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# Borrowing from Peter to Pay Paul: Measuring the Commercial Debt Burden Created by Concessional Debt

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## Abstract

The paper develops an analytical method and metric for evaluating the extent to which a nation's budget support commercial debt is necessitated by the obligation to repay concessional project loans of the past. This is dubbed as the Peter-Paul dynamic. Applying it to the case of Sri Lanka and global experiences provides two kinds of insights: the hidden possibility and sources of designated project loans driving a national debt crisis, and key considerations for multilateral practices in lending to and graduating countries from concessional debt.

Keywords: Debt Restructuring, Debt sustainability, Concessional Financing, Sovereign Bonds, Debt Dynamics, Debt Crisis



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# Introduction

When countries move from low-income status, into and up the ladder of middle-income status, they have reduced access to financing at lower than market ("concessional") interest rates from multilateral and bilateral sources. As the income level of countries increase, and they become more able to borrow from financial markets, they are "graduated". That is, they go through a process by which multilateral and bilateral sources provide less in concessional debt and less in general budget support.

Loans received as budget support give governments the freedom to use the financing for any part of its budget, including the repayment of existing loans. In contrast, project loans are restricted to be spent on designated projects.

Because multilateral and bilateral loans also provide long horizons of repayment for project loans, significant portions of such debt become due for repayment when countries have graduated, with less access to budget support from these concessional sources of lending.

The result is that countries, as they graduate and still have a low credit rating, have to resort to high-cost commercial borrowing to repay lower cost concessional debt received for project financing in the past. Labelling sources of budget support debt as Peter and sources of multilateral and bilateral project financing debt as Paul, this dynamic is explained as borrowing from Peter to pay Paul, or the "Peter-Paul dynamic" for short.

The Peter-Paul dynamic that kicks in after graduating can have a negative impact on debt sustainability. This is because it has the consequence of financing the settlement of past low-cost, long-horizon concessional debt with shorter-horizon, high-cost debt. This adverse transition is exacerbated if the credit rating of the country is low at the point of graduation.

This paper develops a metric to quantify the Peter-Paul dynamic and calculates it for the case of Sri Lanka to illustrate its evaluative application. Sri Lanka advanced into low-middle-income status in 1997, began the process of graduating in 2006, issued its first International Sovereign Bond in 2007, faced a debt repayment crisis starting in 2021, and suspended debt payments in April 2022. It plunged into an economic crisis, facing a critical shortage of essential goods in the period leading up to the suspension of debt repayments.

The application of the analytical method developed finds that at the end of 2021, just before it suspended debt repayment, 99.8 percent of Sri Lanka's budget support debt, taken in foreign currency, mostly by issuing US$ sovereign bonds, was due to the Peter-Paul dynamic from 2007 onwards.

There are two kinds of over-arching explanations that are popularly mooted for Sri Lanka's crisis: first, that it was due to issuing international sovereign debt and misallocating it to meet excessive fiscal deficits; and second, that it was due to excessive project borrowing and repayment to a single bilateral lender—China.

This paper serves to provide a new and different explanation of how the crisis might be explained, which significantly modifies the way in which the contribution of the existing explanations might be considered. It shows that it was the requirement to repay past debt to bilateral and multilateral sources for project loans that was a major driver of Sri Lanka's unsustainable external debt dynamics. This new explanation is called the Peter-Paul dynamic.

The paper is in four parts. Section I outlines the methodology for measuring the above-stated Peter-Paul problem. Section II sets out the relevant data that is available for Sri Lanka. Section III is the analysis that applies the methodology to the Sri Lankan data and formally demonstrates the Peter-Paul problem as measured for Sri Lanka. Section IV is the discussion, which is in two parts. One to apply this measurement of the Peter-Paul dynamic within explanations for Sri Lanka's debt crisis, and two to generalise this experience of Sri Lanka to the larger context of debt sustainability dynamics. The Peter-Paul dynamic is relevant to all countries that move from low income to middle income status and are graduated from borrowing mainly from multilateral and bilateral sources to borrowing significantly from private creditors in global financial markets.

## Section I: Methodology

To investigate the Peter-Paul problem, we classify a nation's external debt into two types: *Type A* and *Type X*. The term "external debt" is used here to refer to debt that must be repaid in foreign currency.

*Type A*: Project-specific debt refers to loans provided by bilateral and multilateral agencies for specific projects. This type of debt is restricted to be spent on designated investments selected by the lender and cannot be used for other spending needs of the government.

*Type X*: Budget support debt refers to loans that are not restricted to any specific area of spending. This means it can be used in the same manner as general tax revenue for budgeted expenditure and the servicing of loans. Loans raised through international sovereign bonds fall into this category.

Exhibit 1: Breakdown of external debt

| Source\Use | Project-Specific | Budget Support |
|---|---|---|
| Concessional Sources | *Type A* | *Type X* |
| Commercial Sources | | |

In Sri Lanka's case, as is typical of any less developed country that transitions to middle-income status, there is a specific year, denoted Time ($t$), when the country becomes credit-rated and eligible to borrow from international financial markets by issuing international sovereign bonds.

