MANAGING FISCAL POLICY RESPONSES TO COVID-19: A CASE STUDY OF SINGAPORE

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ABSTRACT

The COVID-19 pandemic has caused a significant deterioration in public finances in many countries, resulting in extended fiscal deficits and higher levels of public debt. In contrast, Singapore has been able to finance its fiscal responses to COVID-19 with little sign of extended fiscal deficits, or higher levels of public debt. This paper discusses Singapore's public financial management and highlights two features that have served to enable the country to mobilize fiscal resources in response to a crisis without incurring substantial (and potentially destabilizing) fiscal deficits and/or levels of public debt in the longer term. These are: (i) design features in its fiscal rules; and (ii) a discerning identification and utilization of broad-based taxes and nonconventional, i.e. non-tax, sources for revenues which exhibit a lower level of volatility. It also discusses the wider applicability of these features and practices to other countries and regions.

Keywords: Balanced budget; COVID-19; Nonconventional revenue; Rainy day funds; Tax administration

INTRODUCTION

The COVID-19 pandemic has caused a significant deterioration in public finances in many countries. Containment measures, increased government spending and lower tax revenues have driven extended fiscal deficits and higher levels of public debt, which as a percentage of GDP has reached its highest levels over the past several decades for many countries. In contrast, Singapore has been able to finance its fiscal responses to COVID-19 with little sign of extended fiscal deficits, or higher levels of public debt. This paper discusses Singapore's public financial management and highlights several features that have served to enable the country to mobilize fiscal resources in response to a crisis without incurring substantial (and potentially destabilizing) fiscal deficits and/or levels of public debt in the longer term. It also discusses the wider applicability of these features and practices to other countries and regions.

A regular feature is the recurring presence of fiscal surpluses in Singapore's public financial management. Between 2003 and 2014, Asher, Bali and Kwan (2015) report that budget surpluses averaged 7 percent of GDP a year. Over the same period, the public sector incurred no long term external liabilities (debt). These are unusual as major events over the period in Singapore include the outbreak of the severe acute respiratory syndrome (SARS) in 2003 and the Great Recession of 2008-2009. Both led to greater spending by the public sector in order to manage their socioeconomic effects.

Following the SARS epidemic outbreak, two fiscal stimulus packages of SGD 230 million and SGD 11.3 billion respectively were introduced in May and September 2003, leading to a reported fiscal deficit of SGD 1.89 billion for Financial Year (FY) 2003. No fiscal stimulus was tabled following the bankruptcy of Lehman Brothers in September 2008, although the FY2009 budget made provisions of SGD 20.5 billion for a "Resilience Package" in anticipation of worsening global economic conditions. The package contributed to a reported deficit of SGD 0.82 billion for FY2009.

The trend of increased fiscal commitments during crises has continued in the current ongoing COVID-19 pandemic. Besides the main annual budget, this saw the introduction of four supplementary budgets in FY2020. The latter were primarily aimed at mitigating the wide-ranging socioeconomic effects of the pandemic while also ensuring that Singapore's longer-term socioeconomic objectives and directives were not compromised (Chow and Ho, 2021).

Fiscal provisions in direct response to the pandemic's effects totaled SGD 100.9 billion, resulting in an estimated budget deficit of SGD 74.2 billion. Revised estimates have since put the deficit at SGD 64.9 billion, or about 13.8 percent of GDP, because of marginally higher operating revenues and lower expenditures and discretionary transfers.[1] Notably, no external debt was incurred to finance the deficit. Instead, the government made several requests to the Parliament and the President of Singapore to withdraw up to SGD 52 billion from Singapore's national reserves for deficit financing.

Asher, Bali and Kwan (2015) argue that regular fiscal surpluses are integral to Singapore's growth strategy as they serve to manage global investor confidence and expectations of macroeconomic stability. Complementing this, Kwan, Bali and Asher (2016) report evidence of a consistent practice of under- (over-) estimating revenues (expenditures) in the budget which lead to estimates of a poorer fiscal position, but enable a continuing record of fiscal surpluses (or a smaller deficit) at the budget outturn.

Blöndal (Section 2.1.6, 2006) reports that underspending of budgetary allocations has been small in public sector agencies – typically at less than 5 percent of allocations – as expenditure rules limit the share of allocations that may be carried forward to the next fiscal year to 5 percent. It follows that the successful mobilization additional of fiscal resources, while avoiding the accumulation of long-term fiscal deficits and/or public debt, in response to a crisis is more attributable to the prevailing features/practices in Singapore's public financial management.

This paper argues that two features in Singapore's public financial management serve to facilitate this. These are: (i) design features in its fiscal rules; and (ii) a discerning identification and utilization of broad-based taxes and nonconventional, i.e. non-tax, sources for revenues which exhibit a lower level of volatility.

