VERITÉ RESEARCH
Strategic Analysis for Asia

BACKGROUND NOTE

VERITÉ RESEARCH SRI LANKA POLICY GROUP

The Desirability of Domestic Debt Restructuring

OCTOBER 2022

BACKGROUND NOTE

Number: 03 Issue date: October 2022

Verité Research Sri Lanka Economic Policy Group

The Background Notes of Verité Research Sri Lanka Economic Policy Group provide preliminary assessments, stating appropriate assumptions to overcome constraints in the availability of data. Citation of these notes should draw attention to this constraint or provide a link to the note.

The Desirability of Domestic Debt Restructuring

by Prof. M. Udara Peiris[1] with the guidance of the Verité Research Sri Lanka Economic Policy Group

Abstract:

Sri Lanka faces a challenge to emerge from the continuing economic crisis of unsustainable public debt. This paper sets out four important reasons to undertake an early domestic debt restructuring (DDR), by way of reprofiling the capital repayments. This will allow Sri Lanka to restore debt sustainability and economic stability more quickly, resiliently, and fairly, under the present dynamics. First, DDR provides a faster pathway toward solvency for the Government of Sri Lanka. Second, it provides the foundations for the stability of the economy (macro stability). Third, it reduces the likelihood of needing subsequent sovereign debt restructuring, and fourth, it facilitates a more equitable sharing of the costs to overcome the economic crisis.

[1] Department of Economics, Oberlin College, USA

DDR and debt sustainability

Public, or government, debt falls into three broad categories: external (foreign currency denominated) debt or loans owed directly by the government, domestic (domestic currency, here rupee) debt owed directly by the government and debt (or loans) owed by government-owned institutions and enterprises (which can be external and/or domestic). Sri Lanka is currently at a public debt to GDP ratio of around 121%, well above the ceiling of 80% recommended by the IMF. Restructuring external debt owed by the government only provides limited relief. External debt held by bondholders (ISBs/SLDBs) constitutes 20% of GDP, while loans to the government by multilateral and bilateral lenders are 32%. Multilateral and bilateral lenders are more likely to extend the maturity of their loans, or provide other grants or subsidies, than reduce the amounts outstanding on their loans. Furthermore, renegotiating external debt, obtaining bridging finance and receiving financial assistance from multilateral lenders such as the IMF are moot if the government has no viable path to solvency.

The present analysis, based on data up to July 2022, suggests that even with a principal cut (haircut) on ISBs/SLDBs of 50% and a 25% haircut on multilateral/bilateral loans, the projected debt to GDP of Sri Lanka will rise to 136% within 10 years at current yields. The same projections show that if in addition to external debt restructuring, there is a 10-year maturity extension (but no coupon or principal cut on domestic Treasury Bonds), debt to GDP will rise to only 101% in the next 10 years, even at the current yield curve. This leads to the conclusion that restructuring domestic debt would represent an immediate and significant improvement in the sustainability of Sri Lanka's debt.

How does DDR help to restore macro stability?

Debt sustainability analysis requires projections for the path of the economy, including those for GDP, inflation, and tax revenue. However, the most critical one is how the rupee yield curve evolves. Currently, the three-year yield is around 25%, well above the 9% yield that prevailed in 2019. Without yields returning to 2019 levels, the amount of debt will continue to climb. This occurs for two reasons. First, the rupee debt that comes due now needs to be repaid by issuing debt at higher yields (i.e., selling significantly more debt), and secondly, all coupons need to be paid for by issuing new debt at high yields. This causes exponential growth in the stock of rupee debt unless yields come down. Domestic yields will come down when two conditions are in place: (1) inflation is on a credible path of decline from the current 64.3% to the targeted 5% rate; and (2) the government can once again access the international debt markets at lower interest rates.

Inflation cannot be reduced by the central bank solely with monetary policy. This is because the rupee debt that is rolled over (repaid by issuing more debt) requires *more money* to facilitate the transactions. Looking at it from another angle, if the stock of debt is unlikely to be paid through tax revenue, inflation *must* rise. The interconnectedness of fiscal solvency and inflation will leave the Central Bank with little room to control inflation independent of the path of rupee debt. Restructuring rupee debt provides an additional complementary tool for the Central Bank to control inflation.

