsuperscript{641} Reveley, “Path Dependence.”
\textsuperscript{642} Reveley, “Waterfront Labour Reform in New Zealand,” 379.
\textsuperscript{644} North, \textit{Understanding the Process of Economic Change}, 7:1.
in lower prices or improved efficiencies but through over-investment and costly illicit payments to labour.

This all began to change in 1983. The process of reform began with increasing disquiet over the contribution of New Zealand's ports to the well-being of the nation. In a letter to the Minister of Labour from the New Zealand Stevedoring Employers' Association Inc., the Association described the situation on the waterfront as “a mess”, where “special agreements proliferate, special cargo rates are often astronomical, and the bonus system is a machine that devours money faster than it can be generated, all without much visible benefit to the industry. Watersiders... are interested only in how much can be milked from the industry”.  

The Association thought that piecemeal attempts at altering the existing arrangements, as had taken place since 1950, would not work. What was needed was a “radical approach”, to reform “a system which thrives on overmanning at all levels, which holds the employer to ransom daily... and which required an expensive and bureaucratic Waterfront Industry Commission to administer it”.  

The first sign that the government was willing to change the institutional environment of the New Zealand port industry was an initial review in 1984 involving the Transport Advisory Council, Exports and Shipping Council, Harbours Association, as well as the Waterfront and related industry groups. Shortly thereafter the government commissioned the “On Shore Costs Study”, a work which identified operating inefficiencies and poor work practices in New Zealand's ports.

While the “On Shore Costs Study” itself was light on recommendations, the government used it to justify reform in the shape of the commercialisation of ports through the passing of the Ports Companies Act, 1988. The full timeline of events is summarised in Table 5.6.

646 Ibid., 2.
### Table 5.6: Timeline of Port Reform, 1984 – 1989

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>February</td>
<td>Initial Review due to increasing disquiet about New Zealand’s ports.</td>
</tr>
<tr>
<td></td>
<td>November</td>
<td>Onshore Costs Discussion Document: The transport, handling and related costs of goods by sea.</td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>The Minister of Transport along with 140 industry representatives expressed their views on the Onshore Costs study.</td>
</tr>
<tr>
<td>1985</td>
<td>July</td>
<td>Onshore Costs Study Summary and Analysis of Submissions by the government.</td>
</tr>
<tr>
<td></td>
<td>September</td>
<td>Ports Industry Workshop held with 46 industry representatives, agreeing that: “The New Zealand ports industry should actively promote New Zealand’s trade objectives in the national interest by providing within an integrated transport network a ports system which ensures an efficient and cost-effective transfer of cargoes between land and sea.”</td>
</tr>
<tr>
<td>1986</td>
<td>May</td>
<td>Ports Industry Review Committee containing industry representatives tasked to report back with recommended reform proposals.</td>
</tr>
</tbody>
</table>
| 1987 | March | Announcement of Ports Policy with three primary objectives:  
• The separation of the harbour boards’ commercial function from their non-trading roles;  
• The freedom from antiquated legislative controls over commercial activities; and  
• the need for standards of accountability similar to those applying to businesses in the private sector. |
|      | May | Port Companies Act and related legislation enacted by Parliament (29 April). |
|      | June | Government Initiates review of the WIC. |
|      | October | Establishment of Port Companies. |
|      | December | Government announces the WIC prevented any accountability that would result from a direct employer-employee relationship; it created rigidities which prevents ports from adapting to changing circumstances; waterfront labour was no different to the rest of the economy and should be treated as such; and that therefore it would be abolished. |
|      | September | Waterfront Industry Restructuring Act approved by Parliament. |

As part of the reform process the now obsolete and ineffectual NZPA was abolished.

(Sec. 41), with the new port companies taking full ownership of their respective ports.

Table 5.7: Key Institutional Changes, 1988 – 1989

<table>
<thead>
<tr>
<th>Pre-1989</th>
<th>Post-1989</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ports owned by the New Zealand Government.</td>
<td>Ports owned by Port Companies, with 51% held by local authorities.</td>
</tr>
<tr>
<td>Investment decisions made by the New Zealand Ports Authority and Transport Minister.</td>
<td>Investment decisions made by individual Port Companies.</td>
</tr>
<tr>
<td>All labour pooled by with costs for unused labour distributed evenly across the industry.</td>
<td>Ports negotiate for their own labour force. Employment declined 37% in one year.</td>
</tr>
<tr>
<td>40-hour work weeks guaranteed with tight restrictions on shift arrangements.</td>
<td>Ports free to innovate on labour scheduling.</td>
</tr>
<tr>
<td>Stevedores prohibited from owning or leasing mobile equipment.</td>
<td>Stevedores allowed to purchase or hire mobile equipment from whomever they please.</td>
</tr>
</tbody>
</table>

To soften the blow to ports who were suddenly faced with enormous redundancy payouts the government passed the *Waterfront Industry Restructuring Act 1989*. This Act temporarily established the Waterfront Industry Restructuring Authority (Sec. 4) with the power to compensate employers for these obligations.\(^{648}\) This was a necessary step to help break the path-dependent “transitional gains trap” that New Zealand’s port industry had found itself in.\(^{649}\)

Finally, amendments were made to the *Local Government Act 1974*, the most important feature of which – from the point of view of Tauranga – was to transfer a large portion of the power previously bestowed to the Auckland Harbour Board to the Auckland Regional Council and the Waikato Regional Council.

All of these reforms allowed Tauranga to flourish. Unlike Auckland, Tauranga had ample low-cost backup land; was close to major domestic markets; had cool-store capacity; off-wharf permanent stores for major shippers; and had a far more competitive, long established cargo marshalling service. According to a Ports of Auckland Limited (PAL) study, “Tauranga has the potential to compete for nearly all of Auckland’s conventionally handled general cargo overseas trade, and some container trade (e.g.

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\(^{648}\) The Act stated that the Authority was to be dissolved in September 1992.

the Japan trade”). 650 The marshalling efficiency at Tauranga came about because “while stevedoring companies were powerless to influence the loading practices of the watersiders, it was possible to innovate in the marshalling area”. 651 Independent contractors were hired along with the Drivers’ Union to transport cargo to ship-side.

Les Dickson, a first-year employee at Tauranga, saw an opportunity: use an existing “Wagner” – a log moving machine that was not being utilised – to, along with two contractors who agreed to work in shifts with him, cart logs 24 hours a day to the dock. This improved efficiency dramatically, doing the work of three trucks and trailers, three truck drivers, three cranes, six crane drivers, along with the operating costs of running all that machinery. It was the first time 24 hour a day operations had been introduced at a New Zealand port, a “groundbreaking” achievement “in an industry where union control meant that normal operating hours were strictly limited to daylight, with weekend work coming under special arrangements”. 652

The success of that effort saw Dickson form his own company at Tauranga, Associated Stevedores, and after navigating “the unique bureaucracy of the waterfront”, managed to negotiate with the Waterside Workers’ Union for shift work that would enable work to continue 24 hours a day until cargo was fully loaded. This was a landmark achievement in the late 1970s in an industry where “hours and conditions of work were strictly controlled”. They were met with continuous pressure from established vested interests such as the Port Employers Association 653 and the Auckland unions, the latter of which “imposed itself on Tauranga, preventing the adoption of systems that might be less labour intensive”. 654

652 Ibid., 12.
653 This Association represented the conference shipping lines which had a political influence so great that it had managed to have an exception written into the Commerce Act stating that “restrictive trade practices” do not apply to the carriage of goods by sea to or from New Zealand.
The change in attitude in New Zealand was exemplified by a speech given by economist Ronald R. Allan of McGregor & Company. He noted that the concerns that had led to the creation of the NZPA and similar anti-duplication regulations were unfounded. Fluctuations in the shipping industry should not be “interpreted as a sign of a cut-throat and unstable market”, for these “instabilities are a reflection of a healthy, entrepreneurial and highly competitive market”. The desired policy then was to “illuminate the future by posing a diverse set of plausible prospects then asking 'what if' questions about their consequences for our industry... we must avoid making forecasts that tempt people to 'back horses'... to 'pick winners'”.