This typically occurs after the country has reached a certain income level at which concessional debt from multilateral agencies is largely restricted to *Type A*, and is highly restricted in the form of *Type X*. In the absence of surpluses in the balance of payments, even the repayment of past *Type A* debt may necessitate obtaining *Type X* debt from international financial markets.

In this context,

*"Peter"* refers to "providers of *Type X* debt",

*"Paul"* refers to "providers of *Type A* debt".

We evaluate the "Borrowing from *Peter* to pay *Paul*" problem of sovereign debt through the following analysis.

First, we define three cash flows:

- $XC\ [t_1]$ = the incoming cash flow of *Type X* debt after subtracting the outgoing cashflow for repaying capital on the same in year $t_1$. $XC\ [t_1, t_n]$ denotes the net cash inflow of *Type X* debt (from Peter) between years $t_1$ and $t_n$.
- $ACR\ [t_1]$ = the outgoing cash flow required to service capital and interest payments to Paul on *Type A* debt in year $t_1$. $ACR\ [t_1, t_n]$ denotes the total outflow of these payments between years $t_1$ and $t_n$.
- $XAR\ [t_1, t_n]$ = the outgoing cash flow to service interest payments to Peter for the *Type X* borrowings made to finance $ACR\ [t_1, t_n]$ (payments to Paul), plus the additional interest cost on further borrowings made to finance those interest payments to Peter, and so on throughout the period from $t_1$ to $t_n$. This represents the compounded interest cost of all borrowings that arise from borrowing to pay Paul and then borrowing again to service the cost of those borrowings.

It is important to note that *Type A* debt can only be used to finance specific projects and cannot be used to repay any external debt. In contrast, *Type X* debt is not restricted and can be used to settle debt. Therefore, when external debt repayment outflows are settled using external debt inflows, all of *ACR* and *XAR* outflows are financed by inflows of *XC*.

We also define:

$xr\,[t_1]$ = the weighted average interest rate in year t of servicing the outstanding *Type X* debt.

We can rewrite $XAR\,[t_1, t_n]$ as:

$$XAR[t_1, t_n] = \sum_{a=1}^{n} \left[ ACR[t_a] * \prod_{b=t_{a+1}}^{n} (1 + xr[t_b]) \right] - ACR[t_1, t_n]$$

Therefore, the extent of the Peter-Paul problem is measured by the ratio *P*, where

$$P[t_1, t_n] = \left( \frac{XAR[t_1, t_n] + ACR[t_1, t_n]}{XC[t_1, t_n]} \right) * 100$$

In simple terms, $P\,[t_1, t_n]$ is a measure of the percentage of the inflow of *Type X* debt that might be attributed to meeting the twin outflows: (i) the outflow of repaying *Type A* debt, and (ii) the outflow of paying the interest on the portion of *Type X* debt that has accrued as a result of borrowing to repay *Type A* debt, and borrowing to pay interest on having borrowed to do that, in the period $t_1$ to $t_n$. Essentially, it is the proportion of net inflows from Peter that might be attributed to the net outflows of paying Paul, plus the interest cost of outflows to Peter that arose from having borrowed from Peter to pay Paul. The higher the percentage value of $P\,[t_1, t_n]$, the more acute the Peter-Paul Problem.

If $P\,[t_1, t_n]$ = 100 percent, it means that the net outflows that arose from borrowing to pay Paul and the interest on that borrowing exactly match the net inflows from borrowing from Peter. In this scenario, all budget support borrowing can be attributed to repaying project loans, resulting in what can be described as a 100 percent Peter-Paul Problem. Therefore, the closer $P\,[t_1, t_n]$ gets towards 100 percent, the more acute the Peter-Paul Problem becomes.

## Section II: Data

Sri Lanka's *Type X* debt is reported in three forms: International Sovereign Bonds (ISBs), issued under international law; Sri Lanka Development Bonds (SLDBs), issued under domestic law; and a third category labelled as "other foreign currency budget support".

Data has been collected from 2007 to 2021, as 2007 marked Sri Lanka's first issuance of a US$-denominated international sovereign bond, and the end of 2021 was on the brink of the country's debt crisis. Sri Lanka suspended debt repayments in April 2022 after depleting its reserves. This time period, from 2007 to 2021, is referred to as "the period".

During this period, Sri Lanka issued US$ 17,550 million in ISBs, all classified as *Type X* debt. Since some of this *Type X* debt was used to repay (roll over) existing debt during the period, the net inflow of *Type X* debt, including from other sources, was US$ 15,999 million at the end of 2021, four months before the country defaulted on its international debt, according to the Ministry of Finance (Exhibit 2).