Major characteristics and historical trends of Singapore's public financial management were previously reviewed and discussed in Blöndal (2006) and Asher, Bali and Kwan (2015). This study complements the literature with its focus on the aspects which serve to facilitate additional mobilization and muster of fiscal resources in response to a crisis while constraining an increase in external public sector debt. The paper also draws some parallels and extensions of Singapore's public financial management practices with other governments.

The rest of the paper is organized as follow. Section 2 provides a brief review of the main features, fiscal rules, and nuances of the Singapore budget. Section 3 discusses the features that enable an effective mobilization of fiscal resources following a crisis without incurring an increase in public debt and the relevance to subnational governments. The final section concludes the paper with a brief discussion of the wider implementation prospects, and avenues for further research.

[1] Note that as government receipts are on a cash basis, i.e. in nominal terms, GDP in current prices and not real GDP is the appropriate denominator when calculating the various balances and allocation as a share of output.

THE SINGAPORE BUDGET

Overview

Public sector mobilization and acquisition of resources in Singapore is historically focused towards supporting the country's economic growth and development. This includes providing education and healthcare services, transport, utilities and other physical infrastructure. It also requires keeping government spending as a share of GDP (relatively) low. IMF (Table A6; 2021b) reports that average government spending as a share of GDP in high income economies was 38.6 percent in 2019, and 46.7 percent in 2020. For Singapore, government spending as a share of GDP was 14.1 percent and 26.5 percent respectively.

Despite Singapore's increasingly aging population, the budget had placed comparatively less emphasis on social protection and old-age financing (Section 3.3.1; Asher, Kwan and Bali, 2015). However, recent initiatives like the Pioneer Generation Package, the Merdeka Generation Package and the Silver Support Scheme suggest a tacit acknowledgement of the need for a greater role by the public sector in social protection and in facilitating old-age financing adequacy and security.[2] Increased emphasis and focus in both areas is likely required in future budgets following the wide-ranging socioeconomic effects of the COVID-19 pandemic, including a possibility for longer-term aftereffects ("long COVID") that may affect an individual's subsequent working ability following recovery from COVID-19.[3]

The budget's directives on revenue acquisition and expenditure are undertaken in the incoming financial year, unless it is specified otherwise. The financial year begins on April 1 of the calendar year the budget was read and ends on March 31 of the following year. Accrual accounting has been used for the deliberation and formulation phases since 1999 but reporting of the budget to Parliament remains on a cash basis (p. 74; Blöndal, 2006).

Revenues received by the government are managed and disbursed from the Consolidated Fund. This consists of the Consolidated Revenue Account which manages all receipts except for loans. The latter is managed by the Consolidated Loans Account in the Fund. Tax administration is primarily undertaken by the Inland Revenue Authority of Singapore (IRAS), a statutory board under the auspices of the Ministry of Finance.[4] However, other departments may assist in some tasks, e.g. Singapore Customs assists in refunds of the Goods and Services Tax (GST) to tourists. Other statutory boards may undertake the collection of various user fees and charges. For instance, the Land Transport Authority (LTA) manages the collection of road usage charges and vehicle quota premiums.

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[2] The Pioneer Generation Package was established with a one-off allocation of SGD 8 billion from the budget in 2014. The principal sum and income generated from it is used to support various healthcare and social support schemes for citizens who were born before 1950 and had obtained citizenship before 1987. These include added supplementary subsidies for healthcare and to the premiums of the compulsory basic national catastrophic health insurance, MediShield Life, and top-ups to the medical savings account, Medisave. The Merdeka Generation Package provides for a near-similar set of benefits, albeit at lower levels, to citizens born between 1950 and 1959 and obtained citizenship by 1996 from a principal budgetary allocation of SGD 6.1 billion in 2019, and the income generated from it. The Silver Support Scheme is a quarterly income supplement introduced in 2015. This is targeted at retirees in the lowest three income deciles who were less able to accumulate sufficient savings for post-retirement needs over the working life.

[3] The World Health Organization (WHO) has defined the "long COVID" to include symptoms of fatigue, shortness of breath, among others, which affect daily activity. See WHO (2021).

[4] See Bird and Oldman (2000) on tax administration in Singapore. This is a topic which has received little attention in the recent literature.

Other statutory accounts of major focus include the Development Fund, Sinking Fund and Skills Development Fund. These receive allocations from the Consolidated Fund for national development projects, investment in public and commercial assets and for extended skills training and development of the labor force respectively.

Allocations to various state organizations are decided top-down with defined expenditure limits for five-year periods, or "blocks." Allocation increases are capped at a proportion of GDP growth to encourage an efficient use of funds and individual organizations and entities have considerable flexibility and discretion in using their budgetary allocations. Blöndal (p. 60; 2006) states that this practice is peculiar to Singapore where "…spending ceilings – multi-year, explicitly and directly linked to smoothened GDP, and fully fungible between operating, transfer and capital expenditure – are a unique form of the top-down concept which is not found in OECD countries." Besides the need to adhere to expenditure limits over the five years, there seemed to be few official specifics as to how individual agencies ought to utilize their funds in the public interest.