To prevent over- or under-investment, what was required was an industry where “ports truly compete with one another”, resulting in port users voting with their feet where the “successful ports will be those offering the best balance between port charges and average in-port time”.

Opportunity costs are important; the relative costs of capital expenditure and waiting times have to be counted together. In terms of dynamic or adaptive efficiency, an “efficient” port should be defined not as one with the lowest in-port time (a possible sign of over-investment), but one that operates in a contestable market with an excess capacity where the total cost of delays is still below the total cost of additional infrastructure outlays. Feedback on whether or not the port is acting efficiently is then provided by profit and ultimately the port's users.

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656 Ibid., 5.

657 Of course institutional issues such as labour market regulation, anti-trust regulations, and the general political environment must be taken into consideration.

658 Again, this is only possible in an institutional environment conducive to it. Such provisions in a highly regulated, uncontestable and monopolistic port industry would likely cause more issues.

"History shows that ad-hoc government intervention in the New Zealand waterfront has not worked". – Minister of Transport, W.P. Jeffries, addressing the South Pacific Ports Association’s 15th Conference, Tauranga, 5 December 1989.659

Following the resounding success of the 1987 – 1989 reforms of the New Zealand port industry, the government sought almost immediately to “liberalise the ownership regime of the newly formed port companies”, once it was “satisfied that port users will not be disadvantaged and that economic efficiency will be promoted”.660 The ownership structure prevented private ownership of a port beyond 49%, which it believed “prevents the natural development of an ownership market for port companies”.

Indeed, without the possibility of competition in the form of a takeover, it cannot be said that a market is truly competitive and therefore inefficiencies may persist. According to Williamson, when regulations delay “the transition to an efficient industrial configuration”, by preventing changes in structures, the economic costs can be far higher than any increased risk of monopolisation.661 A more appropriate approach is to allow all types of ownership structures, carefully analyse the trade-offs for each case, and only act when “they are convinced that such economies as may exist are not sufficient to justify [that ownership structure]”.662 663

662 Ibid., 34.

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The review noted that port companies, shippers and shipping companies viewed the main flaw of the corporatisation model adopted in 1988 as the transfer of ownership from Harbour Boards to local authorities. This was because the temptation for the local authorities to cross-subsidise other community concerns created a conflict of interest, whereas the Harbour Boards “had at least been for the port alone”. The stakeholders

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665 Ibid., 67.
interviewed almost unanimously agreed that the removal of the 51% compulsory local authority ownership should be abolished and that this would solve the issues they faced.

The government agreed and on March 20 1990, the Minister of Transport announced that the government planned to introduce legislation to allow 100% industry ownership of port companies.  

While all of this was going on, Tauranga had already begun innovating and expanding. The removal of the NZPA saw Tauranga immediately start work on two new berths at Sulphur Point to cater for the pressure its clients were putting on it to increase capacity as by this stage the port was quite congested. It was not alone either; by 1990, Napier, Timaru, Tauranga and even Auckland had begun expanding to the sum of $90 million in port facilities.  

Actors at Tauranga quickly established the Port of Tauranga Industrial Council, with the sole goal of negotiating with the unions for an individual award at the port. If a national agreement was signed first, precedent would be set and Tauranga would have to follow it. So the Council sent Mr. Allan Jones to Wellington to negotiate on behalf of the port with the sole job to say 'no' to any deal. "By never agreeing to anything, they could never do a deal", Jones recalled. Other ports made concessions to the union to have work continue but Tauranga would not back down on the requirement of 24 hour a day, 7 day a week shift work and that strategy eventually worked, with an agreement being reached on December 11, 1989. It also set the precedent for casual labour, appealing the initial 10% cap on casuals to the Labour Court and ultimately being victorious, allowing it to hire whomever it wanted, whenever they were needed.

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667 Martin, *Port Reform Publicity*.
668 Associated Stevedores, New Zealand Marshalling and Stevedoring, New Zealand Stevedoring, NZFP Forests, Tasman Forestry and the Port of Tauranga.
670 Ibid., 44; 71.
These innovations had a massive effect on port productivity. In New Zealand as a whole, post-reform labour declined from 3156 to 1774 within a year, or some 43.8%. At Tauranga, the labour force declined from 441 to 202, or 54.2%, with gang sizes declining from 10.5 to 6. Cargo handling costs fell rapidly with the improved productivity, with Tauranga handling 1,550 tonnes per ship in 1989, up to 2,500 tonnes in 1990 – an increase of over 60% – with a lot of the benefits passed on to shippers in the form of an immediate 26% price decline.\(^671\) Compared to the situation in Australia, New Zealand had a 30% cost advantage pre-reform but a 60% advantage post-reform.\(^672\)

### Table 5.8: Key post-Reform Statistics at Tauranga\(^673\)

<table>
<thead>
<tr>
<th>Item</th>
<th>1989</th>
<th>1991</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throughput ('000 tonnes)</td>
<td>4,078</td>
<td>6,114</td>
<td>6,880</td>
</tr>
<tr>
<td>Average Days in Port</td>
<td>5.5</td>
<td>2.4</td>
<td>1.8</td>
</tr>
<tr>
<td>Operating Cost per Tonne (Index)</td>
<td>100</td>
<td>57</td>
<td>55</td>
</tr>
<tr>
<td>Average Tonnes per Employee</td>
<td>25,487</td>
<td>44,627</td>
<td>52,124</td>
</tr>
<tr>
<td>Average Berth Occupancy</td>
<td>70%</td>
<td>39%</td>
<td>32%</td>
</tr>
<tr>
<td>Tonnes per Gross Gang Hour</td>
<td>71.9</td>
<td>-</td>
<td>115.1</td>
</tr>
</tbody>
</table>

The New Zealand Dairy Board, one of the largest port users in New Zealand, estimated that in the 8 months following the reforms it had saved $5 million.\(^674\)

The question then becomes, if such huge savings were available why was reform not undertaken earlier? The answer lies in New Zealand's institutions: actors such as the New Zealand Dairy Board, if such enormous savings were available, would spend up to $5 million to achieve them. Today's inefficiencies can be tomorrow's profit opportunities.