Access to the international markets will also depend on the path of debt and debt sustainability. Without reasonable expectations that existing debt can be paid through tax revenue, there is little justification for foreign capital to be invested in government bonds and reduce the overall cost of borrowing of the government, and hence bring down the yield curve. Restructuring rupee debt encourages foreign investment and capital, bringing down the cost of government borrowing and helping to strengthen the currency (which, in turn, reduces the rupee value of external debt, further bringing down the overall debt to GDP ratio).

DDR and avoiding subsequent debt restructurings

Historically, most countries that emerge from a debt restructuring episode enter subsequent restructuring episodes. On average, there are 2.1 restructuring episodes when a country enters default, with a typical duration of 7 — 10 years till the default is fully resolved.[2] In addition to shallow restructuring in the first instance, common themes emerge with a lack of fiscal (and monetary) discipline, lack of policy clarity and vulnerabilities in the domestic economy making it susceptible to external shocks. The painful adjustments needed for each debt restructuring episode make it critical that a sound platform is established to minimise the chance of it recurring in Sri Lanka. Central to the themes listed above is fiscal space — that the government has enough room to buffer the economy in the face of any unexpected external or internal shocks. In restructuring domestic debt, Sri Lanka can create such a buffer and make it more resilient to any challenges it may face, thus making it more credible that it can deliver on its commitments post-restructuring. In turn, this credibility will translate to lower yields, better credit ratings and more sustainable access to the international financial markets as well.

Sharing the costs of the crisis

There are four main ways in which domestic debt can be reduced: 1) through taxation, 2) through inflation, 3) by artificially setting lower yields and 4) through restructuring domestic debt. The challenge is how to share the costs of this debt reduction equitably and protect the most vulnerable sections of society.

Higher tax rates that affect individuals' incomes, or raise the cost of living, will penalise a large section of society in a context of rapidly increasing poverty and deprivation. High inflation rates hurt those who have savings in deposits and workers by reducing real wages. Although the yield curve can be artificially set at lower levels by the Central Bank, this has a similar effect as inflation—but mainly on those who are dependent on income from savings—because savings deposits will be earning a significantly lower rate of return than the prevailing inflation rate. Furthermore, artificially setting lower yields will be a disincentive for saving and create an even larger need for the Central Bank to directly purchase newly issued debt ("print money"), which becomes a stimulus for further inflation. Negative real interest rates will also accelerate currency depreciation, which will further fuel inflation.

These three channels tend to affect the middle classes and the working poor. The fourth option of restructuring domestic debt provides a more targeted approach and, in doing so, reduces the burden of taxes and inflation on the public.

DDR in Sri Lanka is complicated by the large holdings of rupee debt by financial institutions such as banks. As Sri Lanka's banks are heavily dependent on income from coupon payments on rupee bonds (around 36% of their income arises from government securities, and this income is used to pay the interest on deposits and savings of the public), it would not be advisable to implement a reduction in the coupons. Consequent to a DDR that extends the maturity of domestic debt, financial institutions may need additional capital. However, temporary regulatory forbearance till yields return to lower levels can delay the need and size of the recapitalisation that will be needed. A follow-up note will explain a method for the recapitalisation that will sustain the stability of the financial system while maintaining the reduction in the debt liabilities of the government.

***

Sri Lanka is faced with some combination of prolonging its current plight, undertaking extreme fiscal austerity measures, or facing continuing high rates of inflation until the debt burden is reduced to sustainable levels. These scenarios are counterproductive to economic recovery, which can happen through encouraging investment and capital inflows, improving credit ratings and obtaining regular access to global capital markets, and thereby bringing down yield curves. Restructuring domestic debt provides an opportunity to achieve these by creating a faster path toward debt sustainability, a foundation for macro stability, reduced risk of relapsing into another debt crisis and improved political stability through more equitable sharing of the costs of the crisis.

[2] Von Luckner, Meyer, Reinhart, Trebesch, April 2022, "External sovereign debt restructurings: Delay and replay", World Bank Blog https://blogs.worldbank.org/developmenttalk/external-sovereign-debt-restructurings-delay-and-replay

The challenge of debt sustainability[3]

As of the end of July 2022, Sri Lankan public debt amounted to 121% of GDP, of which 59% is rupee debt.

1.1. Methodology

To make projections of the path of debt, we make projections for the components that drive government debt. These can be divided into two categories for domestic debt: (1) new debt issued to meet new financing needs and (2) debt dynamics of rolling over existing debt.

- **New debt issued to meet new financing needs**
  This arises from projected budget deficits (negative if a surplus) and from coupons that are paid for by issuing new debt. These are assumed to be rolled over at the one-year yield.

