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## South - South Integration and the SDGs: Enhancing Structural Transformation in Key Partner Countries of the Belt and Road Initiative

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# An UNCTAD Sustainable Development Finance Assessment

## The Case of Sri Lanka

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### Abstract

Low-income countries (LICs) and less developed countries (LDCs) often have to contend with external and public sector financial positions that cannot be sustained and that prevent them from pursuing necessary structural changes and development objectives. UNCTAD developed the Sustainable Development Finance Assessment (SDFA) framework to assist developing countries in a) identifying whether their external and public sector financial positions are moving away from, or towards, paths that can be sustained; and b) to assess the impact of different policy approaches and development choices on the sustainability of their financial positions. This analysis is an application of the SDFA framework to relevant Sri Lankan economic data to test its robustness in identifying periods during which that country's external and public sector liability performance may have veered away from, or back towards, sustainable levels.

The application of the SDFA framework to Sri Lanka serves as a predictor of the growing economic crisis that has become evident in 2022 and highlights the unsustainability of both its external and public sector financial positions. Both have deteriorated significantly since 2010 and have operated outside what would be regarded as their respective financially sustainable areas. Most importantly, the integrated model highlights the urgency with which Sri Lanka needs to raise the rate of GDP growth that is consistent with external sustainability and simultaneously reduce the average cost of public sector net liabilities.

**Key words:** SDFA framework; external financial sustainability; public sector financial sustainability; Sri Lanka



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## Highlights

The UNCTAD Sustainable Development Finance Assessment (SDFA) framework is designed to allow countries – particularly low-income and less-developed countries – to separately assess the sustainability of their external and public sector financial positions. A unique feature of the SDFA framework is that it also allows those countries to undertake an **integrated** assessment of the sustainability of **both** their external and public sector financial positions using a unified model.

This study assesses the robustness and usefulness of the SDFA framework by applying it to a developing country that is also a participant in the Belt and Road Initiative (BRI). Sri Lanka – classified as a lower-middle income country by the World Bank - was selected. The country has been in the news in recent months over a deepening economic and foreign exchange crisis. Foreign currency shortages have contributed to an inability to meet scheduled debt repayment obligations and a dramatic fall of 45 percent in the value of the Sri Lankan rupee against the United States dollar following its floating in March 2022. Currency shortages have also resulted in shortages of food, fuel, medicine and other imported items and rapid increases in inflation. In response Sri Lanka's central bank increased the country's benchmark policy rate by 700 basis points in April 2022.

The IMF ascribes the deteriorating economic performance and high vulnerability to external shocks in recent years to “inadequate external buffers and high risks to public debt sustainability” that arose – in large part – due to the Easter Sunday terrorist attacks in 2019 and significant policy changes (including large tax cuts) announced in late 2019. The situation was worsened by the impact of the COVID-19 pandemic on travel and tourism earnings and higher energy and food import prices and reduced goods exports arising from the conflict between Russia and Ukraine. However, this study indicates that Sri Lanka's external and public sector were already becoming unsustainable prior to these developments.

Pre-COVID improvements in poverty reduction were attributed largely to post-war infrastructure investments that improved economic access to large parts of the country, combined with an impressive performance from the tourism sector and sustained demand for key exports such as tea, clothing and coconut products. These developments facilitated productivity improvements and higher incomes – particularly in the non-farm sectors. However, their impact had already started to fade prior to the start of the COVID-19 pandemic.

While Sri Lanka's policy response to the pandemic was prompt and broad-based it exposed weaknesses in the country's social protection systems – particularly their limited coverage of those in need.

Like many developing economies, Sri Lanka experienced structural change in the composition of its production with services sectors accounting for 68 percent of the total growth in real GVA between 2010 and 2019, the industrial sectors contributing 28 percent and agriculture, forestry and fishing the remaining 4 percent.

In relation to Sri Lanka's external economic and financial performance the study finds that:

- It had a persistent Current Account deficit between 2005 and 2020. This was due to comparatively large deficits on the Goods and Services and Primary Income accounts that were partially offset by surpluses on the Secondary Income Account.
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The inflows through the Secondary Income Account are due to large personal transfers (remittances) that arise from sustained high levels of net emigration over an extended period.

- The country's share of world merchandise exports increased from 0.051 percent in 2012, to 0.067 percent in 2017, before slipping back to 0.061 percent in 2020. Its share of world services exports increased steadily between 2009 and 2016 – from 0.05 percent to 0.14 percent – due largely to very strong growth in travel receipts linked to higher tourist arrivals. These were adversely impacted by the Easter Sunday attacks in 2019 and the COVID-19 pandemic in 2020, which saw the country's share of world services exports drop back to 0.06 percent. The large contribution of clothing and clothing accessory exports (44 percent of total goods exports in 2019) and other manufactured products (25 percent) mean that Sri Lanka's export earnings are relatively insensitive to prevailing commodity price trends and that their share of world goods exports is inversely correlated with the commodity cycle as a result.
  - A revealed competitiveness analysis of Sri Lanka's trade in goods indicates that the country gained market share in 53 of 98 product categories and lost market share in 42 product categories between 2015 and 2020. The categories in which it gained market share collectively accounted for 58.5 percent of merchandise export earnings in 2020, while those in which it lost market share only accounted for 41.5 percent. Of the product categories in which Sri Lanka gained market share 18 were in categories in which the world market contracted between 2015 and 2020. The country's future export performance could be impacted negatively if these trends continue. Between 2014 and 2019 the country increased its share of world services exports in 4 product categories and lost market share in 4 categories. However, the categories in which it lost market share collectively accounted for 18 percent of Sri Lanka's total services exports in 2019, while those in which it gained market share accounted for 82 percent.
  - Despite this relatively encouraging export performance the country remains dependent on imports. While both export and import propensities trended significantly lower between 2005 and 2010, Sri Lanka's ratio of imports to GDP stabilised in the 28 to 30 percent range in recent years (before COVID) and the ratio of exports to GDP increased from 20 percent to 23 percent. Both ratios declined as a result of disruptions to trade caused by the COVID-19 pandemic.
  - On top of a significant deficit on the Goods and Services Account, Sri Lanka also had a growing deficit on the Primary Income Account. This was due largely to a generally-widening deficit on net direct investment income between 2005 and 2016 – from USD112 million to USD935 million. The deficit in relation to net other investment income was volatile but increased from USD18 million in 2006 to USD623 million in 2018. Net personal transfer inflows increased from USD1.7 billion in 2005 to USD6.4 billion in 2016, before declining to USD5.8 billion in 2019. They recovered to USD 6.2 billion in 2020. The resulting surplus on the Secondary Income Account helped to partly offset the deficits on the Goods and Services and Primary Income accounts.
  - Between 2005 and 2020, non-residents consistently purchased more Sri Lankan assets than residents acquired foreign assets – resulting in a persistent surplus on the Financial Account. However, the scale of these flows was volatile. Net foreign direct investment inflows were consistently positive while net portfolio investment flows were generally positive, but there was a significant net outflow in 2020.
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Purchases of other investments by non-residents – which includes the purchase of debt instruments – generally exceeded purchases by residents.

- Sri Lanka's net external liabilities increased consistently from USD31 billion in 2011 to USD52 billion in 2019, before declining to USD48 billion in 2020. The fact that these external liabilities increased at a significantly faster rate than exports plus remittances indicates that Sri Lanka's external financial position was becoming less sustainable. The ratio of net external liabilities to exports plus remittances rose from 1.65 in 2011 to 2.37 in 2020. In addition, the ratio of foreign currency denominated external debt to exports plus remittances rose more sharply – particularly in recent years – from 1.78 in 2014 to 2.79 in 2020. This placed additional demands on foreign currency earnings.
- Application of relevant external data from 2010 to 2020 to the first component of the SDFa framework (relating to external financial sustainability) indicates Sri Lanka operated outside the area of external financial sustainability in every year with the exception of 2016, 2019 and 2020. In these three years Sri Lanka achieved an augmented Current Account surplus (i.e. exports plus remittances exceeded imports). In the other eight years Sri Lanka was – given its exports and remittance earnings – too reliant on imports. With its import propensity, it was growing too fast.

In terms of prevailing legislation, Sri Lanka's public finances are supposed to be regulated by three fiscal rules. The first rule prohibits the budget deficit from exceeding 5 percent of GDP but has not been complied with since the legislation was promulgated in 2003. The second rule limits the scale of total government liabilities but has been changed on a number of occasions. Originally total liabilities were supposed to be reduced to less than 60 percent of GDP by 2013, but a 2013 amendment raised the limit to 80 percent and the time frame for compliance with the 60 percent target to 2020. The most recent amendment made in June 2021 extended the date for achieving the 60 percent of GDP target till 2030. The final fiscal rule places a limit on government's contingent liabilities. This limit has also been raised – from an original 4.5 percent of GDP to 15 percent of GDP in a 2021 amendment. Within the context of these rules, an analysis of the Sri Lanka's public sector financial performance finds that:

- The ratio of government revenue to GDP dropped from 14.1 percent to 12.6 percent of GDP between 2016 and 2019, and then declined further to 9.1 percent in 2020 due to the COVID-19 pandemic. Sri Lanka's overall fiscal deficit has consistently exceeded 5 percent of GDP and in 2020 reached 11.1 percent of GDP. The main reason for the increasing deficit is not a dramatic increase in non-interest expenditure relative to revenue. It is due largely to rapidly-increasing interest costs on public debt, which rose by 650 percent between 2005 and 2019 – almost twice the increase in non-interest expenditure. As a consequence, the ratio of interest expenditure to revenue rose to 47 percent between 2016 and 2019 and - with the collapse of tax collections due to the COVID-19 pandemic – to 71 percent of revenue collections in 2020.
  - Gross debt rose from LKR4.6 trillion in 2010 to LKR15.1 trillion in 2020. As a share of GDP gross central government debt levels increased from 70 percent in 2012 to 78 percent by 2017 and then sharply to 101 percent in 2020. Public sector debt rose from 85 percent of GDP in 2015 to 109 percent in 2020.
  - Application of relevant public sector financial data from 2010 to 2020 to the second component of the SDFa framework (relating to public sector financial
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sustainability) indicates over the period 2010 to 2020 Sri Lanka's public finances operated far outside the sustainable area, and that in recent years (2018 to 2020) they moved even further away from sustainability.

The final component of the SDFa framework integrates both the external and public sector constraints into a unified model in terms of which a country (in this case Sri Lanka) will be operating in a financially sustainable manner for as long as the rate of real GDP growth that is consistent with external financial sustainability is greater than the average real cost of public sector net liabilities. When this is not the case, the country concerned will be moving away from a sustainable financial position.

Application of relevant historical data from 2010 to 2019 to this component of the SDFa framework indicates that, once account is taken of the rates of real GDP growth that are sustainable from an external perspective, Sri Lanka was operating in an even less financially sustainable manner. Whereas the gradient of the boundary condition (which circumscribes the financially sustainable area in the model) was marginally positive in relation to the public sector financial constraint, the boundary condition that incorporates external financial sustainability has a marked negative gradient. This means that a) between 2010 and 2020 Sri Lanka was operating even further away from financially sustainable levels than the public sector financial sustainability analysis suggested; and b) looking forward the country's policy space is even more limited.

### Policy implications

Sri Lanka has been operating in ways that are not financially sustainable for much of the past decade. Periods of improvement (such as between 2012 and 2015) were not sustained for long enough to bring about a material change to a deteriorating trajectory. This is primarily due to persistent deficits on the Current Account of the Balance of Payments. As a result, net external liabilities rose much faster than the capacity to service them. The country's deteriorating external solvency is also reflected in the fact that total reserves as a share of total external debt declined from over 33 percent in 2010 to 10 percent in 2020. Available data indicates that this ratio deteriorated further in 2021 and early 2022.

While Sri Lanka managed to reduce its dependence on imports over the study period the contribution made by exports to GDP also declined - from 32 percent to 23 percent - over the same period. This occurred despite increases in Sri Lanka's share of both world goods exports and world services exports. According to the SDFa Framework, these trends - together with the accompanying rapid increase in net external liabilities referred to earlier - mean that the country would have required an average annual contraction in real GDP of 1.6 percent between 2010 and 2019 to limit the demand for imports and make the external financial position sustainable. Instead, Sri Lanka averaged real GDP growth of 5.3 percent a year over this period.

Correcting the lack of external solvency will require a combination of policy interventions that collectively serve to reduce the country's import propensity further, while simultaneously raising the rate of growth in augmented exports. Since there are signs that personal transfer inflows (remittances) peaked in 2016, the onus for such growth will be largely on expanding goods and services exports. A diversification away from a high reliance on clothing and textile exports - which accounted for 44 percent of Sri Lanka's merchandise exports in 2019 - may be warranted.

Some of the immediate pressure on an improved export performance would be reduced if the country was able to progressively increase the extent of net inflows and/or reduce

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the extent of net outflows through the Financial Account. To achieve this the country will need to create a more conducive environment for domestic investment for both local and foreign investors. It should, however, be noted that increased inflows through the Financial Account increases the scale of external liabilities that need to be serviced (with profits, interest, royalties etc.) in subsequent periods. This would tend to increase the deficit on the Primary Income Account and has longer term external solvency implications.

The crowding-in of private investment through appropriate public infrastructure investments that facilitate further productivity gains for agricultural production and the diversification of manufactured exports would be desirable. Programmes that assist new exporters to access foreign markets, programmes that seek to diversify exports away from sunset industries towards products encompassing new technologies and programmes that support firms and sectors with revealed competitiveness (i.e. growing global market shares) to increase the scale of their operations and export activities may be appropriate. Efforts can also be made to progressively restructure external debt to secure more favourable terms – although this is likely to be difficult considering current perceptions and evidence of foreign exchange shortages.

Another feature of Sri Lanka's economy that has contributed to the rapid increase in net external liabilities is the fact that a comparatively high proportion of government debt is owed to foreign lenders. In 2020, 66 percent of the country's external debt was long-term debt of the public sector. In addition, in 2019 almost half (48 percent) of central government debt was owed to foreign lenders. While this dropped to 40 percent in 2020, it remains high compared to many other developing countries.

In relation to the sustainability of public sector finances, Sri Lanka's position has deteriorated significantly in recent years. While the average nominal cost of public sector net liabilities was not exceptionally high between 2010 and 2019 (it averaged 6.9 percent per annum), the rate at which public sector liabilities were accumulated over this period – which coincided with a failure to comply with its own deficit, debt and contingent liability targets - has resulted in a dramatic increase in public debt costs. The net result is that Sri Lanka's public sector has been left with diminishing resources to address its core delivery mandates.

The scale of the negative gradient of the boundary condition that circumscribes the integrated financially sustainable area suggests that Sri Lanka will need to aim to generate a fiscal surplus within a few years. In the absence of structural changes to its prevailing import and export propensities, imports (and by inference GDP growth) will need to be curtailed to support external sustainability. This would imply fiscal austerity that encompasses both spending reductions and tax increases.

The undesirability of such an approach increases the urgency of pursuing structural changes to ease the external constraint by adopting some (or all) of the policy approaches outlined above. To the extent that they are successful, this will assist in creating greater policy space by progressively raising the rate of real GDP growth that is externally sustainable.

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## 1 Introduction

While trade and investment flows enable developing countries to achieve higher rates of output and income growth over time they are often unbalanced - resulting in liabilities and debts for some of the parties to the exchanges, and assets and credits for others. From the perspective of the debtor countries, these liabilities need to be serviced through interest payments, other returns and repayment of the capital sum.

With the assistance of Gustavo Bhering<sup>1</sup> and Carlos Schonerwald da Silva<sup>2</sup>, the United Nations Conference on Trade and Development (UNCTAD) developed the Sustainable Development Finance Assessment (SDFA) framework that seeks to assess the sustainability of a country's external and public accounts. It makes different assumptions than, for example, the International Monetary Fund's Debt Sustainability Analysis (DSA) (see Hawkins and Prates, 2021, and Box 1), and also produces a different range of policy prescriptions.

This study applies the UNCTAD Sustainable Development Finance Assessment (SDFA) framework to a selected developing economy (in this case Sri Lanka) to test its robustness in identifying periods during which that country's external and public sector debt performance may have veered away from, or back towards, sustainable levels based on the use of historical data.

It begins with a brief outline of the genesis of the framework and its theoretical underpinnings as well as an explanation of the key sustainability conditions applicable to a country's external financial position and its public sector finances. A unique feature of the SDFA framework is that it also incorporates an integrated sustainability condition that combines both external financial sustainability and public sector financial sustainability in a unified model.

The study then examines Sri Lanka's recent economic performance in order to provide broader context to the application of the SDFA framework. This is followed by a detailed analysis of Sri Lanka's economic and financial indicators that are of particular relevance to the country's external financial sustainability - including the various components of the Current and Financial accounts and international investment position. Historical data is then used to assess Sri Lanka's external financial sustainability (the first component of the SDFA framework).

The performance of the country's public sector finances is then assessed using both flow data (revenue, expenditure, budget balances) and the accumulated stock of public sector net liabilities. Relevant historical data is then used to assess the country's public sector financial sustainability (the second component of the SDFA framework).

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Sri Lanka's integrated financial sustainability (the third component of the SDFa framework) is then assessed.

The study concludes by examining the policy implications of the preceding analysis and the usefulness and the potential limitations of the SDFa framework in its current form.

## 2 The UNCTAD Sustainable Development Finance Assessment (SDFa) framework

### 2.1 The conceptual point of departure of the SDFa framework

A country's ability to raise its output and income growth potential through trade and investment interactions with other countries is ultimately constrained by its ability to service the liabilities that may arise due to asymmetries in the values of the resulting trade and investment flows. Developing countries in general and lower-income countries (LICs) and less-developed countries (LDCs) in particular, will often need to incur comparatively higher levels of external liabilities, and to sustain them for longer. To achieve structural transformation they may need to invest in road, rail, port, communications and electricity infrastructure in order to increase exports to global markets, or increase spending on poverty-eradication, education and healthcare to raise their human capital to levels that support economic diversification and expansion. This will require extensive, sustained investment and there are likely to be relatively long lead times between when such investments are made and when they start to generate measurable productivity gains and growth-enhancing benefits for the investing economy.

Having to service higher external liabilities for longer periods exposes these countries to increased risks arising from global commodity price movements, fickle capital flows and other shocks - such as the COVID-19 pandemic – that may impair their ability to service and repay their debts. This risk is likely to be reflected in their respective borrowing costs which are typically far higher than those paid by developed economies. These risks also serve to distort the types of investments undertaken by forcing the debtor countries to prioritise projects with shorter repayment periods because their risk profile limits their access to funding with longer repayment terms. This raises the following questions:

- i. What level of net external liabilities is sustainable?
  - ii. How will indebted countries know whether the rate at which they are acquiring additional external liabilities is consistent with sustainability?
  - iii. What kind of policy measures will assist indebted countries in moving towards levels of net external liabilities that can be serviced sustainably?
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In LICs and LDCs it is typically the public sector that needs to take the lead in financing and facilitating growth-enhancing investments in infrastructure and human capital. The 2030 Agenda for Sustainable Development adopted by all United Nations member states in 2015 identifies 17 Sustainable Development Goals (SDGs) that “recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests”. The universal attainment of these goals by 2030 is supposed to be achieved through a global partnership that matches the resources and capacities of developed nations (that have already achieved many of the SDGs) with the development needs and capabilities of low-income and less developed countries (that often have some way to go).