Operating surpluses from statutory boards are returned as contributions to the budget (but on a negotiated basis) and reported as a consolidated sum for all statutory boards. There is minimal information of the source(s) of operating surpluses. This is despite, as mentioned, that some statutory boards levy user fees and charges. They may also undertake commercial investment activities with relevant ministerial approvals. Allocations to statutory boards are reported as aggregate transfers from their respective parent ministries. Details of allocations are only available for selected agencies.

In addition, public debt in Singapore is domestically-denominated in the form of Singapore Government Securities (SGS), a substantial portion of which are non-tradable and issued to the Central Provident Fund (CPF) Board to meet its investment requirements. SGS servicing costs are administratively benchmarked and managed to instruments of similar duration and risk (Chow and Ho, 2021). These are netted off against the investment returns of the government and not reported in the budget (pp. 48-49; Blöndal, 2006). Other debt servicing payments are not categorized as a part of the government's current expenditures.

The composition and reporting of the costs of debt servicing have changed marginally in FY2021 with the issue of SGD 2.6 billion of bonds issued under the Significant Infrastructure Government Loan Act (SINGA) to retail investors on September 28, 2021.[5] Of this, SGD 0.6 billion was capitalized for spending on measures to mitigate the effects of a partial re-imposition of restrictions to socioeconomic activity. The latter was due to an increase in COVID-19 cases in Singapore. The capitalized amount was included in the interim budget estimates announced on July 5 and 26, 2021.

Nonetheless, government debt for FY2019 stood at SGD 641 billion while there was SGD 734 billion in the Government Securities Fund for debt repayment. The risk of default on public sector debt is, thus, nominal.

Finally, the reporting of the budget's financial accounts is in two main documents – the *Analysis of Revenue and Expenditure* and the *Revenue and Estimates* document. The former puts forward the key expenditure priorities and emphases of the government for the coming financial year, and forms much of the basis for the subsequent budgetary debates in Parliament.

[5] "Singa bonds' interest rate set at 1.875%; investors applied for 1.58 times the $2.6b sold," Straits Times, 28 September 2021. https://www.straitstimes.com/business/economy/singa-bonds-interest-rate-set-at-1875-sale-raises-26b-to-finance-spore

The *Revenue and Estimates* document details the allocations to various ministries and civil organizations, e.g. the President's Office; Parliament, on broad categories like manpower and development costs. It also includes capital receipts and expenditures.

The government's assets comprise of the two main items of cash and total investments. The latter lists the following: Government stocks; Other Investments – Quoted; Other Investments – Unquoted; and Deposits with Investment Agents. Asher, Bali and Kwan (2015) highlight a curio that the sum of the public sector's assets includes a considerable amount of cash holdings. This was SGD 123.4 billion, or about 32.1 percent of GDP, for FY2013. For FY2019, cash holdings are SGD 49.5 billion, about 9.7 percent of GDP. The rationale and determination of the size of cash balances in the government's assets remain unclear.

Fiscal Rules and Political Economy

Asher, Bali and Kwan (2015) argue that the design of fiscal rules in Singapore is intended to sustain global investor confidence in the public sector's economic and financial management as part of the country's growth strategy. This includes demonstrating a commitment to fiscal sustainability and resilience. Following Blöndal (Section 2.1.1; 2006), fiscal rules in Singapore's public financial management are briefly as follow.

Firstly, each sitting government is to manage its finances within their period of appointment without drawing on past accumulated fiscal surpluses. Each term of government is limited to a maximum of five years depending by which a general election must be called. Surpluses and deficits may be incurred and offset between years over its term, but they cannot be brought forward to become part of the financial assets/liabilities of the next government. Each government is to ensure at least a balanced budget at the end of its term.[6]

Secondly, net surpluses over the sitting government's term are added to the Singapore's national reserves. In the event of a net (or anticipated) deficit over the sitting government's term, the Finance Minister may table a resolution to Parliament for approval and request assent from the President of Singapore to draw upon past reserves for deficit financing.[7] The first such request and withdrawal was made in 2009 following the collapse of Lehman Brothers in 2008 which marked the beginning of a global economic downturn. Requests for withdrawals were made again in 2020 and 2021 in response to the COVID-19 pandemic. Borrowing by the public sector for deficit financing is not permitted, particularly if it is anticipated to require drawing on past reserves to service and repay the debt in future.

Thirdly, up to half of the expected long-term real returns from the investments using *past* accumulated reserves under the Net Investment (NIR) framework may be used towards budgetary purposes as "Net Investment Returns Contribution" in the budget.[8] Previously, the investments consisted of assets managed by GIC Private Limited and the Monetary Authority of Singapore (MAS). In 2016, the framework was amended to include investment returns from another government-owned company, Temasek Holdings Private Limited.