Exhibit 2: Breakdown of Foreign Currency Debt Stock (2007 – 2021) – Figures in US$ millions

| Year | International Sovereign Bonds [A] | Sri Lanka Development Bonds [B] | Other Budget Support [C] | Total Budget Support [D = A + B + C] | Total Project Loans [E] | Total [F = D+E] |
|---|---|---|---|---|---|---|
| 2006 | - | 580 | 1,161 | **1,741** | **9,084** | **10,825** |
| 2007 | 500 | 795 | 1,699 | **2,995** | **10,002** | **12,996** |
| 2008 | 500 | 1,404 | 1,157 | **3,060** | **11,148** | **14,208** |
| 2009 | 1,000 | 1,469 | 2,477 | **4,946** | **11,914** | **16,860** |
| 2010 | 2,000 | 1,567 | 3,073 | **6,640** | **13,174** | **19,814** |
| 2011 | 3,000 | 1,614 | 3,051 | **7,665** | **14,399** | **22,064** |
| 2012 | 3,500 | 1,754 | 3,739 | **8,993** | **14,523** | **23,516** |
| 2013 | 3,500 | 2,824 | 4,313 | **10,636** | **14,829** | **25,465** |
| 2014 | 5,000 | 2,984 | 4,222 | **12,206** | **14,534** | **26,740** |
| 2015 | 6,650 | 4,640 | 2,816 | **14,106** | **15,135** | **29,241** |
| 2016 | 8,150 | 3,820 | 3,096 | **15,066** | **15,762** | **30,828** |
| 2017 | 9,650 | 4,173 | 4,141 | **17,964** | **17,079** | **35,043** |
| 2018 | 12,150 | 3,361 | 3,224 | **18,735** | **17,236** | **35,971** |
| 2019 | 15,050 | 3,084 | 2,408 | **20,542** | **17,791** | **38,333** |
| 2020 | 14,050 | 2,639 | 2,068 | **18,756** | **18,553** | **37,310** |
| 2021 | 13,050 | 2,295 | 2,394 | **17,740** | **18,781** | **36,521** |
| Increase (2006 -2021) | 13,050 | 1,715 | 1,233 | **15,999** | **9,697** | **25,696** |

Source : (CBSL Annual Reports 2007 - 2021)

# Section III: Analysis

## Measuring the overall Peter-Paul Problem

Based on the sections on methodology and data, we can assess the measure of the Peter Paul problem for Sri Lanka between selected years. The data covers the period from the first issuance of an international sovereign bond in 2007 to the last calendar year before the country defaulted on external debt in 2021. That is:

$$P[2007, 2021] = \left(\frac{XAR[2007, 2021] + ACR[2007, 2021]}{XC[2007, 2021]}\right) * 100$$

Exhibit 2 allows us to calculate the net cashflow of *Type X* debt from 2007 to 2021 ($XC$ [2007, 2021]) as the difference between the total budget support loans in 2021 and end-2006, which amounts to US$ 15,999 million.

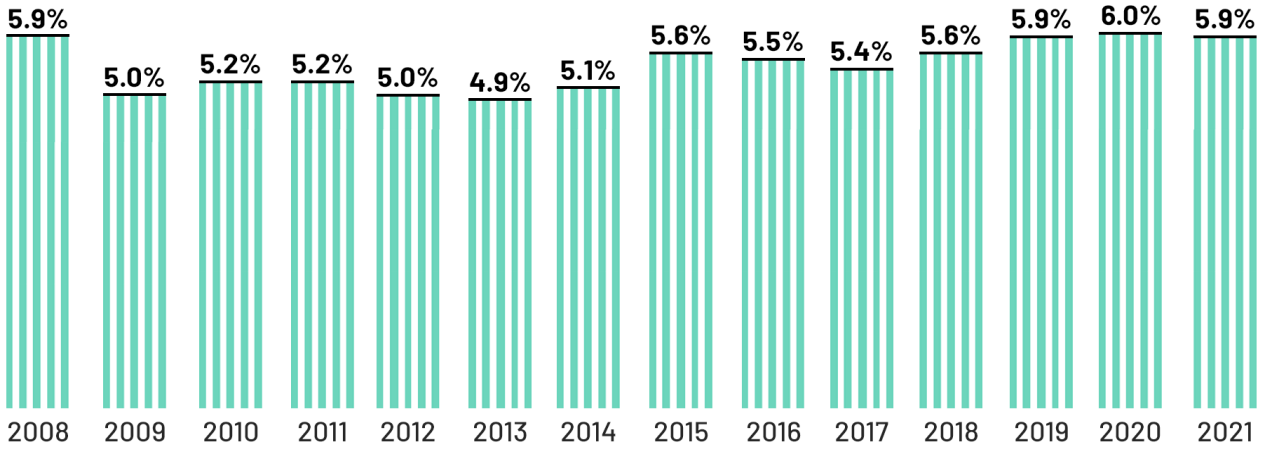
The total cash outflow to service capital and interest payments on Type A debt between 2007 and 2021 ($ACR$ [2007, 2021]) amounts to US$ 11,603 million (Central Bank of Sri Lanka 2007 - 2021).

Calculating the annual interest rate on *Type X* debt precisely requires data on the interest rate on each of the three forms of *Type X* debt reported by the government: (i) ISBs, (ii) SLDBs, and (iii) "other foreign currency budget support". However, the coupon/interest rates of SLDBs and "other foreign currency budget support" are not published. The available data only allows the calculation of the interest rate on ISBs.

