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Public Financial Management in Singapore: Key Characteristics and Prospects

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Abstract

Public financial management has played an important role in Singapore's remarkable economic success since its independence. This paper analyses select characteristics of Singapore's public financial management (PFM) strategy and prospects for their continuation in a rapidly ageing and affluent economy. One of the underlying themes has been to ensure that management of Singapore's public finances has been consistent with, and enables its location-based growth strategy. Other characteristics include undertaking economic activities outside the conventional government budget, giving rise to a much larger role of the public sector than reflected in the budget; extensive use of non-conventional sources of revenue such as from the lease of land, creating property and usage rights to generate tax-like revenue; and limited social risk pooling in financing national spending on healthcare and pensions. As Singapore's business-location-based strategy reaches its limits, and an affluent and ageing population aspires for greater degree of economic and social security, transparency, and effective participation in public policies, it is expected that current PFM practices will undergo significant changes to reflect the emerging dynamics. In responding to these dynamics, policymakers will not be constrained by the lack of fiscal resources, or by institutional and organizational capacities. A more citizen-centric governance focus will be needed.

Keywords: Singapore, public financial management, tax policy, growth strategy, budget system, social protection, unconventional revenue generation

JEL Codes: E6, H2, H5, H6

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1. Introduction

Singapore's public financial management (PFM), i.e. its fiscal policy, has played a significant role in its emergence as a high-income country[1] since it became a Republic in 1965. An important implication of this is that Singapore's policymakers have not been, and currently are not, constrained by the availability of fiscal revenues and/or by concerns of debt sustainability for addressing public policy challenges being faced by a rapidly ageing, affluent and mature society.

The general consensus in the literature is that the main elements of public financial management are mobilization and generation of financial resources for government expenditure from conventional and non-conventional revenue sources; accounting methods and budgetary systems used in government; allocation of resources on goods and services and on transfers to attain a set of desired outcomes; financial reporting, internal and external auditing, transparency and accountability structures[2].

Reliable and timely data and supporting information have a significant role in policy formulation, implementation and assessment, and in improving the quality of public policy dialogue (Dilnot, 2012). Several authors (e.g. Asher, 1986, 2003; Lim and Associates, 1988; Blöndal, 2006) have however commented on the relatively limited nature of the relevant information contained in Singapore's budgetary documents, and frequent changes in the manner in which data are presented in official documents. This suggests the need for caution in interpreting Singapore's fiscal data.

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[1] In 2013, the World Bank ranks Singapore as fourth globally in per capita GDP, ahead of other developed, and small, economies such as Belgium, Finland, New Zealand, and Switzerland. http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD

[2] See Cangiano *et al* (2013) for details.

This paper reviews the practice of PFM in Singapore and its objectives that have played a key role in the growth of the country since independence. Lim and Associates (Chapter 13, 1988) and Asher (2003) had previously analyzed the trends in Singapore's public finances in the earlier years. This paper extends the analysis to the decade beginning 2003. However, due to remarkable consistencies in practices, the discussion is applicable across Singapore's history.

The rest of the paper is structured as follows. Section 2 provides a brief overview of the Singapore budget as it forms the context in which data on public finances are organized and analyzed. One of the main features is the remarkable consistency between management of public finances and its location-based growth strategy. This is explored in Section 3. Section 4 discusses the prospects for these to continue, and some recent policy measures, as Singapore becomes accustomed to lower growth prospects, rapid ageing, and altered expectations of the population about the role of government.

2. Organization of the Budget

The annual government budget documents report the revenue estimates and proposed expenditure for each fiscal year beginning in April of the current year to the following March[3]. The structure and format of the annual budget have remained relatively constant over time, with any changes primarily reflective of changes in administrative structure (nomenclature) than actual accounting practices. The main features of the organization of Singapore's budget may be summarized as follows.

First, the Accounts of the Government of Singapore are organized around various

[3] This fiscal year definition was adopted in 1969. In the years prior, the fiscal year followed the calendar year from January to December.

funds. The major funds are Consolidated Fund, Development Fund, Sinking Fund, and Skills Development Funds. The Consolidated Fund consists of the Consolidated Loan Account and Consolidated Revenue Account where all proceeds from loans are accounted for in the former. All monies other than loans are in the Consolidated Revenue Account. All government revenues not allocated to any specific purposes by any law are required to be paid into the Consolidated Fund.

Expenditure consists of those charged to the budgetary appropriations for goods and services and for transfer payments, including contributions to the Development and Sinking Funds. Expenditures are classified as statutory and non-statutory, with the former having priority. The main sources of receipts for the Revenue Account of the Consolidated Fund are taxes, receipts from the sale of goods, services, assets, and income from investment, regulatory levies and fines.

Receipts for the Development Fund are loans raised for development, transfers from Revenue Account of the Consolidated Fund, and income from Development Fund investments. Sinking funds are required to be established under the Developmental Loan Act for the redemption of domestic loans. The receipts of these funds consist of monies appropriated from the Consolidated Fund and income received from Sinking Fund investments. Expenditure from these funds largely consists of interest on public debt and debt redemption.

In such a system of budgetary accounts, evaluation of overall budgetary balance and financial relationships of the government with the rest of the economy, transactions of all funds should be taken into account, thus eliminating double-counting and inter-fund transactions. This is relevant given the importance of inter-fund transactions, especially transfers from the Consolidated Fund to Sinking Funds in Singapore . As will be argued in subsequent sections, both budget documents and budget statements are neither comprehensive nor consistent in the treatment of various items. Therefore, the Budget debate is undertaken without consideration of the overall financial position and macroeconomic impact of the transactions of the general government sector (Asher, 1989).

Second, Singapore’s budgeting system has evolved from a line item budget in the first year of its independence, to a Programme and Performance Based Budgeting System in 1977, and currently relies on top-down system which emphasizes aggregate limits while granting discretion to ministries on allocations (Blöndal, 2006).