A complementary political economy environment serves to facilitate effective implementation of the fiscal

[6] To date, no government has reported a net fiscal deficit at the conclusion of its term.
[7] See Lee (Section II, 2007) for a review of the fiscal responsibilities of the Parliament and President of Singapore.
[8] Investment returns derived from the reserves of the current government are not subject to the 50 percent acquisition limit or included in the Net Investment Returns Contribution (Section IIIA(2); Lee, 2007).

rules. Singapore is a city state with a single fiscal authority – the Ministry of Finance. Budgetary planning and the management of public finances is a single-tiered process and all allocation and expenditure decisions are with the Ministry of Finance (p. 56-59; Blöndal, 2006). Unlike geographically larger economies where some delegation of authority is necessary, no other civil- or public-sector agency has autonomy to procure funds for expenditure purposes without external approval. Thus, there are no strategic or political economy considerations to accommodate differing interests among intra-national agencies in Singapore's budgeting and public financial management.[9]

Reporting Nuances

There is long-standing recognition that public sector accounts typically exhibit various reporting nuances, e.g. Anthony (1985) discusses some practices in relation to different accounting standards and the rationales for engaging in such. Similarly, idiosyncrasies in Singapore's budgetary reporting render it necessary to exercise caution when drawing inference from the budget for policy discussions and formulation.

Accounting caveats previously raised in the literature, e.g. Kwan, Bali and Asher (pp. 414-416; 2016), include the lack of reporting of debt servicing as part of current expenditures, and the lack of disaggregation in the contributions and allocations of statutory boards in the budget. These were also mentioned in Section 2.1.

In particular, the lack of disaggregation of the contributions and allocations to statutory boards indicates a lack of means to assess the expenditure management and performance of these bodies unless their financial statements are independently examined during budget debates. Quah (2010) highlights that statutory boards are expected to manage expenditures from their revenues, but they can apply for low-interest loans from the government to meet the current year deficits.

However, the ambiguity on the size, and purpose, or allocations can be concerning as some statutory boards hold mandates to undertake projects in the public interest. For instance, the Housing and Development Board (HDB) is responsible for the provision of public housing. As housing projects are longer-term undertakings, intuition suggests that the revenues and expenditures of the HDB are likely to follow the dynamics of housing markets cycles. Potentially, this renders the need for sizable loans (and repayments) in various years over the housing market cycle. However, these are currently not observable in the budget's reporting. The lack of disaggregation also limits inference of the government's relative emphasis on these statutory boards vis-à-vis those performing other functions, e.g. the Building and Construction Authority which regulates the safety requirements and protocols of construction in Singapore.

Subsequently, a broader examination of the public sector's activities, i.e. including statutory boards as well as public and quasi-public organizations, suggests that the public sector's involvement in the Singapore economy is larger than what may be inferred from the reported budgetary transactions. Estimates of the budget's impact on the economy – the fiscal impulse – that are based on the budgetary aggregates *as is* will be overstated.

Other substantial reporting caveats previously highlighted in the literature include the classification of land rents as proceeds from land sales ("Sales of Land"), omission of the acquisitioned investment income

[9] There are town councils in Singapore which are engaged in the day-to-day running and maintenance of public housing and spaces in constituencies. These have no fiscal powers and were introduced partly with the objective of providing elected members of Parliament with some experience in managing public funds. See Peh (pp. 175-178; 2018).

("Net Investment Returns Contribution") as a part of revenue and classifying transfers from the budget to endowment and trust funds as a determinant of the overall balance. Discretionary transfers, or those not allocated to endowment and trust funds ("Special Transfers Excluding top-ups to endowment and trust funds), are considered in the determination of the "basic balance." The latter is interpreted as the annual impact of the government's revenue and expenditures on the economy but it has no international equivalent.[10]

"Sales of Land" is a misnomer as land parcels in Singapore are primarily leased for usage for periods of 99 years. There is no transfer of legal ownership. Such transactions are reflected as "…the transformation of non-financial assets into financial assets and do not constitute a change in total government net worth…" (p. 7; IMF, 2021a). As such, the revenues from the usage rights of land parcels are land rents which should be included on an accrual basis with the government's operating revenues. For FY2020, revised estimates of the proceeds from the sale of land usage rights was SGD 7.1 billion, or about 1.5 percent of GDP.

As investment income is used to facilitate current government expenditures, the acquisition from the "Net Investment Returns Contribution" is more appropriately classified as a part of operating revenues and a determinant of the primary budget balance.

Transfers to endowment and trust funds are more appropriately classified as a part of national savings under the IMF's *Government Finance Statistics Manual* (GFSM) which Singapore subscribes to. This included a SGD 16 billion allocation to the Government Contingencies Fund in 2020. However, such funds may not be discretionarily used until the relevant Supply Bill has been passed by Parliament and the President has given assent (Kwan, 2021). In addition, disbursements from these funds are reported in the *Analysis of Revenue and Expenditure* but not as part of the budget's expenditures.