\(^{672}\) Martin, *Port Reform Publicity; New Zealand Business Roundtable, Port Reform in New Zealand: A Mid Term Update*, 4; ibid., 22.


provided the institutional environment is one that allows those opportunities to be taken. In the case of New Zealand, the inefficiencies were institutional in that they were the result of a long period of poor interventions in the industry. The New Zealand Dairy Board, along with New Zealand’s ports, stevedoring companies, and shipping lines, were prevented from capturing these potential efficiency gains due to an institutional structure that did not allow it. It took a change in political ideology for institutional change to begin and for those potential gains to first be discovered, and then realised.⁶⁷⁵

The rapid move from one of the most regulated economies in the western world to the most liberal in the 1980s, dubbed “Rogernomics” after the Minister of Finance Roger Douglas, was the result of a “dominance of policy formation by a small number of people”.⁶⁷⁶ As Roger Douglas said in his own words:

“Do not try and advance a step at a time. Define your objectives clearly and move towards them in quantum leaps. Otherwise the interest groups will have time to mobilise and drag you down”.⁶⁷⁷

Without this change in the institutional environment, any attempts at port reform would likely have been doomed to repeat the well-intended but failed attempts to improve efficiency that had gone before it (such as the NZPA).

Meanwhile the post-reform environment at Tauranga was energetic. Tauranga had never become involved in stevedoring and generally kept its operations to the port business only, unlike other ports around New Zealand.⁶⁷⁸ It had also maintained the early philosophy instilled by former Chairmen such as J.D. Alach that the port should not cross-subsidise; it should consult with port users; and that in exchange it should

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⁶⁷⁸ Tauranga owned some sheds but no equipment.
operate on a user-pays basis rather than levy rates on its constituents, most of whom do not use the port.

The same could not be said for other ports. Stevedoring was one item that where each individual port could make its own decision on. Every other port in New Zealand had some kind of stake in stevedoring, whether it was a shareholding or outright ownership. Tauranga was the only port with no investment by the port in stevedoring, or receiving and delivery. While stevedores said they were happy to compete with the ports in stevedoring, none of them actually believed they would face true competition.679

Tauranga, having always had true stevedoring competition, had three stevedore companies working the port at the time of the reforms: the Associated Stevedores, NZ Marshalling, and NZ Stevedores. There was even union competition, with the Watersiders Union, Northern Drivers Union and Harbour Workers Union all having a presence at the port. It also had no labour force of its own, unlike other port companies which had hired their own labour force with the abolition of the WIC.680

Thus the governance structure at Tauranga, itself a legacy of the past, was quite conducive to efficiency and it had for a long time been the most efficient port in New Zealand, even with the institutional difficulties it and all ports in New Zealand faced. So when those institutional barriers were lifted by the reforms in the 1980s, business as usual rather than a massive overhaul of the port’s governance was what was required. Tauranga was also a leader in cost reducing innovation. The port pioneered what became known as the ‘5 in 7 rule’, where stevedores could adjust working arrangements so that their employees could be paid on a 5 day a week basis with the actual hours worked varying in line with vessel availability. This was enshrined in its local award contracts after negotiations with the unions (which resulted in some short-

680 Ibid.
term industrial action before being accepted), stevedores and shipping companies.\textsuperscript{681}

This contract meant that labour costs were the same for the port for all shifts Monday through Sunday and where there was a shortage of permanent labour, the port was free to hire casual employees.\textsuperscript{682}

So when the time came to sell the 51% local government stake in New Zealand’s ports, the Bay of Plenty Regional Council refused to sell. While other local authorities could not wait to offload their ports – ratepayers were often saddled with expensive port levies – the port of Tauranga had never levied a rate and was profitable in its own right. For example, the $25 million expansion at Sulphur Point, announced as soon as the NZPA was dissolved, was financed entirely from port revenue.\textsuperscript{683}

After devolution, other ports such as the port of Auckland eventually bought back its shares and became fully public again. There have been suggestions that this could lead to some ports “being used as ready sources of public revenue... with profits being earmarked to fund city infrastructure without the politically unpalatable need to increase property taxes”.\textsuperscript{684} While institutionally possible and true for some ports, there is little evidence that that takes place at Tauranga despite mixed ownership. The long tradition of user-pays and self-sufficiency were maintained, with the Bay of Plenty Regional Council preferring to treat the port as “a financial asset, rather than an entity to control... [with] a substantial proportion of private shares and contestability between the port’s service providers”.\textsuperscript{685}

Since the reforms in 1989, Tauranga’s growth has been phenomenal. Throughput has increased at the port virtually every year, handling 373% more tonnage than it did when

\textsuperscript{681} New Zealand Business Roundtable, \textit{Port Reform in New Zealand: A Mid Term Update}, 5.
\textsuperscript{682} Macvey to Ministry of Commerce, “Statistics Port ‘Port Reform.’”
the reforms took place 23 years ago at an average annualised increase of approximately 5%.

Figure 5.3: Tauranga's Growth, 1989 – 2012

![Graph showing Tauranga's growth from 1989 to 2012](image)

Figure 5.4: Tauranga's Annualised Growth Rates, 1989 – 2012

![Graph showing annualised growth rates from 1989 to 2012](image)

The port has the largest private ownership of any of New Zealand's commercial ports, with 45.02% being owned by the private sector and 54.98% held by the Bay of Plenty Regional Council. Its financial performance is unmatched in New Zealand; in the past 15 years it has been the best performing stock of any industry on the New Zealand Port of Tauranga, *Port Trade and Statistic Information*.  

Ibid.
Stock Exchange.688

Tauranga is also the only port in New Zealand where stevedores compete with each other in the container area. This unique feature is one of the key reasons for Tauranga’s handling efficiency: in an industry with very specific assets, Tauranga has been able to use markets to provide relatively non-specific services where others have relied on hierarchy, thus enjoying the production and governance cost advantages markets provide.689

The institutional reforms that took place in New Zealand did not deal with the organisations (ports) themselves, but instead opened them to competitive forces. The government successfully lowered transaction costs across the entire industry – as Williamson would put it, it reduced “frictions” in the system that were producing “needless slippage or other loss of energy”.690

Tauranga was fortunate in that its organisational model, thanks to events in the past, was already one of the most efficient in New Zealand. Institutional reform simply allowed that efficiency to flourish on a larger scale through competition with less-efficient ports whose position was protected by high transaction costs and institutional “lock-in”.691 There was a “third-degree” path-dependent lock-in in the New Zealand port industry, where several inefficiencies were present: the selection of Auckland and Wellington as the North island’s two major ports; the poorly implemented centralisation and cross-subsidisation of the industry; and the influence waterfront labour exerted over every port in New Zealand. Tauranga as well as other ports in New Zealand were more profitable options but it took major institutional reform – only when the potential profits were large enough for entrenched interest groups to be overcome – for that

688 “Mark Cairns.”
689 Stevedoring assets – the use of cranes to load and unload vessels – certainly requires a lot of capital but as far as transaction costs are concerned it is non-specific in the sense that unlike the port itself, those assets can be moved elsewhere.
691 Liebowitz and Margolis, “Path Dependence, Lock-In, and History.”
better outcome to be realised.\textsuperscript{692}

Tauranga today has benefited enormously from the change in institutional environment. Without first fixing the institutions, Tauranga and New Zealand's port industry would likely be in far worse shape than it finds itself in today.