Each ministry receives a multi-year spending ceiling (as a share of GDP) for all appropriations (including current and capital expenditures). Funding in fungible across time horizons and ministries can exercise discretion on the share they wish to appropriate for each fiscal year. The funding ceiling is not made publicly available, and is used as a “tool to assist in budget formulation rather than as a public commitment” (ibid, p53). In 2005, the Government introduced a Reinvestment Fund, financed by cuts across the budget. Ministries and agencies are encouraged to “bid” to utilize these funds for special programs.

Third, the budget is also used as an instrument to control manpower and the distribution of civil service personnel across ministries. Each ministry is allocated a share in the number of sanctioned positions in civil service. Should this share be exceeded, a surcharge of SGD 10,000 is payable by the ministry concerned.

Fourth, the Government of Singapore also operates several funds whose finances are not consolidated or reported as part of the Budget. Revenues, expenditures, and balance sheets of statutory boards are not reported as part of the budget. Some of these statutory boards are of major importance to the economy[4].

An increasing tendency of Singapore's sovereign wealth funds (largely financed from accumulated budgetary surpluses) to play the roles of a venture capitalist and/or a private equity investor implies an increasing role of the government in (both) Singapore and in the foreign economies it invests in. Thus, the role of the broader public sector in Singapore's economic management is much larger than what is reflected in the government budget and accompanying documents.

Fifth, while there are committees in the Parliament of Singapore that that are entrusted to various aspects of public financial management, these committees do not play an active role in the parliamentary budgetary process. For instance, while the Estimates Committee discussed "…many of the reforms to the budget formulation process and budget implementation and government management practices… it does not examine the substantive contents of the budget" (Blöndal 2006; p 63).

Sixth, the assets and liabilities statement of the government presented in the budget documents are far too aggregated to be useful for analysis or public accountability. Thus, the official data from the latest budget documents indicate that as on 31 March 2014, the assets of the Singapore Government consisted of SGD 123.4 billion as cash, Government Stocks SGD 215.4 billion, quoted investments SGD 307.0 billion and unquoted investments of SGD 186.3 billion, for a total of SGD 833.7 billion, or more than twice the GDP. Such large accumulation of budgetary assets substantially increases the fiduciary responsibility of the government, and potentially creates political

[4] Nearly four-fifths of the population live in public housing and the responsibility for constructing and financing these units is entrusted to the The Housing Development Board (HDB) (Phang, 2001). Budgetary transactions for such a large and important government agency are not reflected in the government budget.

risk arising from the sizable concentration of funds in the fiscal system[5].

Seventh, the accounting basis for reporting the budget to Parliament is on a cash-basis for easier understanding of budgetary accounts. However, modified accrual accounting method, more appropriate for improving budgetary resource allocation decisions, has been used since 1999 within the government[6].

3. Growth Strategy and Public Financial Management

Singapore's ability to sustain consistency between its growth strategy (the use of specific approaches have been commendably flexible) and its PFM practices is an important achievement, central to its strong performance over the past several decades.

Singapore has aggressively focused on a location-based growth strategy emphasizing capital accumulation, attracting foreign firms (MNCs in particular[7]), portfolio investors and foreign workers at both ends of the skills spectrum. This is to ensure that the country remains appealing for businesses while economic activities move up the value chain, and new growth nodes are created to enhance domestic economic resilience and maintain international competitiveness. Historically, the growth strategy has also necessitated tolerance of a high level of income inequality[8].

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[5] The concentration of funds, and risk, is heightened by the fact that Temasek Holdings alone reports a portfolio value of SGD 223 billion, or about 57 percent of GDP in 2014. The valuation of the other major fund, GIC Private Limited, is not publicly revealed.

[6] Cash accounting reports expenditure when the actual expenditure is made and records receipt when the payment is received by the government. The accrual accounting systems on the other hand involves recording revenue when payment obligation arises regardless of whether actual cash has been received; and it records expenditure when liability is incurred, regardless if actual payment has been made.

[7] See Ermisch and Huff (1999) for an analysis.

[8] The GINI coefficient fluctuated between a low of 0.460 in 2004 to a high of 0.482 in 2014 before government transfers. After government transfers, this reached a low of 0.409 in 2013 and a high of

To benefit from global trade, technologies, investments, tourism, and manpower flows, Singapore has been flexible in the instruments used in skillfully pursuing its business location strategy. This has required keeping the share of capital as substantially higher than the share of labor in national income. The share of labor income averaged 40.4 percent between 2010 and 2014 with the corresponding capital share at 51.9 percent[9]. Taxes on capital income have been substantially reduced in the past two decades and there is currently no income tax on interest income, dividends, most capital gains, and foreign-earned income. As capital income usually accrues disproportionately to the top decile of the population[10], the tax system is consistent with attracting capital and high-income individuals from abroad, but it contributes systematically to higher inequalities.

Due to falling fertility rates and rising longevity, Singapore's location-based growth strategy also requires a substantial inflow of foreign workers (with domestic wages being suppressed as a result; Hui, 2013), and a relatively inflexible age at which individuals decide to exit the labor force[11]. In 2014, Singapore citizens com-

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0.439 in 2007 (Department of Statistics, 2015a). However, this only includes labor income and, as discussed later, is likely to be understated.

[9] Table A1.11 in Ministry of Trade and Industry (2015).

[10] This suggests that in analyzing the tax burden by income deciles, tax-exempt capital income should be included. As capital income accrues disproportionately to the upper 10 percent of households by income, its exclusion overstates the tax borne by higher income households. Moreover, it is the economic incidence which requires an explicit model and assumptions about the shifting of the tax burden that matters, and not simple arithmetic calculations of the statutory incidence. Note also that the GINI (footnote 7) is thus under-reported and will likely be significantly higher if capital income is included.

[11] The age-specific resident male (female) labor force participation for those aged 55 to 59 is 87.5 (61.4) percent in 2014. Corresponding figures for the age groups of 60 to 64, 65 to 69, and those over

prised 61.1 percent of total population, with permanent residents comprising 9.6 percent and foreign workers comprising 29.3 percent (Department of Statistics, 2015b). The inflow of foreign manpower has been beneficial to Singapore in economic and fiscal terms, but has posed social challenges. These challenges will become more acute, requiring political management as the share of foreigners in the population rises (Yeoh and Lin, 2012).