Therefore, the calculations are based on two approximations: first, that the weighted average interest rate on SLDBs is the same as for ISBs (they are both market-based US$ bond instruments); and second, that "other foreign currency budget support" was received at a concessional rate of 2 percent, similar to the rate of much of the bilateral and multilateral financing during the period.

The total weighted average coupon rate for *Type X* loans $xr[t]$ is shown in Exhibit 3.

Exhibit 3: Weighted Average Financial Market Coupon Rate




Source: (CBSL, Monthly Outstanding Debt Securities 2021 - 2024)

Next, we need to calculate $XAR\,[t_1, t_n]$ based on the methodology outlined earlier. The formula is,

$$XAR[t_1, t_n] = \sum_{a=1}^{n} \left[ ACR[t_a] * \prod_{b=t_{a+1}}^{n} (1 + xr[t_b]) \right] - ACR[t_1, t_n]$$

This represents the interest cost payments to Peter for the *Type X* borrowings made to finance $ACR\,[t_1, t_n]$ (payments to Paul), plus the further interest cost on additional borrowings made to finance those interest payments to Peter, and so on for the entire period, from $t_1$ to $t_n$.

The computation is as follows: first, the *Type A* repayment for each year in the period is extracted from the data. This is shown in the first shaded cell in each row of Exhibit 4, which sets out the computation. The shaded cells sum up to $ACR$ [2007, 2021] = US$ 11,603 million.

Next, for each year of *Type A* repayments in the period, the compounded interest cost of borrowing to finance that repayment is calculated up to the last year in the period. The repayment plus the compounded interest for the period is shown in the last column of Exhibit 4. The compounded interest cost of having made those payments is calculated by subtracting the *Type A* payment (in the shaded cells) from the row total (in the last column). For the period 2007 to 2021, we get $XAR$ [2007, 2021] = US$ 4,365 million.

Exhibit 4: Total Cashflow to Peter – Figures in US$ Million

| | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **Total** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 | 360 | 21 | 19 | 21 | 22 | 22 | 23 | 25 | 29 | 30 | 31 | 34 | 37 | 40 | 42 | **754** |
| 2008 | | 422 | 21 | 23 | 24 | 24 | 25 | 27 | 32 | 33 | 34 | 37 | 41 | 44 | 46 | **836** |
| 2009 | | | 578 | 30 | 32 | 32 | 33 | 36 | 42 | 43 | 44 | 49 | 54 | 58 | 60 | **1,089** |
| 2010 | | | | 469 | 25 | 25 | 25 | 27 | 32 | 33 | 34 | 38 | 42 | 45 | 47 | **842** |
| 2011 | | | | | 558 | 28 | 29 | 31 | 36 | 38 | 39 | 43 | 47 | 50 | 53 | **951** |
| 2012 | | | | | | 588 | 29 | 31 | 36 | 38 | 39 | 43 | 47 | 51 | 53 | **954** |
| 2013 | | | | | | | 705 | 36 | 42 | 43 | 44 | 49 | 54 | 58 | 61 | **1,091** |
| 2014 | | | | | | | | 737 | 42 | 43 | 44 | 49 | 54 | 58 | 60 | **1,086** |
| 2015 | | | | | | | | | 700 | 39 | 40 | 44 | 48 | 52 | 54 | **977** |
| 2016 | | | | | | | | | | 827 | 45 | 49 | 54 | 58 | 61 | **1,093** |
| 2017 | | | | | | | | | | | 982 | 55 | 61 | 65 | 68 | **1,232** |
| 2018 | | | | | | | | | | | | 954 | 56 | 60 | 63 | **1,132** |
| 2019 | | | | | | | | | | | | | 1,097 | 65 | 68 | **1,231** |
| 2020 | | | | | | | | | | | | | | 1,227 | 72 | **1,299** |
| 2021 | | | | | | | | | | | | | | | 1,399 | **1,399** |
| **Total** | **360** | **443** | **618** | **543** | **661** | **718** | **868** | **950** | **991** | **1,167** | **1,376** | **1,441** | **1,693** | **1,931** | **2,207** | **15,968** |

