SRI LANKA'S MACROECONOMIC CHALLENGES

A TALE OF TWO DEFICITS

Dushni Weerakoon, Utsav Kumar, and Roselle Dime

NO. 63

March 2019

ADB SOUTH ASIA WORKING PAPER SERIES

ASIAN DEVELOPMENT BANK

ADB

ADB South Asia Working Paper Series

SRI LANKA'S MACROECONOMIC CHALLENGES

A TALE OF TWO DEFICITS

Dushni Weerakoon, Utsav Kumar, and Roselle Dime

No. 63 | March 2019

Dushni Weerakoon is executive director at the Institute of Policy Studies. Utsav Kumar is senior country economist at the South Asia Department, Asian Development Bank. Roselle Dime is a consultant at the Asian Development Bank.

The authors thank Abhijit Sen Gupta, Savindi Jayakody, and Nimali Hasitha Wickremasinghe of the Asian Development Bank and Roshan Perera of the Central Bank of Sri Lanka for useful comments and suggestions.

ASIAN DEVELOPMENT BANK


Creative Commons Attribution 3.0 IGO license (CC BY 3.0 IGO)

6 ADB Avenue, Mandaluyong City, 1550 Metro Manila, Philippines
Tel +63 2 632 4444; Fax +63 2 636 2444
www.adb.org

ISSN 2313-5867 (print), 2313-5875 (electronic)
Publication Stock No. WPS190024-2
DOI: http://dx.doi.org/10.22617/WPS190024-2

The ADB South Asia Working Paper Series is a forum for ongoing and recently completed research and policy studies undertaken in ADB or on its behalf. It is meant to enhance greater understanding of current important economic and development issues in South Asia, promote policy dialogue among stakeholders, and facilitate reforms and development management.

The ADB South Asia Working Paper Series is a quick-disseminating, informal publication whose titles could subsequently be revised for publication as articles in professional journals or chapters in books. The series is maintained by the South Asia Department. The series will be made available on the ADB website and on hard copy.

Corrigenda to ADB publications may be found at http://www.adb.org/publications/corrigenda.

Notes:
In this publication, "$" refers to United States dollars.
ADB recognizes "Ceylon" as Sri Lanka.

除《企业家第一课》、《企业家功成堂》外，其他公众号分享本期资料的，均属于抄袭！

邀请各位读者朋友尊重劳动成果，关注搜索正版号：《企业家第一课》、《企业家功成堂》

谢谢观看！

企业家第一课，专注做最纯粹的知识共享平台

关注官方微信
获取更多干货

加入知识共享平台
一次付费 一年干货

CONTENTS

TABLES AND FIGURES

TABLES

FIGURES

ABSTRACT

Sri Lanka's macroeconomic landscape has been characterized by fiscal dominance—high deficits and public debt. This has manifested in a high degree of macroeconomic volatility, evidenced by its frequent balance-of-payments crises and instability. The paper provides a narrative of Sri Lanka's history of twin deficits, examines macroeconomic performance from the lens of twin deficits, and discusses the policies adopted to address macroeconomic imbalances. Recent efforts toward a revenue-based fiscal consolidation have started yielding improvements in the ratio of tax revenue to gross domestic product, and show promise in repairing the fiscal accounts. However, fiscal policy efforts need to be supported by reforms to generate nondebt-creating foreign currency inflows to stabilize the external sector and assist in building up a buffer stock of official foreign exchange reserves.

ABBREVIATIONS

ARDL	–	autoregressive distributed lag
BOP	–	balance of payments
CBSL	–	Central Bank of Sri Lanka
EFF	–	extended fund facility
FDI	–	foreign direct investment
GDP	–	gross domestic product
IMF	–	International Monetary Fund
IRF	-	impulse response function
ISB	–	international sovereign bond
REER	–	real effective exchange rate
SBA	–	Stand-By Arrangement
SLR	–	Sri Lanka rupee
SOE	–	state-owned enterprise
T&G	–	textiles and garments
VAR	–	vector autoregression
VECM	–	vector error correction model

I. INTRODUCTION

1. Sri Lanka has often been cited as an interesting case of a developing country whose level of social progress has been quite high relative to the country's per capita income level (Isenman 1980, Sen 1981). The country was held up as a model for the school of thought that emphasized basic needs fulfillment as a necessary step in the process of development (Streeten and Burki 1978).

2. Sri Lanka was keenly poised for growth at the time of its independence in 1948 given its well-developed infrastructure, high human development standard, and democratic political system of the Westminster type (Abeyratne 2004). With better human development indicators relative to other countries at similar levels of per capita income in the 1960s, the country appeared well placed on the path to rapid economic development.

3. It was only in the late 1970s that Sri Lanka's growth picked up, following a shift in the policy regime of being inward-oriented and import substitution-based to being outward-oriented and export promotion-based. The 1980s saw a marked shift in the economic structure, from an overwhelming dependence on a narrow range of primary export commodities to manufacturing (mainly garments) and services. However, the successful entry into garments exports could not be extended to other manufacturing sectors of the economy.

4. The reorientation toward an export-led, open economic policy framework, however, was undermined almost immediately with the outbreak of political unrest from the early 1980s. A simmering ethnic conflict erupted into an all-out armed separatist war in 1983, ending only in 2009. This stymied efforts to attract foreign investments to build a diversified export base in the long term.[1] On the policy side, growing macroeconomic imbalances slowed the reform initiatives and indeed saw reversals in some areas such as import tariff liberalization. By the mid-1980s, the initial optimism had dissipated for the most part as Sri Lanka became firmly engulfed in policy and political upheaval that was to continue until the end of the conflict in 2009.

5. Economic and political reasons account for the country's failure to live up to its early expectations and to build on the reform process. Economic growth stagnated at an average of around 5%, partly on the back of low foreign direct investment (FDI) inflows and a narrow export base. The economy has also remained vulnerable to both domestic and external shocks. From the 1970s to the present, Sri Lanka's economy has been characterized by overextended fiscal positions and weak trade deficits—the latter translating into an overall deficit position on the external current account throughout, with the sole exception of a current account surplus in 1977. The legacy of Sri Lanka's welfare state, history of populist public spending programs, weak performance of state-owned enterprises (SOEs), and a large public sector took a heavy toll on public finance management. The budgetary cost of meeting the basic needs targets for successive post-independence governments has been high. On the external front, Sri Lanka relies on imports to meet its consumption and investment needs. The composition of exports (comprising primary products in the 1960s and early 1970s) and imports (comprising fuel, consumer goods, and investment goods) contributed to the widening trade deficit. While economic reforms initiated in the late 1970s helped bring about a change in the structure

[1] Athukorala (2012) provides anecdotal evidence to suggest that Sri Lanka lost out what could have been cornerstone investments. He notes that in the early 1980s, Motorola and Harris Corporation, multinational giants at the time, had signed agreements with the Board of Investment and had incorporated subsidiary companies in Sri Lanka. However, the two companies pulled out following deterioration of the political climate. The two companies could have served as possible anchor investors, attracting with them their vendors.

of the export basket accompanied by faster export growth leading to sustained gross domestic product (GDP) growth, faster GDP growth also meant imports continued to grow even faster, putting pressure on the trade balance. Rising remittances and, more recently, tourism dollars helped narrow the current account deficit and provided the much-needed foreign exchange.

6. Sri Lanka is a classic twin deficits economy. Prevalence of twin deficits implies fundamental economic imbalances. Twin deficits signal that a country's national expenditure exceeds its national income, and that its production of tradable goods and services is inadequate (Weerakoon 2017). Such economies can be beset by high levels of debt, a heavy reliance on foreign capital inflows, a steady depreciation of its currency, and high interest rates. Sri Lanka has suffered balance of payments (BOP) crises at regular intervals, with the exception of a 9-year period from 1992 to 2000. It has had 15 arrangements with the International Monetary Fund (IMF) in 52 years during 1965–2016—an indication of the frequency of crisis (Table 1). Sri Lanka's economy demonstrates a high degree of macroeconomic volatility, evidenced by its frequent BOP crises. Despite their related conditionalities on structural reforms, past fiscal and external sector consolidation and reforms have failed to take root as demonstrated by regular bailout programs with the IMF.

Table 1: List of Arrangements with the International Monetary Fund

Year	Date of Arrangement	Original Duration (Months)
1965	06/15/1965	12
1966	06/15/1966	12
1968	05/06/1968	12
1969	08/12/1969	12
1971	03/18/1971	12
1974	04/30/1974	12
1977	02/12/1977	12
1979	01/01/1979	36
1983	09/14/1983	11
1988	03/09/1988	36
1991	09/13/1991	36
2001	04/20/2001	14
2003	04/18/2003	36
2003	04/18/2003	36
2009	07/24/2009	20
2016	06/03/2016	36

Note: Format of the date of arrangement is month–date–year. In 2003, there were two arrangements: one of the arrangements was an Extended Fund Facility and the second was the Poverty Reduction and Growth Facility. The two are counted as single arrangements here.
Source: International Monetary Fund.

7. The twin deficits problem is a major source of economic vulnerability in the region with most South Asian economies reporting fiscal and external imbalances. Fiscal consolidation remains a policy priority for most of the countries in South Asia, including Sri Lanka, and domestic revenue mobilization is a key factor in the consolidation process.

8. In spite of Sri Lanka's good human development outcomes, it is recognized that the country's economic performance has fallen short of expectations. GDP growth is well below potential, and its economic performance has been dogged by a volatile macroeconomic environment, arising primarily from weak public finance management. Weaknesses in revenue generation and expenditure controls have both contributed to high deficits and a large debt overhang. Overextended fiscal positions have spilled over to the external sector, via imprudent monetary and exchange rate policies as the country witnessed a rapid growth in nonconcessional external debt.

9. Still, despite growth in Sri Lanka falling below expectations, the country's average annual growth of 5% from 1980 to 2016 is not far from the region's average of 6% over the same period. With an ageing demographic profile, Sri Lanka's public expenditure needs remain high for sectors such as health, education, and provision of social safety nets. Infrastructure investment, long neglected during 3 decades of conflict, is also necessary for a rapidly modernizing economy. The renewed emphasis on fiscal consolidation under the latest Extended Fund Facility (EFF) program of the IMF, focused critically on revenue enhancement, offers grounds for optimism. Moving toward a primary surplus is a necessary first step in debt stabilization. Fiscal policy efforts need to be supported by reforms to generate nondebt-creating foreign currency inflows to stabilize the external sector and assist in building up a buffer stock of official reserves.

10. The objective of this paper is to examine Sri Lanka's macroeconomic outcome from the lens of twin deficits. It attempts to understand the underlying causes of the twin deficits phenomenon and the macroeconomic policies adopted to deal with the imbalances. The paper also undertakes an empirical analysis to determine the direction of causality of the twin deficits in Sri Lanka.

II. GROWTH PERFORMANCE AND SRI LANKA'S POLICY REGIMES

11. Sri Lanka's economic policy direction and its macroeconomic policy approaches have been influenced by shifts in development thinking over time. From a fairly "liberal" open economic policy regime at the time of independence in 1948, the economy saw a marked shift toward inward-looking import substitution policies in the 1960s and 1970s. By the mid-1970s, state involvement in the economy reached a peak with the nationalization of key economic sectors including plantations, banking, insurance, and much of wholesale and retail trade in the country. The economy was also subject to stringent administrative price controls, import controls, and foreign exchange controls. Fiscal policy was thus the preferred tool of macroeconomic planning and management with limited use of monetary policy instruments. The latter included directed lending and nonmarket-determined interest rates to support the government's economic objectives. The implementation of import controls was the preferred option to deal with external imbalances under a tightly controlled exchange rate regime.

12. However, by the mid-1970s it was clear that Sri Lanka's experiment with import-substituting policies—implemented in part to stem pressure on the external account—had failed to address key concerns with regard to meeting the country's development needs. Overall GDP growth averaged only 2.9% per annum over the period 1971–1977 (Kelegama and Gunewardena 2010), with industry starved of much-needed intermediate and capital goods imports, and unemployment at a high of 19.7% in 1975. A change of government in 1977 saw the introduction of sweeping reforms on the economic front in 1977 and 1978, marking a systemic shift in Sri Lanka's economic policy direction and its approach to issues of macroeconomic management. It also made Sri Lanka the first country in South Asia to adopt reforms.

13. The reform package contained the typical prescriptions of a standard structural adjustment program: liberalization of trade and payments, rationalization of public expenditure, removal of price and interest controls, promotion of private sector development, foreign investment promotion, and financial sector reforms.[2] Thus, taken together, the scope of reforms introduced was fairly comprehensive. The reforms could arguably be called limited and partial in nature relative to the experience of other countries, particularly in East Asia.[3] However, they were extensive in comparison with the previous policy regimes in Sri Lanka. Some of the major reforms were as follows:

(i) *Export promotion*. Nearly all nontariff barriers on imports (which had existed since the early 1960s) were abolished; most quantitative restrictions on imports were removed and replaced by higher tariffs; and the tariff regime was subject to further rationalization over time. An existing dual exchange rate scheme was unified and subject to a nominal depreciation of over 45% against the United States (US) dollar, and a "managed float" was adopted thereafter. New institutions were set up, such as the centralized agency to attract and promote foreign direct investment into the country with a mandate to establish and manage free trade zones. These reforms aimed to encourage the export sector, and to diversify the export structure of the economy.

(ii) *Fiscal consolidation*. Price controls on most goods were abolished; subsidies were phased out; and public sector monopolies that had handled a large range of items were curtailed. These reforms aimed at reducing government expenditure on welfare programs; for example, through the introduction of open market prices for essential commodities (as against the earlier policy of price subsidies) and the introduction of a food stamp scheme for low-income households. The emphasis in government expenditure shifted to the development of infrastructural facilities for the economy.

(iii) *Financial sector development*. Interest rates were allowed to reflect market conditions, and foreign banks were encouraged to enter and open branches in the country. The shift away from credit rationing and administrative controls on lending saw interest rates climb, which in turn was viewed as a means of encouraging domestic savings.

14. A "second wave" of reforms in 1989 and 1990 built on the earlier efforts and involved further incentives to foreign investment, relaxation of restrictions on foreign exchange, additional foreign currency banking facilities, and further easing of licensing requirements with respect to trade and industry. The most significant development in this phase of reforms was a renewed commitment to a program of privatization. Some of the key reforms were as follows:

(i) *Trade reforms*. Rationalization of the tariff structure led to an overall 30% reduction in nominal rates, and removal of all nontariff controls except those on a limited range of strategic items. In trade and industry, most industrial licensing requirements were removed in 1989. The remaining controls on imports of plant and machinery were removed, as well as a substantial number of controls on imports of industrial raw materials, leaving only 12 categories of such items under license for security and health reasons.

(ii) *Promotion of FDI*. FDI reforms were carried out to rationalize and simplify investment procedures. In addition, automatic investment approval was accorded in most economic sectors with up to 100% foreign equity participation.

---

[2] These policy reforms have been well documented. See Cuthbertson and Athukorala (1991) and Athukorala and Jayasuriya (1994).

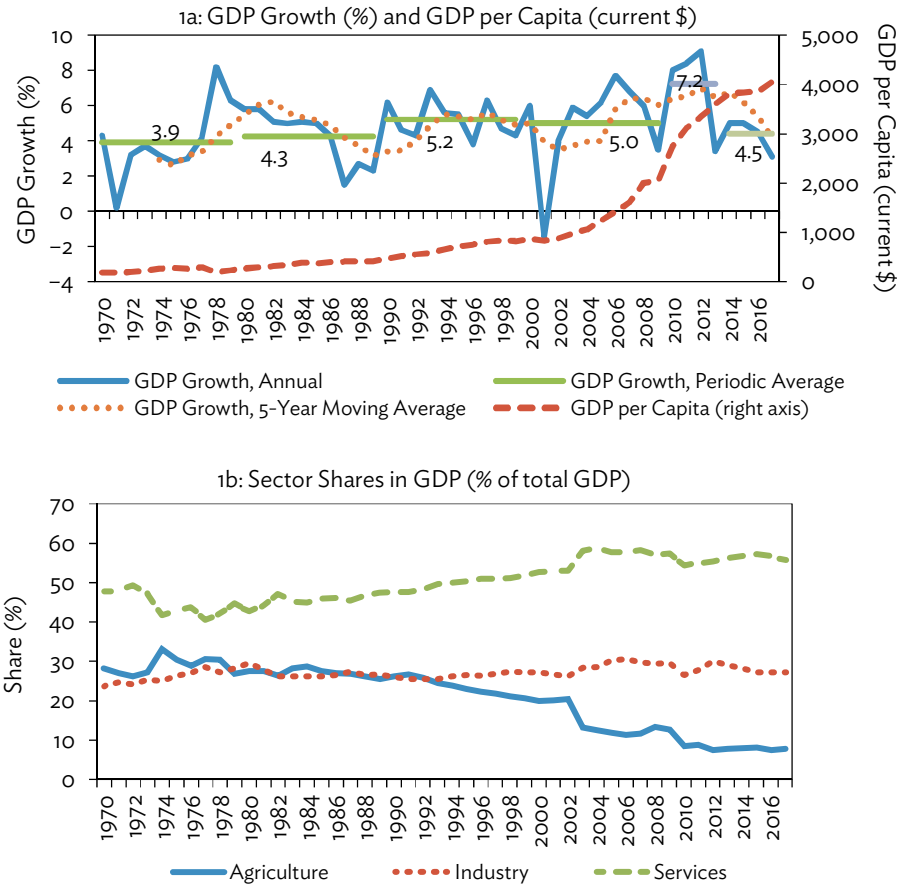
[3] For instance, see Lal and Rajapatirana (1989) and Athukorala and Rajapatirana (2000).