However, it is also important to note that the institutional reforms were not free. It was an extremely costly process, both \textit{ex ante} in overcoming interest groups such as the port of Auckland as well as \textit{ex post} as thousands of waterfront workers were put out of work and ports had to adapt to a new, more competitive, environment. Importantly, institutional reform did not fix all of the problems at New Zealand's ports. Some regional councils still use their ports for political purposes, such as cross-subsidising city infrastructure.\textsuperscript{693} The institutional reform in New Zealand allowed ports that were willing and with good governance structures in place, such as Tauranga, to thrive, but it did not go so far as to allow less efficient ports to fail.\textsuperscript{694}

All institutions and organisational forms are imperfect; before embarking on institutional change on the scale that New Zealand did, it is essential to first make sure that the benefits will outweigh the costs of an alternative. Adopting an alternative structure without knowing whether the benefits will outweigh the costs for a particular case at a particular point in time – including the administrative costs of implementing it – is almost certain to lead to a poor outcome.\textsuperscript{695}

\textsuperscript{692} Acemoglu, “Why Not a Political Coase Theorem?”
\textsuperscript{693} Reveley and Tull, “Privatisation Postponed,” 36.
\textsuperscript{694} Fail does not mean cease to exist. For example, perhaps Auckland would have been subject to a takeover if it continued to under-perform.
Chapter 6: Conclusion

6.1. Introduction

The main question posed at the beginning of this thesis was:

What role did institutions play in the efficiency, organisational forms and ultimately, the outcomes at Port Hedland, Prince Rupert and Tauranga over time?

The goal was to discover whether the tenets of the New Institutional Economics (NIE) can illuminate particular details about a given port – constraints and incentives – that traditional methods of examination may miss. In particular, how did the institutional matrix influence the organisation and efficiency of the ports of Port Hedland, Prince Rupert, and Tauranga? For example, is port performance reduced as a result of lower investment and less support for efficiency incentives? To paraphrase Olson, if there are proverbial $100 bills left sitting on the pavement, why are they not being picked up?

To assist in answering this question, a theoretical framework was presented in Chapter 2 and was subsequently utilised to analyse the three case studies over a 152-year period. This chapter will bring together the results of those case studies in order to compare and contrast the evidence and then draw conclusions.

6.2. A Comparison of the Findings of the Three Case Studies

Port Hedland, Prince Rupert and Tauranga are geographically diverse; if you were to visit each one and return to your starting port you would have to cover a cumulative distance of 30,431km (18,909 miles), or about 75% of the earth’s circumference.

Port Hedland and Prince Rupert were, and some might argue still are, isolated in the

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sense that they are a considerable distance from major settlements with natural obstacles in their path – the inhospitable Australian North-West for one, and the Rockies for the other. On the other hand, Tauranga is to the South-East of New Zealand's largest city and is well situated in the fertile Bay of Plenty region. However, all three have non-physical element in common: British institutional heritage.

6.2.1. Constitutions

By 1860 British Columbia, New Zealand and Western Australia had all become colonies of Britain and subjected to British colonial law. While the British institutions inherited by each port have evolved and adapted considerably in each location since, they all faced relatively similar constraints at that time.

Table 6.1: Arrival of British Institutions in Western Australia, British Columbia and New Zealand

<table>
<thead>
<tr>
<th>Year</th>
<th>Location and Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>1829</td>
<td>Western Australia (Interpretation Act of Western Australia)</td>
</tr>
<tr>
<td>1840</td>
<td>New Zealand (Treaty of Waitangi)</td>
</tr>
<tr>
<td>1858</td>
<td>British Columbia (An Act to provide for the Government of British Columbia)</td>
</tr>
</tbody>
</table>

Each port's institutional environment quickly changed with the circumstances that the political actors faced at the time and the enactment of quite unique constitutions. The differences in each nation’s constitution would indirectly change each port's future, as they determined the stakes that certain players would have in the development of each port.

In Western Australia, the decision to join the rest of Australia in federation came later than the other States. But importantly, post-federation ownership and control (i.e., regulatory authority) over natural harbours remained with the State government. However, for Port Hedland it may as well have rested in Canberra given the distance from Perth – where authority rested – and the unique local challenges faced by those in the North-West, a region where at the time most Perth-based politicians did not concern themselves.
In British Columbia, the combination of the potential encroachment of the United States from the South and the desire to keep British North America whole (as Canada was known then; for simplicity, Canada will be used when referring to either British North America or Canada), saw a unique form of federalism evolve where the nation's natural harbours would ultimately be controlled by Ottawa. This did not preclude Canada's ports from private ownership and operation; the Provincial government could, and did, sell port land to allow it to be operated by private individuals, as was the case in Prince Rupert with the Grand Trunk Pacific. However, control rested in Ottawa; once it was declared a public harbour, Prince Rupert could at any moment be taken over by Ottawa in the national interest.

In New Zealand, six Provinces were initially constituted and were responsible for ports. Due to a lack of finances, wharves were sometimes constructed by private individuals who had received the government's permission to charge tolls and dues. But certain parts of a port's trade were still federally regulated; namely, the ability to levy custom duties of any good at any port and the ability to implement charges on shipping at any port in the country. While those federal powers were not used with any great frequency, when New Zealand's Provinces were later abolished and port operations transferred to local boroughs, boards and authorities, those powers remained in place.

Table 6.2: Ownership and Control of Each Port by the First World War (WW1)

<table>
<thead>
<tr>
<th>Port</th>
<th>Ownership</th>
<th>Overseeing Authority</th>
<th>Governance Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Hedland</td>
<td>State Government</td>
<td>State Government</td>
<td>Public Service Port</td>
</tr>
<tr>
<td>Prince Rupert</td>
<td>Private (GTP)</td>
<td>Federal Government</td>
<td>Private Landlord</td>
</tr>
<tr>
<td>Tauranga</td>
<td>Local Borough</td>
<td>Federal Government</td>
<td>Landlord Port Authority</td>
</tr>
</tbody>
</table>

The following illustration helps to illustrate the different paths taken.
6.2.2. Credible Commitment and the Legal System

The legal institutions in Canada, as far as contracts are concerned, were strong even in the early days of federation. Foreign investors could be confident that the independent judiciary – Britain’s Privy Council – would protect their contractually agreed property rights, limiting administrative discretion or “hold-ups”, thereby encouraging investment. Given the asset specificity of a railway and port, the hold-up problem is always of concern to private investors when this is not the case.

In the early days the outlook for Western Canada was still uncertain and therefore even with this assurance the risk was high. To ease those concerns and encourage private investment in transcontinental railways, the Canadian government provided generous contractual subsidies to attract capital for its political ends. These subsidies achieved the desired result as British capital poured in and the Grand Trunk Pacific and Prince Rupert were constructed. However, the incentives established by the subsidies, combined with contracts that were too complete and the perverse incentives created

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697 In the sense that there was very little post-contractual flexibility afforded to either party.
by the Crow Rates, ultimately saw the railway – and therefore Prince Rupert – fail, with the taxpayer footing the bill. A path-dependent outcome had been set and development at Prince Rupert, despite quality infrastructure sitting idle, would remain neglected for decades to come.