Discretionary transfers to households and firms are more appropriately classified together with current expenditures and included in the determination of the primary balance. As shown previously in adjustments of the budget, e.g. Kwan, Bali and Asher (2016); Kwan (2021), the composition of Singapore's primary and overall balances are identical.

BUDGETING IN CRISES

The COVID-19 Budgets

As earlier in Section 1, five budgets were tabled in 2020 in response to the wide-ranging epidemiological and socioeconomic effects of COVID-19 *per se*, with fiscal commitments totaling SGD 100.9 billion. Table 1 presents the consolidated budget estimates and revisions for FY2020.

Table 1: Revenue and Expenditure (in SGD billion), FY2020[a]

	Budget 2020 (Unity Budget)	Budget Supplement 1 (Resilience Budget)	Budget Supplement 2 (Solidarity Budget)	Budget Supplement 3 (Fortitude Budget)	Ministerial Statement (05 Oct 2020)[1]	Revised FY2020
Operating Revenue	76.0	70.8	70.4	68.8	63.7	64.6
Less:						
Total Expenditure	83.6	89.1	89.8	110.5	102.1	94.1
Primary Surplus/(Deficit)	**(7.6)**	**(18.3)**	**(19.4)**	**(41.7)**	**(38.3)**	**(29.5)**

[10] Definitions of the terms used in the budget are available at: https://data.gov.sg/dataset/government-fiscal-position-annual

Less:						
Special Transfers	22.0	39.6	43.6	51.2	54.5	53.6
Excluding top-ups to endowment and trust funds	4.7	22.3	26.3	33.9	37.1	36.3
Basic Surplus/(Deficit)	**(12.3)**	**(40.5)**	**(45.6)**	**(75.6)**	**(75.5)**	**(65.7)**
Top-ups to endowment and trust funds	17.3	17.3	17.3	17.3	17.3	17.3
Add:						
Net Investment Returns Contribution	18.6	18.6	18.6	18.6	18.6	18.1
Overall Budget Surplus/(Deficit)	**(10.9)**	**(39.2)**	**(44.3)**	**(74.3)**	**(74.2)**	**(64.9)**

Sources: Kwan (2021) and Ministry of Finance (2021)

[a] Figures may not add up due to rounding.

[1] A prior ministerial statement was issued on 17 August 2020, but the interim estimates are identical to the one accompanying the ministerial statement on 05 October 2020. As such, only the latter estimates are reproduced here.

It is clear that the substantial increase in the overall budget deficit stems from higher expenditures and discretionary transfers ("Special Transfers Excluding top-ups to endowment and trust funds") and lower revenues vis-à-vis the initial estimates. Expenditures increased by 12.6 percent while, notably, discretionary transfers were 7.7 times of the initial allocation. The increased expenditures and discretionary transfers were for a range of household transfers and financial assistance schemes, wage subsidies, job creation and skills upgrading programs, and managing the epidemiological effects of COVID-19 more generally.

Revenues fell by 15 percent relative to initial estimates. This was due to income and property tax rebates, various levy and user charge rebates and exemptions, and marginally lower investment returns. The outcome is a (revised) overall deficit of SGD 64.9 billion.[11]

Besides the COVID-19 response, the FY2020 budget cycle was also the last year of the sitting government's term. The latter was formed following the opening of the 13th Parliament of Singapore on 15 January 2016 and served until 23 June 2020 when Parliament was dissolved. Thus, budget deficits accumulated between FY2016 and FY2020 must be met by the closure of the FY2020 financial accounts.[12]

The estimates in the "Fortitude Budget" suggest a deficit of SGD 74.3 billion for FY2020. However, recall from Section 2.2 that the sitting government is allowed to use past surpluses accumulated over its term to offset subsequent deficits. In 2020, these were estimated to be SGD 22.3 billion (p. 177; Kwan, 2021). The government thus tabled requests to withdraw up to SGD 52 billion from the national reserves to meet the budget deficit.[13]

Limiting Debt Increase

That no external debt was incurred despite the substantial budget deficit as a result of the fiscal response to the COVID-19 pandemic is partially due to the national reserves that Singapore is able to draw on for deficit financing. There are also roles played by the design of its fiscal rules, and the contribution of broad-

[11] See Kwan (Section 2.1, 2021) for details of the introduced budgetary measures.

[12] The Constitution of the Republic of Singapore requires that the Finance Minister submit updated estimates of the accounts for the current financial year, estimates for the incoming financial year, and the budget outturn of the last completed financial year, to the President and Parliament before the conclusion of the current financial year. As such, the FY2020 budget outturn will be reported in the FY2022 budget documents.