Universal attainment of the SDGs may require the public sectors of some countries to incur additional liabilities. However, their capacity to do so is constrained by a number of factors, including fiscal rules that impose limits on both the extent of public sector borrowing and the purposes for which it may be used, and other limitations that impact their ability to access capital and the conditions (pricing and repayment terms) under which they can do so. The constraint on external debt discussed above therefore operates in tandem with a public sector debt constraint. This raises additional questions, including:

- i. What level of public sector debt can be serviced sustainably?
- ii. How will a country know if the rate at which its public sector is taking on additional liabilities threatens its ability to service its accumulated stock of debt?

The SDFA framework seeks to provide answers to these questions.

## 2.2 The theoretical grounding of the SDFA framework

The SDFA framework was developed for UNCTAD by Gustavo Bhering and Carlos Schonerwald da Silva in 2021. It draws on Thirlwall (1979) in recognising the importance of the balance of payments constraint for developing countries. The balance of payments position of small, open economies is typically the main constraint to their long-run ability to grow since it imposes a limit on aggregate demand to which aggregate supply is usually forced to adapt. This adaptation often occurs at levels of long-run aggregate supply that are not consistent with full employment. In this view, raising a country's growth rate in a way that is consistent with balance of payments equilibrium can only be achieved through structural changes that serve to raise its income elasticity of exports and/or reduce the income elasticity of its imports<sup>3</sup> over the longer term. Although a

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<sup>3</sup> An analysis of changes in the average ratio of exports to GDP and imports to GDP between 2005 and 2009 and between 2015 and 2019 using IMF IFS data indicates that 75 countries experienced an increase in both ratios, 35 countries (including Indonesia) experienced a decrease in both ratios, 10 countries experienced a rising share of exports and a declining share of imports and 26 countries (including Ethiopia, South Africa and Sri Lanka) experienced a fall in the share of exports and a rise in the share of imports.

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balance of payments constraint can be eased by capital inflows, McCombie & Thirlwall (1997) argue that capital flows cannot permit an individual country to increase its growth rate by very much or for very long.

Pasinetti (1981, 1993) who developed a structural economic dynamics (SED) approach to explain uneven multi-sectoral development, notes that income elasticities vary across different products and change over time in response to changing per capita incomes. These changing income elasticities provide differing opportunities for sectors to grow as the resulting expansion of demand is not equally spread over all sectors. Since there are also differing import elasticities associated with each sector there are balance of payments implications of these structural changes in the composition of output. However, as noted by Thirlwall (1979), in a modern open economy the external balance of payments constraint on the growth of overall demand applies, irrespective of how proportional that growth's impact is across different sectors. This also has implications for public sector debt sustainability: the external constraint on growth also constrains tax collections and the ability to service public sector liabilities.

The UNCTAD SDFA framework uses an understanding of the accounting relationships between various stocks and flows used in the formulation of balance of payments, fiscal and national accounts data to develop key indicators of external and public sector financial sustainability. It has three components:

- i. Financial sustainability conditions for external finances;
- ii. Financial sustainability conditions for public sector finances; and
- iii. Integrated financial sustainability conditions for both external and public sector finances.

Each of these components is examined in the following sections.

### 2.3 Financial sustainability conditions for external accounts

Imbalances in flows on the external account give rise to foreign liabilities and debts for some economies and foreign assets and credits for others. If the stock of net external liabilities (foreign liabilities less foreign assets) increases faster than that country's capacity to repay those liabilities (represented by foreign currency earnings derived from exports of goods and services and remittances) it suggests that the rate at which the country concerned is accumulating net external liabilities is becoming relatively less sustainable.

The value of foreign liabilities and foreign assets vary over time as a result of both newly incurred liabilities and newly acquired assets, as well as changes in their respective stock valuations. The SDFA framework takes account of this by incorporating these valuation changes – including those caused by exchange rate movements - into its calculation of net external liabilities. In practice this means that in a given period (**t**), the change in net external liabilities (**ΔNEL**) will be the result of subtracting the values of exports of goods and services (**X**), remittances (**RMT**), and net income from abroad plus any holding gains or losses (**NIFA\***) from the value of imports of goods and service (**M**).

$$\Delta NEL = M_t - X_t - RMT_t - NIFA_t^*$$

This means that – for a given import elasticity - external financial sustainability will neither deteriorate nor improve if the rate of growth in net external liabilities is the same as the rate of growth in exports plus remittances. If, however, the growth in net external liabilities is faster than the growth in exports plus remittances, the external financial sustainability of the economy concerned will be deteriorating. Conversely, if it is slower, external financial sustainability will be improving. This sustainability condition can be expressed as follows:

$$\frac{M - X^*}{X^*} = \left( \frac{g_{X^*} - r}{1 + g_{X^*}} \right) \frac{NEL}{X^*}$$

Where **M** represents imports of goods and services; **X\*** is exports plus remittances; **g<sub>X\*</sub>** is the growth in exports plus remittances; **r** is the average cost of net external liabilities; and **NEL** are net external liabilities. In practice this means that if a country has a current account deficit, the rate of growth in exports (**g<sub>X\*</sub>**) must be faster than the weighted average cost of external liabilities minus the weighted average return on external assets (**r**). For as long as it is not, the country concerned will be moving away from having net external liabilities that it can service sustainably. If, however, the rate of growth in exports consistently exceeds the average cost of net external liabilities it implies that the country can allow net external liabilities to rise (i.e. foreign liabilities increase faster than foreign assets) without threatening external financial sustainability.

There are additional nuances that can impact on this sustainability condition. For example, foreign currency denominated net external debt has implications for export earnings that are different to local currency denominated net external debt. It is also possible that a country may be unable to fully-finance a current account deficit with inflows through the Capital and Financial accounts of the Balance of Payments. This will impose a hard constraint on the level of imports.

## 2.4 Financial sustainability conditions for public sector finances

The public sector comprises the different tiers of government as well as state-owned enterprises and other state-controlled entities. Its spending is typically financed through a combination of taxation, levies and user charges, borrowing (either domestically or internationally) and changes to the monetary base. While there is great variation<sup>4</sup> in, and no universally-accepted limit to, the extent to which the public sector of a particular country can incur liabilities, some countries may adopt fiscal rules that limit the extent of public sector borrowing and the purposes for which borrowed funds can be used. Most capital market lenders will also impose effective limits on borrowing through variations in the price, repayment period and value of lending based on the perceived risk of default<sup>5</sup>.

<sup>4</sup> The International Monetary Fund's World Economic Outlook data for October 2021 indicates that the ratio of gross government debt to GDP in 2020 ranged from less than 3% in the case of Brunei Darussalam to over 300% in the case of Venezuela. The weighted global average in 2020 was 99% of GDP - up from 84% in 2019 and 49% in 2000.

<sup>5</sup> For example, during the Euro-zone debt crisis in 2010 the premium on the yield on Greek bonds relative to German bunds rose to over 900 basis points, compared with less than 50 basis points prior to the global economic crisis in 2008/9.



Since the SDFA framework takes account of public sector net liabilities rather than simply debt, it is necessary to account for variations (holding gains and losses) in the stock values of both public sector liabilities and public sector assets over time. In essence, the financial position of a country's public sector will be moving away from sustainability if the rate at which its public sector net liabilities (**PSNL**) increases is faster than the rate of growth of an indicator that reflects the capacity for servicing and repayment of those liabilities. The SDFA has chosen to use the GDP (**Y**) for this purpose, but it could have chosen to use a narrower indicator such as taxes collected. This choice would be material if the capacity for tax collection of the country concerned was not aligned with the economic base and changed over time. For example, if the prevailing tax base represented a subset of all the economic activity and expanded at a slower rate than the GDP the use of the GDP as an indicator of repayment capacity would tend to overstate the public sector financial sustainability of the country concerned. This risk may be more pronounced in economies with large informal sectors, narrow tax bases and poorly developed tax collection systems.

The SDFA framework public sector financial sustainability boundary condition is given as:

$$\frac{G + F - T_0}{Y} = \left( \frac{g - \beta}{1 + g} \right) \frac{PSNL}{Y}$$

Where **G** represents government spending excluding transfer payments, **F** represents fiscal transfer payments; **T** is taxes and other government revenues, **g** is the growth in real GDP, **β** is the weighted real average cost of public sector net liabilities; **PSNL** is public sector net liabilities and **Y** represents the GDP. In essence, what this means is that, in the presence of a fiscal deficit [i.e. (**G + F**) > **T**], public sector financial stability will be improving if the rate of growth in real GDP (**g**) is greater than the rate of growth in the real weighted average cost of public sector net liabilities (**β**), and deteriorating if **g** is less than **β**.

## 2.5 Integrated financial sustainability conditions for both external and public sector finances

The final component of the SDFA seeks to integrate the external and public sector debt sustainability constraints into a unified model. From the perspective of the external debt constraint, for a given import elasticity the level of output of the economy will require a corresponding level of imports and growth in the level of output will require that imports also grow. However, if this growth in imports is not matched by a corresponding growth in exports plus remittances, net external liabilities will increase. There is, therefore, a rate of growth in both exports and imports that is consistent with external debt sustainability and that level of growth in imports also imposes a constraint on the growth in output. If the rate of growth in output is higher than this sustainable rate of growth in imports and exports, then imports will also need to grow at a faster rate. Since exports are exogenously determined, this will mean that net external liabilities will increase –

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moving the country away from an external financial position that is sustainable over the longer term.

The public sector financial sustainability condition can then be restated as:

$$\frac{G + F - T_0}{Y} = \left( \frac{g_{BP} - \beta}{1 + g_{BP}} \right) \frac{PSNL}{Y}$$

Where  $g_{BP}$  represents that growth in exports and imports that is consistent with external debt sustainability and an associated rate of growth in output. All the other elements of the integrated sustainability condition are as given in relation to the public sector financial sustainability condition. In essence, the integrated financial sustainability condition means that public sector net liabilities will only be sustainable over the long term if the rate of growth in exports plus remittances and imports that is consistent with external financial sustainability (i.e.  $g_{BP}$ ) exceeds the weighted average cost of public sector net liabilities (i.e.  $\beta$ ).

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**Box 1: Key elements of the UNCTAD S DFA framework**

Many developing countries - especially the most vulnerable LICs and MICs - face external solvency problems in addition to insufficient short-term liquidity in foreign currency. These can become roadblocks to recovery in the face of shocks like the COVID-19 pandemic but may also inhibit progress in relation to the attainment of the Sustainable Development Goals (SDGs) and other economic development objectives. To respond and recover from the COVID-19 crisis in a manner that is aligned with the 2030 SDG Agenda, both the liquidity and solvency problems of the developing world must be addressed. While short-term liquidity problems can be addressed in part by the Global Financial Safety Net (GFSN) or a new Special Drawing Rights (SDR) allocation, external solvency problems require a different approach.

The UNCTAD S DFA framework focuses on resources necessary to enhance fiscal spaces and expand policy options in developing countries in the medium- and long-term to ensure that recovery strategies and development agendas can be sustained. The framework assists in determining whether the development finance required by countries to achieve structural transformation and developmental goals are compatible with external financial sustainability, external debt sustainability and public debt sustainability.

The UNCTAD S DFA framework goes beyond standard debt sustainability assessment (DSA) models to focus on development finance requirements for sustainable development, considering all available sources of financing. Unlike standard DSA models, the UNCTAD S DFA framework does not draw on a routine assumption of full employment of all resources at any moment in time and place. In such models fiscal austerity to achieve public debt sustainability is the logical policy response to unsustainable external debt. In the UNCTAD S DFA framework, output is determined by aggregate effective demand – given the external constraint that establishes an upper bound for long-term growth and, hence, for long run sustainability of the public sector. Various combinations of macroeconomic and development policies can be employed in this framework. Fiscal austerity is but one of these.

A key feature of the UNCTAD S DFA framework is that the causality runs from the external position to the country's fiscal space in the medium and long-run. Moreover, while standard models use debt sustainability indicators based on gross liabilities, the S DFA framework considers both the liabilities and assets of the country and the public sector, resulting in indicators based on the net stock of liabilities. It builds on the works of Prebisch (1949, 1951), Thirlwall (1979), Domar (1944 and 1957), Pasinetti (1998) and Bhering *et al* (2019) and places external financial sustainability (the country's ability to service the stock of net external liabilities, including its net external debt) at the centre of the analysis. The capacity of developing countries to sustain growth that enables structural transformation depends on their ability to manage external liabilities in ways that avoid an explosive path to external insolvency.

The central relationship for assessing external financial sustainability of developing countries is the ratio between the country's net external liabilities (NEL) and its capacity to repay those liabilities.

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Whereas DSA models generally define repayment capacity by export earnings alone, UNCTADs SDFA framework includes remittances by emigrants and contract workers living in other countries. For many developing countries these may be an important source of foreign currency earnings that can be used - together with export earnings - to meet external financial obligations (profits, dividends, and interest). This ratio is the SDFA framework's first indicator. Its path over time is dependent on the difference between the average cost of net external liabilities and the growth of exports earnings plus remittances. If this ratio increases persistently it will become necessary for the country concerned to generate a trade surplus to stabilize the growth of NEL, even if previous trade deficits were consistently very small. Since – in the short run at least - export earnings and remittances are exogenously-determined, achieving a trade surplus will require that imports are curtailed – thereby impacting economic growth and fiscal revenues negatively.

In countries with trade deficits, the indicator of external financial sustainability will improve in the long run if the rate of growth of exports earnings plus remittances is consistently greater than the average cost of net external liabilities.

The second key indicator of the UNCTAD SDFA framework relates to the ratio of public sector net liabilities (PSNL) to the capacity to service and repay those liabilities - represented by the country's gross domestic product (GDP). This ratio is broader than that employed in most DSA models which typically only reflect the ratio of the public sector gross debt to GDP. The path of this indicator over time depends on the difference between the average cost of PSNL and the rate of growth in the GDP. In countries where the cost of servicing public sector net liabilities is persistently higher than the rate of GDP growth the ratio will be deteriorating. It will be necessary for the countries concerned to adopt policies that serve to increase the rate of GDP growth and/or reduce the average cost of public sector net liabilities. Fiscal austerity is but one of these possible approaches, but it would run the risk of further reducing the rate of growth – at least in the short-run.

The third key indicator of the UNCTAD SDFA framework reaffirms the causality of external financial sustainability determining fiscal sustainability over the medium and long-run. It integrates the first two indicators into a unified sustainability condition by quantifying the upper-bound rate of GDP growth that is consistent with external financial sustainability, and then uses this rate of growth to assess public sector financial sustainability. If a country's average cost of public sector net liabilities is persistently higher than the rate of GDP growth consistent with external financial sustainability, it will move to an explosive path where public sector liabilities rapidly "snowball". However, if the country concerned manages its net external liabilities effectively and adopts policies that serve to increase the rate of growth of exports and remittances and/or reduce the country's dependence on imports in the long-run, it will raise the rate of GDP growth consistent with external financial sustainability and – in the process – create additional fiscal space to adopt policies and programmes that support sustainable development. This includes the United Nations Sustainable Development Goals.

Hawkins, P. and Prates, D. (2021)

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## 3 Application of the S DFA framework to Sri Lanka

### 3.1 The recent performance of the Sri Lankan economy as context to the analysis

The Democratic Socialist Republic of Sri Lanka (Sri Lanka) is a South Asian island nation that covers a land area of 65,610 km<sup>2</sup> and is separated from the Indian sub-continent by the Gulf of Mannar and the Palk Strait. It was the location of a protracted civil war that lasted from 1983 to 2009.

In 2021 it had an estimated population of 21.5 million people that had been growing at less than 1 percent a year since 2000. Although the fertility rate is currently above the population replacement rate of 2.1 percent per annum, Sri Lanka has experienced fairly high levels of net emigration for some time. As a result, its population – currently ranked 59<sup>th</sup> in the world - is expected to peak at around 22.2 million in 2038 and – if these migration patterns persist - to decline thereafter<sup>6</sup>. The United Nations Department of Economic and Social Affairs (UNDESA) estimates that Sri Lanka's population could fall to 15.3 million by the year 2100. In 2020 Sri Lanka had a gross national income (GNI) per capita of USD3,720 – down from USD4,040 in 2018<sup>7</sup>.

In a recent poverty assessment, the World Bank (2021) found that Sri Lanka had made good progress in reducing poverty levels – with the proportion of the population living on less than the equivalent of USD3.20 per day falling from 16.2 percent to 11 percent between 2012/13 and 2016, and to an estimated 9.2 percent in 2019. However, this subsequently worsened again, so that by 2021, the level was at 10.9 per cent. The World Bank ascribes the pre-COVID improvement largely to post-war infrastructure investments that improved economic access to large parts of the country, combined with an impressive performance from the tourism sector and sustained demand for key exports such as tea, clothing and coconut products. These developments facilitated productivity improvements and higher incomes – particularly in the non-farm sectors. However, their impact had already started to fade prior to the start of the COVID-19 pandemic.

Sri Lanka's policy response to the pandemic was prompt and broad-based. It included macroeconomic policy stimulus, an increase in social safety net spending, and a moratorium on loan repayments for affected businesses. The fiscal deficit exceeded 10 percent of GDP in both 2020 and 2021 – up from over 8 percent in 2019. However, despite the expanded social safety net spending, weaknesses in Sri Lanka's social protection systems – particularly its limited coverage of those in need – were exposed. According to the World Bank (2021),

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<sup>6</sup> United Nations Population Division, Department of Economic and Social Affairs (2019).

<sup>7</sup> World Bank World Development Indicators (2022).

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less than half the poor were able to access benefits under the Samurdhi<sup>8</sup> programme. Together with its relatively low value benefit payments, this means that the programme was not as effective as it should have been in building resilience to shocks such as COVID-19 amongst the country's poor. The World Bank estimates that the pandemic set back Sri Lanka's progress in reducing poverty by five years.

While many of the economic indicators on the Sri Lankan economy improved after the civil war, the economy is currently in an extremely vulnerable position, with cumulative external interest and debt repayments of nearly USD 4.7 billion due in 2022 (Central Bank of Sri Lanka, 2022). In addition food and fuel prices rose sharply while the Sri Lankan rupee fell 45 percent against the United States dollar after it was floated in March 2022. On top of this, Sri Lanka's dependence on imported energy and food increased its vulnerability to higher energy and food commodity prices arising from the conflict between Russia and Ukraine. In March 2022 Sri Lanka's national inflation rate rose to 21.5 percent on a year-on-year basis – up from 17.5 percent in the previous month (Department of Census and Statistics, 2022). In response Sri Lanka's central bank increased the country's benchmark policy rate by 700 basis points in April 2022. Foreign currency shortages also resulted in shortages of food, fuel, medicine and other imported items.

The latest IMF Article IV consultation (2022) ascribes the deteriorating economic performance and high vulnerability to external shocks in recent years to “inadequate external buffers and high risks to public debt sustainability” that arose – in large part – due to the Easter Sunday terrorist attacks in 2019 and significant policy changes (including large tax cuts) announced in late 2019.