(iii) *Financial sector and capital market reforms.* These included the development of treasury bills and stock markets, liberalization of portfolio investments, and relaxation of credit allocation guidelines. The reforms also included further relaxation of exchange controls (including acceptance of Article VIII of the IMF Charter).

(iv) *Privatization of SOEs.* There was a renewed effort to rejuvenate the flagging program of privatization of public enterprises. The focus of the privatization program was a promotion of wider share ownership to foster development of the capital market.

15. Sri Lanka's growth trajectory shows volatility (Figure 1). However, despite the volatility in overall GDP growth, the economy has sustained approximately 5% growth since reforms began. Moreover, the economy has also undergone a structural shift over the period with a sustained increase in the share of services in GDP. The shift is particularly notable from the mid-1990s with the onset of deregulatory reforms, in particular privatization of state utilities such as telecommunications that spurred overall growth in the services sector. The services sector has also surpassed agriculture as the biggest employer; however, the agriculture sector still accounts for about 26% of the employed.

Figure 1: Economic Growth and Structural Composition, 1970–2017



GDP = gross domestic product.
Notes: Compilation of national accounts has undergone revisions over the years. From 2003, it was compiled with 2002 as base year; and from 2010, the base year is 2010. 5-year moving average is shown at the end of the 5-year period.
Source: Central Bank of Sri Lanka (CBSL). Various years. *Annual Report.* Colombo.

III. SRI LANKA'S TWIN DEFICITS: CAUSES AND CHALLENGES

16. The twin deficits hypothesis postulates that an economy's fiscal and current account balances move in the same direction. Persistently high current account deficits are deemed to signal that a country is living beyond its means, i.e., with domestic consumption and investment reliant on the whims of foreign lenders.

17. At its simplest, a current account deficit measures the difference between total national (public and private) saving and investment. National savings is considered to be the sum of private savings plus the government fiscal balance; total investment is considered to be the sum of private and public capital formation. Other things being equal, a budget deficit implies a decrease in national savings and/or a rise in national investment, depending on whether the budget deficit is driven by public consumption or investment spending. By definition, when national savings is less than national investment, i.e., when a country does not have sufficient savings to finance its investment, and therefore borrows from abroad to bridge the gap, the current account shows a deficit.

18. The starting point to understand the relationship between fiscal and current account deficits is the standard national income accounting identity. For an open economy, gross *national* product (Y) is written as

$$Y = C+I+G+(X-M)+R \tag{1}$$

where C is private consumption expenditure, I is private investment expenditure, G is government expenditure (including transfers), X is total exports, M is total imports, and R is net factor income from abroad and net transfers.

19. Next, current account balance (CA) is

$$\mathcal{C}A = X - M + R \tag{2}$$

20. National savings (S) in an open economy is

$$\mathcal{S} = Y-C-G \tag{3}$$

21. Combining equations (1) and (3), national savings can be written as

$$S = I+\mathcal{C}A \tag{4}$$

22. Total national savings (S) in turn are a sum of private savings (S_p) and government savings (S_g). S_p is the part of individuals' disposable income (Y adjusted for taxes [T]) that is not consumed, i.e.,

$$S_p = Y - T - C \tag{5}$$

23. S_g, on the other hand, is the difference between government's receipts (taxes) and its expenditures on goods and services. This can be written as

$$S_g = T - G \tag{6}$$

24. Using equations (5) and (6) with equation (4), we have

$$S = S_p + S_g = Y - T - C + (T - G) = I + CA \quad (7)$$

25. This can be rewritten as

$$S_p + (T - G) = I + CA \quad (8)$$

26. The above equation can be further simplified as

$$CA = (S_p - I) + (T - G) \quad (9)$$

27. Equation (9) implies that CA (current account balance) depends on the private sector savings balance (represented by the difference between private savings and investment), and the fiscal balance (represented by the difference between government revenue through taxes and government expenditure on goods and services and transfers).

28. Twin deficits are argued to be symptomatic of a consumption-driven economy associated with high debt levels. This is because excessive demand (denoted by the gap in national savings and investment) boosts imports and fuels inflation. In addition, deficits are argued to drive interest rates up, squeezing out productive private investment to make the economy even less competitive internationally. Moreover, competitiveness is hurt further by inflation.

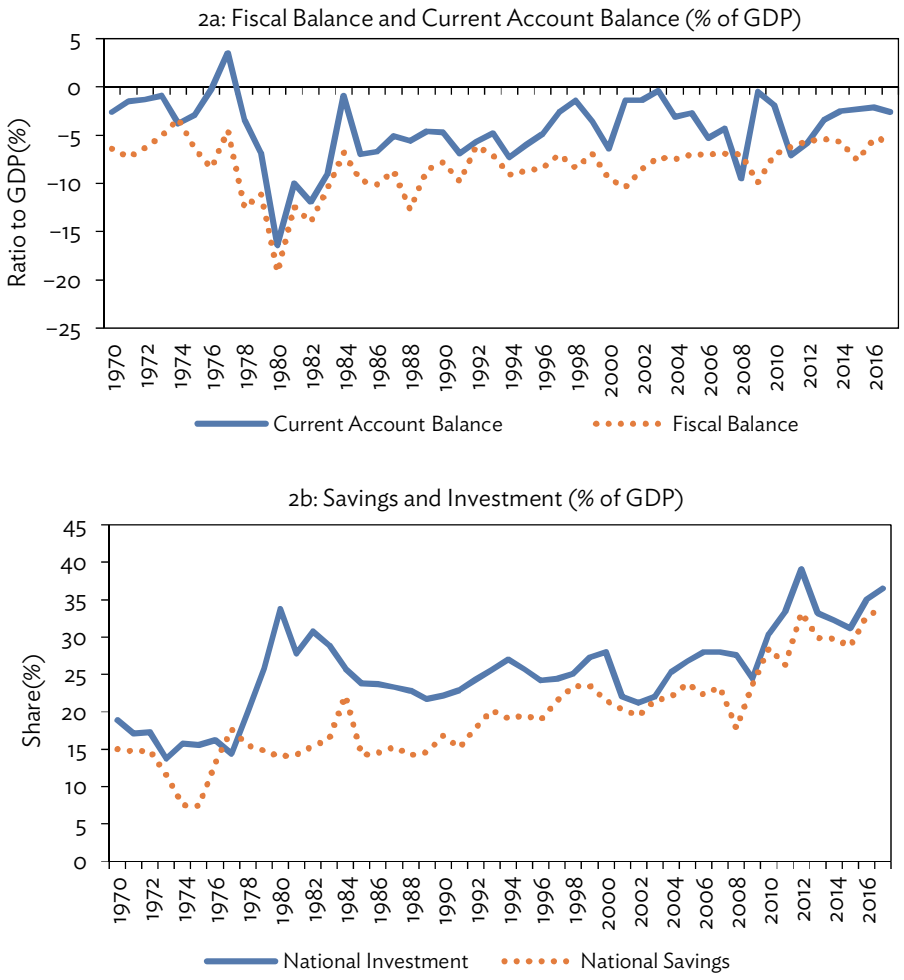
29. However, the above arguments need to be qualified. For instance, if the current account deficit is a result of private sector imports of investment goods, the sustainability of foreign debt levels may be more promising on the assumption that such investments may generate the necessary returns. On the other hand, if a current account deficit is driven primarily by consumer imports, debt sustainability issues are more worrying.

30. Persistent fiscal and current account deficits are argued to heighten debt levels and increase reliance on foreign debt purchases. These developments leave the economy more vulnerable to exogenous shocks. The typical policy prescriptions put forward under such circumstances are to curtail public spending and maintain exchange rate flexibility.

31. Sri Lanka is a classic twin deficits economy and has seen persistent twin deficits since 1970, the sole exception being a surplus on the current account in 1977 (Figure 2). The two deficits moved together, and show a strong correlation till 2000. But the correlation has been weaker since then.

32. Sri Lanka's national savings have consistently fallen short of national investment (Figure 2). However, the gap has narrowed considerably over time, from a peak of 19.8% in 1980 when Sri Lanka undertook a massive public investment program. Post-2010, remittance dollars have helped propel national savings, and tourism revival has helped boost foreign exchange earnings.

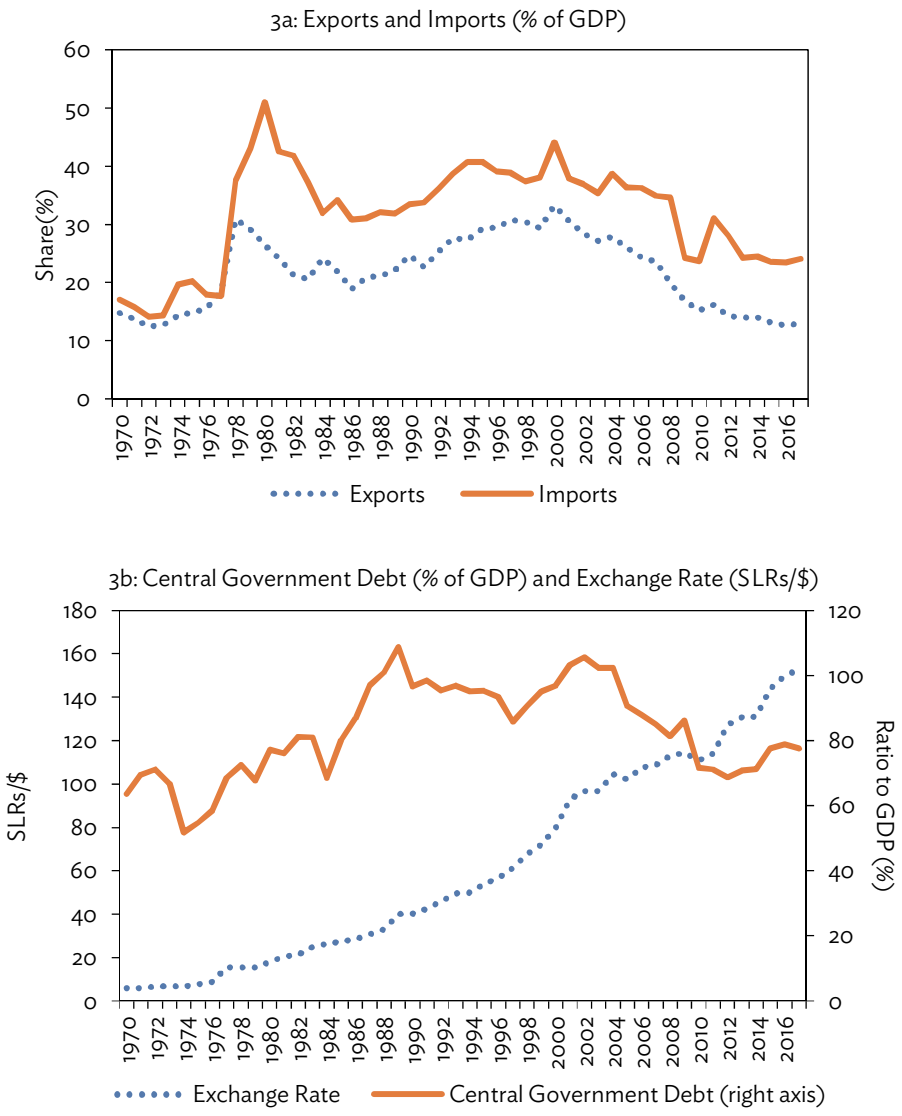
Figure 2: Twin Deficits and Savings–Investment Gap, 1970–2017



GDP = gross domestic product.
Source: Central Bank of Sri Lanka (CBSL). Various years. *Annual Report.* Colombo.

33. Over the postreform period, there has been greater openness to trade, which, however, witnessed a reversal since 2000 (Figure 3). Nonetheless, the structural transformation has not been adequate to address savings–investment gaps. Low foreign exchange earnings and other nondebt creating inflows meant that a fiscally constrained government continued to be a heavy borrower for public investment purposes. The resultant adverse consequences were high central government debt levels, which peaked at nearly 110% of GDP in 1989 and continue to remain high at 77.4% of GDP in 2017 (Figure 3). Persistent trade imbalances and growing central government external debt servicing has meant that the exchange rate has depreciated steadily. Moreover, a reluctance to allow the nominal exchange rate to depreciate fully has also meant that the real effective exchange rate (REER) has tended to appreciate, undermining the international competitiveness of Sri Lanka's export products.

Figure 3: Trends in Trade, Central Government Debt, and Currency, 1970–2017



GDP = gross domestic product, SLRs = Sri Lanka rupee.
Source: Central Bank of Sri Lanka (CBSL). Various years. *Annual Report.* Colombo.

34. Not surprisingly, since the 1970s, Sri Lanka's trajectory of fiscal and current account deficits and the implicit imbalances in macroeconomic fundamentals producing twin deficits have seen the country undergo periodic economic crises that have necessitated intervention from the IMF in its role as the lender of last resort. Sri Lanka has been under multiple IMF programs for macroeconomic stabilization and BOP support since the 1970s—11 arrangements in 46 years during 1971–2016 (Table 1). For the most part, the IMF programs helped stabilize both domestic and external sectors and boost growth, but as a short-term measure only. They did not deliver deep reforms on the fiscal front and any progress made

tended to be undermined in election-related cycles of spending. The rest of this section looks at how the deficits evolved and the macroeconomic dynamics since 1970.[4]

A. Supply Shocks and Tightening Controls: 1970–1976

35. The economic policy landscape in Sri Lanka during 1970–1977 was marked by stringent foreign exchange and import controls to manage the external sector. The undiversified nature of the economy was clear; tea exports alone accounted for over 50% of total exports in the early 1970s, while the industrial export share was at a mere 5% (Table 2).

36. The improvements in both the fiscal and external current account deficits during 1970–1973 and earlier attempts in the previous 2 decades to make the economy less vulnerable to external conditions failed to offer any protection on the eve of a major supply shock to the economy in 1973, wherein a sharp increase in international oil prices saw import growth accelerate considerably (Table 3). With an undiversified export basket dependent on primary commodities, whose prices were falling at the time, and with little or no private transfers to cushion the impact on the trade balance, the current account deficit widened sharply.

37. Further import compression was the preferred policy option in response to the 1973 oil price shock, with a near 30% compression in import volume in 1974 that was to have a severe knock-on effect in dragging down manufacturing output. The exchange rate was not considered as a tool to address the external balance.[5] Indeed, it has been argued that evidence of a high black market rate and the need for stringent exchange controls suggest that the Sri Lanka rupee (SLR) was grossly overvalued throughout this period (Athukorala and Jayasuriya 1994). A sharp, albeit temporary, upturn in international tea prices in 1977 helped push the current account into a surplus during the year.

38. The government fell back to a tight import control regime with import substitution as the preferred response to the external crisis. The government also attempted to provide an economic stimulus through fiscal spending. With monetary and exchange rate policy tools ignored, fiscal policy was the primary tool employed to address the government economic objectives. These included a strong commitment toward social welfare expenditure and a heightened state involvement in all spheres of the economy. For instance, in 1974, transfer payments accounted for 50% of total government recurrent spending; of this, 42% was a direct transfer to households in the form of food subsidies (Central Bank of Ceylon 1974). On the broader economic front, the government's response was to strengthen ownership in trade and industry, particularly nationalization of the export-oriented plantation sector in 1975. By 1976, agency houses, banking, insurance, most of the press, and much of wholesaling and retailing were to be under the control of state corporations and cooperatives. Overall, however, with a tax-to-GDP ratio of 18%, Sri Lanka's fiscal constraints were not primarily revenue-related; rather, they were a problem of being overextended on the expenditure front.

---

4 The choice of periods is admittedly subjective but cutoffs are largely based on the timing of key economic, political, and social developments in Sri Lanka.

5 With the breakdown of the Bretton Woods system in 1971, the Sri Lanka rupee depreciated as a result of cross exchange rate effects between the US dollar and other major currencies in the aftermath of international currency volatility.