The Singapore government maintains a significant presence in the economy by direct participation, state-led planning and the use of interventionist policies (Huff, 1995; 1999). This has been facilitated by the fact that in Singapore, there is neither common law nor constitutional right to own land. Government-linked and government-owned companies, and statutory boards, which are outside the budget framework, have been prominent in Singapore's growth strategy and economic management. These are however, run on commercial principles in areas such as healthcare, transportation, utilities, waste management, and finance (Ramirez and Tan, 2004).

An important feature of Singapore's PFM practices is not the pre-dominant role of the public sector in the economy, but that this has been made consistent with its growth strategy (e.g. by providing complementary public amenities such as power, housing, water, transport, etc., that are needed by businesses), and by generating financial surpluses. These help create confidence of public sector management consistency to foreign enterprises and individuals which are key drivers of the growth strategy pursued. Subsequently, public sector revenue from taxes and other sources increases correspondingly with the growth of the economy. However, in the absence of adjustments to the government's expenditure allocations, budgetary surpluses be-

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70 are even lower at 77.0 (45.5) percent, 54.1 (29.5) percent and 15.3 (8.8) percent respectively (Ministry of Manpower, 2015).

come self-perpetuating.

3.1. Fiscal Rules

Singapore's growth strategy requires sustained global investor confidence in the government's economic and financial management over a prolonged period. Singapore's fiscal rules are therefore designed to demonstrate commitment to addressing the needs of the investor, and maintaining a resilient economy.

There are four broad fiscal rules which are relevant in Singapore's public financial management. First, governments have to work within their period of appointment in managing deficits in the budget, i.e. governments cannot draw on accumulated surpluses in the previous term of government to meet deficits.

Second, under the Net Investment Returns Contribution (NIRC), only half of the expected long-term real rate of return on net assets managed by the GIC Private Limited (formerly the Government of Singapore Investment Corporation) and the Monetary Authority of Singapore (MAS) can be used for financing the budget. Up to half of the Net Investment Income (NII) from remaining assets may also be included into the budget.

Third, should the government wish to draw down accumulated reserves to finance budget deficits, the approval of both the Parliament and the President of the Republic of Singapore are required. However, with historical exhibition of consistent structural surpluses, approval has rarely been sought[12], suggesting there has been a relatively disciplined approach in the management of public finances, with an aversion to over-

[12] To date, there appears only to have been one instance where both the President and Parliament's approvals were sought – in 2009 after the collapse of Lehman Brothers in 2008 marked the beginning of a global economic downturn.

expenditure and incurring of deficits in regular operations of the public sector[13].

Fourth, only the government can introduce motions to reallocate or change expenditures during the budget process (Blöndal, 2006). While elected members of the Parliament can debate resources devoted and priority areas, the government maintains tight control over the budget.

3.2. Persistent Structural Budget Surpluses

Singapore's growth strategy has resulted in persistent structural budget surpluses, while keeping the level of expenditure and tax revenue relatively low (Figure 1). As mentioned, budget surpluses were necessary to instill investor confidence, it also helps to better manage expectations of macroeconomic stability and to keep tax burden on capital income low. Low (reported) levels of expenditure and revenue also suggest that the government is committed to a minimalist role in the economy, further strengthening the perception of a business friendly environment.

The persistent surpluses imply intergenerational transfers of resources from the immediate past and current generation whose consumption opportunities have been constrained due to the need to generate these surpluses, while consumption opportunities of future generations (with higher incomes) will be larger. This pattern of intergenerational transfers cannot be sustained over a long period particularly in high-income ageing societies.

The following observations may be made on the basis of the data in Figure 1.

[13] Blöndal (2006) concludes similar from his review of public sector budgeting in Singapore. In particular, he finds a culture of aversion towards any annual deficits in expenditure among civil sector bodies. And this is despite a considerably high level of autonomy, with leeway for deficit-spending in any year subject to a five year budgetary cap, as to how each department manages its budgets.

Firstly, the budget balance was consistently in surplus between 2003 and 2014[14], averaging at approximately 7 percent of GDP a year. Apart for the years from 2003 to 2005, budget surpluses (narrowly defined as revenues less government expenditure) were consistently at 5 percent of GDP or higher.

[FIGURE 1 and accompanying footnotes about here]

The tax revenue to GDP ratio remained relatively constant at around 13 percent since 2003. In contrast, the share of total government revenue to GDP exhibited greater volatility, peaking at 24 percent in 2007 but falling to 18 percent in 2009[15]. This suggests there may have been a shift away from relying on taxation as a main revenue instrument; instead, non-tax revenue, including unconventional sources, has become more prominent.

Total government expenditure, which is lower than the outlays, exhibited a similar gradual downward trend over the decade. Total expenditure peaked at 17.7 percent of GDP in 2005, and fell below 15 percent between 2006 and 2013. The absence of social security transfers has significantly contributed to the low level of spending Singapore relative to other developed economies such as the OECD (Asher, 2003). There are other aspects such as not including debt repayment as expenditure and netting out expenditure incurred in generating capital revenue. This practice is, for reasons which remain unclear, unusual by international reporting conventions. The extensive use of Statutory Boards and other public organizations have also contributed to Singapore's low reported budgetary expenditure to GDP ratio. These suggest that budgetary reve-

[14] Post-1980, the budget balance was negative in only 1986, 1987 and 1998. See Cao and Chew (1996) and Asher (2003).

[15] In comparison, average tax revenue as share of GDP was 34.9 percent (ranging from a low of 20.3 percent to 48.6 percent) in 2013 for the OECD.

nue and expenditure are inappropriate indicators of the size of Singapore's government[16].

Various taxes continue to form the core of government finances, but their importance as a revenue instrument appears to be diminishing. With the gradual increase in the share of non-tax revenue, unconventional income sources appear to become an increasingly important avenue for revenue.