Growth in real GDP slowed from over 5 percent in 2015 to 2.3 percent in 2019, before contracting by 3.6 percent in 2020, while the ratio of gross central government debt to GDP increased from 79 percent to 101 percent over the same period.

In common with many developing economies, Sri Lanka has experienced declines in the shares of the agricultural and industrial sectors of the economy and an increase in the contribution of the services sectors. The average annual rates of growth that gave rise to these changing shares are reflected in Figure 1 (lefthand side). Between 2010 and 2019<sup>9</sup> the real gross value added (GVA) of agriculture, forestry and fishing increased by an average of 2.6 percent per annum, while the industrial sectors (mining and quarrying, manufacturing, utilities and construction) expanded by 4.8 percent a year. The real GVA of the services sectors grew by 5.5 percent annually over the same period. As Figure 1 (righthand side) indicates, these differential growth rates meant that the services sectors accounted for 68 percent of the total growth in real GVA between 2010 and 2019, the industrial sectors contributed 28 percent and agriculture, forestry and fishing the remaining 4 percent.

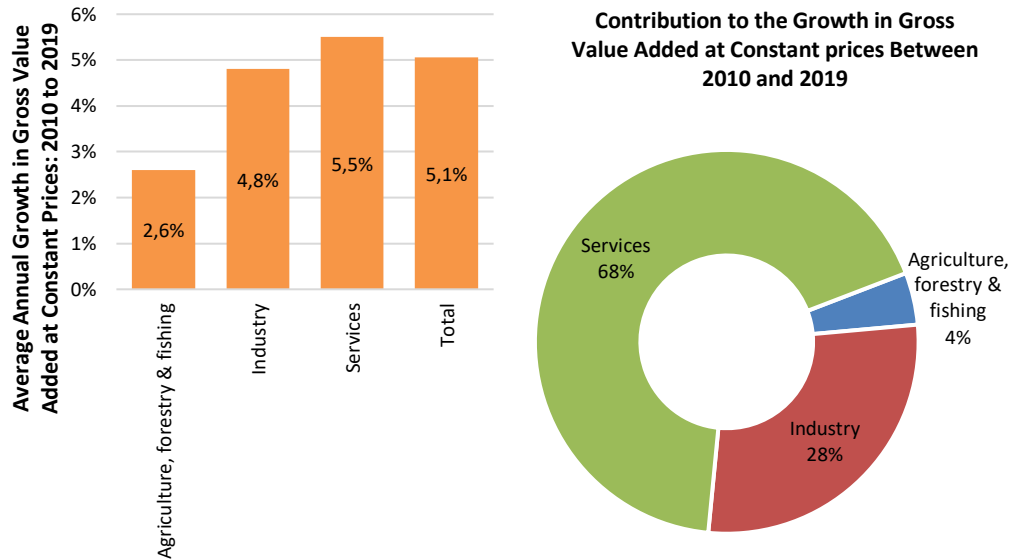
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<sup>8</sup> The Samurdhi (or Prosperity) Programme was launched in 1995, with the principal goal of reducing poverty in Sri Lanka. It has evolved considerably over time with recent modifications dividing support into a relief programme and an empowerment programme.

<sup>9</sup> To avoid the distortions caused by the COVID-19 pandemic, data for 2020 was excluded from this analysis.

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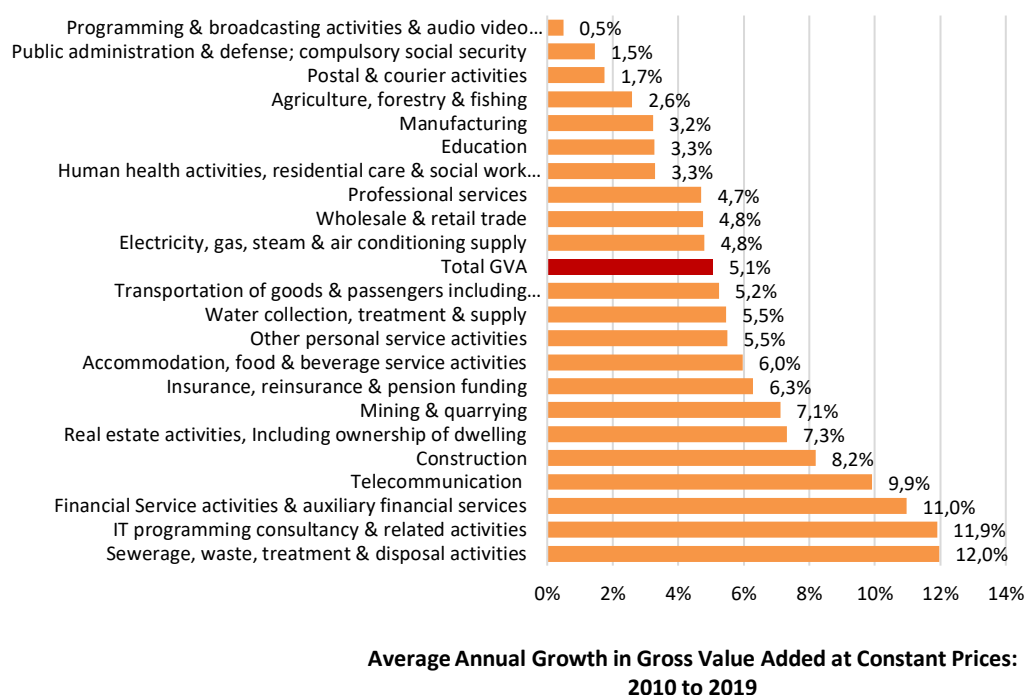
Figure 1: Average annual growth in real gross value added from 2010 to 2019 (LHS) and aggregated sector contribution to the total growth in real gross value added between 2010 and 2019 (RHS)



Source of data: Department of Census and Statistics, December 2021

Figure 2 reflects average annual growth rates in real GVA between 2010 and 2019 on a more disaggregated basis. It shows that average growth ranged from 0.5 percent a year in the programming and broadcasting activities and audio video production sector to 12 percent a year in the sewerage, waste, treatment and disposal activities sector. Within agriculture, forestry and fishing, average growth in real GVA varied from a contraction of 7.1 percent a year in rubber production to growth of over 10 percent a year in animal production. The manufacturing sub-sectors saw average growth range from 0.8 percent a year in non-metallic mineral products to 6.7 percent a year in furniture manufacture. The performance of the agriculture, forestry and fishing and manufacturing sub-sectors is reflected in Annexure A.

Figure 2: Average annual growth in real GVA of individual sectors from 2010 to 2019



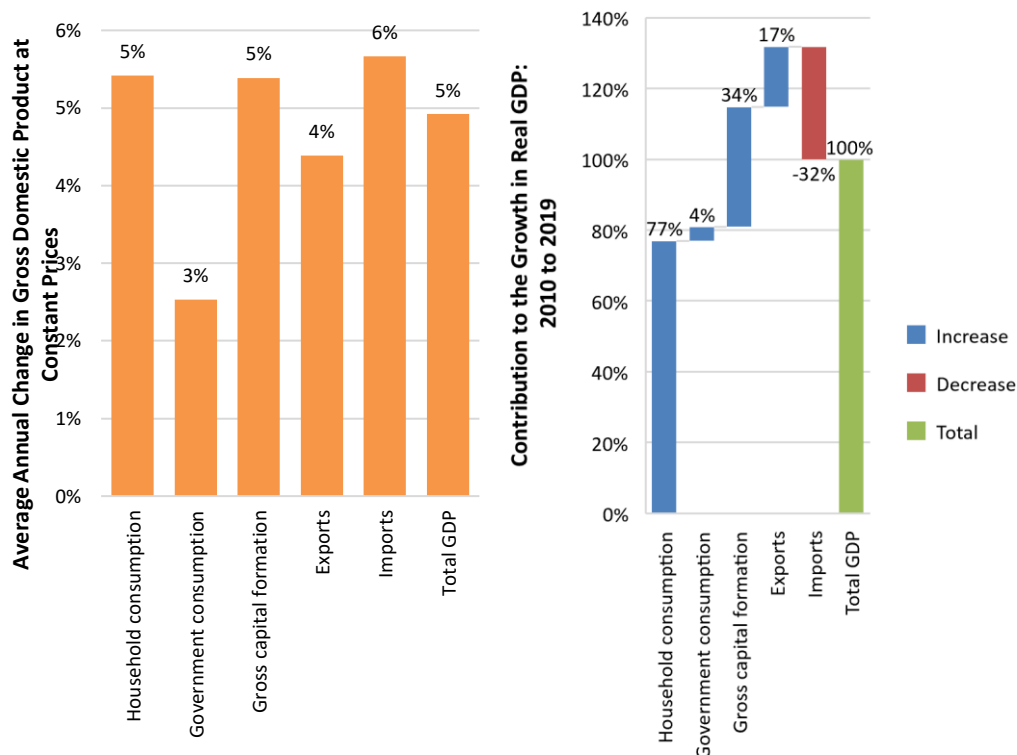
Source of data: Department of Census and Statistics, December 2021

As Figure 3 indicates, the expenditure side of Sri Lanka's economy was characterized by relatively strong growth in imports, which increased by 5.7 percent per year between 2010 and 2019. Average growth in household consumption matched the growth in gross capital formation (5.4 percent) but was more than double the average annual growth in government consumption (2.5 percent). The fact that GDP at market prices expanded at a slower rate (4.9 percent a year) than GVA at basic prices (5.1 percent a year) is the result of a relatively slower rate of increase in indirect taxes on products less subsidies on products (3.7 percent a year). This is largely the result of reductions in the VAT rate in 2019.

Overall, increased household consumption accounted for 77 percent of the growth in real GDP between 2010 and 2019, followed by gross capital formation (34 percent), exports of goods and services (17 percent) and government consumption (4 percent). These contributions were partially offset by an increase in imports, which shaved 32 percent off the increase in spending on domestically produced products. Sri Lanka is particularly dependent on fuel, machinery and equipment and food imports.



Figure 3: Average annual growth in expenditure components of real gross domestic product from 2010 to 2019 (LHS) and contribution to the total growth in real gross domestic product between 2010 and 2019 (RHS)



Source of data: Department of Census and Statistics, December 2021

### 3.2 Performance of Sri Lanka's external accounts

A key premise of the SDFA is that if a country's stock of net external liabilities persistently increases at a faster rate than its ability to service and repay those liabilities that country will be moving towards an external liability position that is unsustainable. Such unsustainability can result in limitations on imports that serve to constrain the future rate of growth and/or increase the risk of default in the servicing of foreign liabilities.

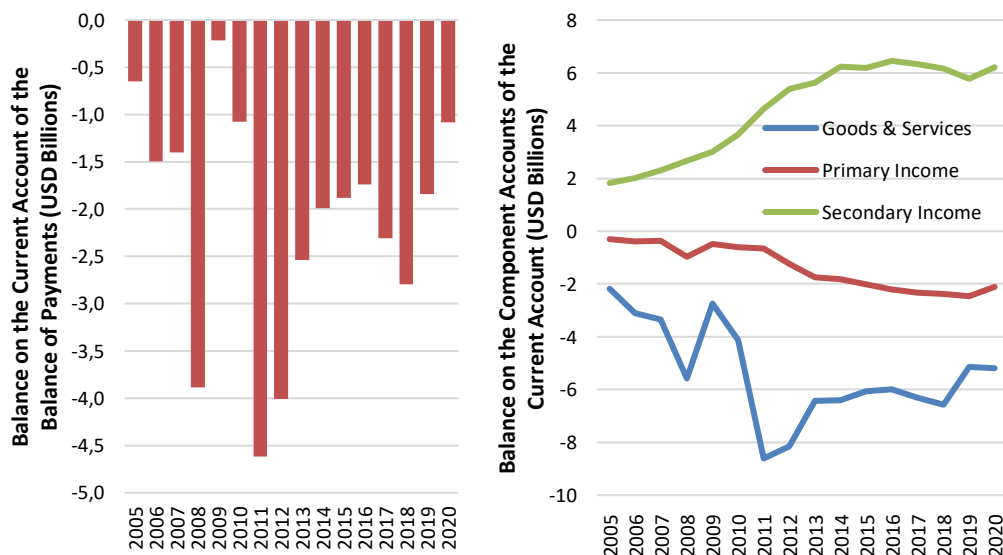
Trends in a country's balance of payments accounts and the factors that contributed to those trends provide important context to the application of the SDFA framework. This section examines the performance of Sri Lanka's Current and Financial accounts, as well as some of the underlying developments that contributed to these trends.

### 3.2.1 Current account performance

According to the IMF's Balance of Payments and International Investment Position Manual (BPM6) of 2009, the Current Account of the Balance of Payments is the net result of, and includes all associated transactions captured in, the Goods and Services Account, the Primary Income Account and the Secondary Income Account.

As is reflected in Figure 4 (lefthand side), Sri Lanka had a persistent Current Account deficit between 2005 and 2020. The extent of this deficit varied widely – from USD215 million in 2009 to USD4.6 billion in 2011. It narrowed from USD2.8 billion in 2018 to USD1.1 billion in 2020. As Figure 4 (righthand side) shows, the trends in the overall Current Account balance were due to comparatively large deficits on the Goods and Services and Primary Income accounts and that were partially offset by surpluses on the Secondary Income Account. The inflows through the Secondary Income Account are due to large personal transfers (remittances) that are the result of the high levels of net emigration referred to earlier.

Figure 4: Sri Lanka's Current Account Balance (LHS) and balance on each of the sub-accounts making up the Current Account (RHS)

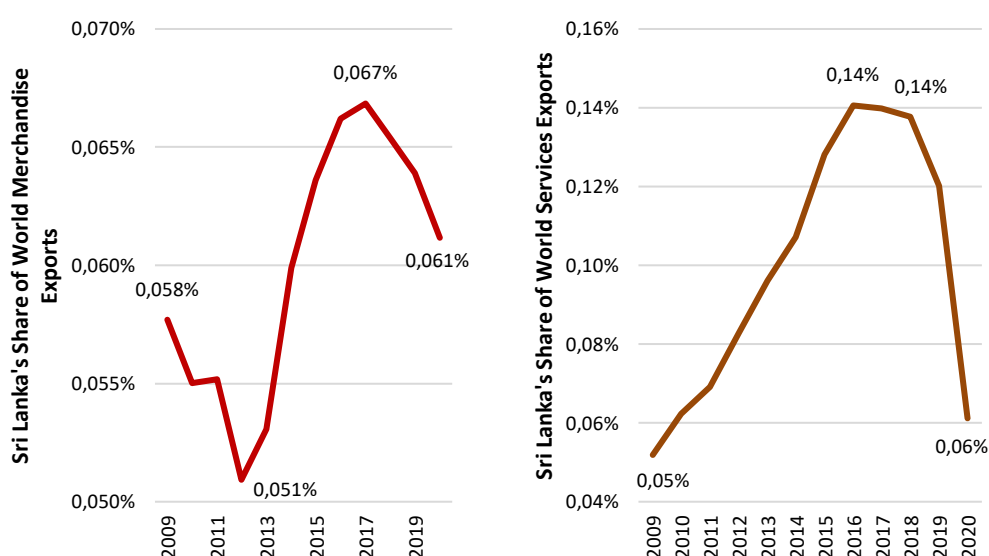


Source of data: IMF Balance of Payments and International Investment Position (BoP/IIP), 2021

Figure 5 contrasts Sri Lanka's share of world exports of goods (left hand side) and services (right hand side). These trends reflect underlying trends in export competitiveness but are also impacted by commodity price cycles and exchange

rate movements. In relation to goods/merchandise exports the country's share of world exports increased from 0.051 percent in 2012, to 0.067 percent in 2017, before slipping back to 0.061 percent in 2020. The share of world services exports (righthand side) increased steadily between 2009 and 2016 – from 0.05 percent to 0.14 percent – due largely to very strong growth in travel receipts linked to higher tourist arrivals. It was adversely impacted by the Easter Sunday attacks in 2019 and the COVID-19 pandemic in 2020, which saw the country's share of world services exports drop back to 0.06 percent.

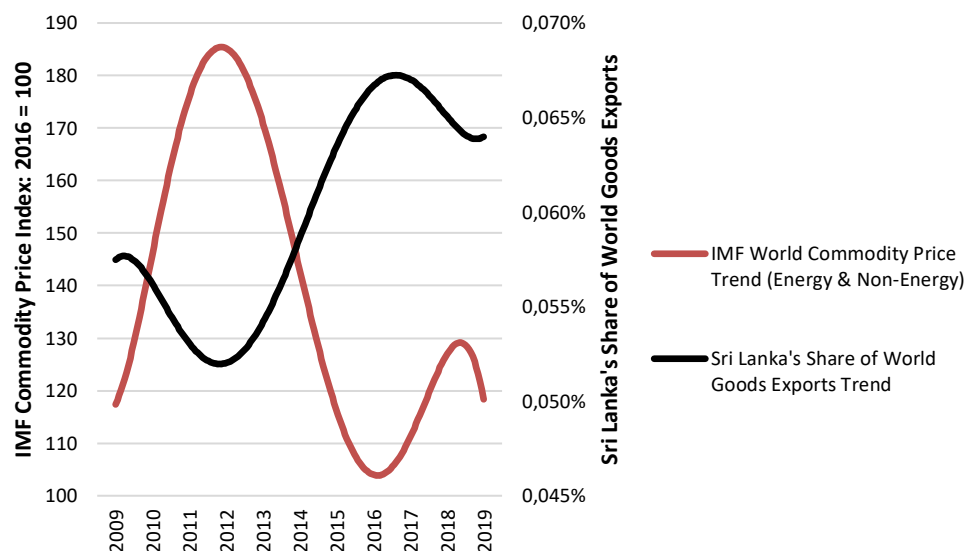
Figure 5: Sri Lanka's share of world goods (LHS) and services (RHS) exports



Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

It is apparent from Figure 6 that Sri Lanka's share of world goods exports is inversely correlated to world commodity price trends: when commodity prices are rising on global markets, the country's share of world exports is generally falling, and when commodity prices are falling, the country's share of world exports is rising. The explanation for this trend is found – in part – in the composition of the country's exports. As Table 1 indicates, clothing and clothing accessory exports contributed 44 percent of total goods exports in 2019. Tea, rubber, mineral fuel and oil, pearls, precious stone and precious metals, and all other 'commodities' collectively accounted for 31 percent of goods exports. The balance (25 percent) consisted of various manufactured products.