- **Debt dynamics of rolling over existing debt**
  To do this, we assume that all T-Bills are rolled over at a one-year maturity (at a constant yield each year), and T-Bonds are rolled over for the same maturity and coupon rate they were issued at, but at either the current or 2019 yield for that maturity (which we take to be constant over the horizon).

To roll over domestic debt, we take all the outstanding bonds at the end of July 2022 and use their associated maturity, coupons and yields to determine how their outstanding face value (or principal) evolves over time. The new debt issued will be such that the outstanding principal payment due can be repaid. As yields are currently higher than when issued, the outstanding face value and the coupons due increase over time.

In addition, there are public corporation debt, foreign debt and CBSL (Central Bank of Sri Lanka) debt.

- **Public corporation debt and foreign debt**
  We assume that public corporation debt (including state-owned enterprises), foreign bonds (ISBs/SLDBs) and bilateral/multilateral loans grow at 7% in USD terms, and their rupee value is determined based on a projection of exchange rates based on inflation differentials.

- **CBSL debt**
  We assume that CBSL debt stays as a constant proportion of GDP.

1.2. Restructuring

- Restructuring of external debt in our analysis is modelled as a 50% face value cut for ISBs and SLDBs and a 25% face value cut for bilateral and multilateral loans.

- Restructuring domestic debt, or re-profiling domestic debt, is modelled as a maturity extension of 10 years for all T-Bonds, with no change in the coupon rate and no change in the maturity of T-Bills.

We assume that there is no cut in coupons as the domestic financial system is heavily dependent on coupons for its net interest income. We also do not consider a cut in the principal or face value as this would require immediate capital injections. Instead, we take the view that re-profiling can be coupled with managed regulatory forbearance and liquidity support from the CBSL to cushion financial sector balance sheets till domestic yields return to sustainable levels.

We analyse the impact on the debt to GDP ratio of the scenario of only restructuring external debt and the alternative scenario where external debt is restructured together with domestic debt. The Appendix includes more details on the methodology for projecting debt and a section on restructuring experiences internationally.

[3] All calculations are available in the workbook "DDR Data and Analysis Workbook".

1.3. Yield curve

We project the path of debt to GDP under two scenarios for the yield curve:

1) Where the yield curve stays at the same values at the end of July 2022
2) Where the yield curve immediately shifts to the yield curve in July 2019

The table gives the yields used in the analysis.

Figure 1: Yield curves (figures are annualised)

Years to Maturity	Discount rate (Current)	Discount rate (2019)
1	21.78%	8.44%
2	22.54%	8.81%
3	25.39%	9.22%
4	24.24%	9.22%
5	24.17%	9.69%
6	23.59%	9.84%
7	24.36%	9.84%
8	24.13%	9.94%
9	24.81%	9.94%
10	24.81%	10.10%

1.4. Macroeconomic projections

We use the macroeconomic projections of the GoSL.[4]

Figure 2: Macroeconomic projections (figures are in rupees trillion)

	Year	Nominal GDP	Primary Surplus	Ann. Real GDP Growth	Inflation	Primary Surplus as % of GDP
End Dec	2021	17				
End of July	2022	24	(1)	-9%	64%	-4%
	2023	31	(0)	-3%	35%	-1%
	2024	34	0	2%	8%	1%
	2025	37	1	3%	6%	2%
	2026	40	1	3%	5%	2%
	2027	44	1	3%	5%	2%
	2028	48	1	4%	5%	2%
	2029	52	1	4%	5%	2%

[4] https://www.treasury.gov.lk/api/file/3816b192-2bd9-4587-9c69-53e54a3394de

	2030	57	1	4%	5%	2%
	2031	62	1	4%	5%	2%
	2032	67	2	4%	5%	2%

1.5. Analysis

We make two projections, one where the yield curve as of 31st July 2022 prevails for the next 10 years and the other where the yield curve on the 24th of July 2019 prevails. We see that with domestic restructuring via re-profiling domestic debt, the debt to GDP ratio—even at current high yields—is substantially lower than without it, and more importantly, is much closer to the target thresholds (154% without any restructuring, 136% with only external restructuring and 101% with both external and domestic restructuring). Bringing down the path of total debt to GDP—even at high yields—leads to more progress and resilience in the path of reducing government debt and makes the achievement of debt sustainability more durable and credible. These factors make it *more likely* that yields will, in fact, come down, creating a virtuous cycle. The table below summarises the results.