3.3. Composition of Government Outlays and Expenditure

Government outlays have largely been oriented towards investment and growth purposes and to facilitate revenue generation. Thus, the growth strategy has resulted in the composition of government outlays being focused towards development expenditure, as shown in Figure 2.

[FIGURE 2 about here]

Outlays differ from expenditure in that expenditure is total outlays minus total consolidated fund outlays, minus total development fund outlays. Each of the latter is itemized to purposes such as land- and investment-related spending, debt servicing, (undefined) loans, etc, and comprises nearly 10 percent of GDP[17].

Figure 3 shows the composition of the government's operating expenditure, with clear indication that the focus is on infrastructure and human capital development,

[16] A more detailed analysis of this issue is out of the scope of this paper. However, these underline the need to understand the context of a given country, and organizational attributes of its public sector before analyzing cross-country comparative data on public finances.

[17] While total outlays are likely to be a better indicator of government size, classification issues, such endowment fund transfers inappropriately labeled as expenditure in Singapore's public finances suggests that outlays are, similar to expenditure, unlikely to offer a representative indication about the size of the government (Asher, 1986; Lim and Associates, 1988).

while minimizing general administrative costs and transfer payments for consumption.

[FIGURE 3 about here]

Fiscal policy in Singapore has not been primarily used as a countercyclical demand management instrument for macroeconomic stabilization in Singapore's fiscal management. This is because Singapore is a small open economy and a price taker in international markets for goods, services, and capital. Thus, Lim and Associates (1988), Tan (1996) and Lim (2003) have argued that the fiscal multiplier (in this case) will be considerably smaller than what may be derived in less open economies[18]. Instead, supply-side imperatives such as the management of wages and the exchange rate[19] are more suitable for domestic stabilization (Lim, 2003).

3.3.1. Pensions and Healthcare

Public expenditure on pensions and healthcare in Singapore has been relatively low where in 2014, public expenditure on health was only 1.5 percent of GDP, less than two-fifths of national health expenditure[20].

Government expenditure on social protection, particularly for retirement and old-age financing, has been similarly low historically where the primary philosophy is self-dependency from individual contributions to the CPF and supplemented by individual savings. Pension financing in Singapore is based on the assumptions that firstly, households are able to accumulate sufficient savings, which are micromanaged and

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[18] See Santoni (1999) for a formal analysis of the fiscal multiplier in a small open economy.

[19] However, note that fiscal policy can still have an indirect effect when used as an instrument for exchange rate management (Nadal-De Simone, 2000). A consideration of this is out of scope here.

[20] National healthcare expenditure as a share of GDP is approximately 4 percent: https://www.moh.gov.sg/content/moh_web/home/costs_and_financing.html Retrieved 11 February 2015.

intermediated by the state, from income during working years. This leaves households vulnerable to inflation, which lowers the real value of pensions, and women, with lower exposure to the labor market, susceptible to retirement risk. The second is that the role and function of the state is to ensure that households possess sufficient income necessary for only basic necessities and requirements (Williamson *et al*, 2012). .

However, such premises as the basis for retirement financing may no longer be feasible. With globalization, where capital (human, financial, technological) with high locational elasticities move in search the highest returns are the highest and reduce job security, and rising income inequalities (Hui and Toh, 2014), these have greatly reduced the prospects of a fully self-funded retirement for a significant part of the population. There is thus a compelling case for a fundamental rethinking of these premises on both scope for budgetary-financed social protection in forms such as a social pension on both ethical (Asher, 2003; Asher and Bali, 2014) and theoretical grounds (Molana and Montagna, 2007)[21].

3.4. Revenue Composition

The revenue system of Singapore comprises tax revenue and non-tax revenue, including unconventional sources such as non-conventional sources of income include, others, regulatory levies and usage fees of public infrastructure and amenities, income from institutions such as sovereign wealth funds and profits from government-linked companies, and duties on activities such as lotteries[22]. Rents from the lease of land use rights are also a major contributor to government revenue in Singapore. The increas-

[21] Molana and Montagna (2007) do not consider a social pension *per se*, but the qualitative nature of their results extends easily to consideration of a pension to the elderly and disabled. Recent work by Hoeller *et al* (2014) provides some empirical validation to their conclusions.

[22] See Asher (2005) for a fuller discussion.

ing importance of non-tax revenue suggests that its economic incidence on households should be included for a fuller understanding of the total revenue burden of households.

The tax system is based on two major broad-based taxes: the income tax and goods and services tax (GST). The income components of government revenue and their shares are presented in Figure 4. It is clear that taxes remain a key source of income, contributing consistently to approximately 60 percent of total revenue. Non-tax or, more generally, unconventionally-sourced income has fluctuated between very sizable shares of 25 and 35 percent over the period. Thus, policymakers have been successful in reducing the reliance on taxes in favor of unconventional-sources of revenue.

[FIGURE 4 about here]

In line with other developed economies, Singapore introduced a broad-based tax on consumption – the GST– in 1993. This was officially rationalized as being more equitable with the advent of an aging population, and allowing a corresponding reduction in income taxes to raise economic competitiveness (Cao and Chew, 1996). However, the share of household consumption in income generally exhibits a decline as income levels increase. To the extent that this is the case in Singapore, the GST burden as a percentage of household income can also be expected to be inversely related.

International experience suggests that the introduction of, or increases in, the rate of VAT are likely to lead to an increase in the cost-of-living by approximately the same percentage points in well-managed economies, and not lead to inflation, i.e. persistent rises in the price level (Ebrill *et al*, 2001).

As Singapore did not levy a sales tax at the time of the introduction of the GST at a rate of 3 percent in 1994, even a one-time increase in the cost-of-living[23] would have wealth effects such as a reduction in the real value of accumulated money balances in bank accounts and in CPF accounts of members[24]. The GST also created inter-generational inequalities as elderly at the time of its introduction would have paid higher income taxes in their younger years, but face an additional GST burden now. The adverse effects of the GST have been mitigated partially by GST allowances, but the extent of such mitigation requires rigorous disaggregated quantitative analysis which is not available in the literature.