Table 2: Export and Import Composition, 1971–2017

	1971–1973	1974–1976	1977	1978–1980	1981–1983	1984–1986	1987–1988	1989–1991	1992–1994	1995–1997	1998–2000	2001–2003	2004–2006	2007–2009	2010–2012	2013–2014	2015–2017
Export Share (% of total)																	
Total Agriculture	87.0	79.4	79.3	70.5	56.7	53.1	42.6	36.4	23.1	22.7	20.5	19.4	18.5	22.2	24.9	25.0	23.5
Tea	53.0	44.0	52.8	40.3	31.1	34.2	26.1	24.0	13.8	14.4	14.1	13.9	12.8	15.4	15.1	14.7	12.8
Rubber	17.9	18.8	14.0														
Total Industrial	5.5	14.1	14.2	24.3	36.4	40.2	48.5	55.7	73.4	74.3	76.7	77.3	78.3	76.3	73.9	74.4	78.4
Textiles and Garments				10.3	16.3	23.1	29.9	34.5	49.1	48.0	52.7	51.5	46.1	44.7	39.8	43.8	45.8
Import Share (% of total)																	
Consumption	53.4	44.6	42.2	34.3	23.7	21.7	23.7	26.0	19.9	18.7	18.5	19.5	17.4	14.7	17.3	18.8	23.0
Intermediate	25.0	42.2	44.1	41.4	50.7	52.3	57.0	53.0	52.8	54.8	53.1	58.6	60.7	62.0	60.3	58.7	52.3
Investment	19.6	12.0	12.4	23.7	25.3	21.4	17.9	20.1	26.4	22.4	25.0	19.0	21.3	21.2	21.8	22.5	24.5

Note: Data for 1978-80 refer to 1980 only.
Source: Central Bank of Sri Lanka (CBSL). Various years. Annual Report. Colombo.

Table 3: External Sector, 1971–2017

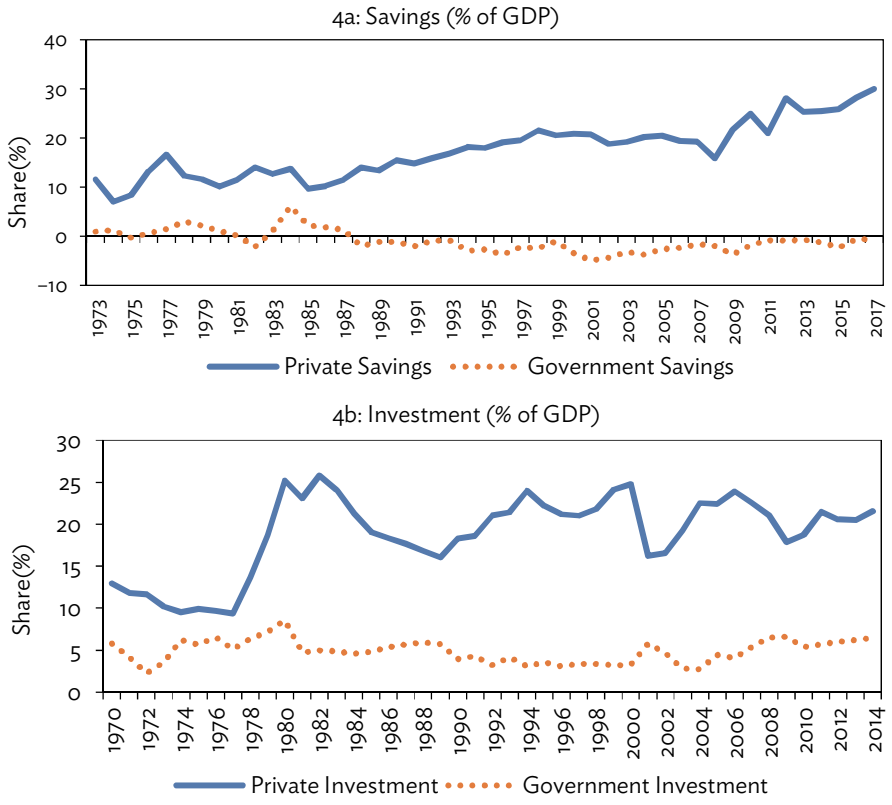
	1971–1973	1974–76	1977	1978–1980	1981–1983	1984–1986	1987–1988	1989–1991	1992–1994	1995–1997	1998–2000	2001–2003	2004–2006	2007–2009	2010–2012	2013–2014	2015–2017
Export Growth (% change)	3.0	16.3	37.3	11.6	0.1	6.4	10.6	11.9	16.4	13.2	6.4	(2.0)	10.3	1.5	12.2	6.7	0.9
Import Growth (% change)	2.1	21.0	12.9	41.4	(2.0)	1.0	6.6	11.0	16.2	7.2	8.1	(2.3)	15.5	2.4	25.7	0.8	2.7
Trade Balance (% of GDP)	(1.8)	(4.3)	1.0	(15.0)	(18.5)	(10.6)	(10.6)	(9.8)	(11.7)	(9.8)	(8.8)	(8.0)	(11.0)	(11.1)	(12.4)	(10.3)	(10.8)
Remittances (% of GDP)	0.0	0.0	0.0	3.8	5.6	5.0	5.2	5.0	6.0	6.1	6.7	7.5	7.7	7.6	8.0	8.7	8.6
FDI (% of GDP)	...	...	...	0.8	1.1	0.5	0.7	0.5	1.5	1.4	1.1	1.1	1.2	1.4	1.1	1.1	1.0
Current Account Balance (% of GDP)	(1.2)	(2.3)	3.5	(8.9)	(10.3)	(4.9)	(5.4)	(5.4)	(5.9)	(4.5)	(3.8)	(1.1)	(3.7)	(4.8)	(4.9)	(3.0)	(2.3)

... = negligible, ( ) = negative, FDI = foreign direct investment, GDP = gross domestic product.
Source: Central Bank of Sri Lanka (CBSL). Various years. Annual Report. Colombo.

39. Under pressure from rising inflation, the government's response was the adoption of orthodox fiscal austerity measures with little input from monetary policy (Table 4). Total expenditure was slashed, but with a bigger role assigned to government in economic affairs. Pressure for fiscal transfers remained high in the face of declining revenue for the government. Despite high credit uptake by the government, inflationary pressures were artificially suppressed through administered price controls (Table 5).

40. Overall, the mirror image of a current account deficit during 1974–1976 can be seen in a widening national savings–investment gap during 1974–1976, with a steeper fall in savings (Figure 2). Private investment dropped throughout the period owing to the unattractive climate of state controls on economic activity, which further contributed to low and stagnant economic growth overall (Figure 4).[6] While disaggregated data on savings are not available for the full period, private savings dropped in 1974 relative to that of government savings. Overall, inappropriate policy responses of overstretching an already weak fiscal situation and adopting an anti-export policy stance on both domestic and external fronts, respectively, worsened existing imbalances in this instance.

Figure 4: Savings (1973–2017) and Investment (1970–2014)



GDP = gross domestic product.
Notes: Private investment includes that of public corporations.
Source: Compiled using data from Central Bank of Sri Lanka (CBSL). Various years. *Annual Report*. Colombo.

[6] In fact, the decline in private investment was likely to have been much steeper than indicated by the data in view of the inclusion of investments by public corporations in capturing private investment.

Table 4: Fiscal Indicators, 1971–2017 (% of GDP)

	1971–1973	1974–1976	1977	1978–1980	1981–1983	1984–1986	1987–1988	1989–1991	1992–1994	1995–1997	1998–2000	2001–2003	2004–2006	2007–2009	2010–2012	2013–2014	2015–2017
Tax Revenue	17.5	16.2	15.1	21.2	15.8	18.5	17.0	18.7	17.4	16.9	14.7	13.8	13.9	13.4	11.1	10.3	12.4
Grants	0.4	1.3	1.4	2.7	3.2	2.1	2.7	2.2	1.7	1.1	0.6	0.4	0.9	0.7	0.2	0.1	0.1
Capital Expenditure	6.3	7.8	7.3	19.1	15.2	14.4	13.0	9.5	7.5	6.2	6.6	5.0	5.2	6.2	5.3	4.7	5.0
Current Expenditure	21.5	18.9	16.9	21.2	17.9	18.3	20.4	22.5	21.2	22.2	19.5	20.3	18.5	17.5	13.9	12.7	14.9
Wages and Salaries[a]					23.7	22.4	21.0	22.9	24.0	22.9	27.4	26.7	30.2	32.5	31.3	33.0	32.1
Interest Payment[a]					27.8	25.3	26.5	26.8	29.5	27.5	28.5	34.6	28.5	31.0	36.2	34.9	34.3
Transfers and Subsidies[a]					36.6	30.8	27.8	30.0	26.8	25.8	22.2	21.7	27.4	22.8	20.9	21.0	23.3
Domestic Financing	5.1	4.8	2.4	8.4	7.1	4.3	7.6	4.9	5.0	5.0	7.7	7.1	5.4	5.4	2.9	3.9	3.2
Foreign Financing	1.1	1.2	2.1	5.8	5.3	4.5	3.1	3.7	1.9	1.9	0.4	1.2	1.7	2.5	3.4	1.7	2.9
Privatization Proceeds								0.2	0.5	1.2	0.2	0.5	0.1				
Fiscal Balance	(6.2)	(6.0)	(4.5)	(14.3)	(12.3)	(8.9)	(10.7)	(8.7)	(7.4)	(8.0)	(8.3)	(8.7)	(7.2)	(7.9)	(6.3)	(5.6)	(6.2)

( ) = negative, GDP = gross domestic product.
[a] As a share of current expenditure.
Source: Central Bank of Sri Lanka (CBSL). Various years. Annual Report. Colombo.

Table 5: Select Economic Indicators, 1971–2017 (% of GDP)

	1971–1973	1974–1976	1977	1978–1980	1981–1983	1984–1986	1987–1988	1989–1991	1992–1994	1995–1997	1998–2000	2001–2003	2004–2006	2007–2009	2010–2012	2013–2014	2015–2017
GDP Growth (% change)	2.4	3.0	4.2	6.8	5.3	4.8	2.1	4.4	5.6	5.2	5.0	2.8	6.4	5.4	8.5	4.2	4.3
Inflation (% change)[a]	6.2	6.7	1.2	16.3	14.3	8.7	10.9	15.1	10.5	11.1	6.8	10.0	10.0	14.0	6.8	5.1	4.3
Interest Rates (%)[b]	5.0	5.0	9.0	10.3	12.7	12.3	14.8	17.3	18.2	15.6	13.9	10.1	10.0	15.5	8.6	6.6	7.6
Exchange Rate (SLRs/$)	6.5	7.7	15.6	16.3	22.3	27.4	31.9	40.9	48.5	57.4	73.3	95.5	104.8	112.1	117.3	130.9	148.9
REER (2010=100)															99.2	102.5	107.5

CCPI = Colombo consumer price index, GDP = gross domestic product, REER = real effective exchange rate, SLR = Sri Lanka rupee, T-bill = treasury bill.
[a] For periods 1971–2003 based on CCPI (1952=100), for 2004–2009 based on CCPI (2002 =100), and for 2010–2017 based on CCPI (2010=100).
[b] Refers to the 91-day T-bill rate.
Source: Central Bank of Sri Lanka (CBSL). Various years. Annual Report. Colombo.

41. By 1977, it was recognized that the country needed both stabilization and structural adjustment measures urgently to address its imbalances on both the domestic and external fronts. Sri Lanka entered into a Stand-By Arrangement (SBA) with the IMF in 1977 and undertook sweeping reforms with the key objective of placing the country on an export-oriented growth platform.

B. Attempts at Adjustment and Stabilization: 1978–1988

42. In the decade following the opening up of the economy, significant structural changes were evident. By 1985, the share of tea exports had fallen to 33% of exports while the industrial share of exports had risen steeply to 40%.

43. Notwithstanding the success of achieving a more diversified export base, the economy continued to suffer from high fiscal and current account deficits. In fact, an annual average current account deficit of 1.2% of GDP during 1970–1977 expanded to 7.5% during 1978–1988. Similarly, an annual average fiscal deficit of 6% during 1970–1977 expanded to 11.6% during 1978–1988. Thus, in aggregate, the imbalances besetting the economy worsened, and the movements in both deficits also corresponded more clearly during this period (see Figure 2).

44. The immediate postliberalization period revived GDP growth to deliver an annual average growth rate in excess of 6% during 1978–1983 (Table 5). The growth came from a much higher level of public and private investment (Figure 4). At the same time, savings, particularly government savings, dipped contributing to a widening of the domestic resource gap leading to macroeconomic imbalances.

45. The proximate cause was the decision by the government to launch an ambitious public investment program for irrigation and hydropower generation—supported by donor assistance in the form of grants—that was to induce a domestic demand shock on the economy.[7] Fiscal rationalization agreed under the IMF SBA program of 1977 included substantive cuts on subsidies and transfers, particularly a universal food subsidy program, as well as the removal of administrative prices. By initiating a massive public investment program, the government deviated from a standard liberalization-cum-adjustment policy package with the expectation of providing employment and livelihood opportunities to counter fiscal austerity measures elsewhere. By 1980, the fiscal deficit had shot up to a peak of 19.2% of GDP with annual inflation spiraling to over 26%.

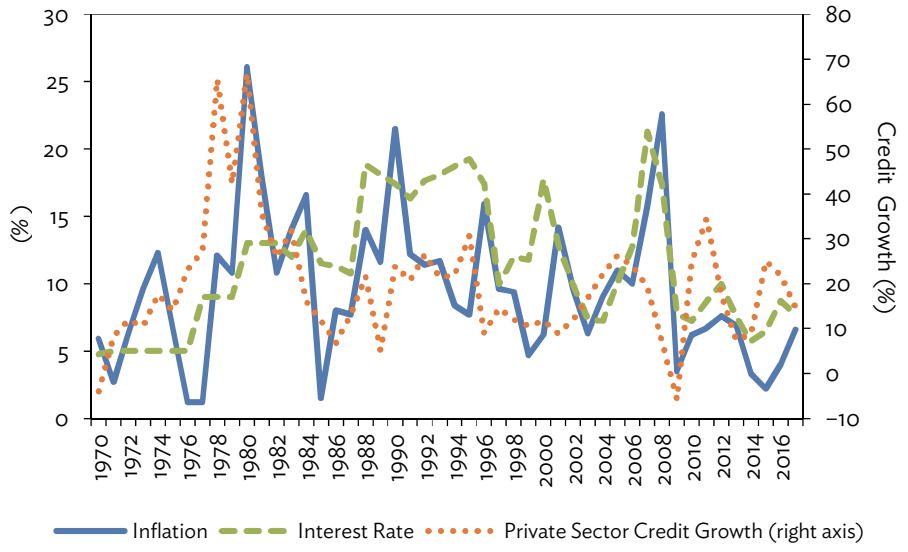
46. The public investment program also had a significant impact on the external front (Table 3). It led to a surge in capital imports, alongside an increased demand for intermediate products as import-dependent sectors like textiles and garments (T&G) exports took off to meet repressed demand. A second oil price shock in 1979 further deteriorated the balance of trade, with the current account deficit posting its worst ever performance at over 16% of GDP in 1980.

47. Under the IMF's EFF program of 1979, the government attempted to restore macroeconomic stability by adopting orthodox fiscal and monetary policy measures. Tighter discipline was imposed on government expenditure, especially on capital spending; and unlike under the previous economic regime, monetary policy was also brought into play by progressively tightening policy to curtail high credit growth—on account of both domestic financing of fiscal deficit and credit growth to private sector—and to rein in rampant inflation (Figure 5).

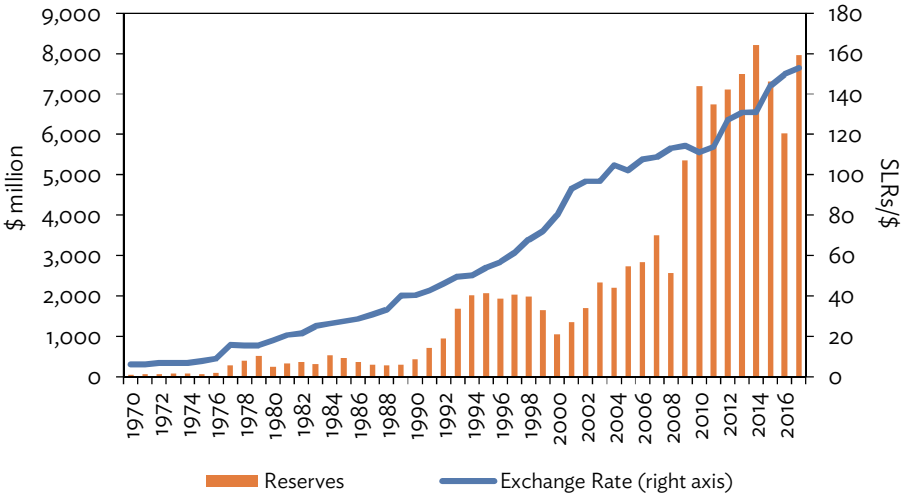
[7] Referred to as the Accelerated Mahaweli Development Program.