Figure 32: Debt to GDP

	No External or Domestic Restructuring		External Restructuring		External and Domestic Restructuring	
	Current Yields	**2019 Yields**	**Current Yields**	**2019 Yields**	**Current Yields**	**2019 Yields**
2023	111%	109%	94%	92%	92%	91%
2024	116%	109%	99%	91%	92%	90%
2025	120%	107%	103%	90%	92%	88%
2026	126%	106%	108%	88%	93%	85%
2027	129%	104%	112%	87%	94%	84%
2028	133%	102%	115%	84%	94%	81%
2029	139%	100%	121%	83%	95%	79%
2030	143%	99%	125%	81%	97%	77%
2031	147%	97%	129%	79%	99%	74%
2032	154%	96%	136%	78%	101%	73%

If only external debt is restructured, debt to GDP will reach 136% by July 2032 at current yields. This occurs because existing debt needs to be rolled over at higher yields and because existing coupon payments must be paid by issuing bonds at higher yields. This causes exponential growth in domestic debt. The face value of rupee debt increases from 39% of GDP to 61% of GDP at current yields, while if there were re-profiling (in which case debt does not need to be rolled over), the total domestic debt burden would be around 44% (with the increase because of rolling over T-Bills). The table below gives the face value of Treasury Bonds and Treasury Bills outstanding over time as a percentage of nominal GDP.

Figure 43: FV rupee debt to GDP

	No External or Domestic Restructuring		External Restructuring		External and Domestic Restructuring	
Years From August 2022	**Current Yields**	**2019 Yields**	**Current Yields**	**2019 Yields**	**Current Yields**	**2019 Yields**
2023	39%	37%	39%	37%	38%	37%
2024	42%	35%	42%	35%	37%	35%
2025	44%	33%	44%	33%	36%	33%
2026	49%	32%	49%	32%	37%	31%
2027	50%	30%	50%	30%	37%	30%
2028	52%	29%	52%	29%	38%	28%
2029	55%	27%	55%	27%	39%	27%
2030	57%	26%	57%	26%	40%	25%
2031	58%	24%	58%	24%	42%	24%
2032	61%	23%	61%	23%	44%	23%

The capitalised value of coupon payments rises from 3% of GDP to 48% of GDP after 10 years. In contrast, if yields are at their 2019 level, with external restructuring the capitalisation of coupons will be at 18%. Even if yields remain at current levels, with the re-profiling of domestic debt, the capitalisation of coupons will come down to 35% of GDP. This reduction of 13% corresponds to over 37% of the total reduction in debt to GDP from re-profiling domestic debt (from 136% to 101% of GDP at current yields). The table below presents the capitalised value of coupons as a percentage of nominal GDP.

Figure 54: Capitalized rupee coupons to GDP

	No External or Domestic Restructuring		External Restructuring		External and Domestic Restructuring	
Years From August 2022	**Current Yields**	**2019 Yields**	**Current Yields**	**2019 Yields**	**Current Yields**	**2019 Yields**
2023	3%	3%	3%	3%	3%	3%
2024	6%	5%	6%	5%	5%	5%
2025	9%	7%	9%	7%	8%	7%
2026	13%	9%	13%	9%	11%	9%
2027	18%	11%	18%	11%	15%	11%
2028	22%	13%	22%	13%	18%	13%
2029	28%	15%	28%	15%	22%	15%
2030	34%	16%	34%	16%	26%	16%
2031	41%	17%	41%	17%	31%	17%
2032	48%	18%	48%	18%	35%	18%

Our analysis assumes that the budget deficit will be financed through the issuance of domestic rupee debt, though in practice a proportion of the new debt issued over the next 10 years will be external debt; but the overall debt to GDP ratio will be similar. We have kept the coupon rate constant when Treasury Bonds are rolled over, and, as a result, they are not rolled over at par. If instead, new bonds are issued at par as per our analysis, there would be no change in the face value of outstanding domestic debt, but there will be a dramatic increase in the coupon payments due. Nevertheless, our results will be very close when comparing the sum of the face value and the capitalised coupons. The table below gives the capitalised budget surplus as a percentage of nominal GDP.