In general, the GST, especially, burdens the elderly in Singapore as they are a group likely to have lower average incomes than the current working population and are net dis-savers. The GST which is on consumption will thus have a disproportionately large impact on the bundle of goods and services consumed by this group. Subsequently, this suggests of a need to not rely too heavily on the GST to meet future expenditure needs.

Furthermore, only a relatively small share of the labor force pays individual income tax in Singapore as CPF contributions and interest credited to accounts and withdrawals are all exempt from individual income tax. The ratio of individual income tax payers to labour force, while increasing in recent years is only 37 percent of the labour force in 2013, i.e. nearly three-fifth of the labour force do not benefit from the income tax treatment of the CPF. The extent to which individuals do not benefit from this exemption as their assessed income is within the non-tax threshold, it in-

[23] The one-time increase in costs-of-living need not be reflected in the reported consumer price index as there are many other factors which simultaneously impact this index.

[24] The GST rebate provided at the time of introduction, and also with each subsequent increase, of the GST was to ease household expenditure flows, and not for compensating the wealth effect.

troduces a highly regressive element in the fiscal system. There is merit in considering how this highly regressive element in the fiscal system can be mitigated by instruments such as an annual tax credit deposited directly into the CPF accounts of those who do not benefit from the tax exemption.

In Singapore's comfortable fiscal position (Figure 1), non-conventional sources of revenue have played an important role. The main contributors to this category are lease of land revenue; investment income generated from past budgetary and balance-of-payment surpluses and by the Monetary Authority of Singapore; and regulatory taxes which allocate property and usage rights.

3.4.1. Revenue from Leasing Land Use Rights

Singapore has historically utilized revenue from the release of land parcels for development, but actual transfer of land ownership has been small[25]. While the income is considered as sales revenue, land is typically allocated on leases of various durations and acquisitioned in accordance with planning needs as outlined in the Master Plan dictating future land use patterns (Urban Redevelopment Authority, 2014).

The revenue from the lease of land, which is inappropriately labeled in official documents as capital income from the 'Sales of land' has ranged from a high of 5.5 percent of GDP in 2011 to a low of 1.1 percent in 2004. In analytical terms however, the revenue from the leasing of land is essentially a complicated differentiated excise tax, and is better included under tax revenue (Phang, 1995; Asher, 2003). The excise nature of the leasing of land revenue arises due to the following.

The outlay of any business entity on the leasing of land is a part of its cost of production or business activity. This will subsequently be passed on to the buyers of the

[25] Recall that there is no Constitutional or Common Law right to own land in Singapore

structures built on the leased land (such as the shopkeepers in a shopping mall). In turn, the latter will attempt to pass on the costs to final consumers, where their ability to do so will depend on factors such as pricing power, the time period of analysis and other related economic factors.

As businesses pass on some, or all, of the costs from the lease of land, the ratio of the economic burden of these costs to the final retail prices of goods, services and assets is likely to vary. This is the excise tax effect created as a result[26].

3.4.2. Investment Income

Investment undertaken by the government largely comes under the purview of Temasek Holdings formed in 1974, and GIC in 1981 as private investment companies mandated to manage surplus government funds (Lim and Associates, 1988) for investment purposes domestically and abroad. Both may thus be viewed as quasi-government bodies since they are recipients to public sector funds and contribute to the annual budget revenue.

A statutory limit[27] exists on the proportion of investment incomes that may be apportioned to the budget, but the ambiguity pertaining to their contributions stems from the following: (i) the size and share of the public sector's input; (ii) the true level of returns; and (iii) the proportion of investment income that has been apportioned towards the budget.

However, as both are incorporated under the Singapore Companies Act (Cap 50) as commercial firms, they are dispensed with the need for public disclosure of their entire portfolio holdings, financial standing, and governance structure. Yet, their *de*

[26] To the best of our knowledge, an empirical analysis of the excise effect from the lease of land does not appear to have been undertaken thus far.

[27] See Section 2.

facto quasi-government status suggests the absence of such presents a shortfall in accountability.

This acquires greater significance as GIC also manages CPF balances[28] which are for financing retirement. This is in contrast to previous speculation that the CPF was a source of funds for domestic projects such as infrastructure and public housing (Lim and Associates, 1988; Cao and Chew, 1996) which carry lower volatility risk than investments in international assets. Furthermore, the institutional design of the CPF has a key role in contributing to the persistent budget surpluses reported.

CPF Members' balances are invested in non-marketable government securities which form a part of the liabilities of the sovereign wealth funds. However, the (lower) interest credited to members' individual accounts is centrally administered instead of benchmarked against investment returns. As a part of the returns earned by the GIC is included in the government budget as part of the NII component, this revenue in conjunction with low tax-and-spending mix, further perpetuates the continued budgetary surpluses.

3.4.3. Regulatory Levies and Fees

The government's generation of significant revenue from unusual property and usage rights has been among the distinguishing characteristics of Singapore's public financial management. In particular, the revenue from foreign worker levies are a non-trivial portion of the government's operating revenue taking into account the

[28] This was mentioned by Singapore's Deputy Prime Minister and Finance Minister in July 2014. http://news.asiaone.com/news/singapore/cpf-issue-gic-manages-cpf-monies-along-other-govt-funds-dpm-tharman, retrieved 11 February 2015. The latest budget speech of 2015 proposes the inclusion of Temasek Holdings and the Monetary Authority of Singapore's investment returns into the NIR framework.

number of work permits granted[29]. Similarly, generation of revenue from the right to purchase a car for ten years, called the Certificate of Entitlement (COE), was unusual when introduced in 1990.

While these may not be officially classified as tax revenue, their impact is nevertheless has tax-like features for households and businesses. Given the revenue importance of revenue from property and usage rights, overall tax burden in Singapore is much higher than what may be inferred from conventionally defined tax revenue[30].