At Port Hedland, credible commitment was also an issue throughout the early life of the port but unlike Prince Rupert where the federal government overcommitted, the State government did not do enough to ease the potential for hold-ups. The North-West of Australia has a vast supply resources available for export and a quality port is necessary for miners to be able to sell it internationally. The global commodity price mechanism serves as the signal to mining entrepreneurs that a certain commodity is in demand (or in short supply); but miners cannot act on that signal unless they can be sure that their highly specific assets – such as mining land, railways, and ports – will be free from ex post rent-seeking both from the State and private parties.

In Western Australia, mining rights and the legal system were inherited from Britain, providing the framework and security necessary to prospect. These laws initially catered only to small-scale miners, creating issues in attracting capital for large-scale projects. It was not until the State government added representation to the North-West in 1886 and passed of the *Goldfields Act* in the same year that larger miners could be assured of their mineral property rights.

However, the State government soon lost a number of constitutional constraints with the granting of responsible government by Britain in 1890 and soon began to assume a direct role in the advance of select industries in the State, engaging in a program of *socialisme sans doctrines* with a keen focus on infrastructure. The institutions in Western Australia then become incapable of credibly curbing regulatory discretion at Port Hedland forcing port investment, whether it was planned or not, into the State’s hands.
Having assumed the burden of infrastructure financing, by 1892 the State was beginning to be lobbied by miners at Marble Bar as the gold price rose to upgrade the facilities at Port Hedland and by 1896 committed to constructing a jetty and an inland causeway for gold and livestock exports. This was followed by a second jetty and a railway connecting Marble Bar to the port a decade later.

But it all came too late for Port Hedland. The gold boom had ended and the delays in port expansion due to limited and inappropriately allocated State funds meant that by the time Port Hedland had been upgraded to cater to the gold boom in 1909, the boom was over. To be able to capitalise on a finite boom, what is needed are institutional safeguards that allow entrepreneurs to both find opportunities but more importantly to capitalise on them: to invest at the required facilities at the right time and be sure that their rents will not be extracted *ex-post*. At Port Hedland, those safeguards were not available leaving those desiring expansion with two options: to lobby the State for upgrades, or try to change the institutions to attract private capital. Institutional change is not costless and so only when the potential profit is large enough will actors go down this path. In the case of the Marble Bar gold boom, the least-cost path was to try to operate in the political markets, to achieve not costly institutional change but less-costly (to them) State-funded infrastructure investment.

Commitment issues were not as prevalent at Tauranga for a few reasons. First, New Zealand was the last to achieve true sovereignty from Britain (that is, after Western Australia and British Columbia). Although all three maintained ties to the British Privy Council for some time, the New Zealand government was well aware that achieving true sovereignty too early would deprive the small nation of much needed capital. This reassured foreign investors that their contracts would be honoured, lowering the risk of *ex-post* hold-ups.

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698 E.g., nearly 17% of the entire 5-year North-West budget was spent on *maintenance* for just one 186km road between Southern Cross and Coolgardie.
Secondly, the New Zealand constitution bestowed the management of ports first to the Provinces (abolished in 1875), then to local boroughs and authorities as opposed to State or federal levels of government. However, a conflict soon emerged between the agency in charge of operating the port – the Tauranga Borough – and the actual owner of the land, the Marine Department. The Borough was unable to borrow against the port to finance infrastructure upgrades – even from the federal government's lending department – creating a situation of underinvestment and general chaos at the port, with goods having to be landed directly on the foreshore.

This was an unintentional institutional problem caused by the abolition of Provincial control. In abolishing the Provinces, the government had created a conflict between two different levels of government: the owner of the port land, the Marine Department; and the port operator, the Tauranga Borough. This conflict could be solved in one of three ways: one, by granting the land to the Borough; two, transferring the day-to-day management to Wellington; or three, create a local Authority at Tauranga. Ultimately the latter option was taken, with the act of establishing a Port Authority being revealed as the path of least resistance due to the fact that New Zealand was at the time undergoing a process of decentralisation, with the legislation available as a result of its British legal legacy.

Nonetheless, resolution took a considerable amount of time; from the time the conflict began, 35 years passed before Tauranga acquired a Harbour Board, demonstrating that institutional change – even when the powers to change a situation already exist – can be costly and slow. The institutional constraints at the port were not initially evident and it took a major deterioration in the port's facilities, and ongoing pressure from the port and port users (potential profit opportunities), to break the path-dependent outcome.

The following diagram highlights the institutional changes that occurred at each port from 1829 to WW1.
All three ports had a similar institutional starting point in that they were all declared British colonies and had to abide by colonial laws, albeit at different times. However, that quickly changed.

In Western Australia, ports were – even post-federation – entirely a matter for the States. This differed to both Canada and New Zealand. However, there were ongoing
institutional issues in the North-West following the first responsible State government led by John Forrest. With the State unable to provide the mineral property rights necessary for mining to be undertaken by private parties on a scale sufficient to fund transport infrastructure, it was left to the State, including infrastructure at Port Hedland. This left the port in the State's hands, and it would remain so for a considerable time.

British Columbia was the last of the three cases to be declared a British Colony, and it joined with the rest of Canada shortly afterwards. A condition of federation was for a transcontinental railway to be built, but it was soon deemed insufficient and so the 1904 election was fought on whether or not to build a second railway. Wilfrid Laurier won decisively, and so the Grand Trunk Pacific (GTP) and Prince Rupert as a Pacific terminus were born. Conflicts between the Province and federal government saw the port declared a national harbour in 1912, and when the GTP failed, so did Prince Rupert. The contractual agreements and institutional changes that were made to facilitate the GTP locked Prince Rupert into an inefficient post-GTP outcome which would take some time to break.

New Zealand initially adopted a system that empowered the Provinces, but it was soon dismantled by Julius Vogel – with the support of the electorate – in favour of a unitary government. Importantly, control over harbours was decentralised even more-so than when they were operated by the Provinces, with an independent port authority established at Tauranga in 1912.

6.2.3. Institutional Constraints and Transaction Costs

By the early twentieth century, all three ports found themselves in predicaments created by different institutional issues. Port Hedland had missed a golden opportunity (no pun intended) to gain from, and facilitate, a boom in the North-West due initially to credible commitment problems and then once that path had been taken, poorly timed investment by the State government.
Prince Rupert also suffered from mismanagement but the port's failure was inevitable as soon as the first contracts between the Grand Trunk and the Canadian government were signed. The rush to build multiple transcontinental railways was driven by politics and not economics. In that environment, competition took place in the discretionary political markets of Ottawa, with actors competing for government guarantees so that they could further expand their rail networks and capitalise on the euphoria and optimism at the time, knowing that over-expansion would result not in personal loss but in a public bailout. Optimism was high and ultimately the contracts proved to be too complete, not allowing the flexibility necessary to adapt to an ever changing world.