Figure 65: Capitalised budget surplus to GDP

	No External or Domestic Restructuring		External Restructuring		External and Domestic Restructuring	
Years From August 2022	**Current Yields**	**2019 Yields**	**Current Yields**	**2019 Yields**	**Current Yields**	**2019 Yields**
2023	-1%	-1%	-1%	-1%	-1%	-1%
2024	0%	0%	0%	0%	0%	0%
2025	2%	2%	2%	2%	2%	2%
2026	5%	5%	5%	5%	5%	5%
2027	8%	7%	8%	7%	8%	7%
2028	11%	9%	11%	9%	11%	9%
2029	15%	12%	15%	12%	15%	12%
2030	19%	14%	19%	14%	19%	14%
2031	23%	16%	23%	16%	23%	16%
2032	28%	18%	28%	18%	28%	18%

Conclusion

Sri Lanka is experiencing a twin deficit: a fiscal deficit and a current account deficit, which is mostly financed through domestic financing. To restore macroeconomic stability and debt sustainability, Sri Lanka needs comprehensive strategies in both the short and medium term. These policies in turn drive investor expectations and hence the path of the yield curve. Comprehensive and convincing policy plans will quickly drive yields to lower levels and bring about the conditions of debt sustainability more quickly.

However, the trade-off is with inflation. On the one hand, a large stock of domestic debt requires a monetary expansion to facilitate ever increasing values of transactions. On the other hand, bringing down inflation requires curtailing monetary growth and raising policy rates — potentially driving up yields and rupee indebtedness when debt is rolled over at higher yields. Getting out of this dilemma requires that domestic rupee debt be restructured together with foreign debt. From the projections presented here, the path of yields and debt over the next three to five years will be critical to bringing about macroeconomic stability over a 10-year horizon.

We have assumed that the budget deficit will be financed entirely through the issuance of domestic debt — although in practice it is likely to be a mix of domestic and foreign currency debt. What matters for foreign investors, and hence yields, is the overall indebtedness of the government; our results on the path of overall

debt to GDP become more pertinent when we consider the possibility of issuing external debt to finance future budget deficits.

Any restructuring of rupee debt would result in a required recapitalisation of the banking sector and several other public and financial institutions. In summary, Sri Lanka needs to address its excess burden of both foreign and rupee-denominated debt while preserving its financial system. This study proposes an economically feasible approach that could restore Sri Lanka to macroeconomic and financial stability.[5]

Appendix

The "DDR Data and Analysis Workbook" contains all the data and calculations we have used. Unless otherwise stated, all figures are in trillions of rupees.

Macroeconomic and fiscal projections

Macroeconomic and fiscal projections are found in Sheet "1. Macro summary" Table 2. The four tables there summarise the projected path of the economy, primary surplus and yields. The cells in red require a direct user input. The remaining cells are calculations. For the analysis of debt, we assume the following:

- Treasury Bills (T-Bills) will not be affected. The short maturity of these instruments means that any delays in implementation may not be feasible.
- Treasury Bonds (T-Bonds) will extend their maturity by 10 years (re-profiling).
- A 50% haircut on external bonds (both ISBs and SLDBs) and 25% cut on external loans.

Whenever debt is rolled over (at an identical coupon rate) at a price below 100, this increases the number of bonds that need to be issued and hence the coupon payments that will subsequently be paid. To give a concrete example, consider a maturing bond of face value 100 that has a 10% coupon attached. Suppose that new 10% coupon bonds can be issued at a price of 90. This means that to rollover the face value of the maturing bond, 100/90 bonds need to be issued. The coupons now due are 10*100/90. This creates a significant drain on the available liquidity and fiscal space of the GoSL in the current crisis environment of high and increasing yields and will leave a large debt overhang when Sri Lanka eventually recovers from the crisis and yields return to historically normal rates.

To summarise:

- The calculation for nominal GDP is[6]:

$$\text{Nominal GDP for previous year} \times (1 + \text{annual real GDP growth} + \text{GDP deflator})$$

- The figure for end of July 2022 assumes pro rata basis growth rates.
- We use the daily summary for secondary market transactions of T-Bonds as an average of the two-way quote to project the zero-coupon yield curve for 10 years, assuming the primary surplus converges to zero in 20 years (steady state).