3.5. Public Debt Management

Even as Singapore has experienced structural budgetary surpluses over the past decades, it has also accrued high public debt of SGD 390 billion (in excess of 107 percent of GDP) as at end 2013. In most countries, public debt is used to finance budget deficits. However, the Government of Singapore's balance sheet as reported in the annual government budget documents has accumulated substantial balances and there appears no economic rationale for the government to issue public debt[31]. Singapore's entire public debt is held internally (85 percent through registered stocks and bonds; 9.9 percent through treasury bills; and the remaining through Advanced Deposits with the Monetary Authority of Singapore).

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[29] Total work permits granted in 2014 total 980,800 (Ministry of Manpower, http://www.mom.gov.sg/statistics-publications/others/statistics/Pages/ForeignWorkforceNumbers.aspx, retrieved 11 March 2015). Of this number, foreign domestic workers accounted for 22 percent, for construction 33 percent. Thus, over half of foreign work permit holders are in these two sectors.

[30] Note that there may also be a high opportunity cost of public funds (OCPF). An assessment of the OCPF is, however, beyond the e scope of this paper.. Readers are referred to Massiani and Picco (2013) for further discussion.

[31] Issuing of public debt allows an avenue for CPF funds to be transferred to GIC for investment purposes, since these are not marketable, while maintaining management accountability.

The Central Provident Fund (CPF) Annual Report for 2013 states that of its total investments of SGD 252.9 billion, SGD 214 billion (or about 85 percent) were in hold-to-maturity financial assets: non-marketable government bonds (i.e. Special issues of Singapore Government Securities) and Advanced Deposits with the MAS. Thus, the Central Provident Fund as an institution is the single largest holder of government debt.

The interest on debt held by CPF is administratively benchmarked on return on marketable government bonds. Other holders of Singapore government debt include financial institutions that are required to purchase such debt as part of their prudential norms. Singapore does not face rollover risk as CPF holds government securities till maturity. While Singapore has accumulated large gross public debt, there was SGD 401 billion in Government Securities Fund set aside for repayment of debt. This is higher than the public debt of SGD 390 billion. Indeed, if net public debt were measured, Singapore would most likely exhibit a surplus.

Furthermore, under the Protection of Reserves Framework under the Government Securities Act, the Singapore Government can not spend the monies raised from the sale of SGS and SSGS. These funds can however be invested by the government, and the proceeds of which can be used to service the debt (Ministry of Finance, various years).

4. Prospects

The paper thus far has argued that policymakers in Singapore have strived for consistency between the growth strategy and PFM characteristics. The other key characteristics have been: (i) persistent structural budget surpluses to signal to investors government's determination to manage expectations of the public about provision of government services, and for generating future revenue to keep tax burden on capital income low; (ii) substantial public sector activity outside of the budget; (iii) limited social risk pooling in pension and healthcare; (iv) extensive use of non-conventional sources of revenue; and (v) a stress on accounting and budgeting reforms and e-governance.

The location-based growth strategy historically emphasized by Singapore's policymakers is dependent on attracting foreign capital and labor, and strong external demand as determinants for success. However, increasing quality-of-life expectations from the Singapore population, and tougher conditions set by sending countries in the region, suggests that Singapore can no longer rely on growing the share of foreign labor to sustain growth to the same extent as before.

Furthermore, the ratio of global trade growth to world GDP growth was just over 1.5 in 2014 (World Bank, 2015). This is in contrast to a high of 2.4 in 2000, which has since seen a continued downward trend. This suggests that the ability of Singapore to rely on the external sector to generate growth is likely to be considerably lower in the future as a result. Some impact is already observed as Singapore's growth has averaged around 3 percent in the last few years, in comparison to the 6 to 8 percent observed in earlier decades.

Singapore's ageing population also increases the complexity of pursuing innovation and productivity-led growth. The increasingly aging population further implies that there will be societal pressures to expand the share of expenditure on public amenities such as healthcare, assistance to hitherto neglected groups such as housewives, singles, disabled and others.

In general, the balance between the external and domestic sources of growth is likely to shift towards the latter. This will require increasing the share of labor in national income, higher social transfers, including social pensions, more extensive social risk pooling arrangements, particularly for pensions and healthcare finances from budgetary revenue; and lower tolerance of inequalities. It will also require greater focus on productivity–led rather than resource–intensive growth (Pang and Lim, 2015)

There are some indications of tentative steps being taken in this direction. Since 2012, the year-on-year change in Singapore's budgetary expenditure per capita has been larger (or declined smaller) than corresponding changes in per capita revenue, thus reversing the general trend of earlier years (Table 1). This trend reversal is expected to continue as there are several indications that the government recognizes the need to increase domestic consumption and sources of growth, and strengthening social protection outcomes for not just the low-income, but also for the middle classes.

[TABLE 1 about here]

These indications include the following. First, the government has reversed its earlier policy on CPF contributions by raising the wage ceiling to SGD 6,000; increased contribution rates; raised the administered interest rate on CPF balances selectively; and partly addressed longevity risk, i.e. the risk that an individual may exhaust retirement saving before death, by appropriately modifying the periodic payment arrangements of CPF members in retirement, and improved income supplement programs for the elderly.

Second, labor costs of low-wage employees are also being subsidized from the budget to a greater extent to increase the purchasing power of low-income households.

Third, the top marginal income tax rate is set to increase from 20 percent to 22 percent for high-income individuals from the year of assessment 2017. This has a symbolic significance as such a measure has been taken after many years of declining income tax rates.

Fourth, the 2015-2016 Budget has signaled that more of the investment income will be reflected in the budget, and available for supporting government expenditure. This could reduce reliance on the regressive GST to generate additional revenue.

The mindset of the policymakers appears wedded to the requirements of location-based strategy, explaining the continued reluctance to introduce social insurance principles in pension and healthcare financing arrangements[32], and to using relative income rather than absolute income mitigation in designing public policies. Policymakers are at initial stages of recognition that transparency, robustness, timeliness and consistency of economic and social data including of broader public sector activities, are needed for greater policy credibility and broader acceptance of policy measures and their rationale by the stakeholders. Disclosure of a tax-expenditure statement with the annual budget documents will be a significant positive step in this direction.