These mistakes were revealed when it was already too late: too much had been built, too early, to cater for a level of demand well below initial, inflated expectations. On the one hand, institutional lock-in had occurred with various contractual agreements designed to attract private capital such as debt guarantees, monopoly rights over certain routes, and land grants agreed. On the other hand, the government required service guarantees (unprofitable routes; provision of steamships), price controls (e.g., the Crow Rates), and a rigid, vertically integrated organisational structure. The combination of poor incentives and the inability to cut unprofitable routes eventually saw a Royal Commission and the buyout and transfer of the Grand Trunk Pacific to the Canadian government's national railway. Traffic was then promptly routed South to its existing hub at Vancouver, depriving Prince Rupert of a profitable hinterland connection.

For decades, the legacy of those contractual obligations and indirect regulations such as the Crow Rates lingered, restricting the ability of the Canadian National Railway to utilise the facilities, as the Vancouver line was more profitable for it given the mix of regulatory obligations it faced.

It was not until Japanese demand for Canadian coal in the 1960s and 70s along with congestion issues at Vancouver that any serious thought was given to using the lower-
cost port at Prince Rupert as a major export hub. Incidentally, Japanese demand was also the trigger at Port Hedland (iron ore) and Tauranga (logs) that broke the path dependent trajectory they were on. When potential profit reaches a high enough level it simply cannot be ignored, even when there are powerful interests fighting to maintain the status quo.

However, the legacy of the Grand Trunk Pacific still haunted the port and the Canadian National Railway were not willing to shift business North. Interest group pressure and a lack of local control then saw the port taken over by the National Harbours Board (NHB), but that only added to its problems. As was shown in Chapter 4, ports under the NHB's control consistently underperformed the nation's independent ports as well as near rivals such as Seattle. This disparity only got worse with the advent of containerisation in the 1970s, and the NHB's inability to adjust to this new technology saw intense public pressure to remove, or weaken, NHB control over the nation's ports. In the face of this pressure Ottawa eventually conceded, decentralising decision-making at the NHB's ports to Local Port Corporations, including one at Prince Rupert.

Changing Prince Rupert's institutions was extremely difficult; given the centralised control of ports, the institutions were more heavily influenced by social and political factors than economic ones, especially post-Grand Trunk Pacific ownership when the government-owned Canadian National Railway assumed control. While this can also be true for local public bodies, as centralisation increases so do the costs of transacting and therefore the costs of negotiating institutional change. Hooghe and Marks dubbed this phenomenon “Scharpf's law”, after Fritz Scharpf's insight that:

“As the number of affected parties increases... negotiated solutions incur exponentially rising and eventually prohibitive transaction costs”.

Thus it is well recognised that the cost of transacting in a political market is high, and if

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more players are involved on a number of private and political levels, these costs increase. That means that unless there was a desire to unshackle Prince Rupert by powerful political actors, or private actors with enough influence, transaction costs would be too high for any change to occur. The “trigger point” of containerisation, and the absolute inability of the existing institutions to enable organisational adaptation, was ultimately what broke the inefficient path that Prince Rupert found itself on.

Illustration 6.3: Path Dependency at Prince Rupert, WW1 – 2012

Tauranga’s institutional frailties occurred earlier and were resolved just as the other two ports had seen their trade dry up. Transaction costs rose to a point where the port could not function and trade was being stifled, making institutional change more profitable than the alternatives. However, Tauranga’s hinterland was still tiny by world standards and there was no demand for expanded facilities; the entire Bay of Plenty region, including Tauranga itself, had just 5,235 people in 1911, or 0.5% of New Zealand's total population.700

Somewhat ironically, the lack of demand, development and government attention at Tauranga allowed the Harbour Board to resolve a number of conflicts during the pre-World War Two decades and gradually establish a culture (informal institutions) that would enable the port to thrive. This culture, insistence on a user-pays system, and conflict-minimising governance structure at Tauranga saw it successfully navigate a

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number of challenges in the 1950s as the Japanese log trade boomed. However, as Auckland struggled with congestion and the advent of containerisation, public pressure grew for the government to do something and so in 1968 New Zealand decided to centralise control of its port industry with the creation of the New Zealand Ports Authority (NZPA).

This institutional change caused problems for Tauranga, with the NZPA clearly favouring the established interests in Auckland over Tauranga. The problems were worsened by a powerful labour force that was largely unwilling to adapt to the requirements of container handling. A number of costs had been centralised, such as labour through the Waterfront Industry Commission and port charges through the NZPA's Port Service Charge. These rigidities allowed inefficient ports to improve their bottom line at the expense of the more efficient, such as Tauranga, especially if they had sufficient influence over the NZPA to continuously increase capacity through over-investment.

Eventually, pressure from Tauranga (and importantly, a significant number of New Zealand's largest exporters) saw the government intervene and overrule an NZPA decision for the first time in 1977, sparking the beginning of waterfront reform. The NZPA was abolished in 1988, and by 1989 the institutional matrix constricting New Zealand's ports had been altered dramatically for the better, reducing transaction costs across the industry and allowing Tauranga to finally live up to its potential. As with the NHB in Canada, the centralisation of the nation's ports resulted in rent-seeking and regulatory capture by the largest, most established players. While not immediately evident the inefficiencies grew as time went by, but most importantly, ports under central control demonstrated an inability to adapt to changing circumstances, both to cater to new demand (Japan), and to new technology (containerisation).

Port reform in New Zealand eventually took place because over several decades problems had slowly built up until a breaking point was reached. As an export-
dependent nation, failed centralisation through the NZPA, the centralisation and cross-subsidisation of the port labour force, and the growing public unease over the influence wielded by the nation's largest ports, saw ports as a ripe target for reform. Similarly to Prince Rupert, the advent of containerisation and the well-publicised failure of established ports such as Auckland to adequately adapt, finally saw the legislative shackles removed from Tauranga after years of political lobbying.

Once the institutional barriers had been removed, Tauranga's natural and cultural advantage – one that had allowed it to succeed, to an extent, even within an institutional environment that crippled other ports – saw it rapidly gain on its competitors.

**Illustration 6.4: Path Dependency at Tauranga, WW1 – 1989**

Meanwhile Port Hedland sat neglected despite ample infrastructure at the port due to the State's post-boom investment. It remained that way until the Second World War when the military took over the port, and then – the port now back in the State's hands – the Korean War began in 1950. But the fundamental issues in the North-West had not changed: institutional constraints meant that, despite an eventful debate where the State considered selling the region to private interests or the federal government, the State was still in charge of North-West transport infrastructure.

Constitutionally, the Australian States have to pass Acts to enable railways to pass through their territory and so while a transcontinental railway was completed from
Kalgoorlie to Port Augusta in 1917, the nationalistic desire for a transcontinental railway was well below Canada’s. There was also very little interest in Port Hedland, a small town in the North-West. Western Australia was a large State with a small population and was struggling to keep up with infrastructure requirements in the South-West, let alone in the Northern Goldfields.

Since the establishment of responsible government in 1890, the Western Australian State never shared in Canada’s enthusiasm – even if out of necessity to achieve political goals – for public-private partnership provision of transport infrastructure. If the State was involved, it would take on the burden itself. Thus if a miner wanted rail, road or port facilities, a common path to take was to lobby the State for it. Private provision, given the transaction costs caused by the high risk of potential, but legal, State discretionary action against its mineral property rights meant that for institutional change to occur, the potential profit of such a change would have to be significant for actors to attempt it.