1.6. Domestic debt restructuring internationally

Among emerging markets whose external bonds are currently trading at distressed spread levels, domestic debt at end of 2020 represented over 50% of public debt, whereas low-income countries were classified at high risk

[5] We have mitigated some of this concern here by not considering a cut in coupons. In a companion report "The Financial Sector Impact of Domestic Debt Restructuring", we quantify the cost of these and show that incorporating these costs still makes rupee debt restructuring necessary for debt sustainability

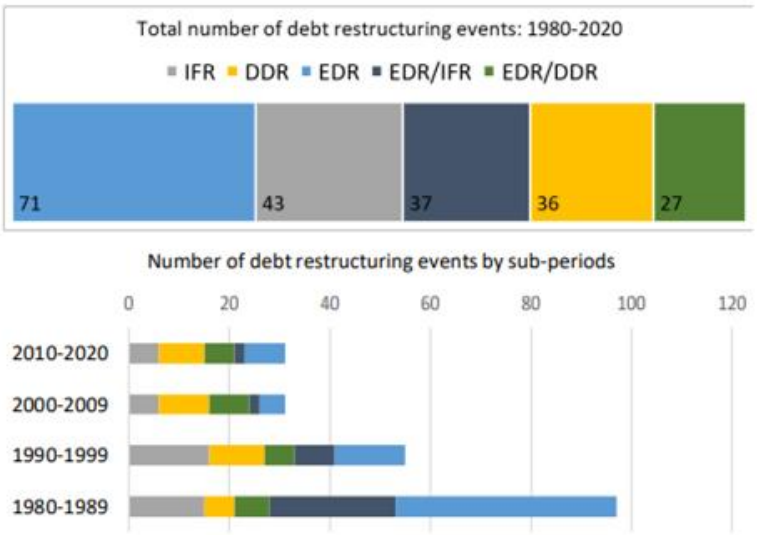
[6] Using the formula below makes little difference:

$$\text{Nominal GDP for previous year} \times (1 + \text{annual real GDP growth}) \times (1 + \text{GDP deflator})$$

of or in debt distress under the IMF-World Bank debt sustainability framework for low-income countries if they showed a domestic debt of 36% of public debt at end of 2020.

Figure 76: Public debt restructuring events, 1980 – 2020

The relative frequency of DDRs compared to IFRs and EDRs has increased over time



Sources: Reinhart and Rogoff (2011), Asonuma and Trebesch (2016), IMF staff reports, credit rating agencies, country authorities and staff calculations.
Notes: IFR=high inflation/financial repression episodes; EDR= external debt restructuring events; DDR= domestic debt restructuring events; EDR/IFR =external debt restructuring accompanied by high inflation/financial repression; EDR/DDR=external debt restructuring accompanied by domestic debt restructuring.

Restructuring public debt is a policy choice that is intended to reduce the economic costs of resolving unsustainable debt. The decision to restructure domestic debt requires weighing the expected debt or debt service relief against the likely impact on the economy and the financial system. Key to deciding whether to undertake a domestic debt restructuring is its net—rather than gross—benefit, after considering the fiscal costs (in particular, related to bank recapitalisation needs) as well as broader economic costs.

A wide definition of the perimeter of the claims to be included in the restructuring supports participation by lowering the debt relief sought from each creditor group. A fair and transparent process that encourages participation is essential for the success of the operation. Offering a menu of instruments—while equivalent in net present value (NPV) reduction—has been shown to be useful in fostering participation by accommodating creditor preferences to the extent possible.

The following shows macroeconomic variables and NPV reductions on selected debt restructuring episodes.

Country	Year	Gross Domestic Product (US Dollars Billions)	Public Debt/GDP	Domestic Debt/GDP	External Debt/GDP	Inflation (End of Period Consumer Prices)	Retructuring Year/s	Type of Restructuring	Preemptive vs Post-default	Restructured Debt/GDP	Face Value Reduction (in %)	NPV Losses (in %)	Domestic Bank Credit to the Private Sector/GDP	Bank Assets/GDP	Bank Return of Assets (ROA)
Russia	1997	434	52	16	36	11	1998-2000	EDR/DDR	D	21.6	0-73.9	46-90		19	2.3
Ukraine	1997	52	29	10	19	10.1	1998-2000	EDR/DDR	P	43.8	5-8	18-59		9	3.3
Argentina	2000	318	41	14	27	-0.7	2001-2005	EDR/DDR	D	79.6	66	71	24	31	0.8
Uruguay	2002	15	92			26	2003	EDR/DDR	P	56.8	0	34	71	72	-14.4
Greece	2010		147	45	102		2011-2012	EDR/DDR	P	55.2	53.5	65-78	112	125	-0.5
St. Kitts & Nevis	2010	0.8	142	89	53	4.3	2011-2012	EDR/DDR	P	43.1	32	62	65	123	1.5
Grenada	2012	0.8	103	36	67	1.8	2013-2015	EDR/DDR	D		50	50	83	92	1
Barbados	2017	5	159	97	62	6.6	2018-2019	EDR/DDR	D		0	30	82	106	2.3
Nicaragua	2007	7	31	20	11	16.9	2008	DDR	P	5.9	0	25	33	30	2.2
Cyprus	2012		79		79		2013	DDR	P	4.7	0	36	250	30	-0.5
Jamaica (JDX)	2009	12	145	68	77	10.2	2010	DDR	P	56.5	0	10-15	29	45	3.4
Jamaica (NDX)	2012	15	147	62	85	8	2013	DDR	P	53.8	0	8.6	29	45	1.4