The dynamics suggested by recent policy measures is that the process of overcoming such reluctance has begun, and progress in this direction may be expected overtime. A strong indication of success of Singapore's public financial management is that the above process will not be constrained by a shortage of fiscal resources, or by institutional and organizational capacities of the government.

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[32] For example, premiums for MediShield, the state-administered health insurance scheme, remain largely based on commercial principles that vary with age: https://www.moh.gov.sg/content/moh_web/home/costs_and_financing/schemes_subsidies/Medishield/Premiums.html. Retrieved 12 March 2015.

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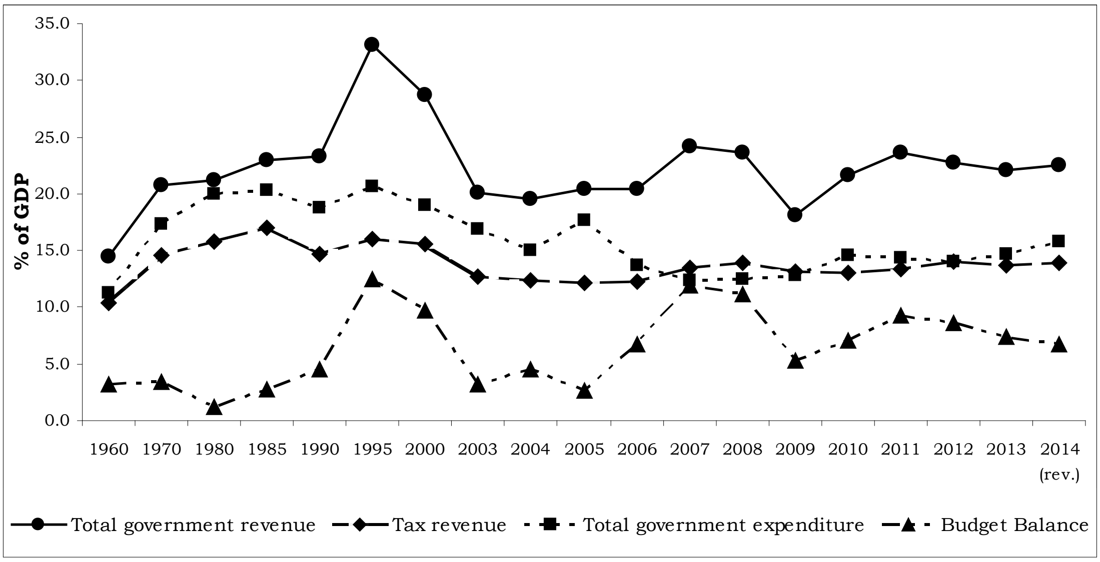
Figure 1: Fiscal Indicators, 1960–2014 (selected years)[33]

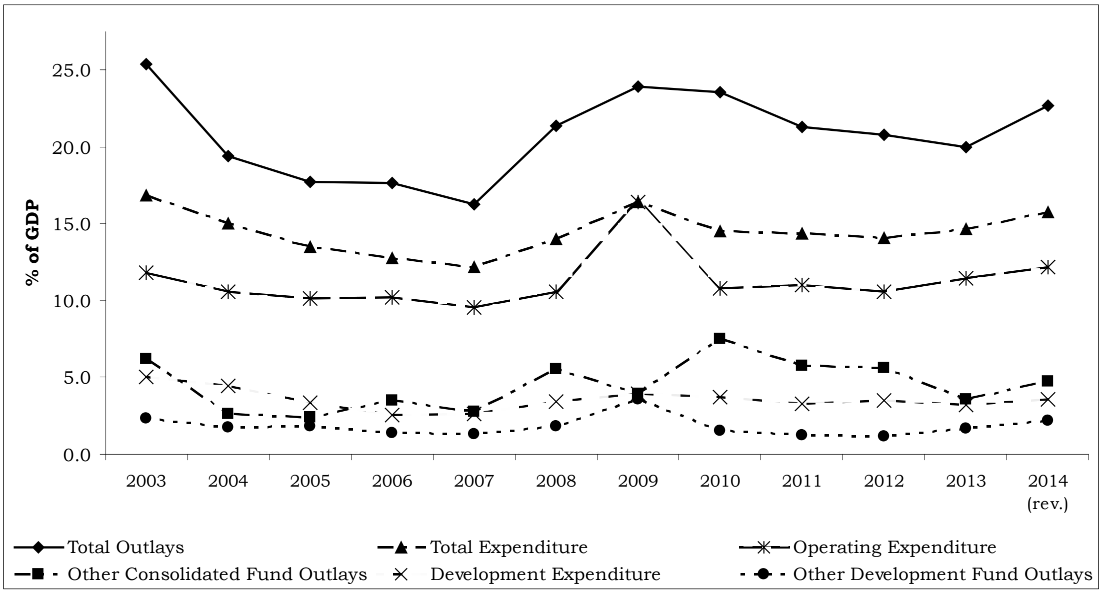


Sources: Cao and Chew (1996), Asher (2003), and calculations[34] by Authors from Ministry of Finance (various years), *The Budget.*

[33] Data from pre-2003 is included as a brief guide of the historical trends.