Figure 6: Correlation between world commodity price trends and trends in Sri Lanka's share of world goods exports



Source of data: IMF World Economic Outlook, October 2021. ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

Table 1: Composition of Sri Lanka's goods exports in 2019

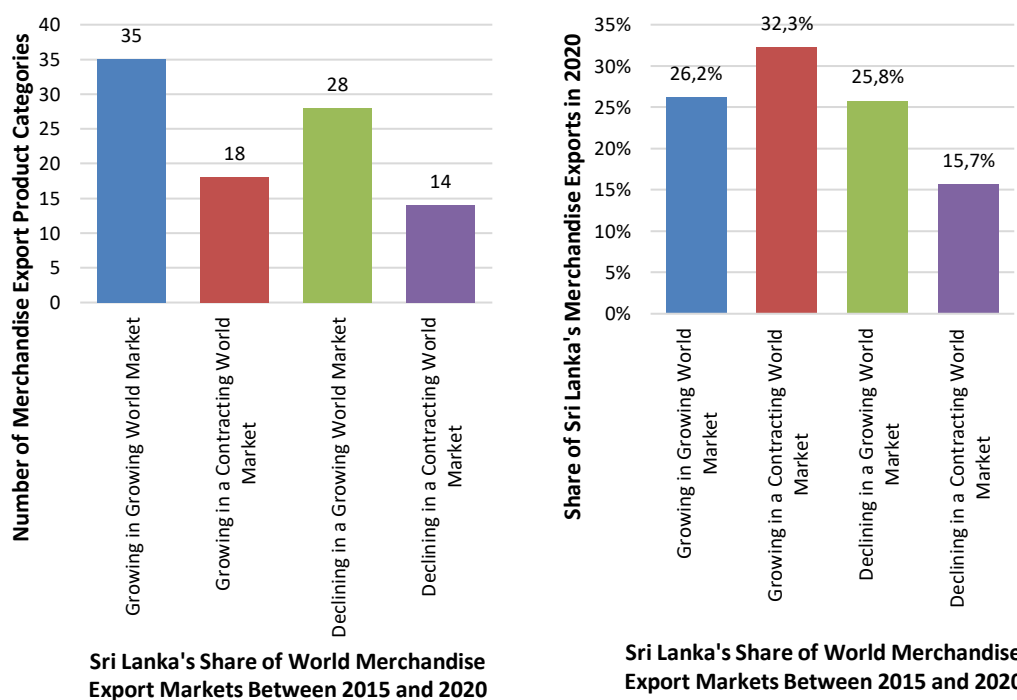
HS Code	Product Description	Share of Goods Exports in 2019
61	Clothing & clothing accessories, knitted or crocheted	26%
62	Clothing & clothing accessories, not knitted or crocheted	18%
9	Coffee, tea, maté and spices	13%
40	Rubber and articles thereof	7%
27	Mineral fuel & oil products	3%
85	Electrical machinery & equipment	3%
71	Pearls, precious or semi-precious stones, precious metals	3%
3	Fish & aquatic invertebrates	2%
	All other goods exports	25%

Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

A revealed competitiveness analysis of Sri Lanka's trade in goods and services provides further insights into these "market share" trends. Figure 7 indicates that the country gained market share in 53 of 98 product categories and lost market share in the other 42 product categories between 2015 and 2020. The categories in which it gained market share collectively accounted for 58.5 percent of merchandise export earnings in 2020, while those in which it lost market share only accounted for 41.5 percent. Of the product categories in which Sri Lanka gained market share 18 were in categories in which the world market declined between 2015 and 2020. The country's future export performance could be impacted negatively if these trends continue.

The detailed results of the revealed competitiveness analysis of Sri Lanka's goods exports are included in Annexure B. It indicates the performance of each of the individual product categories as well as their share of the country's total goods exports in 2020.

Figure 7: Revealed competitiveness of Sri Lanka's merchandise exports



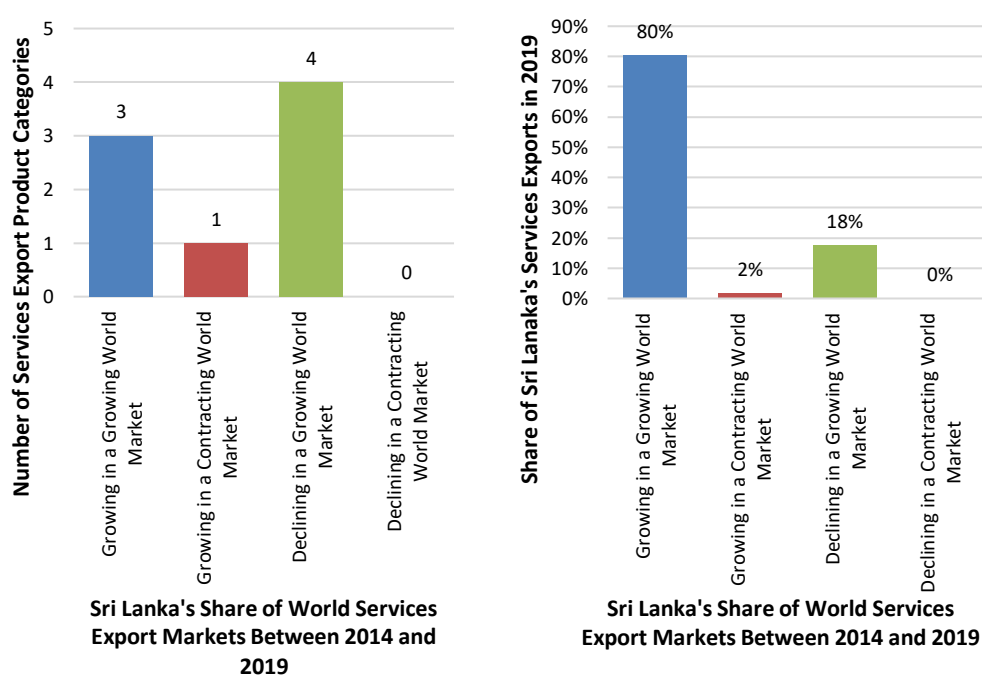
Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

A similar analysis of Sri Lanka's services exports is reflected in Figure 8. However, in this case the period of the analysis has been shifted to 2014 to 2019

because the inclusion of 2020 data resulted in significant distortions<sup>10</sup>. It shows that the country increased its share of world services exports in 4 product categories and lost market share in 4 categories. However, the categories in which it lost market share collectively accounted for 18 percent of Sri Lanka's total services exports in 2019, while those in which it gained market share accounted for 82 percent. According to the IMF (2022) there are signs that tourist arrivals started to recover during 2021.

The detailed results of this analysis are included in Annexure C.

Figure 8: Revealed competitiveness of Sri Lanka's services exports



Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

Figure 4 indicates that in addition to a significant deficit on the Goods and Services Account, Sri Lanka also had a growing deficit on the Primary Income Account. Figure 9 reflects the performance of the components of the Primary

<sup>10</sup> Whereas Sri Lanka had been performing relatively well in the preceding five years – as reflected in this analysis – the inclusion of 2020 data reflects a marked deterioration with the country losing global market share in all service export categories. While world service exports declined by 20 percent in 2020, they dropped by over 59 percent in Sri Lanka. The decline was particularly marked in respect of travel services, (-81 percent) and transport (-50 percent), which collectively accounted for 79 percent of Sri Lanka's total services exports in 2019. By contrast, world travel and transport services exports declined by 21 percent and 63 percent respectively. It remains to be seen whether this deterioration can be ascribed purely to the disruptions caused by the COVID-19 pandemic.

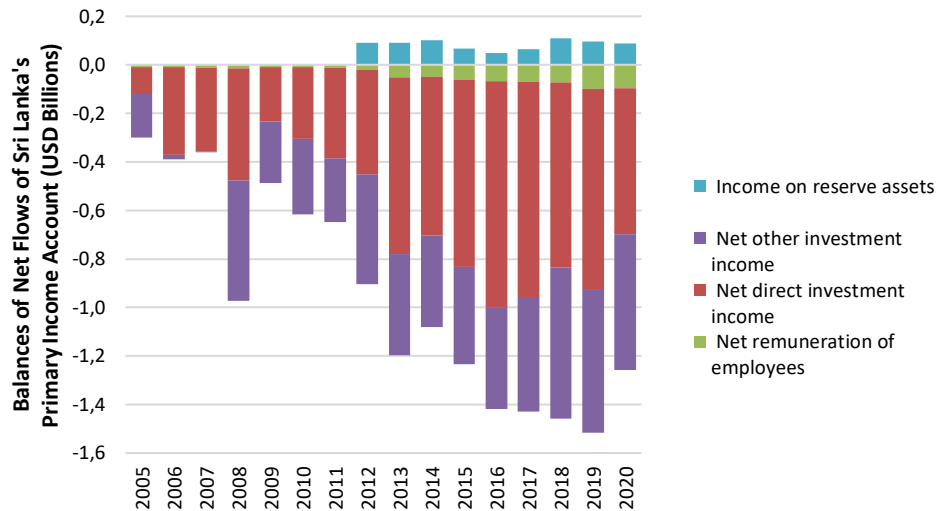
Income Account between 2005 and 2020. While there was a relatively small deficit in recent years in net remuneration of employees the deficit on net direct investment income was generally widening between 2005 and 2016 – from USD112 million to USD935 million. Net other investment income was volatile but increased from USD18 million in 2006 to USD623 million in 2018. Data for portfolio investment income is incomplete<sup>11</sup>.

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<sup>11</sup> Data reflecting portfolio income inflows (credits) is not reflected in the IMF data and data for portfolio investment income outflows (debits) is only available from 2012 onwards. Given the scale of the latter, this could have a material impact on the overall performance of the Primary Income Account.

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Figure 9: Trends in the components of Sri Lanka's Primary Income Account



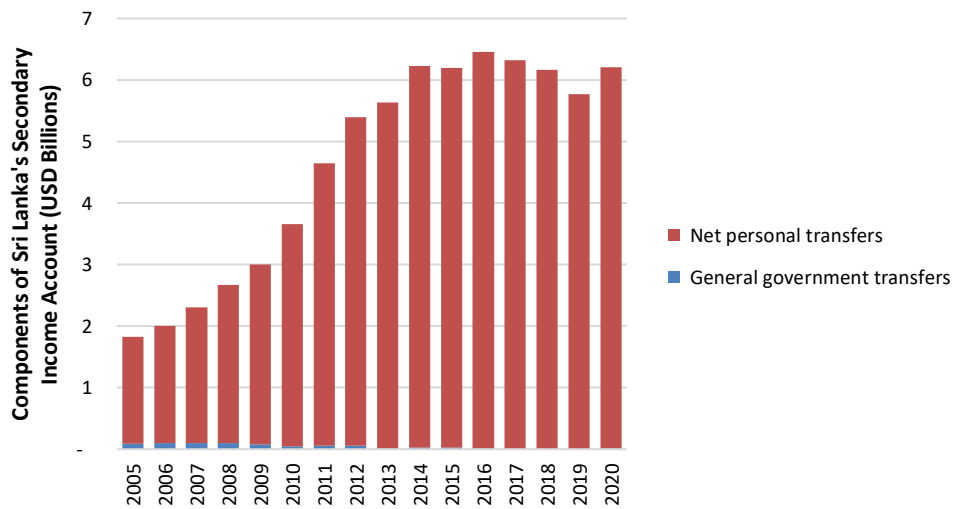
Source of data: IMF Balance of Payments and International Investment Position (BoP/IIP), 2021

NOTE: The data for income on reserve assets and net portfolio investment income is incomplete.

Figure 4 also indicates that Sri Lanka's Secondary Income Account provided an important and growing source of net income on the country's Current Account – partly offsetting the deficits on the Goods and Services and Primary Income accounts. As is indicated in Section 2.2 above, UNCTAD's SFA recognizes that personal transfers (remittances) – which are captured in the Secondary Income Account – may be an important source of foreign exchange for developing economies. As Figure 9 reflects, this was certainly the case for Sri Lanka where net personal transfer inflows increased from USD1.7 billion in 2005 to USD6.4 billion in 2016, before declining to USD5.8 billion in 2019. They recovered to USD 6.2 billion in 2020.



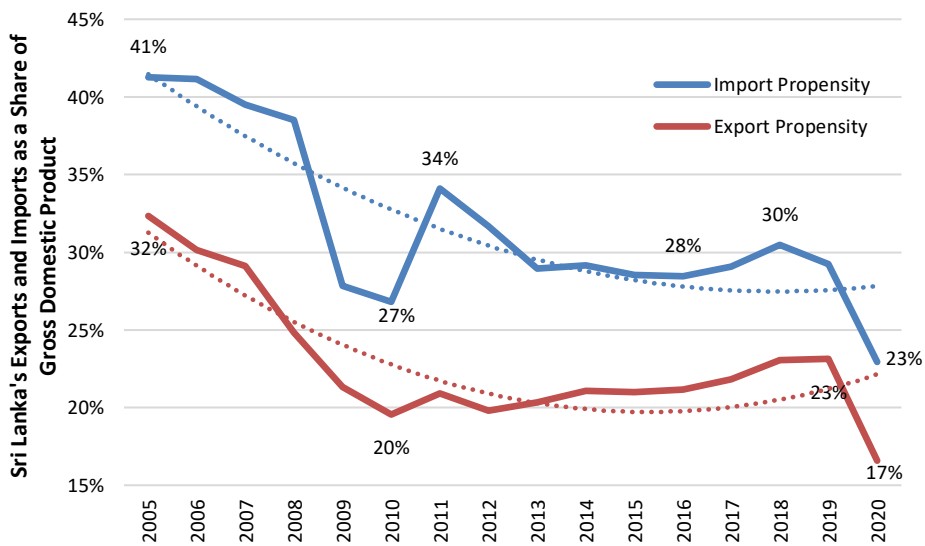
Figure 10: Trends in the components of Sri Lanka's Secondary Income Account



Source of data: IMF Balance of Payments and International Investment Position (BoP/IIP), 2021

NOTE: Data for general government transfers only reflects credits (inflows)

Figure 11: Trends in Sri Lanka's propensity to export and import



Source of data: World Bank World Development Indicators, December 2021

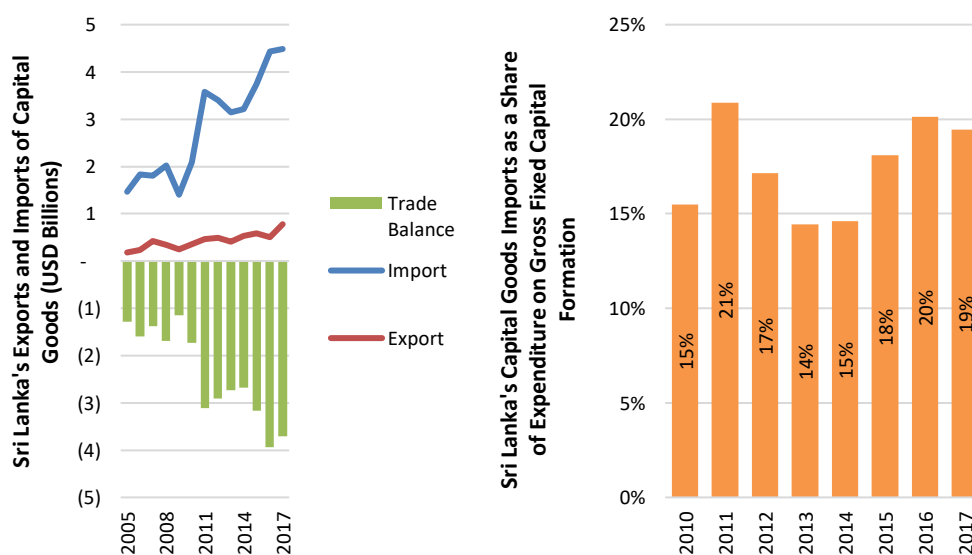
It was noted earlier that raising a country's growth rate in a way that is consistent with balance of payments equilibrium can – according to Thirlwall (2002, p. 78) - only be achieved through structural changes that serve to raise its income elasticity of exports and/or reduce the income elasticity of its imports over the longer term. This is also foundational to the SDFA framework. Figure 10 indicates long-term trends in Sri Lanka's propensity to export and import goods and services. Both trended significantly lower between 2005 and 2010. The

import propensity increased sharply between 2010 and 2011 before declining and then stabilizing in the 28 to 30 percent range. The export propensity trended higher after 2010 – from 20 percent to 23 percent. Both exports and imports decreased sharply as a share of GDP in 2020 due to the disruptions caused by the COVID-19 pandemic.

Generally, capital goods imports can be expected to have a greater impact on the growth potential of an economy than imported consumption goods, while capital goods exports are often used as an indicator of the level of sophistication of that country's manufacturing activities. Figure 11 reflects Sri Lanka's trade in capital goods (left hand side) and the share of capital goods imports of gross domestic fixed capital formation (right hand side). Between 2005 and 2017 capital goods exports increased from USD181 million to USD778 million while imports rose from over USD1.5 billion USD4.5 billion. The trade deficit in capital goods increased from a low of USD1.2 billion in 2009 to USD3.9 billion in 2016 before narrowing slightly to USD3.7 billion in 2017. In that year, the deficit in the trade in capital goods accounted for 59 percent of the country's total deficit on the Goods and Services Account.

Imported capital goods as a share of gross fixed capital formation spending declined from 21 percent in 2011 to 14 percent in 2013 and then increased back to 20 percent in 2016. On average between 2010 and 2017 Sri Lanka was reliant on imports for 18 percent of its gross fixed capital formation.

Figure 12: Sri Lanka's trade in capital goods (LHS) and capital goods imports as a share of expenditure on gross fixed capital formation (RHS)



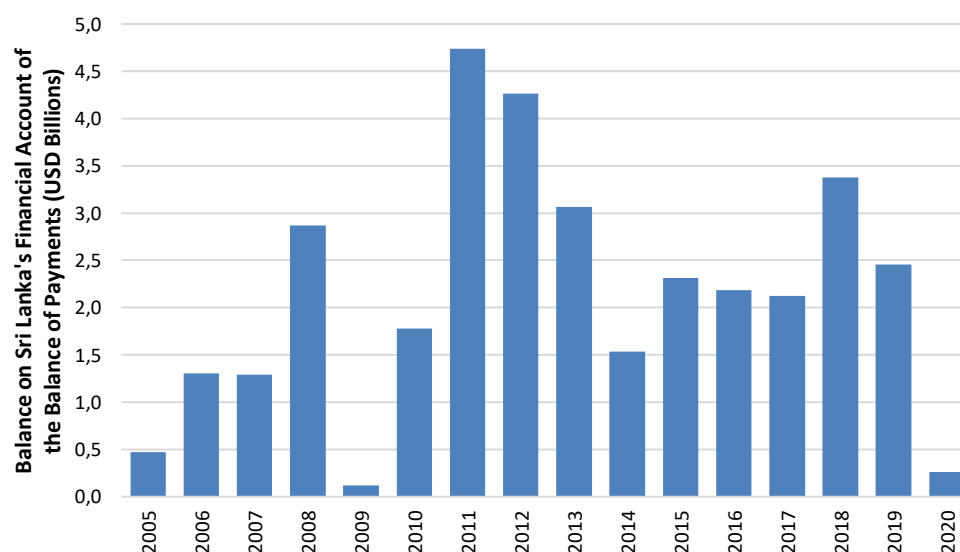
Source of data: World Bank World Integrated Trade Solution database (2021), Department of Census and Statistics, December 2021.

### 3.2.2 The performance of Sri Lanka's Financial Account

The Financial Account of the Balance of Payments records transactions that involve financial assets and liabilities and that take place between residents and non-residents. It can also indicate the functional categories, sectors, instruments, and maturities used for net international financing transactions and represents the flow element of a key variable used in the SDFA, namely net external liabilities.

Figure 12 reflects the balance on Sri Lanka's Financial Account from 2005 to 2020. Throughout this period non-residents were consistently purchasing more Sri Lankan assets than residents were acquiring foreign assets. However, the scale of these flows was volatile: in 2009, net inflows amounted to USD121 million but by 2011 it had risen to USD4.7 billion. It trended lower in subsequent years – reaching USD1.5 billion in 2014, before stabilizing at around USD2.2 billion. A sharp increase in net inflows in 2018 was followed a decline. In 2020, the acquisition of foreign liabilities exceeded increases in foreign assets by USD259 million.