Source: IMF World Economic Outlook

Further to the above findings, short term debt instruments were often excluded from restructurings. Short term T-Bills with a maturity of less than 12 months were not included in the debt restructuring perimeter in Grenada, St. Kitts and Nevis, Cyprus, Jamaica, and Uruguay. However, in those countries where T-Bills accounted for a large share of outstanding domestic government debt—Barbados, Russia, and Ukraine—they were included in the debt exchange. In contrast, longer term domestic bonds—local currency or FX denominated or linked, fixed or floating rate—were included in all cases. Overall, among the post-GFC cases, the pre-restructuring of domestic public debt stocks ranged from 36 % of GDP (Grenada) to 97% of GDP (Barbados).

NPV losses incurred by private creditors were deeper when face value haircuts were imposed in addition to coupon reductions and maturity extensions. In Barbados, the private creditors' NPV loss of 30% was due to interest reductions and maturity extensions. In Jamaica (2010), the NPV loss was about 10 — 15% without any face value haircuts. In Cyprus, the debt restructuring involved only maturity extensions, leading to an NPV loss of 36%. In Nicaragua, the 2008 restructuring included a combination of interest rate reductions and maturity extensions.

In Grenada, the NPV loss of 50% was due to the lengthening of maturities, lower coupon rates and face value haircuts. In St. Kitts and Nevis, the average NPV loss was 65%, including both EDR and DDR components of the restructuring. In Greece, deep face value reductions led to NPV losses of 65 — 78%. Although the Argentine debt restructuring in 2001 initially did not include a face value haircut, eventually the conversion of foreign currency debt into local currency resulted in an additional NPV loss of 45% for the domestic banking sector.

1.7. Rupee debt exposure of the financial sector

In the body of this report, we argue that restructuring of domestic debt can help achieve debt sustainability and improve the resilience of the economy. Here we analyse the domestic financial sector exposure to government securities, focusing on the banking sector, insurance companies and the EPF and ETF. The latter are worth studying for their wider social impact, while the former are important for a healthy financial system. The banking sector, insurance companies, EPF and ETF together hold 82% of the outstanding domestic debt of the central government. We assume insurance companies, EPF and ETF only hold rupee denominated government securities.

Figure 87:

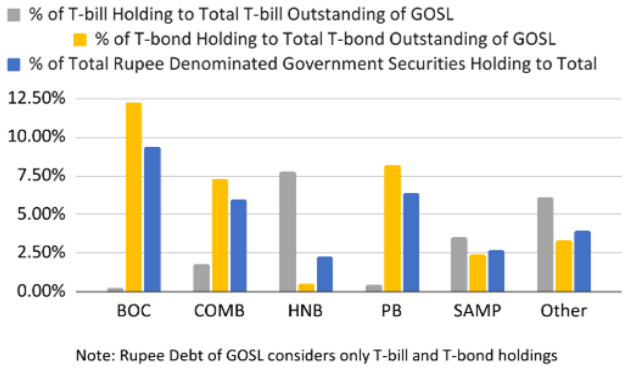


Figure 98: Finance sector exposure to government securities (as at end 2021)