Source: Author's calculations

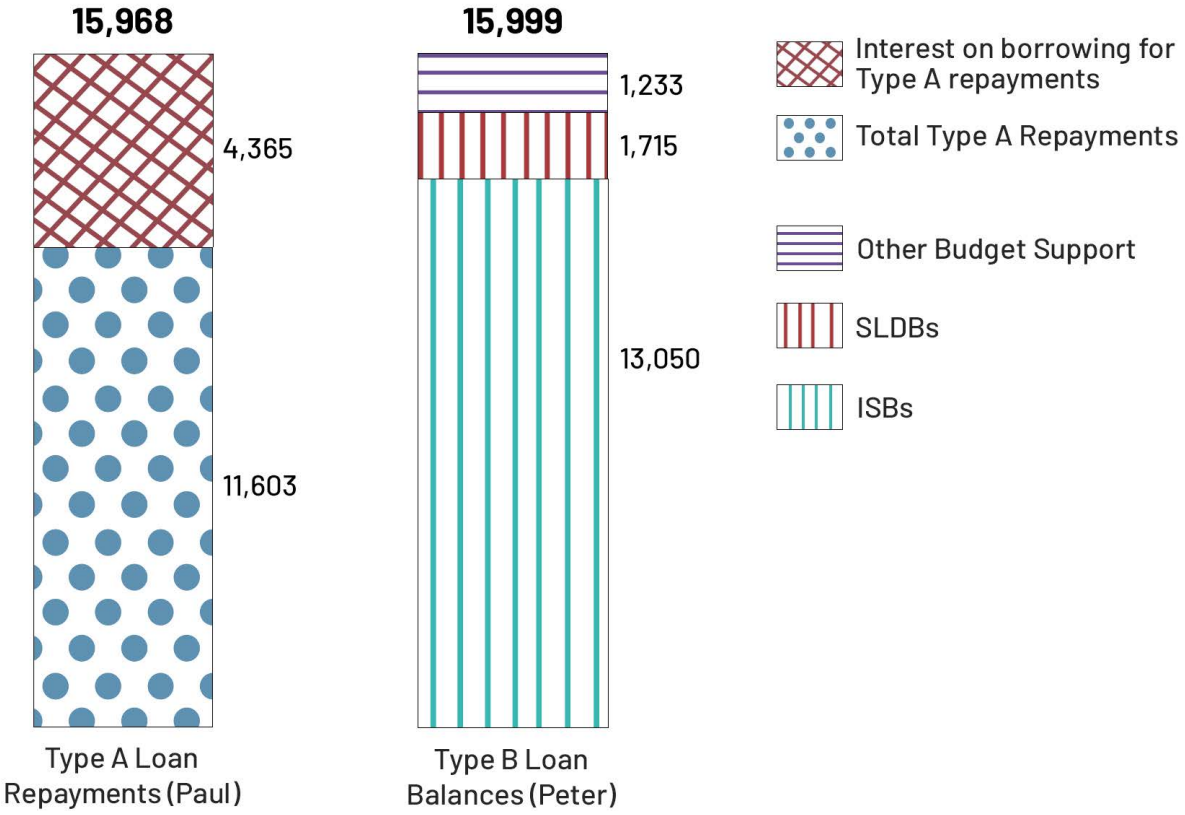
Hence, the ratio $P$ [2007, 2021] can be calculated as follows:

$$P[2007,2021] = \frac{XAR[2007,2021] + ACR[2007,2021]}{XC[2007,2021]} * 100$$

$$P[2007,2021] = \frac{(11{,}603 + 4{,}365)}{15{,}999} = 99.81\%$$

This means that in Sri Lanka, the outflows from 2007-2021 to pay Paul (providers of $Type\ A$ – mostly concessional project loans) plus the interest cost of borrowing to make those payments, amounted to 99.8 percent of the net borrowing from Peter (providers of $Type\ X$ – mostly commercial budget support loans). This is also illustrated in Exhibit 5.

Exhibit 5: Net commercial borrowings vs Project loan repayments and interest cost of borrowing to make those repayments – Figures in US$ million




Source : (CBSL Annual Reports 2007 - 2021), Author's Calculations

## Measuring the Peter-Paul Problem by project loan provider

We can refine the analysis by lender, by defining $P_n$ [2007, 2021] as the repayments to loan provider n for the *Type A* project loans received from them. Accordingly:

$$P_n[2007, 2021] = \left(\frac{XAR_n[2007, 2021] + ACR_n[2007, 2021]}{XC_n[2007, 2021]}\right) * 100$$

Applying $P_n$ to each *Type A* lender that is paid back, Exhibit 6 quantifies the Peter-Paul Problem for the ten largest recipients of project loan repayments. Notably, repayments to the top four lenders – Japan, the Asian Development Bank (ADB), China, and the World Bank – account for more than two-thirds of the total commercial borrowing.

Exhibit 6: Percentage of total commercial borrowing used to repay project loans of specific lenders, since 2007 – Figures in US$ million

| Lender | $ACR_n$ [2007, 2021] | $XAR_n$ [2007, 2021] | $XAR_n$ [2007, 2021] + $ACR_n$ [2007, 2021] | $P_n$ [2007, 2021] |
|---|---|---|---|---|
| Japan | 2,858 | 1,372 | 4,229 | **26.4%** |
| ADB | 2,105 | 806 | 2,911 | **18.2%** |
| China | 1,624 | 347 | 1,971 | **12.3%** |
| IDA/World Bank | 1,314 | 488 | 1,802 | **11.3%** |
| UK | 496 | 210 | 706 | **4.4%** |
| India | 445 | 83 | 528 | **3.3%** |
| Germany | 309 | 179 | 489 | **3.1%** |
| USA | 231 | 108 | 339 | **2.1%** |
| Netherlands | 276 | 64 | 340 | **2.1%** |
| France | 235 | 67 | 301 | **1.9%** |
| Other | 1,710 | 642 | 2,352 | **14.7%** |
| **Total** | **11,603** | **4,365** | **15,968** | **99.8%** |

Source : (CBSL Annual Reports 2007 - 2021), Author's Calculations

# Section IV: Discussion

The main contribution of this paper is to provide an analytical method and metric for evaluating the extent to which a nation's budget support commercial debt (providers denoted as Peter) might be driven by the need to pay past concessional project loans (providers denoted as Paul). In essence, the analysis explores how much of the borrowing from Peter was necessitated by the obligation to repay Paul. The Peter-Paul analysis developed in this paper is applied to Sri Lanka's debt over a fifteen-year period as a case study of how this dynamic can be evaluated to shed light on the evolution of debt dynamics. The analysis demonstrated here has applications not only to Sri Lanka but also to global multilateral lending practices involving long-term concessional lending to low or lower-middle income nations.