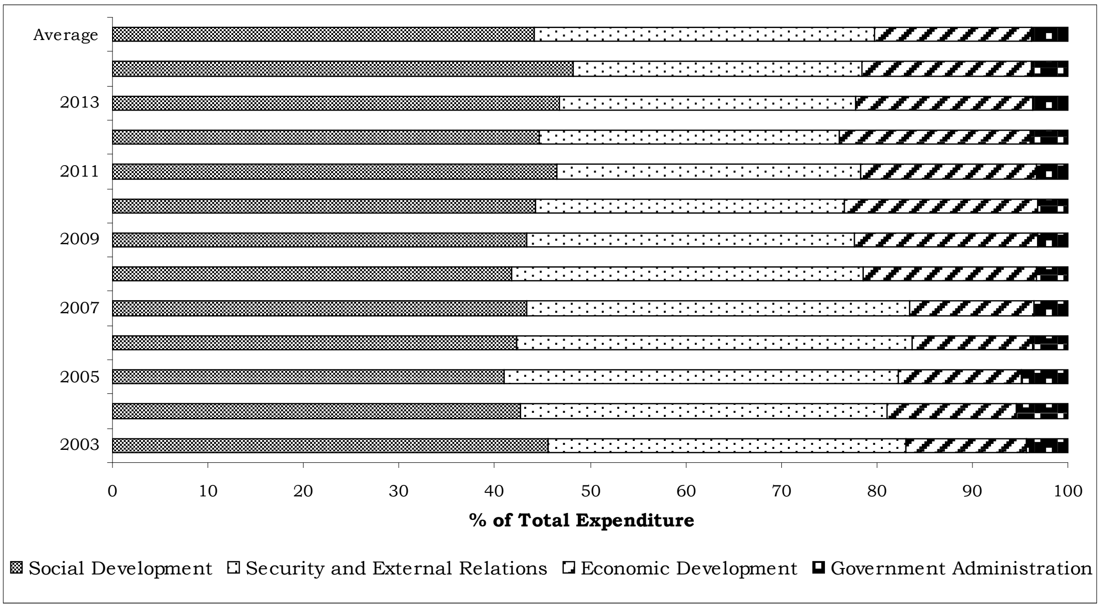
[34] These are calculated using current market prices. Intuitively, constant prices may be more appropriate. However, these are not available for public sector revenue and expenditure. Next, the budgeting is done on a cash basis, and changes in government receipts and expenditures result from various influences such as inflation, tax changes, income rebates, etc, than from changes in real output or economic activity only. Finally, and most importantly, due to the nature of goods and services purchased, the government consumption index will be very different, and publicly unavailable, from either the CPI or the GDP deflator. Thus, using either of the latter to construct a constant price series for government expenditure is unlikely to be informative, or valid, for inference.

Figure 2: Total Government Outlays and Composition in Singapore, 2003–2014



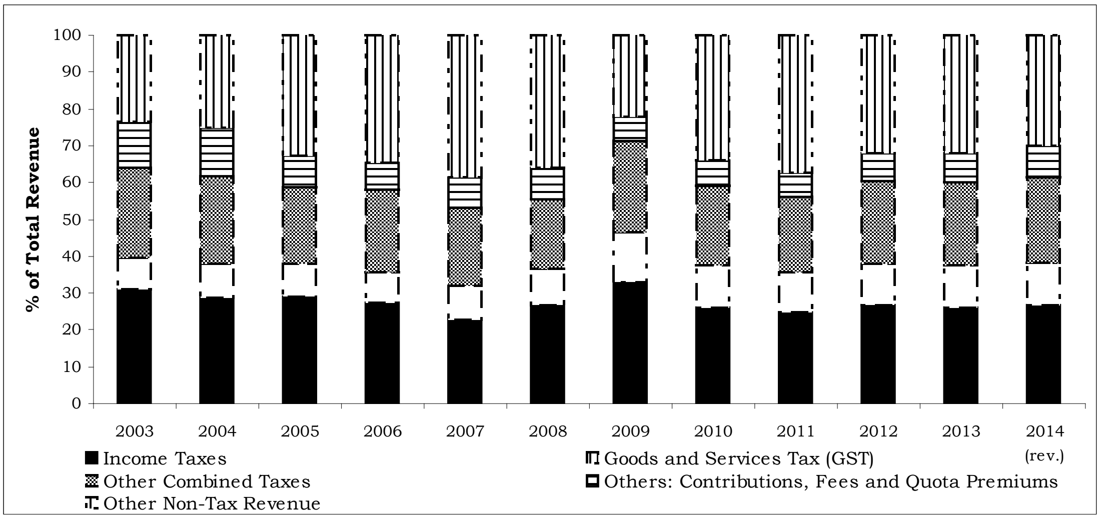
Source: Calculations by Authors from Ministry of Finance (various years), *The Budget*.

Figure 3: Singapore Government's Operating Components and it Shares, 2003–2014



Source: Calculations by Authors from the Ministry of Finance (various years) *The Budget*.

Figure 4: Composition of Total Revenue, 2003-2014



Source: Authors' calculations from the Ministry of Finance (various years) *The Budget*.

Table 1: Per Capita Revenue and Expenditure

□ □	Total revenue per capita		Total expenditure per capita		Tax revenue per capita		Non-tax revenue per capita	
	SGD	Y-o-y change (percent)	SGD	Y-o-y change (percent)	SGD	Y-o-y change (percent)	SGD	Y-o-y change (percent)
2003	8250.58	-	6925.93	-	5225.29	-	3025.29	-
2004	9050.95	9.70	6949.68	0.34	5711.76	9.31	3339.19	10.38
2005	10138.62	12.02	8798.97	26.61	6021.59	5.42	4117.03	23.29
2006	10887.27	7.38	7322.60	-16.78	6549.56	8.77	4337.71	5.36
2007	14326.02	31.59	7298.12	-0.33	7982.89	21.88	6343.12	46.23
2008	13288.10	-7.24	7004.77	-4.02	7792.04	-2.39	5496.06	-13.35
2009	10186.68	-23.34	7198.21	2.76	7341.56	-5.78	2845.12	-48.23
2010	13747.74	34.96	9226.91	28.18	8243.10	12.28	5504.64	93.48
2011	15687.75	14.11	9543.91	3.44	8888.67	7.83	6799.08	23.52
2012	15316.48	-2.37	9498.74	-0.47	9434.18	6.14	5882.29	-13.48
2013	15243.11	-0.48	10134.44	6.69	9472.88	0.41	5770.23	-1.91
2014 (rev.)	16064.87	5.39	11248.57	10.99	9936.43	4.89	6128.44	6.21

Source: Authors' calculations from the Government of Singapore Budget documents (various years)