[13] The revised estimates now indicate a deficit of SGD 64.9 billion which is less than the sum of the amount approved for withdrawal and past surpluses. However, note that the approved withdrawal need not be fully utilized if the deficit at the budget outturn is smaller than forecasted. This was the case with the first drawdown of national reserves in 2009 where SGD 4.9 billion was requested and approved but only SGD 4 billion was withdrawn (Chew, 2017).

based taxes and nonconventional sources of revenue, both of which serve to limit the incurrence of external debt.

Design of Fiscal Rules

Fiscal rules require governments to manage public finances in line with some set of objectives and/or numerical targets and in forms like tax and expenditure limits, restrictions to debt increases, etc. But the literature has underlined that policymakers are often likely to circumvent these rules in various ways. And this happens at both national and subnational levels for a wide range of reasons. The issue of reporting caveats in Anthony (1985) is one example of how this may be occurs.

In this case, it remains that no debt has been incurred despite the inherent reporting caveats of the budget *and* the fiscal response to the COVID-19 pandemic.[14] From Section 2.2, the following aspects of Singapore's fiscal rules stand out in particular.

Firstly, budgetary management is a middle-term process with considerable flexibility. This is observed from the requirement that each government is to balance their budgets over its term, and surpluses and deficits can be offset between years. The absence of a hard target differentiates this from other medium-term rules where governments may be required to adhere to a specific fiscal target regardless of circumstances, such as the fiscal rules in the EU's Stability and Growth Pact (Section 2; Blanchard, Leandro and Zettelmeyer, 2021). The inherent flexibility, thus, renders it less likely for kneejerk responses to exogenous events, e.g. excessive spending in a year with a fiscal windfall; or substantial expenditure cuts during a recession/crisis.

Secondly, there is an absence of discretionary powers for the sitting government to utilize surpluses from previous governments for current needs. As described in Section 2.2, drawing on past reserves requires the Finance Minister to seek the agreement of Parliament and the assent of the President. The former may be argued to be of less significance if a sitting government has a supermajority in Parliament. However, the President, and the Council of Presidential Advisors whom the President has to consult on fiscal matters, is an apolitical office where the holder may not be a member of any political party. This also implies that the President is not beholden to the agenda of any political party. Thus, while withholding of assent has yet to occur, it remains a distinct possibility. Also see the discussion by Lee (2007).

It follows that the division of powers puts added onus on the sitting government to justify use of past reserves. To a limited extent, it may be argued that this also serves to reduce the prospect that a government actively engages in political budget cycles since it is accountable to two parties on the use of public funds – the voter and the President.[15]

Broad-based Taxes and Nonconventional Sources of Revenue

The second feature is a discerning identification and utilization of broad-based taxes and nonconventional sources for fiscal revenues. The latter involves using regulatory powers to generate income such as levies on foreign domestic help and foreign workers; extensive application of road-user charges with varying

[14] See Kwan, Bali and Asher (2016) and Kwan (2021) for revisions to the budget balances.
[15] It may also partially explain an observation by Blöndal (2006) of a culture of aversion towards annual budget deficits among civil sector bodies. This is despite a considerable autonomy as to how each department manages its budgets. This includes deficit-spending in any year subject to the five-year budgetary cap.

rates depending on the time of the day; and revenues from the rights to car ownership (for a period of 10 years) under the Certificate of Entitlement (COE) scheme.[16] It also includes allocating usage rights in public spaces, e.g. auctioning retail space in public transport hubs, and treasury and investment management of past reserves to generate revenue.

Table 2 presents the consolidated amounts of five major revenue categories in the budget from the financial accounts in the *Analysis of Revenue and Expenditure* document of the FY2021 budget and their respective share of total revenue for the budget outturn of FY2019 and estimates for FY2020 and FY2021. These are: (i) Income Taxes; (ii) Asset and Other Taxes; (iii) Broad-based Taxes; (iv) Other Revenues; and (v) Net Investment Returns Contribution. The full set of accounts is reproduced in Appendix 1. Several observations are evident.

Table 2: Revenues by Category (in SGD billion), FY2019-FY2021[a]

	Actual FY2019	Estimated FY2020	Revised FY2020	Estimated FY2021
TOTAL REVENUE[1]	**91.31**	**94.64**	**82.75**	**96.20**
(as a share of)	**(100.0)**	**(100.0)**	**(100.0)**	**(100.0)**
Income Taxes[2]	30.74	31.31	28.05	31.99
	(33.7)	(33.1)	(33.9)	(33.3)
Asset and Other Taxes3	15.64	15.61	10.53	15.42
	(17.1)	(16.5)	(12.7)	(16.0)
Broad-based Taxes[4]	19.47	19.77	17.47	20.04
	(21.3)	(20.9)	(21.1)	(20.8)
Goods and Services Tax (GST)	11.16	11.27	9.90	11.34
	(12.2)	(11.9)	(12.0)	(11,8)
Other Revenues[5]	8.43	9.33	8.57	9.19
	(9.2)	(9.9)	(10.4)	(9.6)
Net Investment Returns Contribution	17.04	18.63	18.14	19.56
	(18.7)	(19.7)	(21.9)	(20.3)