## Application to Sri Lanka

The application to Sri Lanka advances analytical clarity regarding the popular reasons given for Sri Lanka and countries like Sri Lanka to face a debt crisis. Two popular reasons often cited are: (a) Issuing international sovereign debt and misallocating it to meet excessive fiscal deficits (Howard and Bram 2023, Moramudali 2024), and (b) Excessive project borrowing and repayment to a single bilateral lender –China (Ani 2022, Saliya 2023, Wibisono 2019).

### Misallocating International Sovereign Debt

The charge is made that Sri Lanka overdosed on unrestricted foreign currency debt from international financial markets (Peter) through international sovereign bonds and misallocated this borrowing to fund excessive, unsustainable primary deficits (Howard and Bram 2023, Moramudali 2024). In this characterisation, the problem emerged when Sri Lanka departed from limiting the sources of foreign currency borrowing to multilateral and bilateral sources (Paul), which typically fund development projects at concessional rates.

According to this diagnosis, the debt sustainability problems for Sri Lanka arose due to unrestricted borrowing from Peter instead of restricting itself to borrowing only from Paul. The Peter-Paul dynamic and metric developed in this paper turns on its head this diagnosis of how Sri Lanka's debt turned unsustainable.

The analytical Peter-Paul metric developed in this paper shows (in Exhibit 5) that 99.8 percent of the mostly unrestricted (budget support) debt accumulated by Sri Lanka, primarily on commercial terms (borrowing from Peter), between 2007 and 2021, was used for repayments, during that period, of restricted project loans from multilateral and bilateral lenders (repayments to Paul). The evaluation period starts in 2007, when Sri Lanka issued its first International Sovereign Bond for budget support borrowing (CBSL 2018), and ends in 2021, when Sri Lanka entered a debt sustainability crisis (Ministry of Finance 2022).

If the overwhelming driver of borrowing from Peter – 99.8 percent of the borrowing – was due to financing the repayment to Paul, that sheds a very different light on Sri Lanka's international commercial debt burden to financial markets. It suggests that contrary to what is often argued, it was not the misallocation of unrestricted borrowing to finance the primary budget deficit that drove the debt to unsustainable levels, but rather the need to repay restricted project loans taken in the past on concessional terms.

### Excessive borrowing from a single bilateral lender

A second explanation heard in the case of Sri Lanka is that the repayment burden of excessive project financing debt from a single lender—China—contributed to the unsustainable debt dynamics. According to this view, the build-up of debt repayments to unsustainable levels is seen as being due to project loans received from and being repaid to China. In this view, Sri Lanka's unsustainable debt dynamics were driven by one particular Paul – China (Ani 2022, Saliya 2023, Wibisono 2019)

Others have countered this argument, stating that repayments to China were not the primary driver of Sri Lanka's debt crisis, by comparing both the quantum and interest cost of loans from China against the quantum and interest cost of loans from financial markets (Gangte 2020, Howard and Bram 2023, Moramudali 2024). The Peter-Paul metric developed here suggests that such a counter analysis may be inadequate or even misleading. If the debt to commercial markets was due to having to repay particular project loan lenders, then that commercial market debt is also, albeit indirectly, due to borrowing from those project loan lenders.

The analytical Peter-Paul metric developed here and the available data is adequately robust to not only evaluate the percentage of debt from unrestricted budget support borrowings that went to repay restricted project borrowings but also to assess the percentage that went to repay specific lenders who provided project loans. The Peter-Paul metric was applied in this way to determine the percentage of Sri Lanka's primarily commercial budget support borrowing that was used to repay each of the top ten multilateral and bilateral lenders, as shown in Exhibit 6.

The analysis shows that the top four lenders receiving payments for project loans accounted for 68.2 percent of the primarily commercial budget support loans that were taken from Peter to pay Paul. The largest portion of budget support loans taken during this period went towards repaying Japan. Repayments to Japan accounted for 26.4 percent of the borrowing. The ADB came in second place accounting for 18.2 percent of the borrowing, while China and World Bank account for similar amount in third and fourth places, with 12.3 percent and 11.3 percent, respectively.

Therefore, debt repayment to China in the 2007 to 2021 period was not a dominant factor in the outflows financed through budget support on mostly commercial terms.

## Application to global multilateral lending practices

The Peter-Paul metric also offers a new approach to engaging the concern and challenge faced by global multilateral agencies in safely "graduating" countries from concessional debt to market-based borrowing, such that the country does not face a debt sustainability problem. This concern is not new in the literature on multilateral lending practices; the new contribution of this paper is to provide a fresh method and metric by which to engage this concern.