Figure 13: The balance on Sri Lanka's Financial Account



NOTE: Positive values indicate that inflows (acquisition of foreign liabilities) exceeded outflows (acquisition of foreign assets).

Source of data: IMF Balance of Payments and International Investment Position (BoP/IIP), 2021

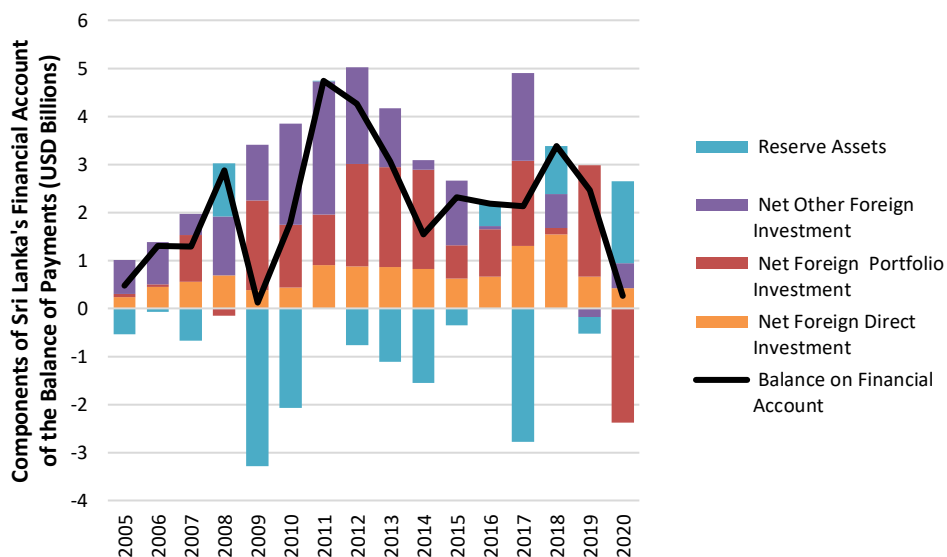
Figure 13 shows the performance of the different components of Sri Lanka's Financial Account together with the overall balance. Net foreign direct investment inflows were consistently positive (i.e. non-residents purchased more Sri Lankan assets than residents purchased foreign assets). Net portfolio investment flows were generally positive, but there was a significant net outflow in 2020. Net other investment – which includes the purchase of debt instruments – was positive (i.e.

purchases by non-residents exceeded purchases by residents) but experienced net outflows in 2019. Changes in reserve assets – which reflect transactions in monetary gold between monetary authorities and/or international finance organisations for reserve purposes - were generally negative (i.e. reflected an increase in foreign assets), except for 2008, 2016, 2018 and 2020.

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Figure 14: The performance of the components of Sri Lanka's Financial Account



NOTE: Negative values indicate that outflows (acquisition of foreign assets) exceeded inflows (acquisition of foreign liabilities). Positive values indicate that inflows exceeded outflows (acquisition of foreign liabilities exceeded acquisition of foreign assets).

Source of data: IMF Balance of Payments and International Investment Position (BoP/IIP), 2021

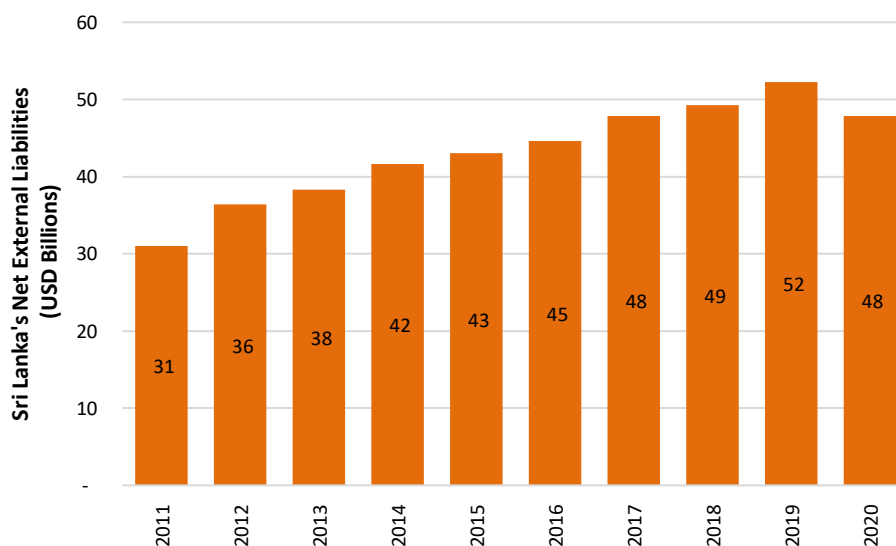
### 3.2.3 Net external liabilities

According to the Balance of Payments and International Investment Position Manual Sixth Edition (BPM6) “(T)he international investment position (IIP) is a statistical statement that shows at a point in time the value and composition of (a) financial assets of residents of an economy that are claims on nonresidents and gold bullion held as reserve assets, and (b) liabilities of residents of an economy to non-residents. The difference between an economy’s external financial assets and liabilities is the economy’s net IIP, which may be positive or negative” (IMF 2009). According to IMF data, at the end of 2019 116 countries had a negative IIP (i.e. foreign liabilities exceeded foreign assets), while 42 had a positive IIP. The SDF framework expresses a negative IIP (where foreign liabilities exceed foreign assets) as a positive value and refers to this as net external liabilities (NEL). It is worth re-stating the external sustainability condition: For a given import elasticity, external financial sustainability will neither deteriorate nor improve if the rate of growth in NEL is the same as the rate of growth in exports plus remittances. If, however, the growth in NEL is faster than the growth in exports plus remittances, the external financial sustainability of the economy concerned will be deteriorating.

Figure 14 reflects the aggregate value of Sri Lanka’s net external liabilities in US dollars. They increased consistently from USD31 billion in 2011 to USD52 billion in 2019, before declining to USD48 billion in 2020.



Figure 15: Aggregate value of Sri Lanka's net external liabilities

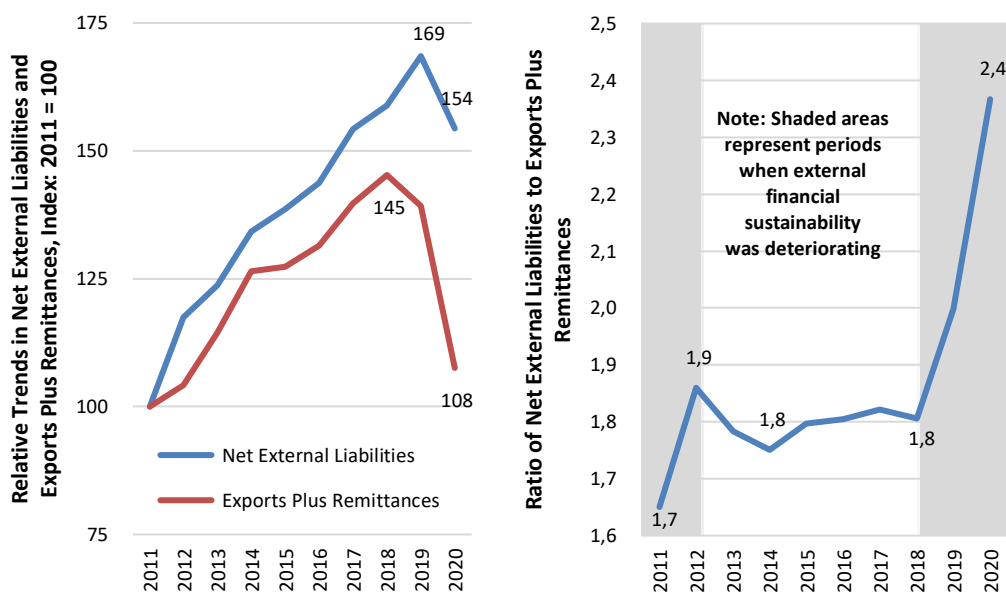


Source of data: IMF Balance of Payments and International Investment Position (BoP/IIP), 2021

When the values of net external liabilities and exports plus remittances are indexed to the same base year, it is apparent - as shown in Figure 15 - that external financial sustainability generally deteriorated between 2011 and 2020 because net external liabilities increased at a faster rate than augmented exports. While there was a relative improvement in 2013 and 2014, this proved short-lived. The pace of deterioration accelerated significantly after 2018. The ratio of net external liabilities to exports plus remittances (right hand side) rose from 1.65 in 2011 to 2.37 in 2020. Based on available data for Sri Lanka's goods and services exports, remittances and international investment position<sup>12</sup>, it appears that this ratio may have deteriorated further in 2021.

<sup>12</sup> Till September 2021, i.e. the first three quarters of 2021.

Figure 16: Relative trends in the value of net external liabilities and exports plus remittances (LHS) and the ratio of net external liabilities to exports plus remittances (RHS)



Source of data: IMF Balance of Payments and International Investment Position (BoP/IIP), 2021

### 3.2.4 Net external debt in foreign currency relative to exports

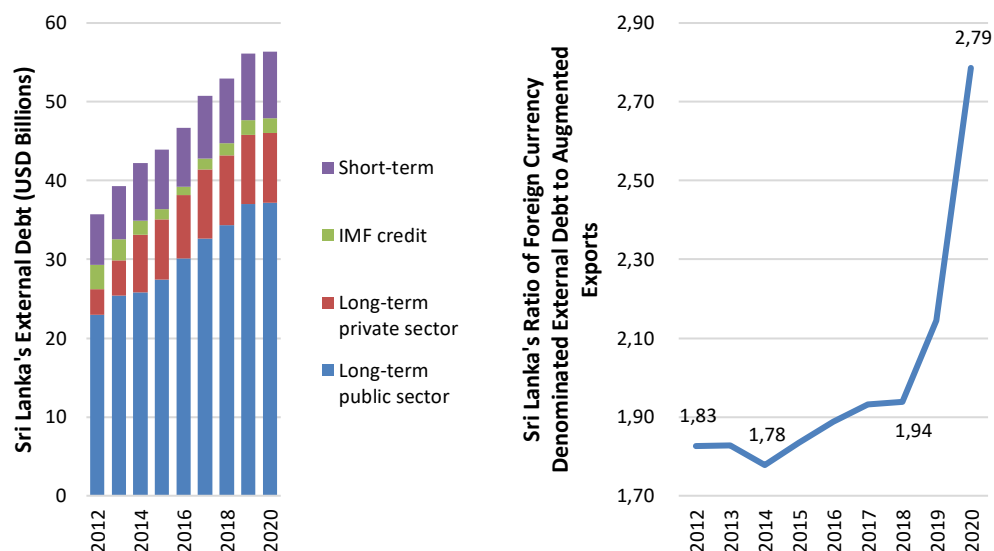
As was noted in Section 2.2 above, the extent to which foreign debt is denominated in foreign currency can add an additional element to the external constraint as sufficient foreign currency needs to be generated to service that debt. Figure 16 (lefthand side) indicates the composition of Sri Lanka's foreign debt between 2012 and 2020. In 2020, long-term public sector debt made up 66 percent of total external debt, while long-term private sector debt added 16 percent and short-term debt a further 15 percent. The balance (3 percent) consisted of IMF credit. For practical purposes, all this debt is denominated in foreign currency.

Figure 16 (righthand side) shows the ratio of foreign currency denominated external debt to exports plus remittances. This ratio has risen sharply – particularly in recent years – from 1.78 in 2014 to 2.79 in 2020. This means that the pace at which Sri Lanka has accumulated external debt has risen faster than its capacity to service that debt without incurring additional costs<sup>13</sup>. In its recent (2022) Article IV assessment, the IMF (2022) notes that the need to repay scheduled external debt has resulted in shortages of foreign currency.

<sup>13</sup> Although inflows (incurrence of liabilities) through the financial account also provide a source of foreign currency, they are subject to annual interest and other (profits, royalties) costs. Export earnings and remittances are not subject to such costs.



Figure 17: Composition of Sri Lanka's external debt (LHS) and ratio of foreign currency denominated debt to augmented exports (RHS)



Source of data: World Bank International Debt Statistics, 2022; IMF Balance of Payments and International Investment Position (BoP/IIP), 2021.

Table 2 shows the currency composition of Sri Lanka's public and publicly guaranteed foreign currency denominated debt in 2010, 2015 and 2020. It indicates that in 2020 77 percent of this debt was denominated in US dollars – up from 48 percent in 2010. Over the same period, debt denominated in Japanese yen declined from 28 percent to 10 percent while Euro-denominated debt decreased from 8 percent to 4 percent.

Table 2: Currency composition of Sri Lanka's public and publicly guaranteed foreign currency denominated debt

Currency	Share of Total Public and Publicly Guaranteed Foreign Currency Denominated Debt		
	2010	2015	2020
U.S. dollars	48%	73%	77%
Japanese yen	28%	12%	10%
All other currencies	3%	3%	4%
Euro	8%	5%	4%
SDR	5%	4%	4%
Multiple currencies	8%	3%	2%
Total	100%	100%	100%

Source of data: World Bank International Debt Statistics, 2022.

### 3.3 Application of the S DFA framework to Sri Lanka's external financial position

In relation to external financial sustainability the S DFA identifies the following optimal/boundary condition:

$$\frac{M - X^*}{X^*} = \left( \frac{g_{X^*} - r}{1 + g_{X^*}} \right) \frac{NEL}{X^*}$$

In essence, the boundary condition implies that the external financial sustainability of a country will be improving for as long as the rate of growth in augmented exports ( $g_{X^*}$ ) is greater than the average cost of net external liabilities ( $r$ ). Conversely, a country will be moving away from external financial stability during periods when the rate of growth in augmented exports is less than the average cost of net external liabilities

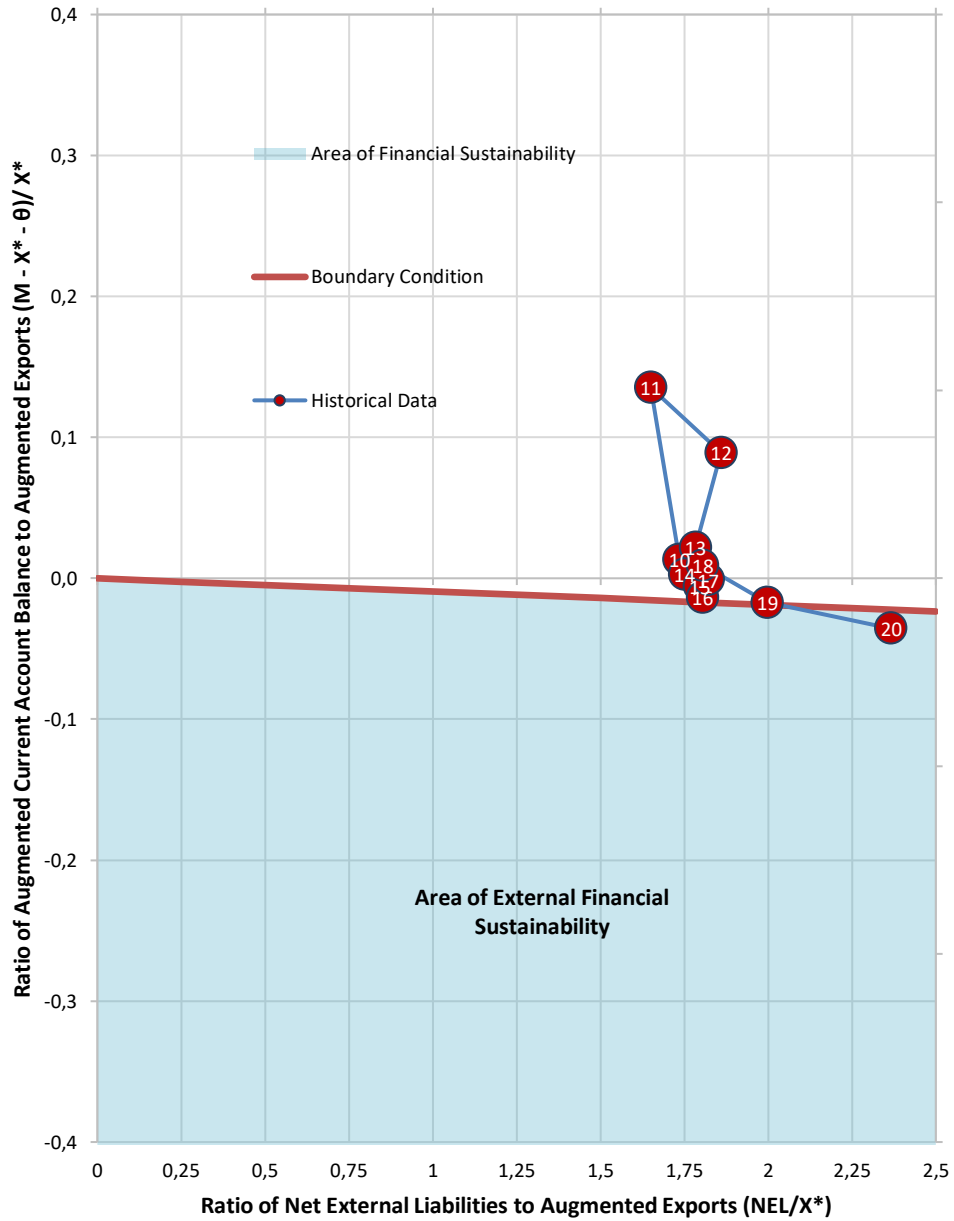
Figure 17 reflects Sri Lanka's area of external financial sustainability according to the S DFA model. The dots reflect annual combinations of what is measured on the Y axis  $((M - X^* - \theta) / X^*)$  and the X axis  $(NEL/X^*)$  between 2010 and 2020. They are numbered from 10 to 20 with each number corresponding with the year to which the data applies, with 10 reflecting 2010 data and 20 reflecting 2020 data. The boundary condition shows what the optimal combinations of the ratio of the Augmented Current Account balance to Augmented Exports and the ratio of Net External Liabilities to Augmented Exports could have been over this period given the growth performance of augmented exports and the average cost of net external liabilities.

It is noteworthy that Sri Lanka operated outside the area of external financial sustainability in every year with the exception of 2016, 2019 and 2020. In these three years Sri Lanka achieved an Augmented Current Account surplus<sup>14</sup>. In the other eight years Sri Lanka was – given its exports and remittance earnings – too reliant on imports. Given its prevailing import propensity, it was growing too fast.

These results and their potential policy implications highlight one of the challenges of applying a static analysis to dynamic processes. What is important is not so much where a country is located on the graphical plane, but whether it is moving towards, or away from, financial sustainability. Are developments and policy choices serving to create greater policy space within which to operate over time (consistent with an increasing gradient of the boundary condition), or are they serving to limit choices and policy options (reflected in a decreasing gradient of the boundary condition)?

<sup>14</sup> Exports of goods and services plus remittance credits (inflows) plus the balance on the Secondary Income Account less personal transfers plus the balance on the Capital Account were greater than imports of goods and services.