Source: Compiled from Ministry of Finance (2021)
[a] Figures may not add up due to rounding.
[1] This is obtained as (Operating Revenue) + (Net Investment Return Contribution).
Figures may not add up due to rounding.
[2] Income Tax: Corporate Income Tax Personal Income Tax Withholding Tax.
[3] Asset and Other Taxes: Assets Taxes Stamp Duty Other Taxes
[4] Broad-based Taxes: Customs, Excise and Carbon Taxes Goods and Services Tax Motor Vehicle Taxes Betting Taxes
[5] Others: Statutory Boards' Contributions Vehicle Quota Premiums Other Fees and Charges Others

The first is that "Income Taxes" are the largest individual share of revenues but they only compromise approximately one-third of total revenues. However, revenues from "Broad-based Taxes," "Others" and "Net Investment Returns Contributions" consistently make up about half of total revenue. This was the case even with the onset of the COVID-19 pandemic, i.e. FY2020.

Secondly, revenues from income taxes and the GST in Singapore are about 45.5 percent of total revenues in estimates for FY2020 and FY2021 and the budget outturn for FY2019. Gordon, Dadayan and Rueben (2020) highlight that revenues from state sales and personal income taxes constitute more than 60 percent of local revenues for local governments in the US. However, they estimate that the COVID-19 pandemic may reduce these by up to half.

Also, the contribution from other broad-based taxes, that is those besides GST, is consistently about 9 percent of total revenue. With non-tax revenues ("Others" and "Net Investment Returns Contribution"),

[16] Asher, Bali and Kwan (2015) highlight that while it is inappropriate to classify some of these instruments as taxes, they can still elicit tax-like effects as they serve to influence usage. See Walters (1969) for an early discussion.

the combined share of total revenue is about 39 percent.

The emphasis here is that revenues from broad-based taxes and nonconventional sources exhibit lower volatility in both absolute amounts and as a share of total revenue. This remained the case for FY2020 where varying degrees of lockdowns were imposed because of the pandemic. This provides some measure of certainty, and stability, for budgetary planning and fiscal management and is likely more important for subnational governments which typically have smaller tax bases and less revenue instruments for use.

PROSPECTS AND FURTHER RESEARCH

This paper has reviewed Singapore's public financial management practices and discussed major features which have enabled the city state to respond to crises, such as the fiscal responses to the COVID-19 pandemic, without incurring longer-term fiscal deficits and external public debt. The paper argues that this is attributable, in large part, to the design of fiscal rules which require each government to ensure a balanced budget at the end of its term, and prohibit sitting governments from discretionary use of accumulated surpluses from past governments for current expenditures without the Parliamentary approval and assent by the President of Singapore. It is, however, facilitated by flexibility in medium-term planning, notably by allowing budget surpluses and deficits to be offset between years of the sitting government's term.

A second feature is an astute identification and use of broad-based taxes and nonconventional sources which contribute nearly half of total budgetary revenues, even in a crisis. The lower volatility of these revenues serves to provide some certainty, and stability, for medium-term budgetary planning and fiscal management.

However, wholesale implementation of these aspects in unlikely as Singapore is a minority globally in its budgetary position with persistent record of fiscal surpluses and the absence of external public debt. Also, the viability of these features is complemented by a political economy environment in which the Ministry of Finance is the sole deciding authority on the allocation of resources.

But it remains that further research on how some of these aspects may be usefully adapted, particularly by subnational governments with smaller tax bases and lesser avenues to raise revenues locally. These include, among others, the duration for balanced budget rules and potential nonconventional avenues for fiscal revenues. Besides facilitating better fiscal management, there are also potential welfare effects.

For instance, Costello, Petacchi and Weber (2017) find that local governments in the US often also undertake the sale of public assets alongside tax increases and expenditure cuts. Adolph, Breunig and Koski (2020) report evidence that local governments often finance spending in their (politically) preferred areas with cuts in those that are less favored. Broadly, there may be welfare-detrimental effects from such policy actions. Also see Portes and Wren-Lewis (2015) for an analytical exposition and discussion.

In addition, Portes and Wren-Lewis (2015) discuss the inherent complexity in the design of fiscal rules and argue that because of the varying differences between countries, there may be no uniform rule that may be derived. Reflecting similar, Howlett (2018) emphasizes the need to understand and align the policy context with the type of instrument used. As such, while adoption of the features raised in this paper may not be feasible, research into identifying where/how some of them may be adapted will clearly be of relevance to facilitate further policy discourse.[17]

APPENDIX

The financial positions for FY2019 to FY2021 from the *Analysis of Revenue and Expenditure* document are reproduced in Table A1. Only supplementary notes listing the components of aggregate accounts are included. For the full set of supplementary notes, see Ministry of Finance (2021).