Figure 5: Monetary and Exchange Rate Policy Response, 1978–2017

5a: Monetary Policy Trends



5b: Exchange Rate (SLRs/$) and
Foreign Exchange Reserves ($ million)



SLR = Sri Lanka rupee.
Source: Compiled using data from Central Bank of Sri Lanka (CBSL). Various years. *Annual Report.* Colombo.

48. Exchange rate policy was also used as an explicit tool to deal with the current account deficit. Athukorala and Jayasuriya (1994) argue that the magnitude of the deterioration in terms of trade was not compensated by sufficient cuts in national expenditure to rein in inflation and bring about a real depreciation of the exchange rate. Capital inflows were bolstered by higher foreign borrowing to meet the rising current account deficit during this period. Therefore, the government is argued to have adopted a policy to maintain the level of real expenditure, the outcome of which was a continuous appreciation of

the real exchange rate and a weaker performance of the export sector. Indeed, most estimates unequivocally suggest that there was a real exchange rate appreciation in the first half of the 1980s, which had adverse implications for Sri Lanka's international export competitiveness (Lal 1985, White and Wignaraja 1992). In effect, the country was subject to the Dutch Disease associated with high foreign exchange inflows. The first of these was a massive growth in transfers, both official grants and private remittances; and second, a mini-boom in tea prices in 1983 and 1984.

49. The pace of reforms to bring about a more sustained transformation of the economy slowed as the country became embroiled in social and ethnic conflict from the mid-1980s.[8] In particular, FDI inflows, after the initial burst, began to dry up. As a consequence, while export earnings growth continued, especially on account of a relatively low base, there was no further change in the composition of Sri Lanka's export basket. A heavily import-dependent T&G industry took off under favorable global trade conditions, i.e., quota allocations under the Multi-Fibre Arrangement that attracted significant FDI into Sri Lanka from East Asian and Southeast Asian countries to take advantage not only of the quotas allocated to the country, but also its relative abundance of unskilled cheap labor. But aside from the T&G sector, export diversification remained fairly modest a decade after the opening up of the economy (Table 2).

50. As a result, Sri Lanka continued to run a high trade deficit, with earnings from worker remittances helping to narrow the current account imbalances. By contrast, the fiscal deficit continued to widen with rising recurrent spending, as high defense spending added to the fiscal burden from the mid-1980s. Interest rates remained high, deterring private investment. With economic growth petering out to average 2% per annum during 1987–1988, Sri Lanka once again entered into a 3-year Structural Adjustment Facility (SAF) loan with the IMF to launch its second wave of economic reforms to rejuvenate a flagging economy.

C. Renewed Effort at Growth and Stabilization: 1989–1999

51. With the IMF SAF signed in 1988, Sri Lanka received 156.2 million special drawing rights (SDR) and a further SDR336 million provided under an Enhanced SAF in 1991. The fiscal consolidation efforts underpinning IMF support, however, did not yield the desired results and the fiscal deficit averaged 8.7% of GDP per annum over the period (Table 4). This was partly due to an ambitious national poverty alleviation program, the "Janasaviya," launched in 1989 which was viewed as a means of mobilizing support for government's broader reform initiatives but went against typical IMF fiscal consolidation efforts.[9] Continuing the broad trends since the mid-1980s, the current account, however, continued to show some improvement during this period despite the weak fiscal outlook (Figure 2).

52. With the weak fiscal conditions, government investment fell below 5% of GDP and stagnated (Figure 4). This was despite an initial improvement in government savings, driven by a program of privatization that brought in revenues. By contrast, private investment recovered steadily until the mid-1990s alongside a persistent improvement in private savings.

53. The poor performance of government resource mobilization rests on Sri Lanka's inability to bring about a sustained improvement in government fiscal operations in the 1990s. Recurrent spending, particularly on account of transfers and subsidies, meant that any fiscal adjustments were focused on

---

[8] The sources of conflict were twofold: (i) a long simmering ethnic divide that erupted into an armed separatist from 1983; and (ii) antigovernment opposition.

[9] While the scope and coverage of the original proposal was scaled down in the face of some opposition from international financial institutions, the government was able to obtain agreement to proceed with its implementation.

curtailing capital expenditures (Table 4). The privatization program that began with the divestiture of the plantation sector in 1992 was expanded to include the utilities and services sector in the mid-1990s. This brought in much needed revenues to the government coffers but further progress on SOE reforms ceased in the latter part of the 1990s.

54. With a high domestic financing of the fiscal deficit, interest rates remained excessively high, averaging over 18% during 1993–1995 (Table 5). The Central Bank of Sri Lanka (CBSL) maintained a tight monetary policy in view of double-digit inflation and high credit growth to the private sector. On the exchange rate front, the Sri Lanka rupee depreciated steadily during this period. With exchange rate depreciation, the fiscal responsibility to control domestic liquidity by limiting expansionary financing became more pronounced in order to curb the import bill, else depreciation might have worsened the trade deficit. However, the exchange rate policy was prudent in view of high domestic inflation, which necessitated nominal depreciation to retain international export competitiveness.

55. Paradoxically, despite high interest rates, Sri Lanka saw a burst of private investment during the first half of the 1990s. This is largely attributed to the optimism generated by the economic reform program that evinced a notable tilt toward engaging the private sector in economic activity. This was seen through the divestiture of SOEs and a raft of incentives offered by a newly established Board of Investment. However, from the mid-1990s, economic growth began to stagnate again at around 5% (Table 5).

56. Export earnings rebounded in the first half of the 1990s (Table 3). This was driven to a great extent by a single policy initiative—the 200-garment factory program—aimed at providing rural employment opportunities through the export-oriented T&G industry. T&G quotas and investment incentives were offered to encourage firms to set up factories in marginalized areas of the country. While the trade gap remained large, strong growth in worker remittance inflows helped narrow the current account deficit and a significant improvement in FDI inflows provided an additional source of foreign exchange. In fact, FDI inflows were at their peak owing to the divestiture of SOEs in sectors such as telecommunications. Nonetheless, there were spillover impacts in encouraging FDI inflows into the services sector in general from the mid-1990s.

57. With the rapid expansion of the 200-garment factory program, the T&G industry consolidated its position to account for 48% of export earnings by the mid-1990s, taking the industry share of exports to 75% (Table 2).[10] Aside from the T&G industry, there were no other attempts at industrial diversification.

58. After the initial burst of privatization, economic reform initiatives came to a standstill from the late 1990s as the country grappled with a coalition government that hamstrung efforts to push through a systematic and effective reform program. Private investments began to decline and GDP growth slowed to 4.5% per annum during 1998–1999.[11] The economic challenges were exacerbated by the Asian financial crisis of 1997 as FDI inflows from Sri Lanka's key source markets in the Asian region were impacted.

59. However, the bigger economic problems for Sri Lanka were domestic. The government's weakening hold on fiscal policy began to re-emerge strongly once again. While it was on both expenditure (large overruns in defense spending) and revenue fronts, the latter was the more critical.

[10] However, it must also be noted that the 200-garment factory program constrained the capacity of the industry, disrupted operations of existing exporters, and created a backlog of problems such as overutilization of quotas.

[11] Private investments picked up sharply again in 1999–2000 owing largely to the expansion of the telecommunications sector and a refleeting program by the privatized national airline.

Sri Lanka's transition from a turnover tax to a goods and services tax in 1998 saw a sharp drop in revenue collection owing to a less-than-neutral rate, exemptions and concessions, as well as associated transition problems. A deteriorating fiscal outlook combined with rising international oil prices saw Sri Lanka's fiscal and external current account deficits widen to 9.5% and 6.4%, respectively, in 2000. Amidst the external pressures, official reserves also dropped sharply prompting Sri Lanka to approach the IMF once again for a bailout program. In April 2001, Sri Lanka entered into a $253 million 14-month SBA.

D. Stalled Reforms: 2001–2009

60. As a precondition to the IMF SBA, Sri Lanka agreed to move to a "floating" exchange rate from January 2001. The other key conditionalities included fiscal consolidation and addressing massive operational losses of SOEs; the latter included upward adjustments to administered prices on fuel. With external current and fiscal account deficits averaging 3.1% and 7.9% of GDP per annum, respectively, over the period 2001–2009, structural imbalances in the economy continued to persist. The collapse of the ruling coalition in 2001 saw a renegotiated EFF arrangement in 2003 that sought to bring about significant reforms pertaining to SOEs. Moreover, under a Poverty Reduction and Growth Facility, a slew of deregulatory reforms were also identified for implementation. However, these initiatives failed to take hold with a change of government once again in 2004.

61. Private investment, which had been declining since the mid-1990s (albeit with a temporary surge in 1999–2000) contracted sharply in 2001. For the first time since independence, GDP growth entered negative territory and GDP contracted by 1.5%. While private investment picked up and rose steadily up to 2006, it declined once again thereafter (Figure 4). The recovery in private investment sentiment had much to do with domestic political developments. The fall of the coalition government just after a year of its election in 2000 paved the way for a reform-oriented, business-friendly government in December 2001. Sri Lanka also saw a hiatus in the outbreak of violence with the signing of a ceasefire agreement. However, optimism proved to be short-lived as the government failed to get re-elected in 2004 and private investment growth began to waver.

62. Public investment increased sharply in 2005 in response to Sri Lanka's efforts to rebuild and reconstruct following the devastating impact of the Asian tsunami in December 2004. Government investment began to pick up as the main driver of investment growth in the economy from 2006, as a means of ensuring buoyant growth. The ratio of public investment to GDP remained above 6% (Table 4), but private investment declined during this period in the wake of significant uncertainty in both political and economic outcomes.

63. By contrast, private savings remained more or less stagnant while government savings improved over time. The underlying trends suggest that there should have been an overall improvement in Sri Lanka's public finances in bridging the domestic resource gaps. Indeed, the overall fiscal deficit improved progressively from 10.4% of GDP in 2001, to 6.9% of GDP by 2007. The improvements, however, did not address deep-rooted weaknesses in public finance management.

64. Sri Lanka's revenue mobilization became weak during this period as the tax share of GDP continued to slide. Additionally, even though the ratio of recurrent spending to GDP declined progressively, the share of wages and salaries rose with salary adjustments as well as absorption of recruits to the public service, including increased numbers of defense personnel. Foreign financing of the fiscal deficit, which had been low in preceding years with some revenue mobilization via privatization proceeds,

began to edge up as Sri Lanka began to rely increasingly on nonconcessional and foreign borrowing to bridge resource gaps for investment purposes. In 2007, Sri Lanka issued its debut international sovereign bond (ISB) for $500 million.

65. A low interest rate regime amid a low inflation environment—the latter in part reflective of global trends—reversed after 2007. Monetary policy was slow to respond to rising inflation; in fact, real interest rates remained very low and at times recorded negative rates. As a result, credit expansion was high for both private and public sectors. The tsunami-related reconstruction spending also acted as a domestic demand shock; in addition, rising food and fuel prices in line with global developments added to inflationary pressure. Although monetary policy was finally tightened substantively in 2007, inflation peaked at 22.6% in 2008.

66. Rising international oil prices worsened the trade deficit to 14.7% of GDP in 2008 and the current account deficit widened sharply to 9.5% of GDP, despite strong growth in remittances (Figures 2 and 3). However, unlike in the previous macroeconomic management regime, there was a growing departure in relation to exchange rate policy management. As Sri Lanka made its debut as an ISB issuer in 2007, alongside opening up of government securities to foreign investors from 2006 to draw in foreign capital inflows,[12] the exchange rate policy was focused more toward a predetermined "fixed peg" to the US dollar. Thus, despite a rapidly weakening external current account during 2006–2008, the Sri Lanka rupee saw a fairly modest nominal depreciation of only 5% (Figure 5). Given the prevailing high domestic inflation, such a minimal nominal depreciation no doubt contributed to eroding Sri Lanka's export competitiveness. Indeed, a newly created REER index at the time indicated a real appreciation of the rupee of nearly 20% in 2008 (CBSL 2010).[13] While export earnings growth slowed during 2008–2009 with the 2008 global economic crisis, domestic macroeconomic policy also contributed toward this.

67. Sri Lanka's export-to-GDP ratio began its slow decline over this decade (Table 2). From accounting for 30.6% of GDP in 2001 it had dropped progressively to 20% by 2008. Even as the export contribution to GDP declined, the composition of the export basket was stagnant, with T&G continuing to be the single largest export with 43.6% in 2008 of total exports, and tea exports taking up another 15.8%.

68. With the twin deficits widening and with CBSL attempting to "lean against the wind" and defend the currency from depreciating by running down official reserves thus depleting the reserves, the economy was on the verge of yet another BOP crisis by late 2008. As official reserves declined without adequate cover for a minimum 3 months' worth of imports, Sri Lanka made a formal approach to the IMF in February 2009 for a SBA. With the successful conclusion of the conflict in May 2009, Sri Lanka entered into a 20-month $2.6 billion SBA with the IMF in July 2009.

E. Postconflict Growth Surge: 2010–2017

69. Postconflict, public investment, which increased after 2005, continued to be the central focus of the government's development policy, with government investment hovering at over 5% of GDP

[12] In 2006, a threshold limit of 5% of treasury bonds outstanding to foreign investors was introduced. The limit was increased further to 10% in 2007. In 2008, the treasury bill market was also opened to foreign investors with a threshold limit of 10%. Foreign investor limit on outstanding stock of treasury bills and bonds was increased further to 12.5% from 2011. In 2015, the limit was lowered to 10%.

[13] REER comprises a basket of 24 currencies.

(Figure 4).[14] Pursuing a swift postconflict economic peace dividend, the CBSL attempted to provide a monetary stimulus in addition to the fiscal stimulus of public investments. Aside from lowering policy rates, CBSL resorted to moral suasion and regulatory requirements to encourage credit uptake by the private sector. These included calls to cut lending rates and to provide directed credit to identified economic sectors (Institute of Policy Studies [IPS] 2010). The proximate cause of the monetary buildup in the economy this time was not directly linked to fiscal policy via domestic borrowing. Rather, it was a result of higher dependence on foreign financing to bridge fiscal needs.

70. Private investment rose immediately after the end in 2009 of the long civil conflict, but stagnated thereafter from 2012. Private savings declined sharply in 2011 but recovered since then. On the fiscal front, there was an improvement in fiscal deficit during 2010–2014 while the performance on the external front was mixed.

71. The overall fiscal deficit ratio declined from 9.9% of GDP in 2009 to 5.5% of GDP by 2017. This improvement was despite a deteriorating revenue performance during 2010–2014; revenue to GDP ratio began to pick up in 2015. On the expenditure side, recurrent spending was restrained; meanwhile, attempting to hold capital expenditures at around 5% of GDP improved the expenditure mix. However, despite this restraint spending on interest payments, salaries and wages, and transfers and subsidies to households continued to account for 85%–90% of recurrent spending. Government revenues were inadequate to even recover recurrent expenditure needs. Consolidation of government expenditures was also facilitated by a change in approach to direct lending to SOEs.[15] SOEs and other entities that were dependent on fiscal transfers were encouraged to borrow directly from both domestic and foreign sources, often with treasury guarantees.[16] As a result, outstanding publicly-guaranteed liabilities increased from a low 0.8% of GDP in 2006 to 4.4% of GDP in 2017 (Figure 6).[17]

72. Another notable feature of fiscal performance in this period is the reliance on foreign financing of the deficit. While it helped to finance the deficit without straining the domestic financial sector, it added to the currency risks of a growing external debt portfolio (Table 4).

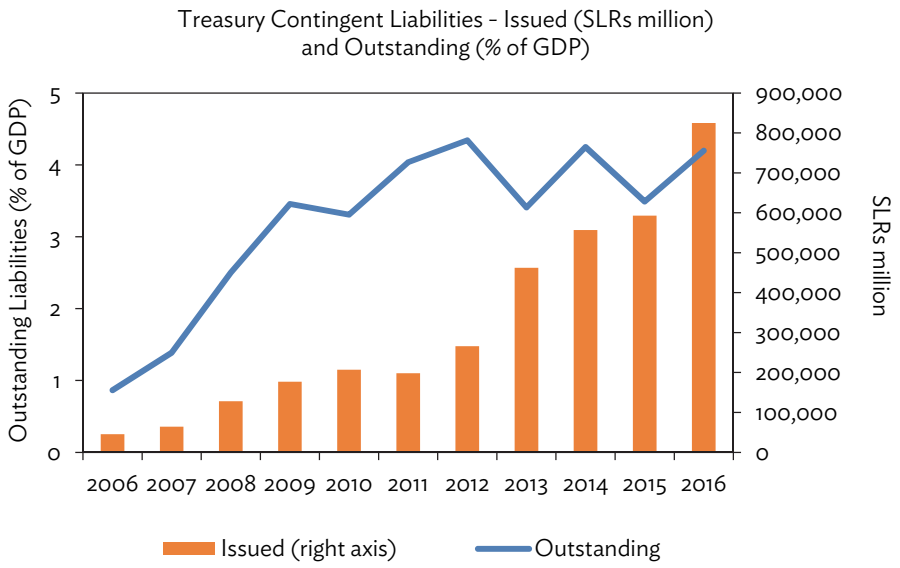
[14] Sri Lanka's rebased national accounts do not provide a breakdown of public and private investment. Estimates are based on 2002 as base year for national accounts compilation.