Figure 18: Sri Lanka's area of external financial sustainability according to the SDFA



Source of data: IMF Balance of Payments and International Investment Position (BoP/IIP), 2021, Bhering (2021)

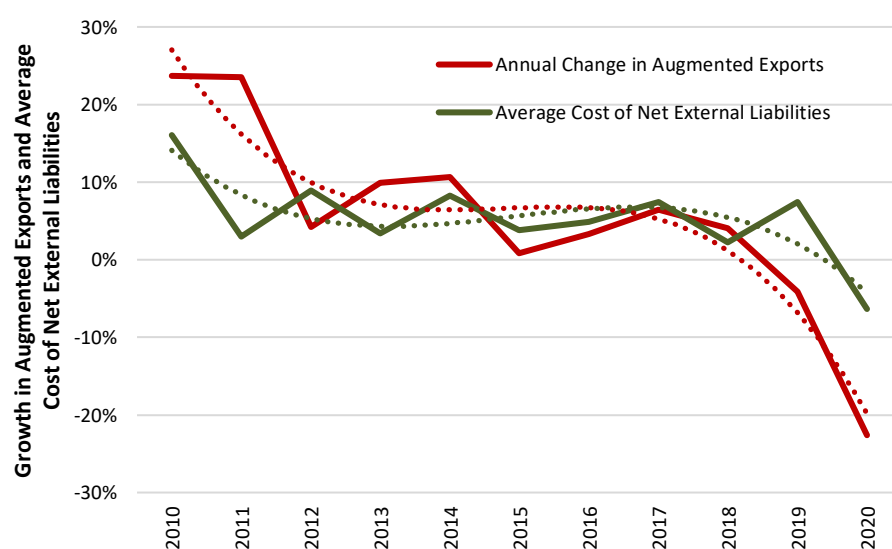
It is noteworthy that the gradient of the boundary condition is negative. This limits the size of the area of external financial sustainability but also means that given prevailing net external liabilities and their costs – Sri Lanka needs to sustain an Augmented Current Account<sup>15</sup> surplus in order to be externally sustainable. A

<sup>15</sup> Exports of goods and services plus remittance credits (inflows) plus the balance on the Secondary Income Account less personal transfers plus the balance on the Capital Account should be greater than imports of goods and services.

positive gradient to the boundary condition would increase the area within which Sri Lanka could sustainably operate which would, in turn, expand the range of policy options available. To achieve a progressively more positive gradient Sri Lanka would need to adopt policies and programmes that progressively increase the gap between the growth of augmented exports ( $gX^*$ ) and the average cost of net external liabilities ( $r$ ). This implies accelerating the growth of exports of goods and services plus remittances and/or reducing the average cost of net external liabilities. The latter will be influenced by a range of things, including reducing the propensity to import (and thereby needing to borrow less externally for a given rate of economic growth), attracting more foreign investment inflows or reducing outflows, and restructuring external liabilities in order to reduce the cost of servicing them.

The historical performance of the two critical variables is reflected in Figure 18. It is noteworthy that while the growth in augmented exports was trending lower over much of the period, the average cost of net external liabilities was (2020 aside) relatively more stable.

Figure 19: Rates of growth in adjusted exports and average cost of net external liabilities



Source of data: IMF Balance of Payments and International Investment Position (BoP/IIP), 2021, Bhering (2021)

### 3.4 Sri Lanka's public sector finances

According to the SDFA, the financial position of a country's public sector will be moving away from sustainability if the rate at which its public sector net liabilities (**PSNL**) increases is faster than the rate of growth of an indicator that reflects the capacity for servicing and repayment of those liabilities. The SDFA uses GDP ( $Y$ ) for this purpose.

In its original form Sri Lanka's Fiscal Management (Responsibility) Act (FMRA) No. 3 of 2003 set out three key fiscal limits to be achieved by specified dates. These were:

- i. A prohibition on the budget deficit exceeding 5 percent of GDP from 2006 onward. PublicFinance.lk – a private think tank – notes that the deficit has consistently remained above this limit (in 2020 and 2021 it exceeded 10 percent of GDP) and that while other limits contained in the FMRA were subsequently amended, this provision was not.
- ii. The total liabilities of government should, in terms of the original legislation, not exceed 85 percent of GDP by the end of 2006 and not exceed 60 percent of GDP by the end of 2013. An amendment to the Act in 2013 increased the 60 percent limit to 80 percent and required that the 60 percent target be achieved by the end of 2020. A further amendment made in June 2021 extended the timeframe for meeting the 60 percent of GDP debt limit till 2030.
- iii. A limit on the government's contingent liabilities. The FMRA originally limited government's contingent liabilities to not more than 4.5 percent of GDP. This limit was subsequently increased to 7 percent in 2013 and 10 percent in 2016 to enable compliance. In June 2021, another FMRA amendment increased the limit further to 15 percent of GDP.

### 3.4.1 Sri Lanka's public sector revenue and expenditure trends and fiscal balance

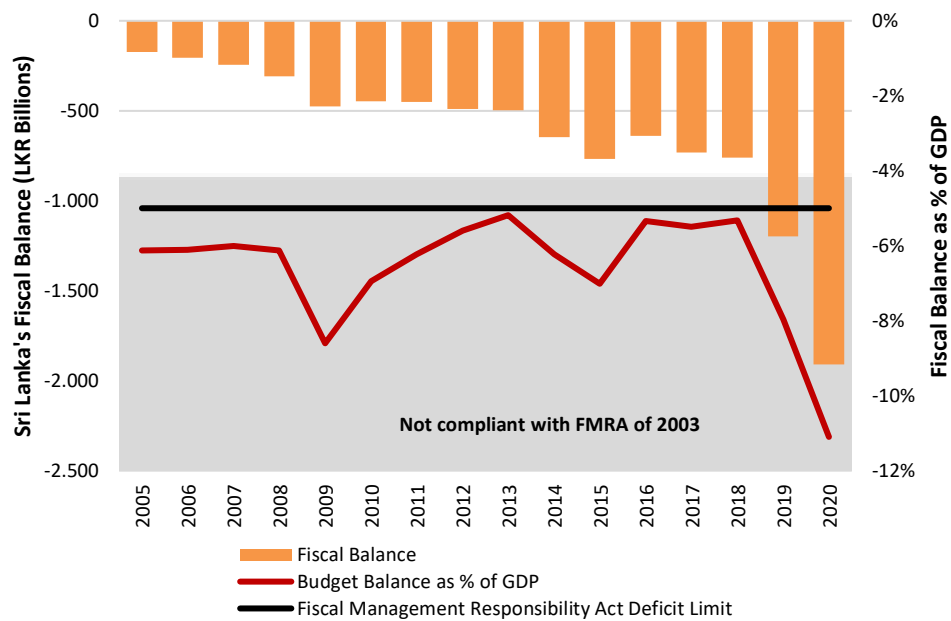
In its Medium Term Macro Fiscal Framework (MTMFF) for 2021 to 2025, Sri Lanka's National Treasury (2021) outlines key macroeconomic objectives and fiscal targets. The elements most relevant to public sector financial sustainability are:

- Increasing the ratio of government revenue to GDP to 15.5 percent and tax revenue to 13.9 percent of GDP by 2025.
- Containing the budget deficit to less than 5 percent of GDP in 2025.
- Achieving a primary surplus by 2025 and sustaining this in subsequent years.
- Reducing the government debt to GDP ratio to under 90 percent in 2025.

The ratio of government revenue to GDP dropped from 14.1 percent to 12.6 percent of GDP between 2016 and 2019. It declined further to 9.1 percent in 2020 due to the COVID-19 pandemic. If the ratio of revenue to GDP had been maintained at 2016 levels, revenue collections would have been LKR738 billion (54 percent) higher than they actually were in 2020.

Figure 19 indicates Sri Lanka's overall fiscal balance between 2005 and 2020 – both in absolute terms and as a share of GDP. The latter is shown relative to the fiscal deficit limit of 5 percent of GDP that is contained in the FMRA. It is noteworthy that Sri Lanka has consistently breached this limit.

Figure 20: Sri Lanka's overall fiscal balance relative to deficit rule

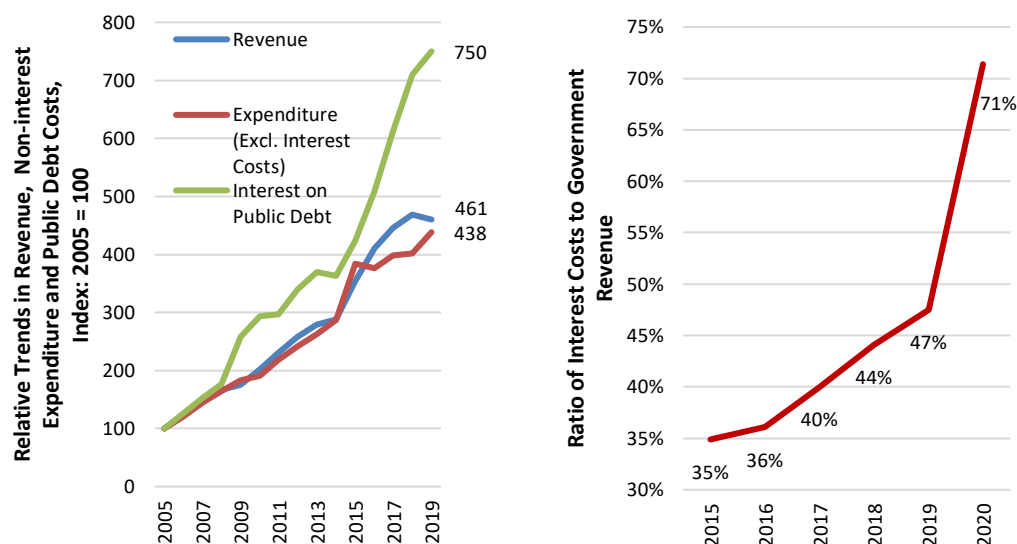


Source of data: IMF Fiscal Monitor (2021), IMF World Economic Outlook (2021),

As Figure 20 (lefthand side) shows, the reason for the persistent – and in recent years increasing – fiscal deficit is not due to diverging trends in respect of revenue and non-interest expenditure: while revenue rose by 361 percent between 2005 and 2019, non-interest expenditure increased by 338 percent. However, over the same period interest payments on government debt increased by 650 percent. One of Sri Lanka's most significant fiscal challenges is that – as reflected in Figure 20 (righthand side) - the ratio of interest costs to revenue has risen significantly. Between 2010 and 2015 it was consistently in an already-high 35 to 40 percent range. It then rose to 47 percent between 2016 and 2019 and - with the collapse of tax collections in 2020 due to the COVID-19 pandemic – interest costs on government debt were equivalent to 71 percent of revenue collections. According to PublicFinance.lk, this is the highest in the world amongst countries with high debt levels.

Interest costs have effectively “crowded out” many other forms of expenditure, and while 2020 was something of an anomaly the pre-COVID trends were already severely limiting the options available to policymakers. This is also relevant to Sri Lanka's progress in meeting the United Nations Sustainable Development Goals (SDGs).

Figure 21: Relative trends in Sri Lanka's central government revenue, total expenditure (excluding interest costs) and public debt costs (LHS) and ratio of interest costs to government revenue (RHS)



Source of data: IMF Fiscal Monitor (2021), IMF Government Finance Statistics (2021)

### 3.4.2 Sri Lanka's public sector net liabilities

The SDFA is focused on public sector net liabilities (or net debt) – which represent public sector liabilities less public sector assets. Unfortunately there is no consistent data series reflecting public sector net liabilities for Sri Lanka. There is data on the gross debt of central government for the full period of the analysis (2010 to 2020) and data on gross public sector debt from 2015 to 2020. This analysis has therefore used data reflecting the gross debt of the central government, rather than public sector net liabilities/debt. However, as Table 3 indicates, this results in an underestimation of the debt position. In 2020, the inclusion of other elements of public sector debt adds a further LKR1.3 trillion to central government debt (equivalent to 8.7 percent of GDP).

Table 3: Composition of Sri Lanka's public and publicly guaranteed debt

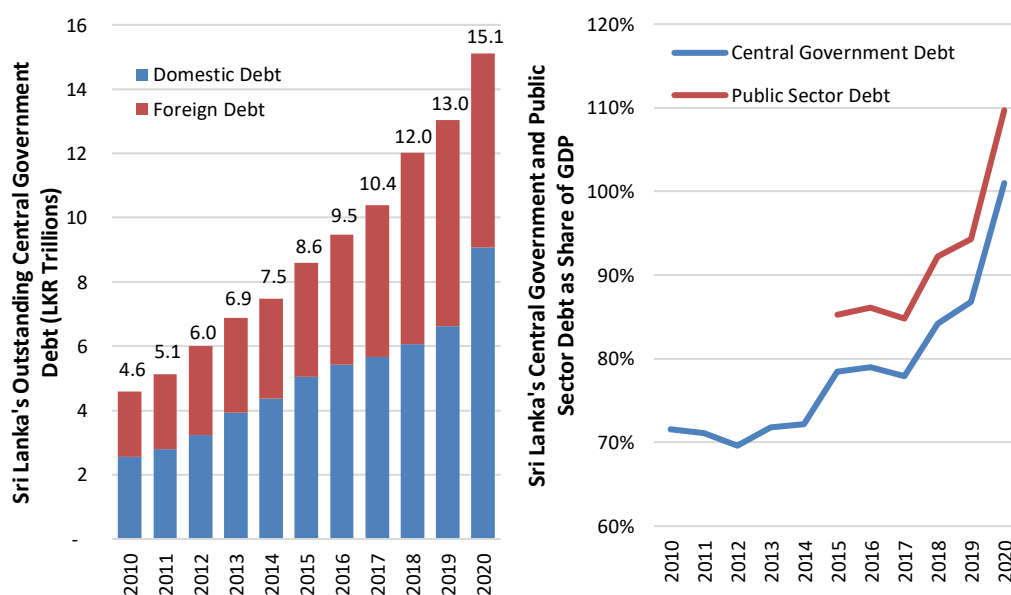
Description	LKR Billions					
	2015	2016	2017	2018	2019	2020
Central Government Debt	8,599	9,479	10,383	12,031	13,032	15,117
Foreign Project Loans Received by SOEs without Public Guarantee	338	332	330	366	346	324
Public Guaranteed Debt	407	523	591	782	778	986
Total Public Debt	9,345	10,335	11,304	13,178	14,155	16,427

Description	% of GDP					
	2015	2016	2017	2018	2019	2020
Central Government Debt	78.5%	79.0%	77.9%	84.2%	86.9%	100.6%
Foreign Project Loans Received by SOEs without Public Guarantee	3.1%	2.8%	2.5%	2.6%	2.3%	2.2%
Public Guaranteed Debt	3.7%	4.4%	4.4%	5.5%	5.2%	6.6%
Total Public Debt	85.3%	86.1%	84.8%	92.2%	94.3%	109.3%

Source of data: Central Bank of Sri Lanka, Economic and Social Statistics. (2021)

Figure 21 contrasts the level of Sri Lanka's gross central government debt (left hand side) and the share of gross debt of nominal GDP (right hand side). Gross debt rose from LKR4.6 trillion in 2010 to LKR15.1 trillion in 2020. As a share of GDP gross central government debt levels increased from 70 percent in 2012 to 78 percent by 2017 and then sharply to 101 percent in 2020. Public sector debt rose from 85 percent of GDP in 2015 to 109 percent in 2020.

Figure 22: Sri Lanka's central government gross domestic debt and gross foreign debt (LHS) and gross central government and public sector debt as a share of GDP (RHS)



Source of data: Central Bank of Sri Lanka, Economic and Social Statistics. (2021)



### 3.5 Application of the SDF framework to Sri Lanka's public finances

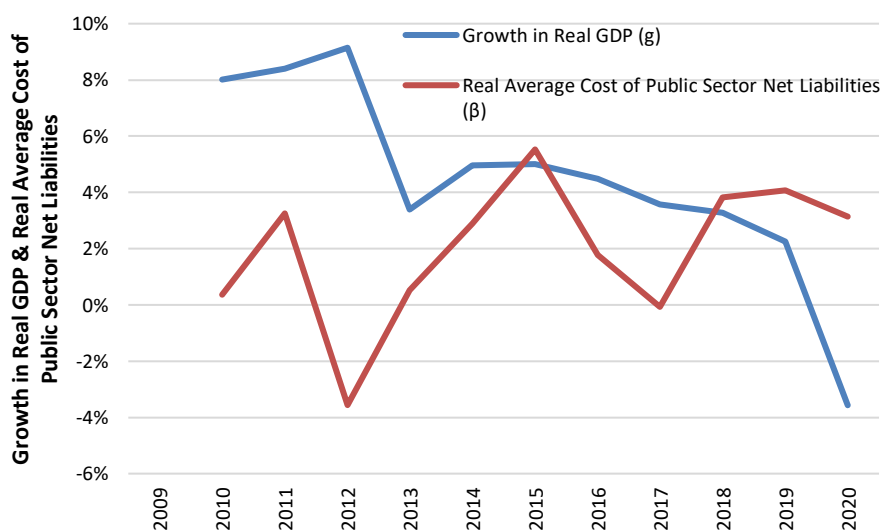
To recap, the public finance sustainability boundary condition is as follows:

$$\frac{G + F - T_0}{Y} = \left( \frac{g - \beta}{1 + g} \right) \frac{PSNL}{Y}$$

Generally, this means that public finances will be moving away from sustainable levels if the rate of growth (**g**) of the capacity to repay public sector net liabilities (**PSNL**) is lower than the average cost of servicing those liabilities (**β**).

The relative trends in both **g** and **β** for Sri Lanka are shown in Figure 21. The rate of growth in the capacity to repay liabilities (**g**) was higher than the average cost of servicing those liabilities (**β**)<sup>16</sup> between 2009 and 2018 – suggesting that the country's public finances were becoming more sustainable. The two values converged in 2019 and it is likely that in 2020 the average cost of PSNL was higher than the rate of growth in real GDP – given the latter's COVID-19 related contraction.

Figure 23: Relative trends in the growth in real GDP (**g**) and the real average cost of servicing public sector net liabilities (**β**)



Source of data: IMF Fiscal Monitor (2021), IMF Government Finance Statistics (2021), Bhering (2021).

Figure 23 reflects Sri Lanka's area of public sector financial sustainability. It also shows the "legally-permitted" area of operation once account is taken of the two

<sup>16</sup> The nominal  $\beta$  value is calculated as the interest paid in the current year ( $t_0$ ) divided by the sum of Sri Lanka's net debt in the previous period ( $t_{-1}$ ) plus the change in net debt in the current period. The real  $\beta$  value was calculated by subtracting the annual change in the GDP deflator between  $t_0$  and  $t_{-1}$  from the nominal  $\beta$  value.

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relevant fiscal rules contained in the FMRA (i.e. that the deficit should not exceed 5 percent of GDP and that public sector debt should not exceed 80 percent of GDP<sup>17</sup>). This is the area below and to the left of the two lines depicting the fiscal rules. The orange dots indicate combinations of the public sector balance to GDP and the ratio of PSNL to GDP using actual data for Sri Lanka. The numbers on each dot reflect the year that it depicts, so 10 is the data for 2010 and 20 is the data for 2020. As has been noted, since the FMRA was adopted in 2003 the deficit has never complied with the fiscal deficit rule and the Act has never been amended to ensure compliance. Similarly, while the FMRA's debt limit has repeatedly been amended, the ratio of central government debt to GDP exceeded the target between 2018 and 2020 and seems likely to have continued to do so in 2021. With the amendment passed in 2021, fiscal authorities have till 2030 to bring the debt ratio below the 80 percent of GDP threshold. It should, however, be noted that central government debt constitutes a narrower definition of the level of public sector indebtedness. As Table 3 and Figure 21 (righthand side) indicate, once account is taken of the additional liabilities of the public sector, the ratio of debt to GDP increases materially. In 2020 the increase was equivalent to 8.3 percent of GDP.