### The "Graduation" process shifts countries from lower cost to higher cost debt

The term "graduation" is used to denote a formal determination that a country is no longer eligible for new debt in the concessional category in which it was previously placed by a multilateral lender. The determination is tied to levels of per-capita income and the ability of the country to be credit worthy and borrow in international financial markets. Countries are graduated gradually: the supply of concessional financing is usually reduced not at once but through a process that is extended over several years before a country is formally "graduated". The approaches to graduation by the World Bank and ADB are described briefly below as a window into the process of graduation.

The World Bank has two arms of financial assistance: the International Development Association (IDA) and the International Bank for Reconstruction and Development (IBRD). These two institutions offer distinctly different terms of lending, with IDA lending to countries with lower income status and IBRD lending to those with middle income status or above. Eligibility for IDA support is primarily determined by a country's per capita income. In current US$ terms, it is below US$ 1,315 per capita per annum in 2024 (IDA 2024). IDA offers net interest costs that can be below 2 percent (IDA 2024). The expectation is that countries will "graduate" from eligibility to borrow at the concessional terms offered by IDA as they grow in per-capita income and become "credit-worthy" and capable of sourcing financing from international financial markets (World Bank Group 2012). If a country exceeds the per-capita cut-off but is not yet "credit worthy", it can have access to IDA gap funding at less concessional terms.

Following the approach of graduating gradually, Sri Lanka transitioned from normal IDA funding to IDA gap funding in 2006 (ERD 2007) and fully graduated from IDA in 2017 (IDA 2024).

ADB eligibility for concessional funding among the member countries is quite similar to that of the World Bank and is based on gross national income per capita and creditworthiness for regular market-based borrowing (ADB, Asian Development Fund 2024). Countries are classified into three categories—A, B, and C—with category A receiving the highest concessionality. Group A countries have an interest rate of 1 percent during the grace period of the loan and 1.5 percent during the amortization period. Group C countries have an interest rate ranging from LIBOR + 80 to LIBOR + 155 basis points. Group B countries have an interest rate of 2 percent (ADB 2024).

This means, that as countries move from low-income status, into and up the ladder of middle-income status, they have gradually reduced access to financing at concessional rates from multilateral sources, and also experience reduced access to financing that is in the form of budget support.

As countries graduate and have reduced or no access to concessional loans in the form of budget support, they can still have a substantial amount of past $Type\ A$ (concessional project loan) debt that remains to be repaid, for which they would then need to access new $Type\ X$ borrowing (from financial markets at commercial rates). This is because $Type\ A$ debt repayments tend to be structured over a very long horizon.

IDA offers loans with repayment periods spanning 30-40 years and grace periods ranging from five to ten years (IDA 2024). ADB group A countries receive a repayment period of 32 years, with a grace period of up to eight years (ADB 2024). Because multilateral and bilateral loans also provide long horizons of repayment, significant portions of such project financing debt become due for repayment after the country has begun the process of graduating, and access to concessional financing to repay these loans, is reduced.

For instance, Sri Lanka graduated into IDA gap in 2006, and by 2007 issued its first international sovereign bond to raise $Type\ X$ budget support financing of US$ 500 million. But in that year, Sri Lanka had 20 times that amount (US$ 10 billion) in $Type\ A$ debt. That means that from 2007 onwards, by borrowing in commercial markets to repay the past concessional debt, Sri Lanka was effectively converting this relatively large balance in $Type\ A$ low-interest rate concessional project loans into high-interest $Type\ X$ loans. The Peter-Paul metric developed in this paper allows us to measure the acuteness of this phenomenon.

### Rating at graduation is tied to the cost of commercial debt

The Peter-Paul dynamic becomes increasingly acute when the interest rates faced on $Type\ X$ loans are high because the interest cost of servicing $Type\ X$ debt is also financed by further $Type\ X$ debt. The interest cost on $Type\ X$ debt is a function of the credit rating level at which the graduation transition is begun because credit ratings are closely tied to the cost of accessing loans from financial markets.

Therefore, graduating with a higher or lower credit rating can determine the path of debt sustainability. At higher credit ratings, countries can access financial markets at a lower interest cost, and therefore, also lower the risk of snowballing debt dynamics, enabling the rating to continue to be stable or to improve. The opposite can occur when a country graduates with a lower rating, and therefore faces a higher cost of interest and higher risk of snowballing debt dynamics.

Exhibit 7 shows how credit rating levels are categorised. There are two main categories: Investment grade and Speculative grade, and various sub-categories within those. A BBB- (triple B minus) rating level is the lowest level in the investment grade.