[15] The move to encourage SOEs to borrow directly from markets was justified on the grounds that government guarantees will ensure better terms and conditions, and enable the government to ensure that they fulfill prudential requirements if they wish to obtain such guarantees (Ministry of Finance and Planning 2013). However, there are significant downside risks in view of the financial performance of most SOEs. It is likely that on their own balance sheet and financial rating, without the unfettered support of government guarantees, many would not be able to raise the volumes of needed funding. In addition, the risks multiply when such funding is obtained from other state entities such as state-owned financial institutions. These trends clearly add to systemic risks in public finance management.

[16] Sri Lanka's Fiscal Management Responsibility Act of 2003 capped such contingent liabilities at 4.5% of GDP, which was raised to 7% after the act was amended in the 2013 budget.

[17] IMF (2018) estimates financial liabilities of nonfinancial SOEs at 10.8% of GDP as of end-2017.

Figure 6: Contingent Liabilities, Issued and Outstanding, 2006-2016



GDP = gross domestic product, SLR = Sri Lanka rupee.
Sources: Compiled using data from Central Bank of Sri Lanka (CBSL). Various years. *Annual Report.* Colombo; and Ministry of Finance. Various years. *Annual Report.* Colombo.

73. The higher rates of investment during 2010–2014 had an immediate impact on boosting growth (Table 5). However, the absorption of increased volumes of foreign capital inflows led to significant volatility in the monetary sphere as the CBSL attempted to retain control of both monetary and exchange rate policy. With the aim of targeting the exchange rate, the CBSL's attempts to mop up capital inflows led to an expansion in the domestic monetary base with inflationary consequences. However, monetary policy response was slow, allowing a spike in credit growth to the private sector that fed into an import-led consumer spending spree.[18] Once again, despite a weakened current account position, the CBSL attempted to hold the exchange rate by drawing down reserves. A sharp devaluation was allowed in 2012 to avert a BOP crisis. Alongside more stringent regulatory measures in the form of a ceiling on credit growth of commercial banks, the government also reimposed import tariff measures to quell consumer imports, particularly motor vehicles. Average import growth during 2010–2012 was at a high 26% per annum (Table 3). Throughout the post-2010 period, the fragility of the country's export sector was evident. The export share of GDP continued its decline falling to 12.7% of GDP in 2016. Decline in exports seen in 2015 and 2016 was arrested in 2017 as exports expanded by 10%.

[18] The environment of cheap credit contributed toward Sri Lanka's consumption-driven growth. The growth in commercial bank loans and advances to the private sector was highest in the category of personal loans during 2010–2012, outstripping loan uptake for industrial investments. The unfavorable macroeconomic environment that produced periodic "stop–go" policy cycles partly explains the lackluster private investment performance despite relative high economic growth over this period.

74. A noteworthy feature during this period, however, was that the CBSL managed to maintain a relatively low and stable inflationary environment in the economy (Table 5). A combination of factors helped: a fall in international oil prices, the CBSL's decision to maintain a predetermined "fixed" exchange rate, and the fact that excessive consumer spending was directed toward imports, mitigating demand-pull inflationary pressure in the economy. However, given the propensity to manage the exchange rate, Sri Lanka witnessed a steady deterioration in international competitiveness via an appreciation of the REER. Between 2010 and 2015, the REER is estimated to have appreciated by nearly 10%.

75. By headline figures alone, Sri Lanka's economic position by end-2014 looked fairly promising, with improvements in key indicators, particularly on the fiscal front, helped by relatively robust GDP growth. However, there were clear problems in the underlying fundamentals. Growth was dependent on nontradable economic activity; government debt remained high; and at the same time, domestic revenue and foreign exchange earnings performance was weak.

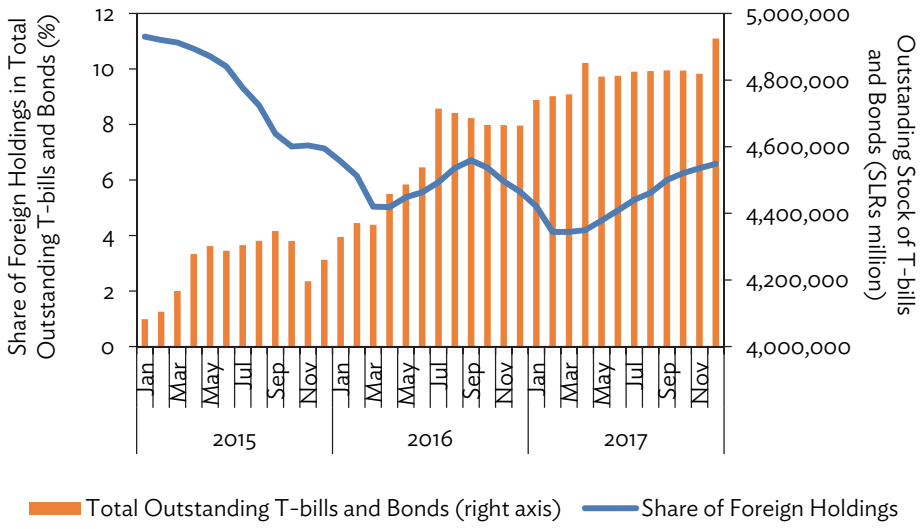
76. The postelection budget in January 2015 saw several measures being introduced such as raising public sector salaries and incomes, pensions, subsidies, and transfers to households, among others. These additional expenditures, which saw recurrent spending increase by 2.7% of GDP, failed to be matched by immediate revenue measures for deficit financing.

77. Deficit financing needs were also impacted by a sharp slowdown in long-term foreign loans to the government. Keeping to pre-election pledges to review many large-scale projects, the government put a temporarily halt, impacting inflows and new loan commitments. At the same time, foreign investors began to exit from the treasury bills and bonds market, initially in response to domestic policy uncertainties, but later also owing to anticipated rate adjustments by the US Federal Reserve.

78. By end of 2014, the cycle of credit growth was once again on the rise. Despite this, a downward policy rate adjustment was made in April 2015, further encouraging credit expansion (Figure 5). A fiscal spending spree, including a public sector wage increase, added to consumer demand. As credit growth to the private sector took off, fueling a consumer import boom, the CBSL once again resorted to drawing down reserves to stabilize the currency. Sri Lanka's much higher exposure to external debt in the face of a rapidly deteriorating fiscal outlook (with a budget deficit of 7.6% of GDP in 2015), predisposed the CBSL to defend the currency. With a debt service ratio of 27.3% by end of 2015, and official reserves declining in the first half of 2016, Sri Lanka approached the IMF in February 2016 for BOP support. In June 2016, Sri Lanka entered into a 3-year $1.5 billion EFF arrangement.

79. Despite a seeming improvement in overall fiscal indicators for the most part during this period, the monetary and exchange rate policy stance of attempting to peg the exchange rate to a predetermined rate, and setting an independent monetary policy did not foster confidence to generate private investment growth. Although Sri Lanka's overall resource gap between savings and investment was narrowed, it came by way of foreign debt accumulation rather than by way of nondebt-creating inflows such as FDI.

Figure 7: Financing Gap and Foreign Holdings, 2015–2017

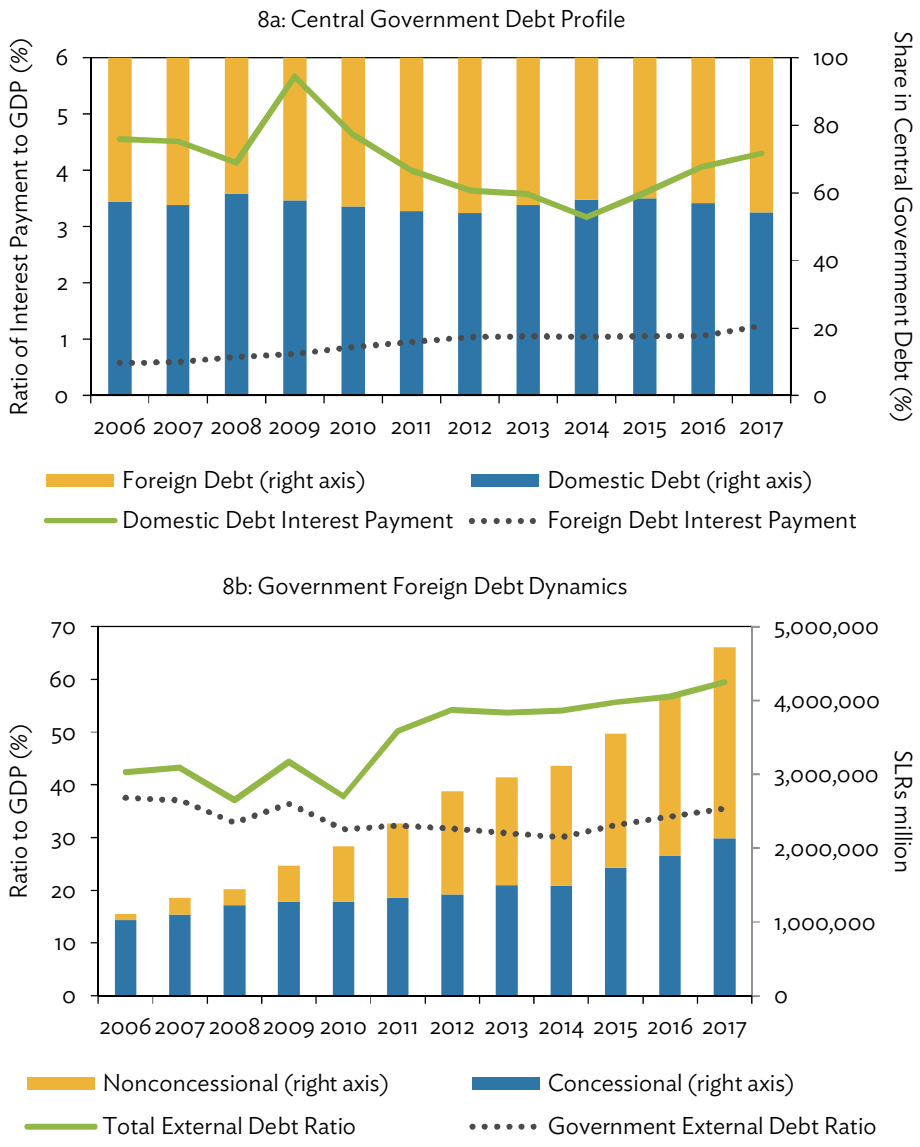


SLR = Sri Lanka rupee, T-bills = treasury bills.
Source: Compiled using data from Central Bank of Sri Lanka. Various years. *Weekly Economic Indicators*. Colombo.

80. The overall composition of Sri Lanka's central government debt has not altered significantly. In fact, the share of domestic debt—considered to be less risky—increased during 2012–2015 (Figure 8). Interest payments on domestic debt as a share of GDP have declined progressively in line with lower interest rates and debt maturity where 80% is of medium- to long-term maturity.

81. The most notable change in debt dynamics has been the shift in government foreign debt composition. The share of nonconcessionary (sum of "nonconcessional" plus commercial borrowing by the government) external debt increased from just over 7% in 2006 to 50% by 2012. Interest payments on government foreign debt have also risen steadily over time. Another noteworthy development has been the sharp increase in Sri Lanka's total (government plus other public institutions plus private) external debt to GDP ratio, which climbed sharply in 2011 as the government relaxed regulations on foreign borrowing by corporate entities and SOEs. Thus, aside from the government, multiple parties have exposed their balance sheets to international capital markets with exchange rate risks more widespread across the economy as a result. Indeed, the 1997 Asian financial crisis offers a salutary lesson that in times of severe stress, the lines between government, government-backed, or private debt become blurred when a "herd instinct" strikes investors in regard to external stability and exchange rate management (Corsetti, Pesenti, and Roubini 1999).

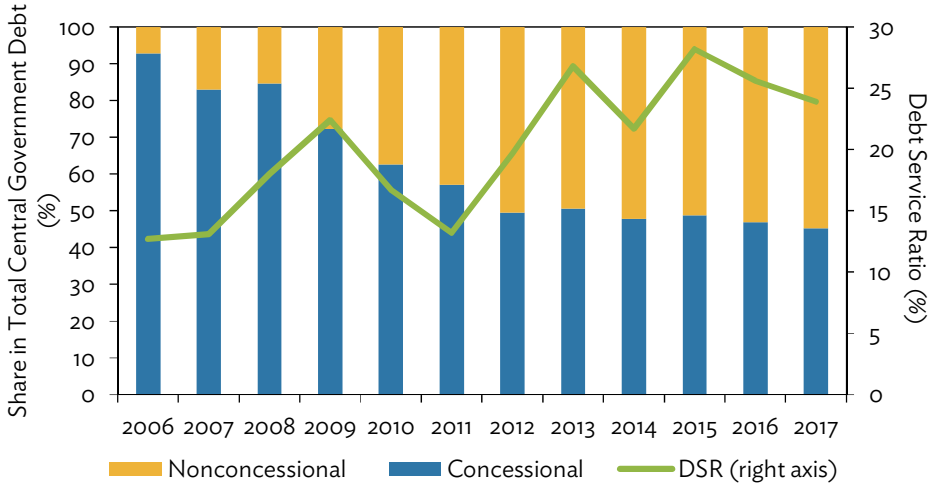
Figure 8: Central Government Debt Profile, 2006–2017



GDP = gross domestic product, SLR = Sri Lanka rupee.
Note: Nonconcessional is the sum of "nonconcessional" and commercial borrowing by the central government.
Sources: Compiled using data from Central Bank of Sri Lanka (CBSL). Various years. *Annual Report.* Colombo; Ministry of Finance. Various years. *Annual Report.* Colombo.

82. The most recent debt sustainability analysis for Sri Lanka finds no immediate risks to external debt sustainability, but points to risks from currency depreciation, inadequate reserve coverage, and deleveraging (IMF 2018). The debt sustainability analysis also notes that lower than expected GDP growth or export poses threats and would lead to deterioration in Sri Lanka's debt sustainability. The country's debt service ratio has risen steadily as earnings from exports have failed to keep pace with external debt intake (Figure 9). More worryingly, Sri Lanka will face a bunching up of government foreign debt repayments to the tune of $15.0 billion over the period 2019–2022.

Figure 9: Debt Dynamics, 2006–2017

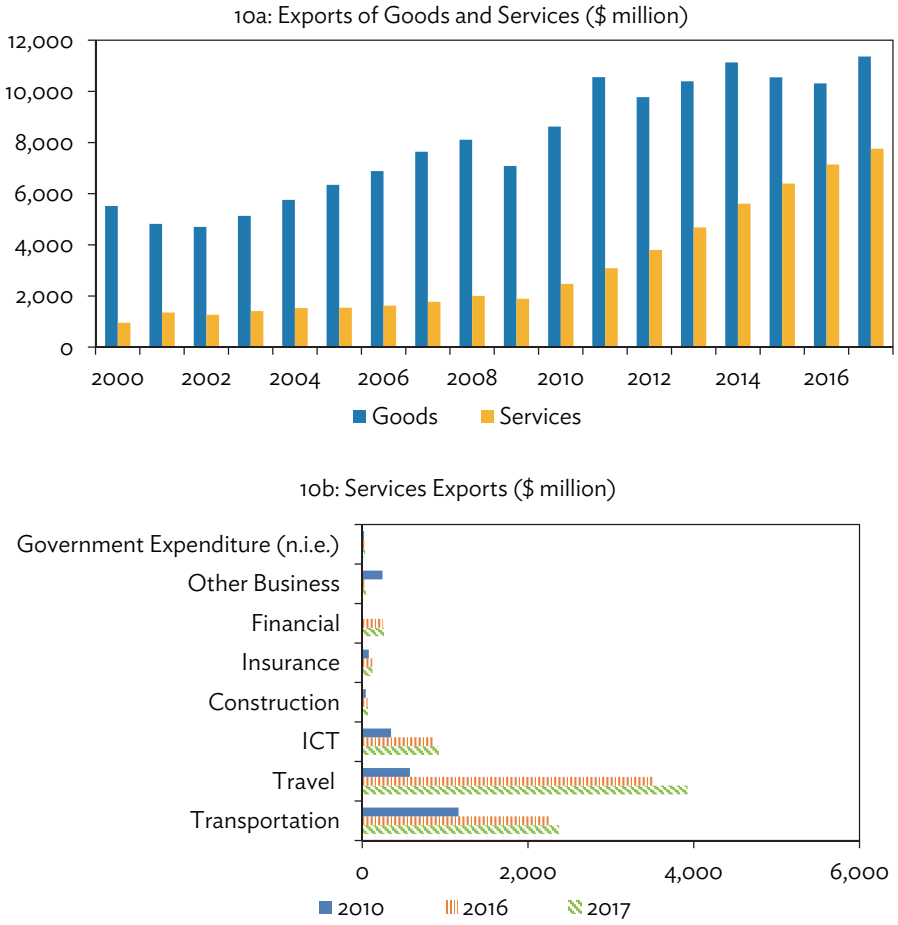


DSR = debt service ratio, GDP = gross domestic product.
Note: Nonconcessional is the sum of "nonconcessional" and commercial borrowing by the central government. DSR is measured as ratio of debt service to exports of goods and services.
Source: Compiled using data from Central Bank of Sri Lanka (CBSL). Various years. *Annual Report.* Colombo.