It is apparent from Figure 23 that over the period 2010 to 2020 Sri Lanka's public finances operated far outside the sustainable area (shaded in green), and that in recent years (2018 to 2020) they moved further away from sustainability.

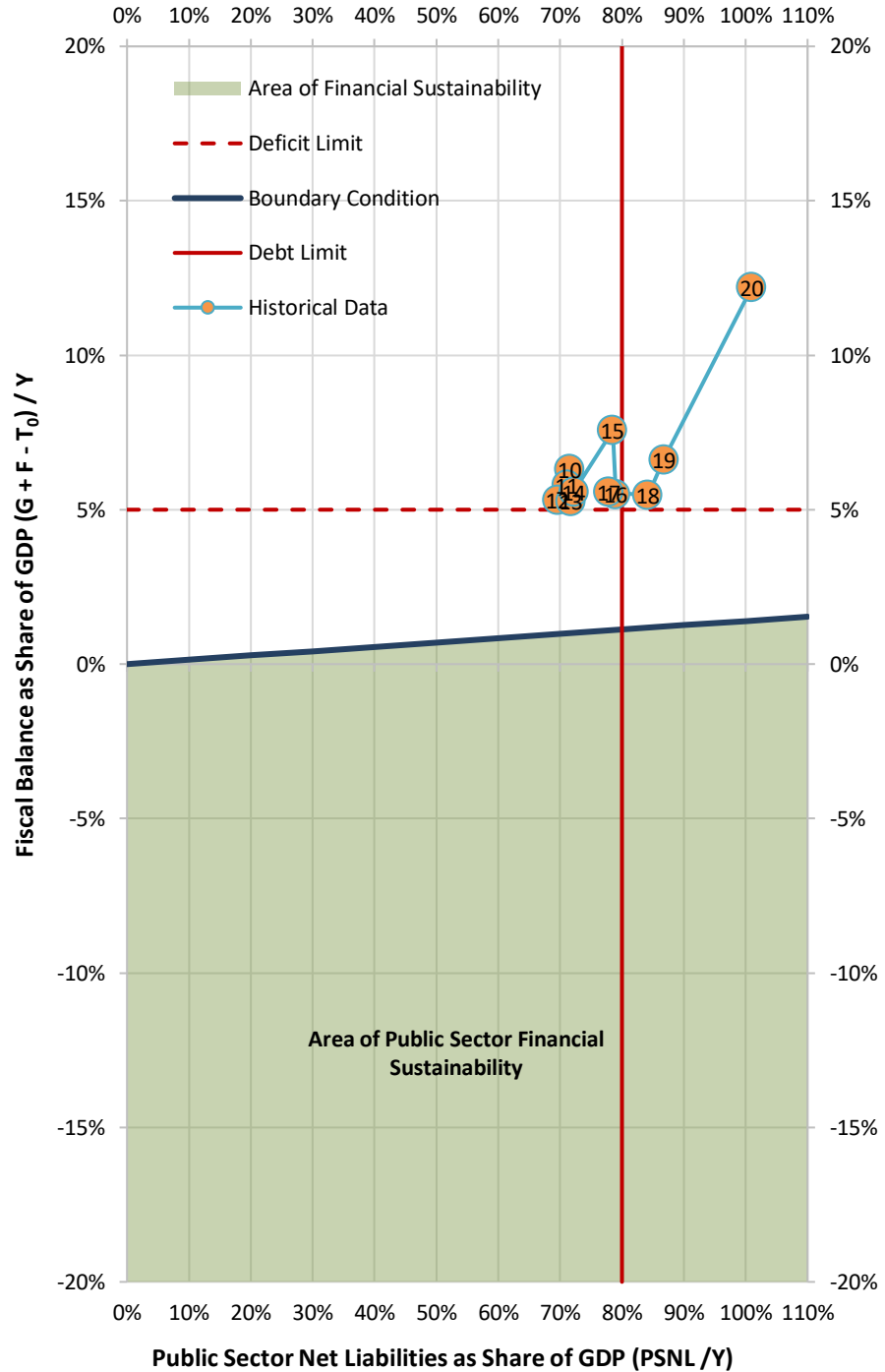
The positive gradient of the boundary condition reflects the fact that – as shown in Figure 22 – the rate of growth in real GDP has generally been greater than the average real cost of public sector net liabilities. However, this was not the case in 2015 or between 2018 and 2020. These years coincide with movements further away from the area of public sector financial sustainability.

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<sup>17</sup> Note that this limit has been amended on a number of occasions. In terms of the original legislation, public sector liabilities should not have exceeded 85 percent of GDP by the end of 2006 and not exceeded 60 percent of GDP by the end of 2013. An amendment to the Act in 2013 increased the 60 percent limit to 80 percent in 2013 and extended the time frame for compliance till 2020. A further amendment made in June 2021 allows the government to extend the period by which the ratio of central government debt to GDP is reduced to 60 percent till 2030.

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Figure 24: Sri Lanka's area of public finance sustainability



Source of data: IMF Fiscal Monitor (2021), IMF Government Finance Statistics (2021), Bhering (2021). Ministry of Finance, Sri Lanka (2022)

### 3.6 Application of the integrated SDFA framework to Sri Lanka

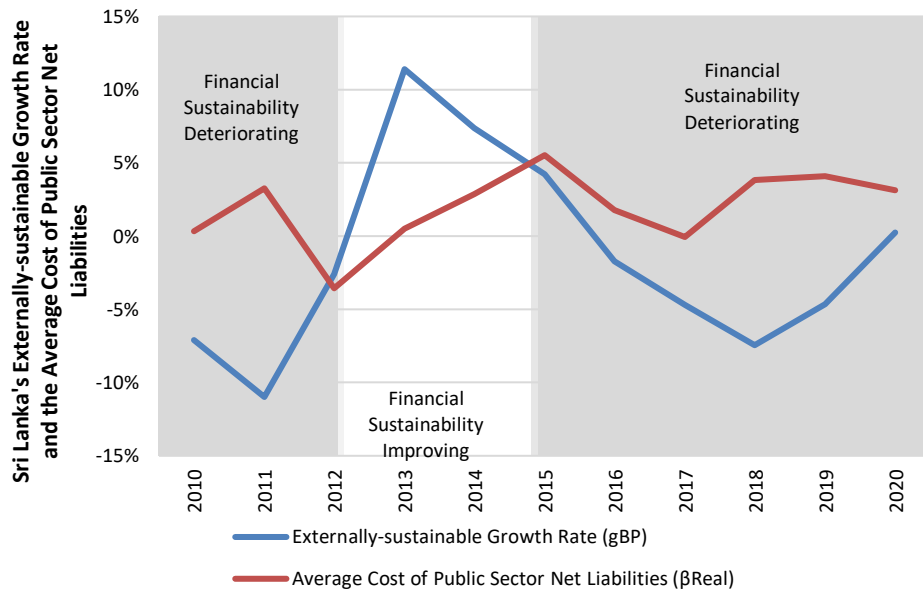
As has been noted, one of the unique aspects of the SDFA model is that it integrates both the external financial constraint and the public sector financial constraint into a unified model. The optimal/boundary condition that determines sustainability is given by the following equation:

$$\frac{G + F - T_0}{Y} = \left( \frac{g_{BP} - \beta}{1 + g_{BP}} \right) \frac{PSNL}{Y}$$

This essentially means that a country (in this case Sri Lanka) will be operating in a financially sustainable manner for as long as the rate of growth that is consistent with external financial sustainability ( $g_{BP}$ ) is greater than the average cost of public sector net liabilities ( $\beta$ ). When this is not the case, the country concerned will be moving away from a sustainable financial position.

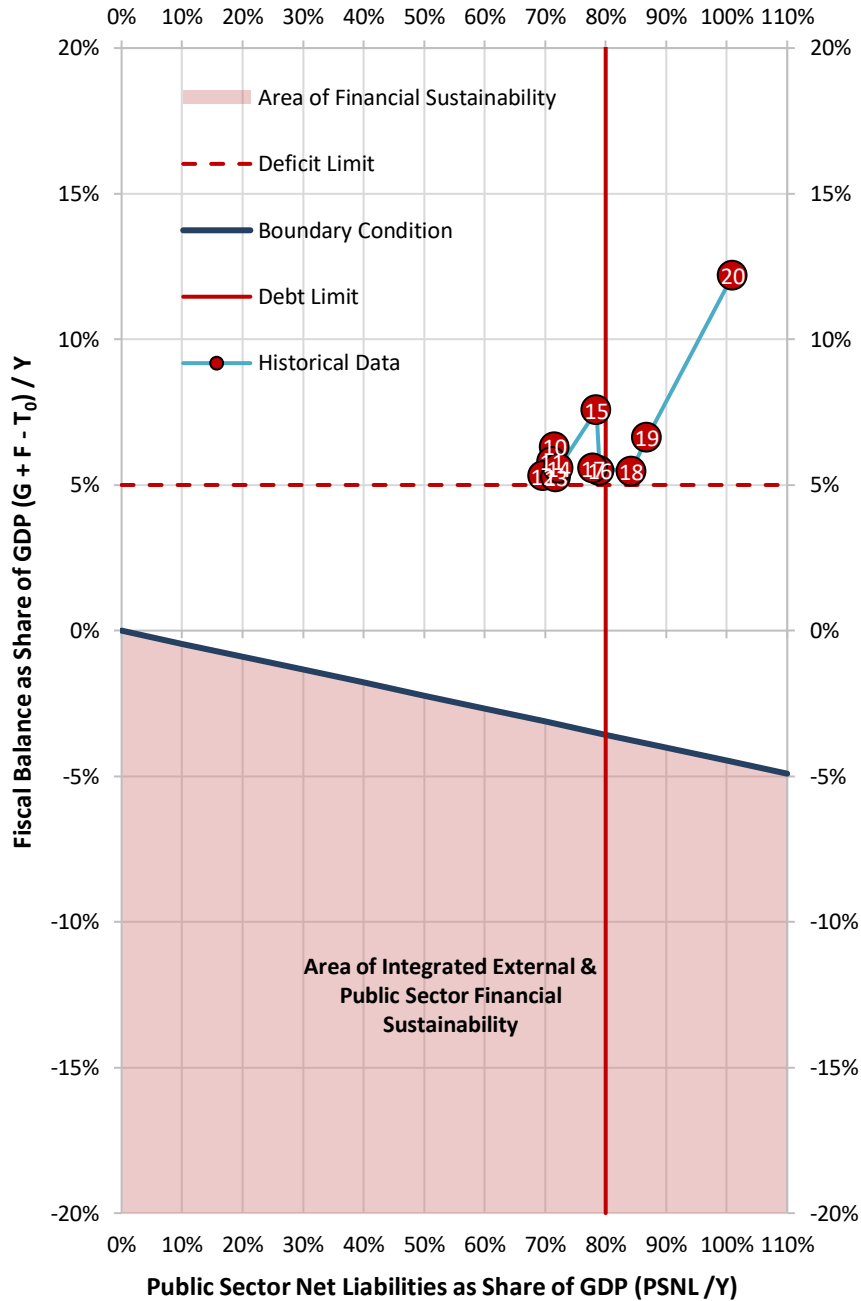
Figure 24 shows the relative growth rates of both  $g_{BP}$  and  $\beta$ . The shaded areas represent periods when Sri Lanka was moving away from integrated financial sustainability, while the unshaded areas reflect periods in which the country's external and public sector net liabilities were becoming more financially sustainable. It is apparent that when both the external financial constraint and the public sector financial constraint are taken into account, the country's integrated financial situation has become progressively less sustainable since 2015.

Figure 25: Sri Lanka's integrated financial sustainability



Source of data: IMF Fiscal Monitor (2021), IMF Government Finance Statistics (2021), Bhering (2021).

Figure 26: Sri Lanka's integrated external and public sector financial sustainability



Source of data: IMF Fiscal Monitor (2021), IMF Government Finance Statistics (2021) IMF Balance of Payments and International Investment Position (BoP/IIP) (2021), Bhering (2021). Ministry of Finance, Sri Lanka (2022)

Figure 25 indicates Sri Lanka's historical performance in relation to this integrated financial sustainability. It is worth noting that the actual performance – reflected

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in the numbered red dots – is the same as for the public sector financial constraint (Figure 23). What has changed is the boundary condition and the area of financial sustainability, which are determined by **the rate of growth in real GDP that is externally sustainable**, and the average real cost of public sector net liabilities. It is noteworthy that whereas the gradient of the boundary condition in relation to the public sector financial constraint was marginally-positive, this boundary condition has a marked negative gradient – which means that a) between 2010 and 2020 Sri Lanka was operating even further away from financially-sustainable levels than the public sector financial sustainability analysis suggested; and b) looking forward the country’s policy space is even more limited.

## 4 Policy implications

It is clear from the preceding analysis that Sri Lanka has been operating in ways that are not financially sustainable for much of the past decade. Periods of improvement (such as between 2012 and 2015) were not sustained for long enough to bring about a material change to a deteriorating trajectory. Following the SDFA framework’s central tenet that the external constraint establishes an upper bound for long-term growth and, hence, for the long run sustainability of the public sector, the country’s first major challenge is that it has been operating a deficit on the Current Account of the Balance of Payments for the entire period of the analysis. It is important to note that the scale of the Current Account deficit was significantly reduced by remittance inflows – which are a function of the significant net emigration trends that Sri Lanka has experienced over an extended period and a key feature of the SDFA framework. As a result of these Balance of Payments trends, net external liabilities rose much faster than the capacity to service them – as reflected in Figure 15 (righthand side) which indicates that the ratio of net external liabilities to augmented exports increased from 1.7 to 2.4 between 2010 and 2020. The country’s deteriorating external solvency is also reflected in the fact that total reserves as a share of total external debt declined from over 33 percent in 2010 to 10 percent in 2020. Gold and foreign exchange reserves only covered 3.3 months of imports in 2020, compared with 5.34 months in 2010<sup>18</sup>.

While Sri Lanka managed to reduce its dependence on imports over the study period (see Figure 10) – from over 40 percent in 2010 to around 30 percent in the pre-COVID years – the contribution made by exports to GDP also declined - from 32 percent to 23 percent over the same period. This occurred despite increases in Sri Lanka’s share of both world goods exports and world services exports. According to the SDFA framework, these trends - together with the accompanying rapid increase in net external liabilities referred to earlier - mean that the country would have required an average annual contraction in real GDP of 1.62 percent<sup>19</sup> between 2010 and 2019 to limit the demand for imports and make the external financial

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<sup>18</sup> World Bank Data (2022).

<sup>19</sup> The average value for **g<sub>BP</sub>** between 2010 and 2019.

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position sustainable. Instead, Sri Lanka averaged real GDP growth of 5.3 percent a year over this period.

Correcting the lack of external solvency will require a combination of policy interventions that collectively serve to reduce the country's import propensity further, while simultaneously raising the rate of growth in augmented exports. Since there are signs that personal transfer inflows (remittances) peaked in 2016 (see Figure 9), the onus for such growth will be largely on expanding goods and services exports. A diversification away from a high reliance on clothing and textile exports - which accounted for 44 percent of Sri Lanka's merchandise exports in 2019 (see Table 1) - may be warranted.

The pressure on an improved export performance would be reduced if the country was able to progressively increase the extent of net inflows (accumulation of foreign liabilities) and/or reduce the extent of net outflows through the Financial Account. This means that the country will need to enhance efforts to create a more conducive environment for domestic investment for both local and foreign investors. However, it should be noted that increased inflows through the Financial Account increase external liabilities that need to be serviced (with profits, interest, royalties etc.) in subsequent periods. This has external solvency implications.

The crowding-in of private investment through appropriate public infrastructure investments that facilitate further productivity gains for agricultural production and the diversification of manufactured exports would be desirable. Programmes that assist new exporters to access foreign markets, programmes that seek to diversify exports away from sunset industries towards products encompassing new technologies and programmes that support firms and sectors with revealed competitiveness (i.e. growing global market shares) to increase the scale of their operations and export activities may be appropriate. Efforts can also be made to progressively restructure external debt to secure more favourable terms – although this is likely to be difficult considering current perceptions and evidence of foreign exchange shortages.

Another feature of Sri Lanka's economy that has contributed to the rapid increase in net external liabilities is the fact that a comparatively high proportion of government debt is owed to foreign lenders. In 2020 66 percent of the country's external debt was long-term debt of the public sector (see Figure 16). In addition, in 2019 almost half (48 percent) of central government debt was owed to foreign lenders (see Figure 21). While this dropped to 40 percent in 2020, it remains high compared to other developing countries<sup>20</sup>.

In relation to the sustainability of public sector finances, Sri Lanka's position has deteriorated significantly in recent years. While the average nominal cost of public sector net liabilities was not exceptionally high between 2010 and 2019 (it averaged 6.9 percent per annum), the rate at which public sector liabilities were accumulated over this period – which coincided with a failure to comply with its own deficit, debt and contingent liability targets as laid out in the original FMRA - has resulted in a dramatic increase in public debt costs. As was noted above, this resulted in the ratio of interest to government revenue increasing from an already-high 47 percent in 2019 to 71 percent in 2020. The latter was impacted by the collapse in revenue

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<sup>20</sup> The equivalent level of external indebtedness in both Indonesia and South Africa is around 10 percent of total public sector debt.

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collections over the start of the COVID-19 pandemic. However, the high ratio of interest costs to revenue was not aided by the decline in tax revenue to GDP from 14.1 percent in 2016 to 12.9 percent in 2019. The net result is that Sri Lanka's public sector has been left with diminishing resources to address its core delivery mandates.

The scale of the negative gradient of the boundary condition in Figure 25 suggests that Sri Lanka will need to aim to generate a fiscal surplus within a few years. In the absence of structural changes to its prevailing import and export propensities, imports (and by inference GDP growth) will need to be curtailed to support external sustainability. This would imply fiscal austerity that encompasses both spending reductions and tax increases.

The undesirability of such an approach increases the urgency of pursuing structural changes to ease the external constraint by adopting some (or all) of the policy approaches outlined above. To the extent that they are successful, this will assist in creating greater policy space by progressively raising the rate of real GDP growth that is externally sustainable.

With a fixed tax to GDP ratio, increasing the capacity to service public sector net liabilities requires faster rates of economic growth – but these higher growth rates are not currently sustainable from an external solvency perspective. Efforts to increase the capacity to service public sector liabilities could also incorporate enhanced efficiencies in tax collection systems and efforts to close any tax gap that may exist – rather than simply raising rates. It is also important that the efficiency of non-interest government spending is improved. This needs to be targeted at raising the productivity of the economy.