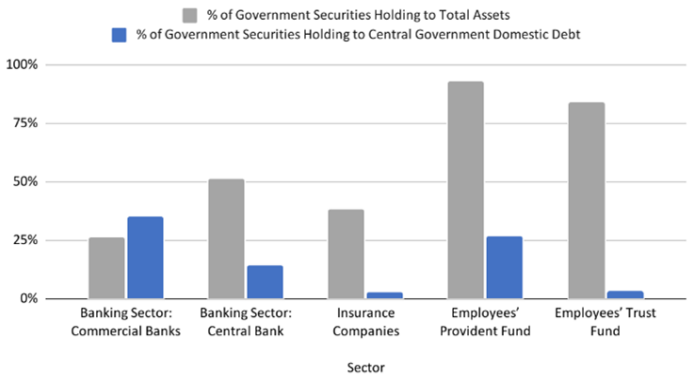
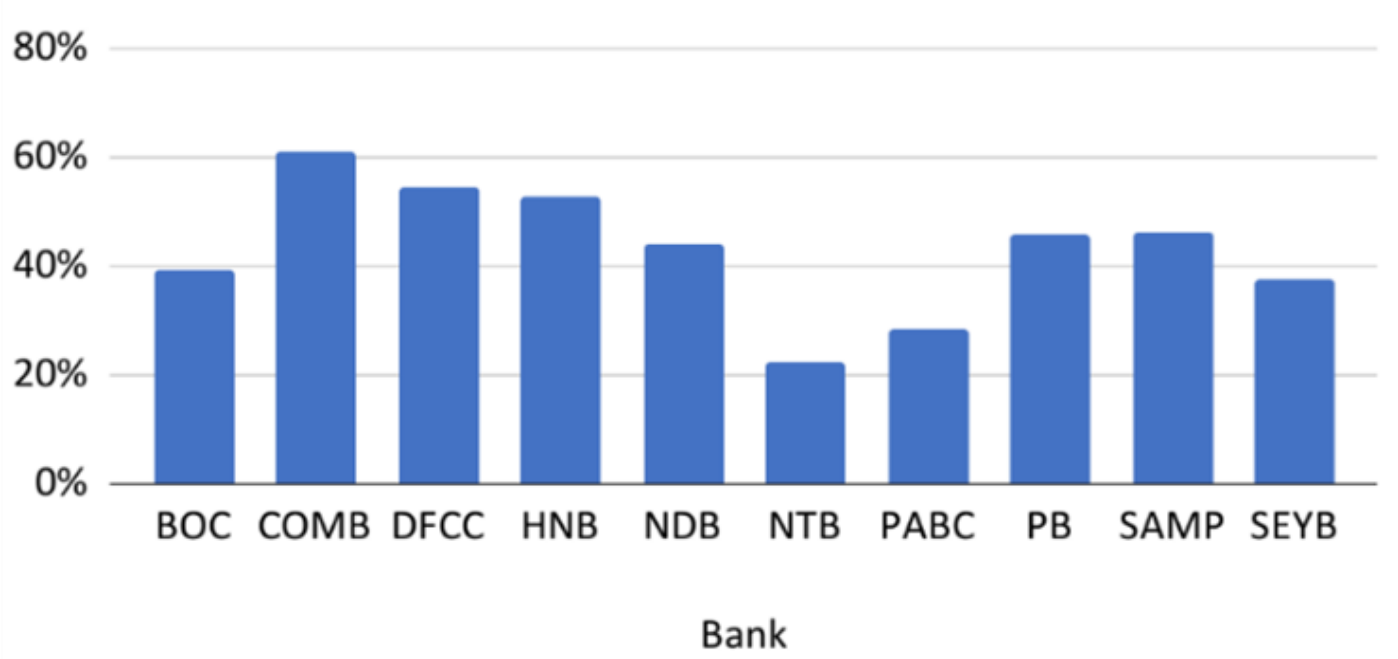


Figure 109: Interest Income from Government Securities as a % from the Bank's Total Net Interest Income



By 2021 end, the Sri Lankan banking sector had Rs. 19.98 trillion in assets, which is 64% of the financial sector's total assets excluding the Central Bank. The Licensed Commercial Banks (LCBs) dominate the sector holding 55.4% of total assets. Domestic commercial banks and their subsidiaries (excluding Cargills Bank) were holding an average of 26% in government securities from their total assets of which 79% accounted for rupee denominated debt. Here we refer to government securities as T-Bills, T-Bonds, Sri Lanka Sovereign Bonds (SLSBs) and Sri Lanka Development Bonds (SLDBs), where SLSBs and SLDBs are dollar denominated.

Comparing the above figures with the total outstanding T-Bills and T-Bonds by end 2021 payable by the central government, our calculations show these banks together hold up to 31% of their assets.

Figure 10 shows that on average 36% of the net interest income of major banks is from government securities. Any cut on coupons will adversely affect the profitability of the banking sector — hence maintaining coupons will be necessary to maintain financial sector stability.

ISSN 2950-7081

VERITÉ RESEARCH
Strategic Analysis for Asia

A | No. 5A, Police Park Place, Colombo 5
T | +94 11-2055544
E | reception@veriteresearch.org
W | www.veriteresearch.org