83. Overall, Sri Lanka's resource imbalances continued without interruption over the 47-year period under review, and these are reflected in the twin deficits. This is despite a clear departure in economic policy direction from an inward-looking to an outward-oriented regime. While there has been no significant departure in reversing its outward orientation, there have been nuanced shifts in emphasis in regard to export promotion from time to time. Lack of diversification of the export base has been a pervading issue. In fact, in more recent years, Sri Lanka has witnessed a more consistent growth in earnings from services exports compared with the patchy performance in merchandise goods (Figure 10). The services share of exports increased from 15% in 2000 to 40% by 2017. Much of the growth has come from tourism; transportation; information and communication technology; and financial services. Among the manufacturing exports, a high degree of concentration continues, with T&G accounting for a lion's share of 59% in 2017; followed by rubber products (10%); 5% each for exports of food, beverages and tobacco and petroleum products; and 4% for machinery and mechanical appliances (CBSL 2017).

84. In the presence of a growing foreign currency-denominated debt portfolio, a depreciating currency can lead to a growing public debt-to-GDP ratio; conversely, an appreciating currency can lead to a lowering of the ratio. However, a real appreciation of the exchange rate can lead to deterioration in the current account, whereby gains on fiscal indicators become a temporary phenomenon. That is, in order to restore external sustainability, a country may have to undertake a real devaluation that can lead to a sudden jump in the public debt-to-GDP ratio. Indeed, when countries resort to external borrowing, the trade-off between fiscal conditions (debt) and exchange rate management can constrict a country's macroeconomic policy space considerably. With a growing external debt portfolio and reliance on short-term inflows to the government's treasury bills and bonds, maintaining a steady exchange rate was an attractive proposition.

Figure 10: Exports of Goods and Services, 2000-2017



ICT = information and communication technology, n.i.e. = not included elsewhere.
Source: Compiled using data from Central Bank of Sri Lanka (CBSL). Various years. *Annual Report.* Colombo.

85. For an open economy, theory suggests that in principle it is not possible to have free capital mobility, a fixed exchange rate, and an independent monetary policy at the same time—the so-called impossible trinity. While Sri Lanka is yet to fully liberalize its capital account, it can be argued to have a de facto open capital account in view of significant opening up to inflows and relaxation of exchange controls governing capital outflows. In this environment, the CBSL attempted to set interest rates and target the exchange rate within a "predetermined" band simultaneously, with adverse consequences on macroeconomic stability.

86. Weaknesses in public finance management have been the singular most important factor in generating broader macroeconomic instability. However, inappropriate monetary and exchange rate policy adjustments have also contributed to aggravating fiscal-driven challenges. Sri Lanka has witnessed significant tensions in coordinating fiscal and monetary policy. The added dimension of substantive inflows of foreign currency-denominated debt has further undermined macroeconomic stability through policy intervention on exchange rate management. The ability of the external sector to

absorb domestic shocks, or indeed even external shocks, has been constrained by weak export performance. Misaligned exchange rates have not helped. But the broader problems of export performance—lack of a diverse export base—are also linked to deeper structural supply-side constraints as well. Thus, if Sri Lanka is to restore a long-term sustainable macroeconomic environment, key reforms in both the fiscal and external sector need to be implemented. The former requires reforms to mobilize domestic resources. The latter requires efforts to raise nondebt-creating foreign exchange such as FDI to generate export growth.

IV. EMPIRICAL ANALYSIS

87. Much of the early work on twin deficits emanated to explain the experience of the US economy in the 1980s. However, there is no clear consensus on the directionality of the relationship between the two variables. In fact, there are typically four popular testable hypotheses that have emerged to examine causation between budget deficits and current account deficits:

(i) *Unidirectional causal pattern from budget deficit to current account deficit*. Fiscal deficits lead to an expanded current account deficit by its effect on national savings and consumption, i.e., financing budget deficits will cause interest rates to rise, which in turn trigger capital inflows and an appreciation of the exchange rate. The latter will lead to a widening of the current account deficit.

(ii) *Unidirectional causality that runs from current account deficits to budget deficits*. A weak current account implies slower economic growth, which leads to a deterioration in fiscal balances; or governments employing fiscal policy to target the current account balance. Indeed, governments can deliberately tighten fiscal policy in response to accelerating domestic demand growth and a rising current account deficit.

(iii) *Budget deficits and current account deficits are causally independent*. Owing to an intertemporal shift between budget deficits and taxes, i.e., budget deficits shift taxes to subsequent generations, an expected drop in disposable incomes leads to an increase in private savings. Hence, budget deficits have no real impact on current account deficits.

(iv) *Bidirectional causality between budget deficits and current account deficits*. Both deficits are mutually causal.

88. In the remainder of this section, we first provide a brief literature review of studies which examine causality between fiscal and current account deficits. Next, using data from 1971 to 2017, we attempt to establish the direction of causality in Sri Lanka, i.e., whether causation runs from fiscal balance to current account balance, or vice versa; or whether it is bidirectional.

A. Literature Review

89. To investigate the twin deficits hypothesis, Abbas et al. (2011) categorized the three most common approaches used: (i) vector autoregression (VAR) and causality tests to investigate the effect of fiscal policy on external balance; (ii) cointegration approach to analyze long-term relationships between the two accounts; and (iii) regression analysis using exogenous variables that affect fiscal balance to see how such variables affect the current account through their effects on the fiscal balance.[19] The more common of these approaches are causality tests, VAR, and vector error correction model (VECM) (Chang and Hsu 2009), which have been applied to test the hypothesis in various countries. In

[19] More details can be found in Abbas et al. (2011).

validating the twin deficits, a bivariate specification is common in the literature and has been extensively used and applied to various countries. A natural extension to the use of bivariate models is to incorporate other macroeconomic variables that may affect the two accounts in a multivariate framework.

90. Findings in both bivariate and multivariate models vary across studies particularly with regard to causality. One strand of the literature on twin deficits establishes unidirectional causality from the fiscal account to the current account. Papers that looked into the twin deficits in Sri Lanka include Saleh, Mehandhiran, and Agalewatte (2005); Chowdhury and Saleh (2007); Premaratne, Ravinthirakumaran, and Kesavarajah (2011); and Perera and Liyanage (2012). Saleh, Mehandhiran, and Agalewatte (2005) used annual data from 1970 to 2003 and applied an autoregressive distributed lag (ARDL) model, and the bounds test for cointegration. They find a long-run relationship between external current account and fiscal balance, with causality running from latter to the former. While Chowdhury and Saleh (2007) specify an ARDL equation plus an error correction term derived from a cointegrating equation to model the effect of the fiscal accounts on the current account with the inclusion of the savings–investment gap and trade openness as determinants of the current account balance. Using annual data for 1970–2005, Chowdhury and Saleh (2007) concluded a long-run relationship between the current account and the fiscal balance and the savings–investment gap. Saleh, Mehandhiran, and Agalewatte (2005) and Chowdhury and Saleh (2007) both expressed the variables used in the estimation as a ratio to GDP. Perera and Liyanage (2012) used annual data and quarterly data on current account balance and fiscal balance, both as a percentage of GDP, and find a long-run relationship between the current account balance and fiscal balance, with unidirectional causation from budget deficit to current account deficit. They employed Johanssen cointegration test to determine the existence of a cointegrating equation. Premeratne et al. (2011) used annual data from 1970 to 2003 on levels of current and fiscal balances, expressed in real terms, and applied a bivariate analysis employing an error correction model to test the impact of the fiscal balance on the current account. Their model differs from that used by Chowdhury and Saleh (2007) in that Premeratne et al. (2011) did not specify an ARDL process and used only contemporaneous correlations to estimate the short-run relationship.

91. Ravinthirakumaran, Selvanathan, and Selvanathan (2016) perform causality tests and cointegration in a VAR framework to test the twin deficits hypothesis in Bangladesh, India, Nepal, Pakistan, and Sri Lanka. Results within the region were mixed across countries but validated some previously conducted research for the specific country. In the case of Sri Lanka, results validated a causality that runs from the fiscal account to the current account.

92. There are also evidences of such causality in other countries. Sakyi and Opoku (2016) test for the effect of the fiscal balance on the current account (both expressed as a percentage of GDP) using annual data for Ghana for 1960–2012. They estimate a cointegrating equation using a multivariate approach with fiscal balance, interest rates, and real GDP (in US dollars) as determinants of the current account. The results indicate a long-run relationship between the variables and a negative relationship between fiscal balance and the current account balance. Ratha (2012), using monthly data for India for 1998–2009 and applying an ARDL bounds testing approach, finds a long-run relationship between current and fiscal accounts; and that causality runs from fiscal account to the current account. Lau and Tang (2009), employing Granger causality and cointegration tests, found evidence for a long-run relationship between the current account and fiscal account in Cambodia using quarterly data for 1996–2006. Abell (1990) used quarterly data from the second quarter (Q) of 1979 to Q2 1985, and applied a mulitivariate VAR and causality tests to ascertain the link between the fiscal accounts and the current account in the US. Zengin (2000) employed Granger causality tests and VAR for Turkey to establish the causality of twin deficits. Using quarterly data from Q1 1987 to Q1 1988, Zengin (2000) found evidence for causation from the fiscal

balance to the current account. Miteza (2012) used data for 20 countries of the Organisation for Economic Co-operation and Development to assess the causal relationship between the current account and the fiscal balance, as well as between the current account and investment. A panel Granger causality was applied to show that that there is causality from fiscal balance to the current account and from investments to the current account. Egwaikhide et al. (2002) found evidence for causality from fiscal balance to the current account balance for 16 African countries using annual data from 1970–1999 through a multivariate panel ordinary least squares and Granger causality tests.

93. There is also evidence in the literature of a unidirectional causality that runs from the external account to the fiscal balance. Anoruo and Ramchander (1998) employed Granger causality tests based on a multivariate VAR specification for India, Indonesia, the Republic of Korea, Malaysia, and the Philippines, and found evidence of a causality running from the trade account to the fiscal account using data for 1957–1993. Onafowokan and Owoye (2006) applied Granger causality tests and VECM and found unidirectional causality from trade deficits to the fiscal account and a long-run relationship between the variables in Nigeria. Saleh (2006) applied Granger causality tests and an ARDL cointegration model using annual data from Lebanon and found evidence for causality from the current account to the fiscal account along with a long-run relationship. Saeed and Khan (2012) employed Granger causality tests and estimated an error correction model to determine causality and determined the existence of a long-run relationship between the current account balance and fiscal balance for annual data from 1972 to 2008 for Pakistan, and found that causality is from current account to fiscal balance. The same direction of causality is established in Asrafuzzaman, Amit, and Gupta (2013) for Bangladesh using Granger causality tests and VECM using annual data for fiscal years 1972 to 2012. Amaghionyeodiwe and Akinyemi (2015) applying VECM and Granger causality to annual data from 1982 to 2010 of Nigeria ascertained cointegration and a causality from the current account to the fiscal account. Katircioglu, Fethi, and Fethi (2009) used panel estimation to determine causality between current account and the fiscal balance in 24 developing island states. They found a unidirectional causation from the current account to the fiscal account.

94. Other empirical work find a two-way causality. For example, Selliah and Balamurali (2012) use annual data for Sri Lanka from 1960 to 2010 to test the twin deficits hypothesis. They used log transformation and the Engle–Granger error correction model to test the relationship between fiscal balance and the current account. Their findings also confirmed a long-run relationship between the variables, and find bidirectional causality. Using quarterly data from 1975 to 2005 for Pakistan and applying cointegration techniques and Granger causality tests, Mukhtar, Zakaria, and Ahmed (2007) established a long-run relationship exist between the current account and the fiscal account along with a bi-directional causality. Ganchev (2010) used monthly data for Bulgaria and employed Granger causality tests, VAR, and VECM to model twin deficits, and found that while there is no short-run relationship between the variables, a long-run cointegrating relationship was established with causality running both ways. Mitra and Khan (2014) used a bivariate model and applied Granger causality and VECM to test the twin deficits in India and found evidence for cointegration and established a bidirectional causality.

95. Lau and Baharumshah (2006) applied panel VAR to investigate the twin deficits hypothesis for nine Southeast Asian countries using data from 1980 to 2001. They included exchange rates and interest rates in their model and established a bidirectional causality in the twin accounts. They also showed that interest rates and exchange rates are the channels through which indirect effects of a budget deficit gets transmitted to the current account.

96. Overall, a review of the literature shows that depending on the methodology, case study at hand, and time period chosen, researchers have found evidence supporting unidirectional (from fiscal to current and vice versa) and bidirectional causality.

B. Methodology

97. In this paper, fiscal and current account balance as a percentage of GDP are used to analyze correlations between the two deficits. Typically, macroeconomic series like fiscal and current account balances suffer from lack of stationarity, which means that standard estimation techniques such as ordinary least squares do not give reliable estimates. Thus, in determining the relationship between the current account and fiscal account, the two series are first checked for stationarity, i.e., whether they have a unit root, and then the appropriate technique for estimating the relationship is identified. Augmented Dickey–Fuller and Phillips–Perron tests are used to test for the presence of a unit root, i.e., to establish the stationarity of the series. To account for possible breakpoints that may affect the stationarity of the series, we also apply a unit root test that will incorporate such breakpoints. The test of Zivot and Andrews (1992) allows for unspecified break dates and breakpoint will be dated using the movement in the series.[20] For each of the unit root tests, the null hypothesis (*Ho*) of a unit root is tested against the alternative hypothesis (*Ha*) of a lack of a unit root. Thus, if the null hypothesis cannot be rejected it would indicate that the corresponding series is nonstationary. A group unit root test is likewise used to validate whether taken together the variables are stationary.

C. Results

98. Figure 2a shows that deficits have persisted in both accounts except in 1977. An overall strong correlation is seen between the fiscal and current account. Cross-correlations show that there is a significant co-movement between the two accounts for up to two-period leads and three-period lags (Figure 11). Figure 12 provides a 5-year rolling average of the correlation between the two accounts to show the strength of comovement over time.[21] Comovement is observed and is more pronounced in the period from 1978 to 2000, compared to the more recent years where some difference in the movement of the accounts is found.

99. To conduct the unit root tests, optimal lag length is selected using the Schwartz Information Criterion,[22] and no trend is specified as both series do not exhibit trends. For the unit root test that incorporates breakpoints, an innovative outlier is specified.[23]

---

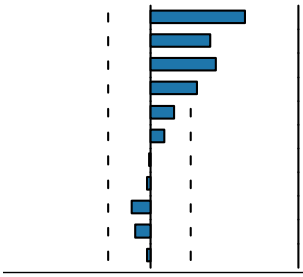
[20] The breakpoint test proposed by Clemente-Lopez, Montanes, and Reyes (1998) to test for presence of more than one breakpoint in the series was also implemented and specified one breakpoint, indicating that the Zivot and Andrews (1992) breakpoint unit root test is sufficient. Further, the test also showed that the current account series is stationary and fiscal balance series is significant at 10%, which we interpreted to be stationary similar to the Zivot and Andrews result.

[21] A 5-year (2-year lead and 3-year lag) rolling average of the correlation is used since cross-correlogram (Figure 11) point to significant correlation up to three lags and two leads.

[22] The Schwartz Criteria is more parsimonious than the Akaike Information Criteria and is likely to specify smaller lags, given the small sample size. Parsimony is an important consideration.

[23] Innovative outlier assumes that any structural break occurs gradually.