The actions of the Forrest government at the end of the nineteenth century in weakening – or rather, never really establishing – mineral property rights by intervening somewhat arbitrarily saw increased uncertainty and risk and the potential for investors to encounter the hold-up problem. It was unable to credibly commit not to expropriate ex-post rents so private actors reduced (or never undertook) investment in the region accordingly. The passing of the Public Works Act 1902 provides an indication into the prevailing mentality at the time, with the Act officially delegating all railway construction and ownership to the State, effectively preventing any port from vertically integrating with its hinterland unless the State was heavily involved. Forrest believed that it was the government’s duty “not to sit and wait for traffic, but to create traffic [through infrastructure investment]”, and so arguably private provision was never an option – the

government would build it before demand was sufficient to finance it.\textsuperscript{702}

Western Australia had been locked into a path where high transaction costs prevailed (in highly specific mining-related infrastructure), meaning infrastructure would have to be vertically integrated (linking customers and suppliers) through State ownership. The nationalisation of several existing transportation services as well as the establishment of a number of government trading enterprises by the Australian Labor Party's (ALP) Scaddan government further embedded the State on this path in the 1910s. While most of these ventures were unwound by subsequent Liberal, Nationalist, and even ALP governments (Collier's ALP was the first to return the State to a surplus, 16 years after Scaddan lost office), nothing had been done about North-West mineral property rights.

However, deficient State institutions were not the only reason that Port Hedland (and the North-West) would miss out on another boom, this time in the 1950's through lucrative manganese exports. The established players in Canberra, New South Wales (NSW) and South Australia (SA) had worked together to thwart any attempts by those in the North-West to induce institutional change, by exploiting a regulation passed soon after the Second World War allowing the federal government to prohibit any export of certain commodities without direct approval. Constitutionally, the federal government maintained power over foreign trade, and while prohibited from targeting individual ports, could pass Australia-wide embargoes or dues on certain products.

At the same time, clever war-time contracting had resulted in Broken Hill Proprietary (BHP) being the sole steel producer in Australia and it stood to benefit enormously from the prohibition of manganese exports. By prohibiting exports, BHP could use its monopsony power to buy high-grade manganese on the domestic market for half the price that the United States was willing to pay. The federal, NSW and SA governments were complicit because the rents extracted by BHP could be used to keep the company afloat, as it was struggling in the face of reduced trade barriers and

\textsuperscript{702} Evans, CY O’Connor, 120.
international competition. Those States continued lobbying the federal government to preserve BHP’s steel monopoly well into the 1980s, and thus actively worked to prevent actors in the North-West from changing the institutional constraints they faced.

The net pay-offs available to the West to change the institutional matrix through the political market did not match the profit that the currently empowered actors could achieve by maintaining the present, inefficient structure, and so institutional change did not occur. That is, of course, if they knew whom to pay; according to Buchanan, political trades often do not occur not out of a general unwillingness to pay (on balance, they would be better off if they did), but because groups that are “politically-advantaged under existing rules will not agree to constitutional reform without compensation, and those who might otherwise be willing to pay such compensation may not do so because they do not acknowledge the rights of those to whom such payments would have to be made.”

Eventually it was the innovation of State Agreements, first with the Kwinana oil refinery in 1952, paper in 1960, alumina in 1961 and then iron ore in 1963, that gradually reduced the transaction costs faced by miners in the North-West protecting them from potential ex-post rent extraction. As the yet unrealised value of iron ore assets increased, mining entrepreneurs demanded more precise property rights and once the potential net gain was high enough (i.e., profits after costs, including pay-offs), managed to achieve institutional change. There was also a change in the mindset of the State government, who – despite pressure from the East – opted not to seize iron ore discoveries made by prospectors during the iron ore embargo and hand them over

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to the politically-connected BHP, as it had done in the past.

To protect themselves from private ex-post predation, vertically integrated organisational forms were written into the agreements, guaranteeing the future of Port Hedland so long as the consortium's hinterland mines remained profitable. Given the sparse nature of the North-West, this form of vertical integration makes perfect sense: there would be very limited, if any, competition for port and rail use other than from the consortium; hence, vertically integrating reduces transaction costs by negating the risk of hold-ups from the customer. By vertically integrating the consortium also protected itself from the same potential hold-up problems that having a single port or rail owner would create.

Port Hedland and its hinterland railway were, and still are, almost entirely financed by mining companies through the State Agreement. Somewhat ironically, one of the chief actors fighting against institutional change for decades prior, BHP, was a major member of the first iron ore State Agreement consortium at Port Hedland, showing that when potential profit is large enough even established, well connected interests can promote change.

**Illustration 6.5: Path Dependency at Port Hedland, WW1 – 2012**

The level of transaction costs faced by each port at key moments in their past was heavily influenced by the institutional constraints they faced at the time. In all three cases, demand permitting, it was not until those transaction costs were reduced
through institutional reform that they began to thrive, with the reform “trigger” eventually caused by a combination of factors. For while the ports and port users themselves were clamouring for change as a result of the potential profits on offer, the barriers to institutional reform in the form of the cost of transacting in political markets had been reduced as a result of the general movement of Western governments towards economic liberalism. But although all three nations had experienced similar nation-wide moves towards economic liberalism, in each location the local impetus for reform was still different, demonstrating that there are multiple solutions for similar institutional problems. It also demonstrates that institutions are historically specific and that past decisions – good and bad – constrained and conditioned the development path of each port.

6.3. Implications and Limitations of the Research

The comparative institutional analysis undertaken in this dissertation demonstrates three key lessons. First, institutions can become rigid and can persist for an extremely long period time, even in the face of strong demand for change. Institutions are historically specific and the unintended consequences of rather innocuous actions taken in the past – e.g., the Crow Rates in Canada – can have long lasting effects on seemingly unrelated activities. The actors empowered by that existing institutional arrangement will fight change unless they are offered net pay-offs that exceed the net rents enabled by the existing arrangement (profit potential).

Second, that all of the exogenous constraints a port faces need to be known, with the interest groups concerned in both their perpetuation and in their removal considered before port reform is attempted. Institutional reform is not costless and so an understanding of the relevant costs and benefits faced by every actor or group of actors involved is an essential ex ante task. Policy makers should not fall prey to the

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706 This group includes both public (policy makers, regulators) and private actors. For instance, if policy is proposed for a new regulatory body to be established, the incentives faced by the regulators to do what is efficient must be included in the analysis, as well as the incentives faced by those being regulated.
“nirvana approach”, where an existing but flawed situation is compared with a hypothetical ideal which, in practice, may not be the panacea that it would appear. A comparative institutional approach should be used instead, where the choice is framed as one between alternative, real institutional arrangements. The pitfalls of the “nirvana approach” were evident at Tauranga where after concluding that the existing arrangement was inefficient, policy makers created the NZPA that in reality could not live up to expectations.

New Zealand was then locked in to a costly, inefficient path that empowered various interest groups and became self-reinforcing. Interest groups then had to be paid off in political markets for reform to happen, which is what we saw with worker compensation through the Waterfront Industry Restructuring Authority. A similar outcome occurred at Prince Rupert with the takeover of the port by the NHB.