Table A2: Revenue and Expenditure (in SGD billion)[a]

	Actual FY2019	Estimated FY2020	Revised FY2020	Estimated FY2021
OPERATING REVENUE	**74.27**	**76.01**	**64.61**	**76.64**
Corporate Income Tax	16.73	17.10	13.74	17.97
Personal Income Tax	12.37	12.51	12.77	12.37
Withholding Tax	1.64	1.70	1.54	1.65
Statutory Boards' Contributions[1]	1.80	2.59	2.52	2.51
Assets Taxes	4.76	4.65	3.09	4.74
Customs, Excise and Carbon Taxes	3.26	3.60	3.51	3.77
Goods and Services Tax	11.16	11.27	9.90	11.34
Motor Vehicle Taxes	2.42	2.27	2.21	2.52
Vehicle Quota Premiums	2.87	2.64	2.28	2.28
Betting Taxes	2.62	2.63	1.85	2.41
Stamp Duty	4.20	4.29	3.66	4.25
Other Taxes[1]	6.68	6.67	3.78	6.43
Other Fees and Charges	3.41	3.62	3.32	3.91
Others	0.35	0.48	0.45	0.49
Less:				
TOTAL EXPENDITURE	**75.34**	**83.61**	**94.06**	**102.34**
Operating Expenditure	58.67	64.60	77.64	82.46
Development Expenditure	16.67	19.01	16.41	19.87
PRIMARY SURPLUS / DEFICIT	**(1.06)**	**(7.60)**	**(29.45)**	**(25.70)**
Less:				
SPECIAL TRANSFERS[4]	15.13	**21.98**	**53.59**	**4.86**
Special Transfers Excluding Top-ups to Endowment and Trust Funds	1.56	**4.66**	**36.27**	**4.86**
Jobs Support Scheme	-	1.33	26.88	2.89
Other Transfers[2]	1.56	3.33	9.39	1.97
BASIC SURPLUS / DEFICIT	**(2.62)**	**(12.26)**	**(65.72)**	**(30.57)**
Top-ups to Endowment and Trust Funds	**13.57**	**17.32**	**17.32**	**-**
GST Voucher Fund	-	6.00	6.00	-

[17] One may also moot the issue of fiscal councils raised in Portes and Wren-Lewis (2015) and Blanchard, Leandro and Zettelmeyer (2021) to facilitate budgetary planning and management. However, such institutions also require knowledge of the specific legislation(s) and regulations that each fiscal authority is subject to and is beyond the scope of this paper. However, this is also likely a relevant avenue for further exploration and research.

Coastal and Flood Protection Fund	-	5.00	5.00	-
National Research Fund	-	2.00	2.00	-
Skills Development Fund	-	2.00	2.00	-
Special Employment Credit Fund	0.37	0.70	0.70	-
Top-ups to Endowment and Other Funds[3]	-	1.45	1.45	-
Other Funds[4]	13.20	0.37	0.17	-
Add:				
NET INVESTMENT RETURNS CONTRIBUTION	**17.04**	**18.63**	**18.14**	**19.56**
OVERALL BUDGET SURPLUS / DEFICIT	**0.84**	**(10.95)**	**(64.90)**	**(11.01)**

Source: Ministry of Finance (2021)

[a] Figures may not add up due to rounding.

[1] For FY2019 and FY2020, Other Taxes include the Foreign Worker Levy, Water Conservation Tax, Development Charge, and Annual Tonnage Tax. From FY2021 onwards, Other Taxes include the Foreign Worker Levy, Water Conservation Tax, Land Betterment Charge, and Annual Tonnage Tax.

[2] Includes Wage Credit Scheme, Workfare Special Bonus, Productivity and Innovation Credit, Service and Conservancy Charges Rebates, Top-ups to Child Development Accounts, Top-up to self-help groups, CPF Medisave Top-up scheme, CPF Top-up scheme, Top-ups to Edusave Accounts and Post-Secondary Education Accounts, SME Cash Grant, Productivity and Innovation Credit Bonus, Rebate for School Buses, SG Bonus, Merdeka Gen-eration Package, Care and Support Package - Cash Payout, PAssion Card top-up, Grocery Vouchers, GST Voucher Special Payment, CPF Transition Offset, Self-Employed Person Income Relief Scheme, Cash Grant to Mitigate Rental Costs, and Solidarity Utilities Credit.

[3] Consists of ElderCare Fund, Community Care Endowment Fund, and MediFund.

[4] Consists of Rail Infrastructure Fund, Merdeka Generation Fund, Long-Term Care Support Fund, Public Transport Fund, and Community Capability Trust.

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