## 5 Conclusion

The application of the UNCTAD S DFA framework to the Sri Lankan case has served to highlight the unsustainability of both its external and public sector financial positions. Both have deteriorated significantly since 2010 and have operated outside what would be regarded as their respective financially sustainable areas (see Figure 17 and Figure 23). Most importantly the negative gradient of the boundary condition of the integrated model (Figure 25) highlights the fact that Sri Lanka urgently needs to raise the rate of GDP growth that is consistent with external sustainability and simultaneously reduce the average cost of public sector net liabilities. Currently, external solvency can only be achieved through a significant reduction in imports that would have been consistent with a contraction in the country's real GDP of 4.6 percent in 2019.

Sri Lanka also needs to place its public finances on a more sustainable footing by, in the first instance, progressively reducing the scale of its fiscal deficit. The latest Medium Term Macro Fiscal Framework (MTMFF) targets a primary surplus by 2025 that should be sustained thereafter.

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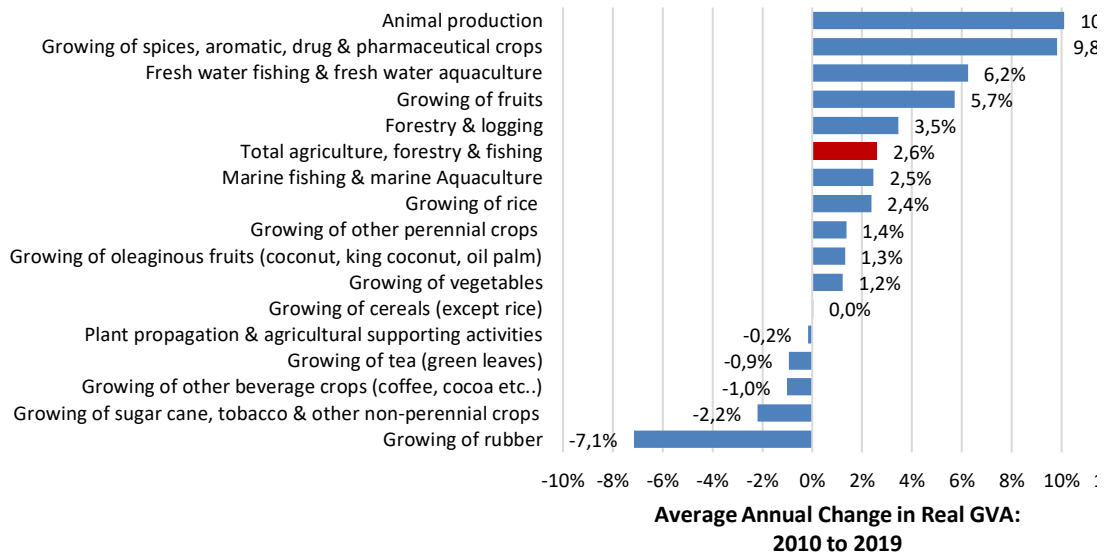
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## 7 Annexures

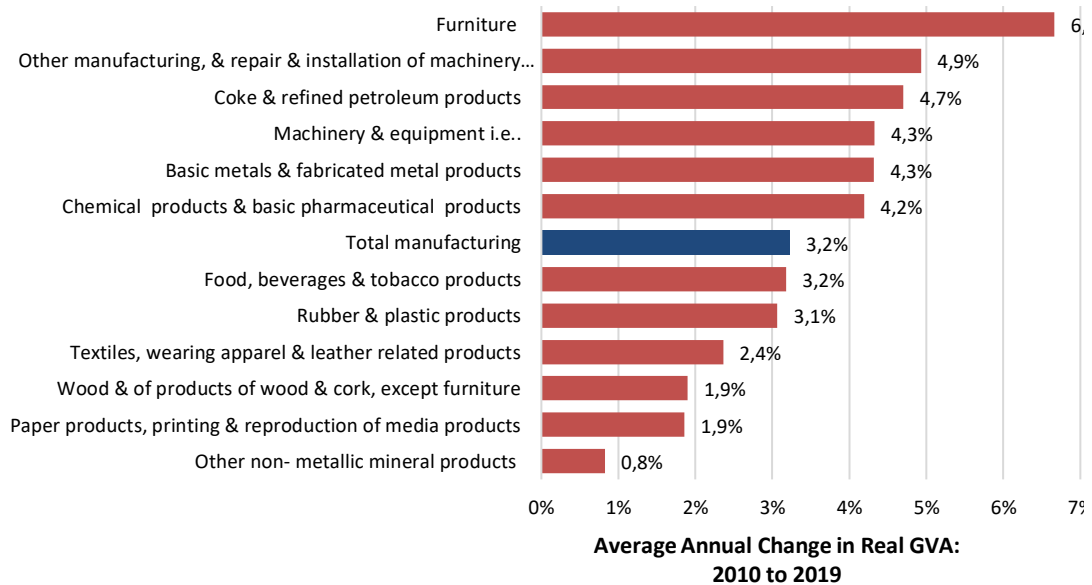
### Annexure A: Average annual change in real GVA of the agriculture, forestry and fishing and manufacturing sub-sectors

Figure 27: Average annual change in real GVA of the agriculture, forestry and fishing sub-sectors between 2010 and 2019



Source of data: Department of Census and Statistics, December 2021

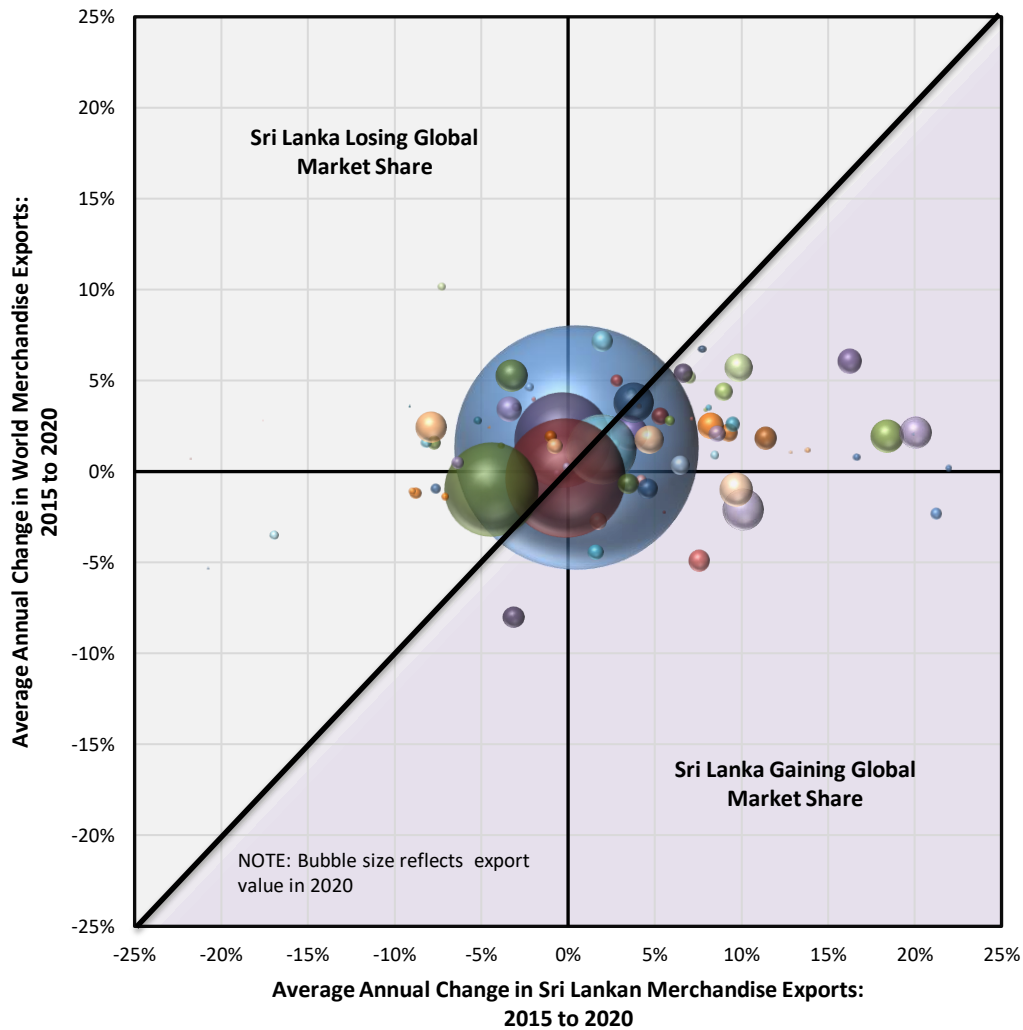
Figure 28: Average annual change in real GVA of the agriculture, forestry and fishing sub-sectors between 2010 and 2019



Source of data: Department of Census and Statistics, December 2021

## Annexure B: Revealed competitiveness of Sri Lanka's goods exports

Figure 29: Revealed competitiveness analysis of Sri Lanka's goods exports: 2015 to 2020



Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

Table 4: Goods product categories in which Sri Lanka gained market share in a growing world market

Product Code	Product Description	Share of Sri Lanka's Goods Exports in 2020
2	Meat and edible meat offal	0.02%
3	Fish and crustaceans, molluscs and other aquatic invertebrates	2.01%
4	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere ...	0.05%
7	Edible vegetables and certain roots and tubers	0.45%
11	Products of the milling industry; malt; starches; inulin; wheat gluten	0.45%
13	Lac; gums, resins and other vegetable saps and extracts	0.02%
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	0.24%
16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	0.13%
17	Sugars and sugar confectionery	0.04%
18	Cocoa and cocoa preparations	0.07%
20	Preparations of vegetables, fruit, nuts or other parts of plants	1.79%
21	Miscellaneous edible preparations	0.92%
22	Beverages, spirits and vinegar	0.31%
23	Residues and waste from the food industries; prepared animal fodder	1.04%
28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, ...	0.11%
29	Organic chemicals	0.01%
30	Pharmaceutical products	0.09%
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	0.56%
35	Albuminoidal substances; modified starches; glues; enzymes	0.04%
38	Miscellaneous chemical products	1.21%
39	Plastics and articles thereof	1.71%
40	Rubber and articles thereof	8.13%
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	0.55%
56	Wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof	0.49%
63	Other made-up textile articles; sets; worn clothing and worn textile articles; rags	2.19%
72	Iron and steel	0.06%
73	Articles of iron or steel	0.48%
74	Copper and articles thereof	0.14%
76	Aluminium and articles thereof	0.27%
79	Zinc and articles thereof	0.01%
84	Machinery, mechanical appliances, nuclear reactors, boilers; parts thereof	1.27%
90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical ...	0.80%
93	Arms and ammunition; parts and accessories thereof	0.03%
94	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; ...	0.43%
83	Miscellaneous articles of base metal	0.12%
	<b>Total</b>	<b>26.23%</b>

Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

Table 5: Goods product categories in which Sri Lanka gained market share in a declining world market

Product Code	Product Description	Share of Sri Lanka's Goods Exports in 2020
25	Salt; sulphur; earths and stone; plastering materials, lime and cement	0.17%
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral ...	2.79%
31	Fertilisers	0.01%

36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	0.00%
37	Photographic or cinematographic goods	0.00%
49	Printed books, newspapers, pictures and other products of the printing industry; manuscripts, ...	0.47%
53	Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn	1.84%
54	Man-made filaments; strip and the like of man-made textile materials	0.19%
55	Man-made staple fibres	0.71%
58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	0.36%
60	Knitted or crocheted fabrics	0.64%
61	Articles of apparel and clothing accessories, knitted or crocheted	23.76%
66	Umbrellas, sun umbrellas, walking sticks, seat-sticks, whips, riding-crops and parts thereof	0.01%
81	Other base metals; cermets; articles thereof	0.00%
86	Railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures ...	0.02%
87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	0.64%
88	Aircraft, spacecraft, and parts thereof	0.73%
97	Works of art, collectors' pieces and antiques	0.00%
	<b>Total</b>	<b>32.32%</b>

Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

Table 6: Goods product categories in which Sri Lanka lost market share in a growing world market

Product Code	Product Description	Share of Sri Lanka's Goods Exports in 2020
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television ...	2.56%
82	Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	0.08%
24	Tobacco and manufactured tobacco substitutes	0.86%
34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial ...	0.13%
9	Coffee, tea, maté and spices	15.33%
96	Miscellaneous manufactured articles	0.35%
19	Preparations of cereals, flour, starch or milk; pastrycooks' products	0.23%
65	Headgear and parts thereof	0.23%
95	Toys, games and sports requisites; parts and accessories thereof	0.68%
32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring ...	0.06%
67	Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles ...	0.02%
6	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	0.11%
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal ...	0.98%
69	Ceramic products	0.24%
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal ...	0.10%
5	Products of animal origin, not elsewhere specified or included	0.01%
10	Cereals	0.09%
8	Edible fruit and nuts; peel of citrus fruit or melons	1.68%
44	Wood and articles of wood; wood charcoal	0.26%
70	Glass and glassware	0.16%
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad ...	1.49%
46	Manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork	0.01%
26	Ores, slag and ash	0.08%
92	Musical instruments; parts and accessories of such articles	0.00%
1	Live animals	0.00%



68	Articles of stone, plaster, cement, asbestos, mica or similar materials	0.06%
45	Cork and articles of cork	0.00%
	<b>Total</b>	<b>25.79%</b>

Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

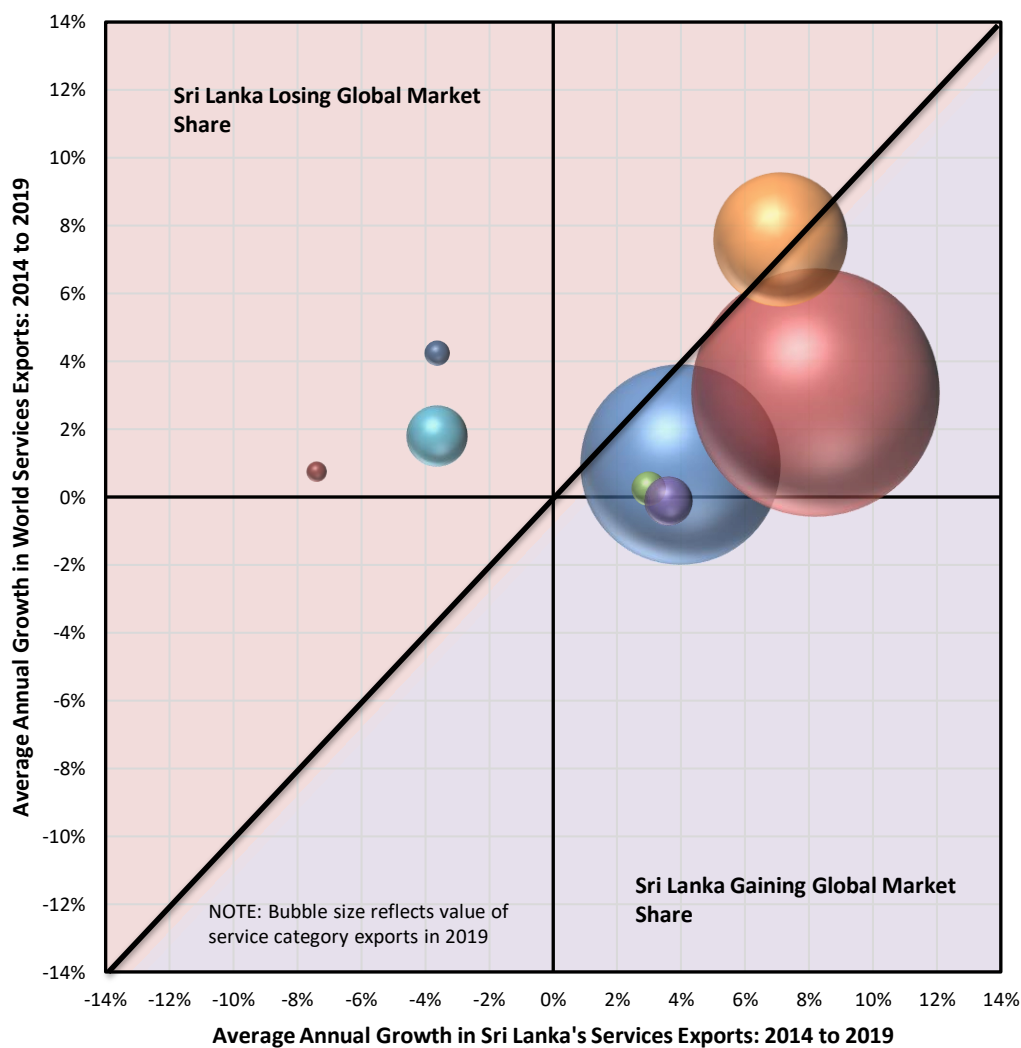
**Table 7: Goods product categories in which Sri Lanka lost market share in a declining world market**

<b>Product Code</b>	<b>Product Description</b>	<b>Share of Sri Lanka's Goods Exports in 2020</b>
57	Carpets and other textile floor coverings	0.07%
62	Articles of apparel and clothing accessories, not knitted or crocheted	14.79%
78	Lead and articles thereof	0.08%
42	Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles ...	0.14%
47	Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or ...	0.19%
59	Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable ...	0.07%
41	Raw hides and skins (other than furskins) and leather	0.00%
52	Cotton	0.14%
91	Clocks and watches and parts thereof	0.00%
64	Footwear, gaiters and the like; parts of such articles	0.15%
50	Silk	0.00%
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	0.00%
89	Ships, boats and floating structures	0.03%
43	Furskins and artificial fur; manufactures thereof	0.00%
	<b>Total</b>	<b>15.66%</b>

Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

## Annexure C: Revealed competitiveness of Sri Lanka's services exports

Figure 30: Revealed competitiveness analysis of Sri Lanka's services exports: 2014 to 2019



Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

Table 8: Services product categories in which Sri Lanka gained market share in a growing world market

Product Code	Product Description	Share of Sri Lanka's Services Exports in 2019
3	Transport	31.3%
4	Travel	48.3%
5	Construction	0.9%

	<b>Total</b>	<b>80.5%</b>

Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

Table 9: Services product categories in which Sri Lanka gained market share in a contracting world market

Product Code	Product Description	Share of Sri Lanka's Services Exports in 2019
6	Insurance and pension services	1.8%
	<b>Total</b>	<b>1.8%</b>

Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

Table 10: Services product categories in which Sri Lanka lost market share in a growing world market

Product Code	Product Description	Share of Sri Lanka's Services Exports in 2019
7	Financial services	2.8%
9	Telecommunications, computer, and information services	14.1%
10	Other business services	0.5%
12	Government goods and services n.i.e.	0.3%
	<b>Total</b>	<b>17.7%</b>

Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

Table 11: Services product categories in which Sri Lanka lost market share in a contracting world market

Product Code	Product Description	Share of Sri Lanka's Services Exports in 2019
	<b>Total</b>	<b>0%</b>

Source of data: ITC, UNCTAD, WTO trade in services database based on Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authority's statistics

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## Annexure D: Exchange rates applicable to this analysis

<b>Year</b>	<b>Sri Lankan Rupiah (LKR) per United States Dollar (USD)</b>
2005	100.47
2006	103.94
2007	110.62
2008	108.30
2009	114.98
2010	113.05
2011	110.61
2012	127.70
2013	129.18
2014	130.64
2015	135.94
2016	145.60
2017	152.46
2018	162.54
2019	178.77
2020	185.54

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