Third, that the hinterland (road, rail) and the institutions governing it are critically important to a port’s success or failure. At Port Hedland, the entire network from mine to sea was eventually vertically integrated, reducing the risk of ex-post hold-ups that had previously plagued the region. This allowed the port to avoid the problems witnessed at Prince Rupert when an uncooperative Canadian National railway refused, due to the institutional constraints it faced, to deal with the port. Likewise at Tauranga the State railway company used its influence to reduce road competition through buyouts and the perpetuation of transport licensing regulations that protected it from road competition. This limited the options available to Tauranga and created a hold-up problem where the railway company could deal with many different ports but Tauranga had no other options.

Before declaring a port “inefficient”, undertaking governance overhauls or attempting institutional reform, these three lessons should be heeded. Attempts at improving a port may prove futile if institutional constraints prevent truly efficient outcomes from

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Demsetz, “Information and Efficiency: Another Viewpoint.”
emerging. Without institutional reform, certain organisations or entire industries may struggle to be competitive and efficient.

The unique contribution to the literature made in this dissertation is to bring to light new information about three ports and their institutional arrangements. An empirical, intertemporal investigation using the New Institutional Economics framework was applied to each port, with insights about both the causes and effects of various events that occurred at each port over time.

This research broadens the economics literature by making institutions a key part of the analysis. The focus was specifically on ports but this approach could also be relatively easily applied to other highly specific forms of infrastructure.

This dissertation does not seek to reinvent port economics, but argues that institutions should be included in any comprehensive analysis. It is not expected that the level of detail undertaken in this dissertation be included in such studies, just that the institutional matrix that constrains the choice set available to actors at a port are considered before efficiency-related conclusions are drawn. Without including institutions in the analysis, the risk of creating negative unintended consequences that may be hard to fix, despite the best of intentions, is increased.

However, as with any research there are also limitations. First and foremost one of the biggest strengths of this dissertation's approach is also a weakness: the fact that each case study has British institutional heritage and a tradition of British Common Law. The barriers involved in investigating the institutional history of a port where the spoken language was not English, and where the institutional heritage and legal systems may have been different, leaves scope for further comparative research.

On data availability, any historical study will face challenges. All three case studies had physical data available in their national and local archives but unfortunately the digital age has not quite caught up to the point where those documents could be perused
from a desktop computer in one's home country. Perhaps future researchers would be able to broaden the literature by investigating ports, or other forms of infrastructure, with a more diverse variety of formal and informal institutions without such a significant physical requirement. Alternatively, the framework applied in this dissertation could be used to examine a port with a similar formal institutional heritage but with a different informal, or cultural background (e.g., Hong Kong or Singapore), in an attempt to learn more about those institutions. Attempts could also be made to formally quantify the pay-offs that particular actors faced at certain points in time, to provide future reformers with a more reliable estimate of potential obstacles.

Finally, if a researcher was bilingual then a look at how formal institutions such as the continental European system of Civil Law affected the development of ports in those countries would be an excellent way to progress the port institutional economics literature.

6.4. Conclusion
This dissertation undertook a cross-country comparative institutional analysis of three ports over a 152-year time span in an attempt to discover what role institutions played in the efficiency, organisational forms and ultimately, the outcomes at Port Hedland, Prince Rupert and Tauranga.

It looked at how interest groups, acting within the institutional constraints they faced at a given time, coped with those constraints and in turn how their behaviour and choices affected the institutional environment, if at all.

Each port saw different outcomes and ways of achieving those outcomes, with different systems, cultures and organisational forms emerging at each one. But there were also commonalities, such as the role Japanese demand played in breaking the path-dependent outcomes each port found themselves on.

It was found that the institutions governing a port are often subjected to interest group
pressure by exogenous forces beyond their control and there is not much that one port in isolation can do about it. Symptoms of these persistent, inefficient institutions often manifest themselves at the port level even though they may be beyond the port’s control. Institutional change is a long-term process, with seemingly unrelated factors that occurred in the past often contributing to the problems witnessed at a particular port.

Two forces were consistently the key drivers of institutional change at all three ports. First, the opportunity cost of not utilising a port to its potential. When potential profits (opportunities foregone) reached a point that actors were able to induce institutional change by committing to pay-offs in a political market to alter their choice set, institutions tended to change. However, this point is difficult to reach, especially when there are powerful forces from a number of different, sometimes unrelated, interest groups trying to prevent change. Witness Port Hedland during the manganese boom; Prince Rupert during the coal boom; and Tauranga’s struggle first with wood and coal and then to containerise, all trying to respond to Japanese demand but constrained by institutions. In those instances, the actors empowered by the existing arrangement were able to outbid those seeking change.\textsuperscript{708} It was potential profit that was not being captured, for example, in the iron ore rich North-West that eventually led to the institutions at Port Hedland being changed for the better.

This demonstrates that institutional change is not a costless process and large social costs are often inevitable; before acting policy makers need to be sure that the net present value of doing nothing, i.e., of maintaining existing inefficient institutions, will not exceed the costs of institutional change. However, government should stop short of trying to pick winners. Prince Rupert saw enormous public funds wasted on it, as did Tauranga’s rivals. Port Hedland, Prince Rupert and Tauranga all at least at one point in

\textsuperscript{708} No actual “bidding” process need take place. It is only when those seeking change are able to (potential profit opportunities) and know how to (operate in political markets) bid for change that they will do so.
time suffered under institutions that did not facilitate a level of adaptability – “adaptive efficiency” – necessary to pick up the proverbial $100 bills. Rather than attempting to solve what could be an institutional choice set problem with active policy, institutional reform should be considered. Such a path was successfully taken with port decentralisation and the abolition of the NHB in Canada; decentralisation, labour reform and the abolition of the NZPA in New Zealand; and the introduction of State Agreements to solve the mineral rights problem in Western Australia.

Would-be reformers also need to identify the potential winners and losers of institutional change and include them in their model. This is because feasible institutional alternatives are constrained by elements inherited from the past, and once an institution is in place they tend to become self-reinforcing, particularly if they are of the 3rd Tier, or constitutional, variety. Actors empowered by the current arrangement is a reason why institutions are so hard to change. The longer the institutional structure remains in place, the more those institutions can become embedded in a nation's culture (4th Tier) and once "people believe that something is true and normatively appropriate, they do not seek to alter it".  

In a sense, there are transaction costs involved in creating new institutions and the level of transaction costs that actors face depends on what is already in place.

Finally, technology played a critical role in breaking self-reinforcing institutions by revealing a number of inefficiencies in existing institutions. As Schumpeter described it, technology as a cause of "creative destruction" almost certainly exists, with inefficient institutions that may have persisted indefinitely broken only by a technological change that could no longer be ignored. While it is best not to wait for new technology to create such a "breaking point" before attempting to change inefficient institutions, it undeniably played a key role in increasing the potential gains from institutional change.

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Those potential profits then sufficiently incentivised numerous actors to begin questioning the existing institutions at both Prince Rupert and Tauranga, eventually breaking the path-dependent outcome the ports were on.
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