Exhibit 7: Classification of credit ratings

| | | S&P | Moody's | Fitch |
|---|---|---|---|---|
| **Investment Grade** | Prime | AAA | Aaa | AAA |
| | High Medium Grade | AA+ | Aa1 | AA+ |
| | | AA | Aa2 | AA |
| | | AA- | Aa3 | AA- |
| | Upper Medium Grade | A+ | A1 | A+ |
| | | A | A2 | A |
| | | A- | A3 | A- |
| | Lower Medium Grade | BBB+ | Baa1 | BBB+ |
| | | BBB | Baa2 | BBB |
| | | BBB- | Baa3 | BBB- |
| **Speculative Grade** | Speculative | BB+ | Ba1 | BB+ |
| | | BB | Ba2 | BB |
| | | BB- | Ba3 | BB- |
| | Highly Speculative | B+ | B1 | B+ |
| | | B | B2 | B |
| | | B- | B3 | B- |
| | Substantial Risk | CCC+ | Caa1 | CCC+ |
| | | CCC | Caa2 | CCC |
| | | CCC- | Caa3 | CCC- |
| | Extremely Speculative | CC | Ca | CC |
| | | C | Ca | C |
| | In Default | RD | C | RD |
| | | SD | / | SD |
| | | D | / | D |

Exhibit 8 shows the difference in average cost of borrowing in relation to the ten-year US Treasury rate at each credit rating level. It shows that when a country moves down from a credit rating level of A – upper medium investment grade – to a lower credit rating level of BBB (triple B) the borrowing cost increases by 140 basis points. When it reduces further to BB (double B) level – speculative grade – the borrowing cost increases by about another 357 basis points: overall 497 basis points above the sovereign credit rating level of A.

When ratings drop to single B levels – highly speculative grade – borrowing costs can exceed double-digit interest rates and become prohibitive.

Exhibit 8: Average interest spread against the US Treasury rate by Credit Rating

| Credit Rating | Number of Countries | Average Interest spread (Bps) |
|---|---|---|
| AAA | 9 | (139.5) |
| AA+ to AA - | 14 | (72.0) |
| A+ to A- | 12 | (8.4) |
| BBB+ to BBB- | 14 | 131.1 |
| BB+ to BB- | 5 | 488.2 |
| B+ to B- | 6 | 1,345.8 |

Source: (World Government Bonds, Current Spreads 2024), Author's Calculation

## Graduating with low credit ratings creates high risk of future debt distress

The debt sustainability dynamics that arise for a country can depend on the credit rating at which it enters borrowing in commercial markets after graduating.

Since 1995, 52 countries have graduated from low-income status to lower-middle income and above. Out of these, credit ratings are available for 29 countries (nations like Nepal and Bhutan have not yet received credit ratings).

We examined the movements in credit ratings for these 29 countries one year, five years, and ten years after graduation. The minimum rating to be at investment grade is BBB- (triple B minus). But only seven percent (two of the 29) of countries graduated with an investment grade rating. 31 percent (nine of the 29) graduated with a standard speculative grade rating at the BB (double B) level, 55 percent (16 of the 29) graduated with a highly speculative grade rating at the B level, and another seven percent graduated with a speculative grade rating with substantial risk, at the triple C level.

Graduating with a low rating and replacing debt at a high cost can result in being trapped in low ratings and high-cost debt, further fuelling a dynamic of unsustainable debt. Of the 29 countries that graduated and received a credit rating, ten years later, only seven countries had seen any improvement in their rating. These countries included China and Vietnam, which had very high export growth (OEC 2022). Eight countries saw their ratings decline, and most of them went into a debt crisis including Ghana, Pakistan, Ukraine, and Zambia (IMF 2021). The remaining 14 saw no change in their ratings ten years after graduation – Sri Lanka among them, though Sri Lanka did experience ratings downgrades and entered into a debt crisis some years later.

## Using the Peter-Paul metric to evaluate debt dynamics after graduation

The Peter-Paul metric introduced in this paper combines these considerations into a single assessment. The metric combines the quantum of budget support debt taken to settle project loans, together with the compounded interest cost of those budget support loans that also must be financed as a consequence of having taken that debt to settle project loans.

For Sri Lanka, 15 years after issuing the first International Sovereign Bond, the Peter-Paul metric stood at 99.8 percent. In other words, all the budget support loans taken (and most of them on commercial terms) were to finance the repayment of past concessional project loans with long settlement periods. The Peter-Paul metric that was calculated for Sri Lanka can also be calculated for other countries to evaluate how this issue has been manifesting at a global level for countries that have been graduated by multilateral lenders.

In strategizing the process of graduation, there are at least three aspects for multilateral agencies to consider from the Peter-Paul metric and what it surfaces. Firstly, to take account of the quantum of past project loan debt that is still outstanding at the point of graduation. Secondly, to program more financing after graduation in concessional budget support relative to project loans to cushion the cost of project loan repayment. Third, to have a minimum credit rating target for graduating a country, recognising the risk otherwise of driving a vicious cycle of high-cost borrowing and the debt distress that could arise from financing the repayment of past concessional loans through high-cost commercial loans.

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The clarity that emerges regarding how Sri Lanka's debt crisis resulted from borrowing commercially to repay concessional debt motivates an investigation of debt crisis dynamics in other countries as well — to evaluate how widespread and critical the risk might be of this Peter-Paul dynamic in setting countries up for a debt crisis. It raises a critical analytical question for the method and consequence of graduating and the impact on debt sustainability that arises from the process of graduation, where a country can be pushed into high-cost commercial debt to finance the repayment of its past debt that was considered concessional, setting itself up for a debt sustainability crisis.

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