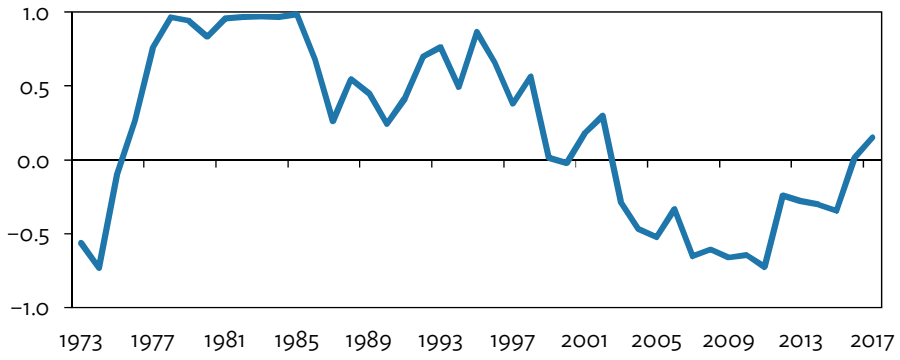
Figure 11: Correlogram of Current Account (% of GDP) and Fiscal Balance (% of GDP)



i	lag	lead
0	0.6644	0.6644
1	0.4253	0.3807
2	0.4663	0.2155
3	0.3305	−0.0118
4	0.1681	−0.1407
5	0.1035	−0.0884
6	−0.0157	−0.0003
7	−0.0190	−0.0212
8	−0.1304	−0.0003
9	−0.1047	−0.0911
10	−0.0197	−0.1411

GDP = gross domestic product.
Note: Dashed lines are approximate two standard error bounds. Autocorrelation within these bounds is not significant at the 5% level.
Source: Authors' estimates.

Figure 12: Five-Year Rolling Average of the Correlation between Fiscal Balance and Current Account Balance (1973–2017)



Source: Authors' estimates.

100. Table 6 presents the results of the stationarity tests. The Augmented Dickey–Fuller test indicated the presence of a unit root for the fiscal balance, while the Phillips–Perron test and the Zivot and Andrews breakpoint test showed no unit root. Additional tests were performed like the Kwiatkowski–Phillips–Schmidt–Shin and Dickey–Fuller generalized least squares test to ascertain absence of a unit root. Both tests point to stationarity of the series. This finding is different from existing empirical evidence, which reports the fiscal and current account balance to be nonstationary for Sri Lanka (for example, Saleh, Mehandhiran, and Agalewatte 2005; Chowdhury and Saleh 2007; and Perera and Liyanage 2012). This could be due to difference in sample size and the period chosen for analysis. As a comparison, Table 6 also shows the unit root test results for various sample ranges as used in the aforementioned papers. Our results consistently show that there is no unit root for alternative samples. The group unit root test for the period 1970–2017 as used in this paper is shown in Table 7.

101. Individual unit root tests as well as the group unit root tests point to absence of a unit root process in both series. With different test of stationarity indicating that the two series are unit-root free, a long-run relationship is not modeled and a VAR specification is estimated.

Table 6: Unit Root Test

		Method		
Sample Period	Variable	Augmented Dickey–Fuller	Philips–Perron	Breakpoint
1970–2017 (this paper)	CAB	–4.09***	–4.09***	–5.30***
	FB	–2.34	–3.94***	–5.30***
1970–2003 (Saleh, Mehandhiran, and Agalewatte, 2005)	CAB	–2.98**	–2.98**	–4.30*
	FB	–3.49***	–3.56***	–4.96***
1970–2005 (Chowdhury and Saleh, 2007)	CAB	–3.16**	–3.16**	–4.59**
	FB	–2.19	–3.63***	–5.03***
1960–2009 (Perera and Liyanage, 2012)	CAB	–3.96***	–3.96***	–5.37***
	FB	–2.32	–3.83***	–5.76***

*** significant at 1%, ** significant at 5%, * significant at 10%, CAB = current account balance (percentage of GDP), FB = fiscal balance (percentage of GDP), GDP = gross domestic product.
Notes: The null hypothesis is that the series being tested has a unit root. This table shows the results of unit root tests for different sample periods using the data deployed in this paper. The choice of different sample periods is based on the duration used for analysis in selected papers which are indicated in parentheses next to the sample period. Only those papers which use current account balance and fiscal balance as percentages of GDP are selected for comparison of results for unit root test. For the purposes of this table, our dataset was extended back to 1960.
Source: Authors' estimates.

Table 7: Group Unit Root Test—Current Account Balance and Fiscal Balance (% of GDP)

Method	Statistic	Probability
Null: Unit root (assumes common unit root process)		
Levin, Lin and Chu	–2.40	0.01
Null: Unit root (assumes individual unit root process)		
Augmented Dickey–Fuller	15.69	0.00
Phillips–Perron	23.30	0.00

Source: Authors' estimates.

102. A VAR specification treats all variables in the system as endogenous and as a linear function of lagged values of all the endogenous variables in the system. The bivariate VAR model in this paper has the following specification where the appropriate lag length can be determined using the Akaike Information Criteria and the Schwartz Information Criteria:

$$CA\_GDP_t = \beta_{10} + \beta_{11} CA\_GDP_{t-1} + \beta_{12} CA\_GDP_{t-2} + \beta_{13} FB\_GDP_{t-1} + \beta_{14} FB\_GDP_{t-2} + e_{1t} \quad (10)$$

$$FB\_GDP_t = \beta_{20} + \beta_{21} CA\_GDP_{t-1} + \beta_{22} CA\_GDP_{t-2} + \beta_{23} FB\_GDP_{t-1} + \beta_{14} FB\_GDP_{t-2} + e_{1t} \quad (11)$$

Where *CA_GDP* is the ratio of current account balance to GDP and *FB_GDP* is the ratio of fiscal balance to GDP.

103. The breakpoint unit root test shows that there is a break in the series in 1980. To account for the break, a VAR system with a dummy variable for the year 1980 is added as an exogenous variable to the system

$$CA\_GDP_t = \beta_{10} + \beta_{11}CA\_GDP_{t-1} + \beta_{12}CA\_GDP_{t-2} + \beta_{13}FB\_GDP_{t-1} + \beta_{14}FB\_GDP_{t-2} + \beta_{15}dummy80_t + e_{1t} \quad (12)$$

$$FB\_GDP_t = \beta_{20} + \beta_{21}CA\_GDP_{t-1} + \beta_{22}CA\_GDP_{t-2} + \beta_{23}FB\_GDP_{t-1} + \beta_{24}FB\_GDP_{t-2} + \beta_{25}dummy80_t + e_{1t} \quad (13)$$

104. To extract the impulse response function (IRF), a Cholesky ordering was specified for the VAR restrictions whereby it is imposed that one variable has a contemporaneous effect on the other (i.e., *x* has a contemporaneous effect on *y* but *y* does not have a contemporaneous effect on *x*). The restriction does not impose that the lagged values of *y* do not affect *x;* such lagged relationships will be determined through the IRFs. Results of the Granger causality tests are used to specify the Cholesky ordering.

105. The Granger causality tests the null hypothesis that *x does not Granger cause y* against the alternative hypothesis that x *Granger causes y*.

106. The Schwartz criterion point to a lag length of 1 while the Akaike criterion indicates a lag length specification of 2. A lag length of 2 is used in this paper since upon inspection of the correlogram an AR process at lag 2 is still indicated. The VAR specification estimated is given by equations (10) and (11) and modified in (12) and (13). The Granger causality test (Table 8) indicates that the direction of causality is unidirectional from fiscal balance (as a percentage of GDP) to the current account balance (as a percentage of GDP).

Table 8: VAR Granger Causality and Block Exogeneity Wald Tests

Null Hypothesis:	Statistic	Probability
FB_GDP does not Granger Cause CA_GDP	10.698**	0.00
CA_GDP does not Granger Cause FB_GDP	1.83	0.40

** = significant at 5%.
CA_GDP = current account balance (% of GDP), FB_GDP = fiscal balance (% of GDP), GDP = gross domestic product.
Source: Authors' estimates.

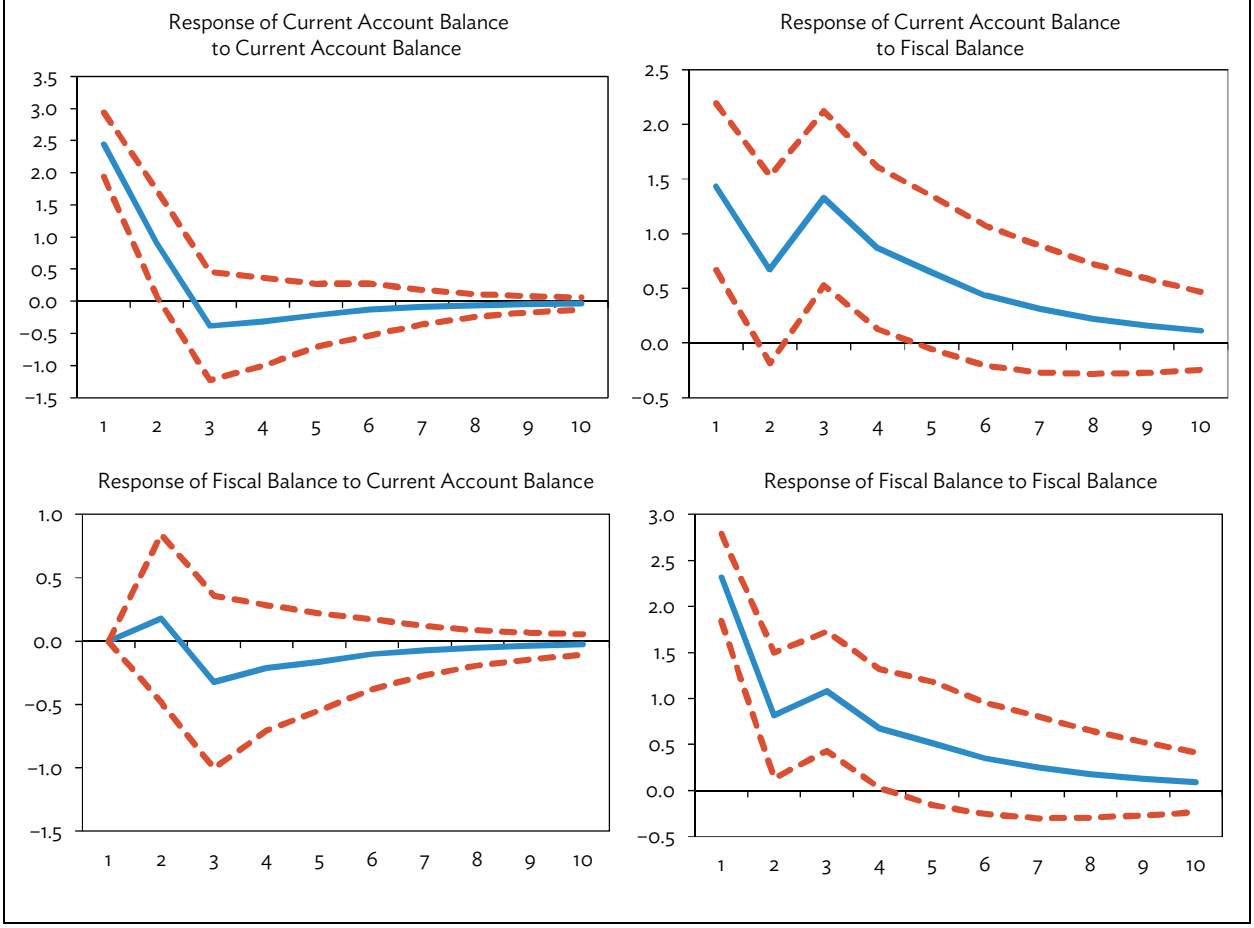
107. To show the effect of a shock on fiscal balance on the current account, the IRF is generated. A Cholesky ordering is used whereby causality is from fiscal balance to the current account. The IRFs indicate that a shock on fiscal balance has a positive effect on the current account balance, and the effect of the shock is felt almost through two periods from the time the shock is experienced (Figure 13). Results also show that shocks on the current account have no effect on the fiscal balance.

108. Saleh, Mehandhiran, and Agalewatte (2005); Chowdhury and Saleh (2007); Selliah and Balamurali (2012); Perera and Liyanage (2012); and Premaratne, Ravinthirakumaran, and Kesavarajah (2011) are some of the studies that have examined Sri Lanka's history of twin deficits as well as the direction of causality. Table 9 provides a comparison of the findings of this paper with other papers.

109. Saleh, Mehandhiran, and Agalewatte (2005); Chowdhury and Saleh (2007); and Perera and Liyanage (2012) find unidirectional causality from the fiscal account to the current account balance. The three papers also find a long-run relationship between the fiscal and current account balance. This finding is different from the results in this paper, which did not test for any long-run relationship between the deficit variables as both current and fiscal account balance series were found to be stationary. The difference in the results on stationarity in this paper compared with the abovementioned three papers could be due to the use of expanded and updated data series. We repeated the unit root test for the sample range of abovementioned three papers (Table 6) using our own dataset. We find the series to be stationary for different sample periods as shown in Table 6.

Figure 13: Impulse Response Function

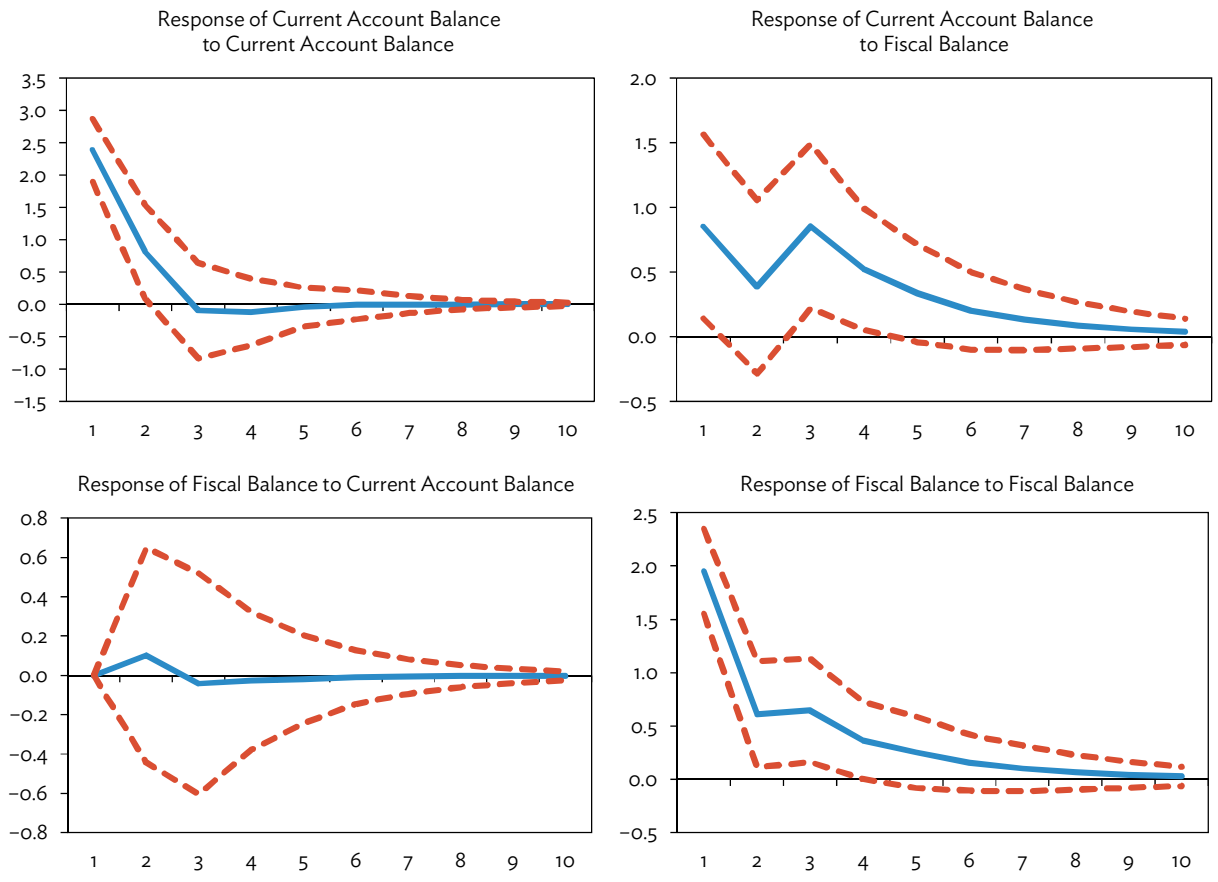
13a: Impulse Response Function



continued on next page

Figure 13 continued

13b: Impulse Response Function (with breakpoint specification)



Note: Response of Cholesky to one standard deviation innovations. Dashed lines represent confidence intervals = +/−2 standard errors.
Source: Authors' estimates.

110. Another paper, Selliah and Balamurali (2012), using annual data from 1960 to 2010, found evidence for a long-run relationship between the two macroeconomic accounts and a bidirectional causality. The difference in their results from this paper may be due to the specification of the variables. Log transformation of the real current account and fiscal balance levels were used, whereas this paper used current account and fiscal balances as a percentage of GDP.

Table 9: Comparative Research Findings on Twin Deficits for Sri Lanka

Reference	Period Covered; Frequency	Variable Used	Presence of Unit Root	Direction of Causality	Cointegration
This paper	1970–2017; A	% of GDP	none	FB to CAB	None
Saleh, Mehandhiran, and Agalewatte (2005)	1970–2003; A	% of GDP	Yes	FB to CAB	Yes
Chowdhury and Saleh (2007)	1970–2005; A	% of GDP	Yes	FB to CAB	Yes
Perera and Liyanage (2012)	1960–2009; A, and 1990–2009; Q	% of GDP	Yes	FB to CAB	Yes
Premaratne, Ravinthirakumaran, and Kesavarajah (2011)	1970–2003; A	levels	Yes	FB to CAB	Yes
Selliah and Balamurali (2012)	1960–2010; A	log of real levels	Yes	Bidirectional	Yes

A = annual, CAB = current account balance, FB = fiscal balance, GDP = gross domestic product, Q = quarterly.
Notes: Results of unit root tests reported here are the actual findings of the corresponding papers. The results reported in this table differ from those reported in Table 6 because in the latter we report findings of unit root test based on the data used in this paper but limited to the sample period used by selected papers shown in Tables 6 and 9.
Sources: Authors' estimates; Chowdhury and Saleh (2007); Perera and Liyanage (2012); Premaratne, Ravinthirakumaran, and Kesavarajah (2011); Saleh, Mehandhiran, and Agalewatte (2005); and Selliah and Balamurali (2012).

V. POLICY RECOMMENDATIONS FOR MACROECONOMIC STABILITY

111. Sri Lanka's macroeconomic environment has suffered from fiscal dominance—high deficits and expanding levels of public debt—manifesting in high and volatile rates of inflation, interest rates, and frequent balance of payments (BOP) crises. Fiscal policy lies at the heart of Sri Lanka's macroeconomic performance. Imbalances in the real economy such as in production, consumption, and investment, continue to produce persistent current account deficits that call for adjustments in the monetary and exchange rate spheres. In order to address these fundamental imbalances (where national expenditure exceeds national income and the production of tradable goods and services is inadequate) fiscal consolidation is the key priority.

112. Sri Lanka's fiscal landscape, marked as it is by high deficits and government borrowing, has limited the effectiveness of monetary policy and exchange rate management in attempts to deal with the fallout of funding the fiscal deficit gap. More recently, as financing has shifted markedly toward foreign borrowing, the spillover impacts on the macroeconomic environment have manifested in credit cycles and pressures on currency via monetary and exchange rate policy spheres.

113. A sustained fiscal consolidation effort is urgent in view of Sri Lanka's high debt levels. Debt begins to stabilize when the interest payment is exactly offset by the primary balance. Thus, the real test of debt sustainability beyond the near term will come from progress on fiscal consolidation efforts. A stronger fiscal outlook via an improved domestic resource mobilization effort will allow some room to lessen Sri Lanka's growing dependence on costly foreign sources of borrowing to meet its development needs.

114. Toward that end, the more immediate need is to tackle Sri Lanka's weak fiscal revenue record. Sri Lanka's most recent EFF with the IMF is generating positive returns with its focus on a revenue-based fiscal consolidation process (the tax revenue to GDP ratio has increased from 10.1% in 2014 to 12.5% in

2017). Aside from rationalization of taxes, including the elimination of exemptions and holidays, revenue efforts are also focused on broadening the tax base and improving the administrative capacity of revenue authorities. Revenue consolidation is expected to be institutionalized through the new Inland Revenue Act which became effective on 1 April 2018.

115. Expenditure rationalization is necessary in discretionary spending, particularly with regard to the loss-making SOEs, poorly targeted subsidies, and transfers and salaries and wages spent on a bloated bureaucracy. Some inroads are being made on the expenditure front, such as the introduction of a contributory public pension scheme from 2017 and attempts to move to better targeted cash transfers in subsidy programs (e.g., in respect of the distribution of free school uniforms, provision of a fertilizer subsidy, etc.).

116. However, alongside these efforts, Sri Lanka must also institute reforms to revive its flagging export sector, and raise inflows of nondebt-creating capital such as FDI to bridge its savings–investment gap. The external sector remains vulnerable to shocks, both domestic and external, thus the currency is prone to depreciating pressure.

117. The government is looking to raise export competitiveness and advance Sri Lanka's export penetration into global supply networks through a multipronged strategy. These include institutional and deregulatory initiatives, bilateral and regional economic partnerships, establishment of regional development corridors, and broader structural reforms such as efforts to upgrade human capital, etc. Policy initiatives to encourage more FDI inflows include the relaxation on rules governing foreign ownership of land, and accelerating investment approval processes through new institutional setups.

118. Even with the end of the internal conflict in 2009, which was long been identified as the key bottleneck to FDI, investment flows have been disappointing in the postconflict era. More recently, efforts to address bottlenecks in FDI have focused largely on strengthening the institutional capacity to provide an effective "one-stop shop" for investors. Delays in processing investment approvals are often overshadowed by other more difficult areas such as land acquisition. In addition, much of the weak performance in FDI was previously linked to policy inconsistencies in Sri Lanka's tax regime. These are expected to be ironed out with the full implementation of the new Inland Revenue Act.

119. In addition, Sri Lanka is negotiating trade agreements with India (to deepen and broaden an existing agreement on goods), while seeking new deals with the People's Republic of China and Singapore. The expectation underpinning such agreements covering goods, services, and investment is that they will catalyze FDI into more knowledge-intensive sectors in both goods and services, so that Sri Lanka can join regional supply networks in line with its evolving labor market profile. Thus, better market penetration and diversification of the product base are being pursued through bilateral agreements and other available trade concessions such as the Generalized System of Preferences.

120. Nonetheless, such trade agreements alone are inadequate to address Sri Lanka's deep-rooted impediments constraining export growth. Its competitiveness is also hindered by factors such as an overtly protective border tariff regime, high energy costs, and growing labor costs amidst skill shortages, be it for exports of goods or services, to name a few. In addition, trade infrastructure costs such as internal transport and trade facilitation measures at the point of import or export are also areas that have long been identified as potential early winners to revive export performance. To address these and other supply-side constraints, a National Export Strategy has been rolled out to promote products in identified strategic sectors.

121. Overall, Sri Lanka must speed up efforts to revive its external sector outlook. GDP growth has slowed to an average of 4.5%–5.0% in recent years with a persistent decline in the export share of GDP. With the gains made in fiscal consolidation under the IMF's most recent EFF agreement, achieving and retaining macroeconomic stability appears more probable. Such efforts will be supported by the gradual adoption of an inflation-targeting monetary policy framework and a floating exchange rate regime as spelled out in the EFF. A stronger macroeconomic base and an improved growth outlook will ease the pressing medium-term challenges of debt management that the economy faces.

REFERENCES

Abbas, S. M. A., J. Bouhga-Hagbe, J. Fatas, P. Mauro, and R. C. Velloso. 2011. Fiscal Policy and Current Account. *IMF Economic Review.* 59. pp. 603–629.

Abell, J. D. 1990. Twin Deficits During the 1980s: An Empirical Investigation. *Journal of Macroeconomics.* 12 (1). pp. 81–96.

Abeyratne, S. 2004. Economic Roots of Political Conflict: The Case of Sri Lanka. *The World Economy*. 27 (8). pp. 1296–1314.

Amaghionyeodiwe, L. A., and O. Akinyemi. 2015. Twin Deficit in Nigeria: A Re-Examination. *Journal of Economic and Social Studies.* 5 (2). pp. 149–179.

Anoruo, E., and S. Ramchander. 1998. Current Account and Fiscal Deficits: Evidence from Five Developing Economies of Asia. *Journal of Asian Economics.* 9 (3). pp. 487–501.

Asrafuzzaman, A., R. Amit, and S. D. Gupta. 2013. An Empirical Investigation of Budget and Trade Deficits: The Case of Bangladesh. *International Journal of Economics and Financial Issues.* 3 (3). pp. 570–579.

Athukorala, P. 2012. Sri Lanka's Trade Policy: Reverting to Dirigisme? *Working Papers in Trade and Development*. No. 2012/14. Canberra: Australian National University.

Athukorala, P., and S. Jayasuriya. 1994. *Macroeconomic Policies, Crises, and Growth in Sri Lanka, 1969–90*. Washington, DC: World Bank.

Athukorala, P., and S. Rajapatirana. 2000. *Liberalization and Industrial Transformation: Sri Lanka in International Perspective.* Delhi: Oxford University Press.

Central Bank of Sri Lanka (CBSL). Various years. *Annual Report*. Colombo.

Central Bank of Ceylon. *Annual Report 1974*. Colombo.

Chang, J., and Z. Hsu. 2009. Causality Relationship between the Twin Deficits in the Regional Economy. Department of Economics, National Chi Nan University.

Chowdhury, K., and A. S. Saleh. 2007. Testing the Keynesian Proposition of Twin Deficits in the Presence of Trade Liberalisation: Evidence from Sri Lanka. New South Wales: Department of Economics, University of Wollongong.

Clemente-Lopez, J., A. Montanes, and M. Reyes. 1998. Testing for a Unit Root in Variables with a Double Change in the Mean. *Economic Letters.* 59 (2). pp. 175–182.

Corsetti, G., P. Pesenti, and N. Roubini. 1999. What Caused the Asian Currency and Financial Crisis? *Japan and the World Economy*. 11 (3). pp. 305–370.

Cuthbertson, A., and P. Athukorala. 1991. Sri Lanka. In D. Papageorgiou et al., eds. *Liberalising Foreign Trade*. Oxford: Basil Blackwell.

Egwaikhide, F. O., O. A. Oyeranti, O. S. Ayodele, and J. Tchokote. 2002. Causality between Budget Deficits and the Current Account Balance in African Countries. *West African Journal of Monetary and Economic Integration*. 2 (2). pp. 1–28.

External Resources Department. 2014. *Performance Report 2013*. Colombo: Ministry of Finance.

Ganchev, G. T. 2010. The Twin Deficit Hypothesis: The Case of Bulgaria. *Financial Theory and Practice.* 34 (4). pp. 357–377.

International Monetary Fund. 2018. *Staff Report for the 2018 Article IV Consultation and the Fourth Review Under the Extended Arrangement under the Extended Fund Facility*. Washington, DC.

Institute of Policy Studies. 2010. Growth and Stability in Post-conflict Economic Recovery. In *Sri Lanka: State of the Economy 2010*. Colombo: Institute of Policy Studies of Sri Lanka.

Isenman, P. 1980. Basic Needs: The Case of Sri Lanka. *World Development*. 8 (3). pp. 237–258.

Katircioglu, S. T., S. Fethi, and M. D. Fethi. 2009. Twin Deficits Phenomenon in Small Islands: An Empirical Investigation by Panel Data Analysis. *Applied Economics Letters.* 16 (15). pp. 1569–1573.

Kelegama, S., and D. Gunewardena, editors. 2010. Economic and Social Development under a Market Economy Regime in Sri Lanka. *Buddhadasa Hewavitharan Felicitation*. Vol. 1. http://www.ips.lk/wp-content/uploads/2017/Economic-Social-Development-Vol.1.pdf.

Lal, D. 1985. The Real Exchange Rate, Capital Inflows and Inflation in Sri Lanka, 1970–82. *Welfwirtschaftliches Archiv.* 121 (4). pp. 31–59.

Lal, D., and S. Rajapatirana, S. 1989. *Impediments to Trade Liberalisation in Sri Lanka*. London: Trade Policy Research Centre.

Lau, E., and A. Z. Baharumshah. 2006. Twin Deficits Hypothesis in SEACEN Countries: A Panel Data Analysis of relationships between Public Budget and Current Account Deficits. *Applied Econometrics and International Development.* 6 (2). pp. 213–226.

Lau, E., and T. C. Tang. 2009. Twin Deficits in Cambodia: An Empirical Study. *Economics Bulletin.* 29 (4). pp. 2783–2794.

Levin, A., C-F. Lin, and C-S. Chu, 2002. Unit root tests in panel data: asymptotic and finite-sample properties. *Journal of Econometrics*. 108(1). pp. 1-24.

Ministry of Finance and Planning. 2013. *Annual Report 2012.* Colombo: Ministry of Finance.

Miteza, I. 2012. Fiscal Deficits, Current Deficits and Investment: A Panel Causality Framework of 20 OECD Countries. *Applied Econometrics and International Development.* 12 (1). pp. 6–19.

Mitra, P., and G. S. Khan. 2014. Twin Deficits Hypothesis: An Empirical Analysis in the Context of India. *International Journal of Commerce & Business Studies.* 2 (2). pp. 10–23.

Mukhtar, T., M. Zakaria, and M. Ahmed. 2007. An Empirical Investigation for the Twin Deficits Hypothesis in Pakistan. *Journal of Economic Cooperation.* 28 (4). pp. 63–80.

Onafowokan, O. A., and O. Owoye. 2006. An Empirical Investigation of Budget and Trade Deficits: The Case of Nigeria. *Journal of Developing Areas.* 39 (2). pp. 53–174.

Perera, A., and E. Liyanage. 2012. An Empirical Investigation of the Twin Deficit Hypothesis: Evidence from Sri Lanka. *Central Bank of Sri Lanka Staff Studies.* 41 (1 and 2). pp. 41–87.

Premaratne, S.P., N. Ravinthirakumaran, and M. Kesavarajah. 2011. Twin Deficits in Sri Lanka: An Econometric Analysis. *Sri Lanka Economic Journal.* 12. pp. 31–63.

Ratha, A. 2012. Twin Deficits or Distant Cousins? Evidence from India. *South Asia Economic Journal.* 13. pp. 51–68.

Ravinthirakumaran, N., S. Selvanathan, and E. Selvanathan. 2016. The Twin Deficits Hypothesis in the SAARC Countries: An Empirical Investigation. *Journal of the Asia Pacific Economy.* 21 (1). pp. 77–90.

Saeed S., and A. Khan. 2012. Twin Deficits Hypothesis: The Case of Pakistan 1972–2008. *Academic Research International.* 3 (2). pp. 155–163.

Sakyi, D., and E.E.O. Opoku. 2016. The Twin Deficits Hypothesis in Developing Countries: Empirical Evidence for Ghana. *International Growth Centre Working Paper.* S-33201-GHA-1. London.

Saleh, A. S. 2006. Long-run Linkage between Budget Deficit and Trade Deficits in Lebanon: Results from UECM and Bounds Test. *IIUM Journal of Economics and Management.* 14 (1). pp. 29–48.

Saleh, A. S., N. Mehandhiran, and T. Agalewatte. 2005. The Twin Deficits Problem in Sri Lanka: An Econometric Analysis. *South Asia Economic Journal.* 6 (2). pp. 221–239.

Selliah, S., and N. Balamurali. 2012. An Empirical Analysis of the Twin Deficits: Evidence form Sri Lanka. *Journal of Management.* 5 (1). pp. 60–79.

Sen, A. K. 1981. Public Action and the Quality of Life in Developing Countries. *Oxford Bulletin of Economics and Statistics*. 43 (4). 287–319.

Streeten, P., and S. J. Burki. 1978. Basic Needs: Some Issues. *World Development*. 6 (3). 411–421.

Weerakoon, D. 2017. Sri Lanka's Debt Troubles in the New Development Finance Landscape. *Third World Thematics: A TWJ Journal*. Vol. 2. Issue 6: Special Issue: Global Debt Dynamics: Crises, Lessons, Governance.

White, H., and G. Wignaraja. 1992. Exchange Rates, Trade Liberalization and Aid: The Sri Lankan Experience. *World Development.* 20 (10). pp. 1471–1480.

Zengin, A. 2000. *Twin Deficits Hypothesis (The Turkish Case)*. Zonguldak, Turkey: Zonguldak Bülent Ecevit University, Faculty of Economics and Administrative Sciences (see https://w3.beun.edu.tr/academic/faculties.html).

Zivot, E., and D. W. K. Andrews. 1992. Further Evidence on the Great Crash, the Oil-Price Shock, and the Unit-Root Hypothesis. *Journal of Business and Economic Statistics.* 10 (3). pp. 251–270.

Sri Lanka's Macroeconomic Challenges

A Tale of Two Deficits

This paper provides a narrative of Sri Lanka's history of twin fiscal and current account deficits and examines the macroeconomic outcomes and policies to deal with the imbalances. Fiscal dominance has been a persistent feature of Sri Lanka's macroeconomic landscape. This has manifested itself in high macroeconomic volatility and the country has seen frequent balance-of-payments crises. The paper makes policy recommendations to deal with these issues.

About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members —49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

ADB

ASIAN DEVELOPMENT BANK
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
www.adb.org