



Munich Personal RePEc Archive

Challenges Ahead: Sovereign Debt

Bredenkamp, Hugh and Hausmann, Ricardo and Pienkowski,
Alex and Reinhart, Carmen

Harvard University

1 October 2019

Online at <https://mpra.ub.uni-muenchen.de/117564/>
MPRA Paper No. 117564, posted 09 Jun 2023 13:31 UTC

CHAPTER 9

CHALLENGES AHEAD

Hugh Bredenkamp^{*}, Ricardo Hausmann[†], Alex Pienkowski[‡] and Carmen Reinhart[§]

The views expressed in this paper are those of the authors and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

^{*} Deputy Director, Strategy, Policy and Review Department, International Monetary Fund

[†] Director, Center for International Development, Harvard Kennedy School

[‡] Economist, European Department, International Monetary Fund

[§] Minos A. Zombanakis Professor of the International Financial System, Harvard Kennedy School

1. Sovereign debt ratios in advanced and emerging economies have grown to near record highs, while in low-income countries, debt levels have been gradually building since the debt relief of the early 2000s. As global monetary conditions tighten, the burden of debt will grow, and rollover risks will increase. And with a more fragmented creditor base, timely and orderly restructurings may become harder to achieve. This chapter will explore these challenges and consider which policies might enhance crisis prevention and strengthen crisis resolution. It will also consider the extent to which these objectives can be pursued by individual countries, and where multilateral action may be required to improve the international architecture.

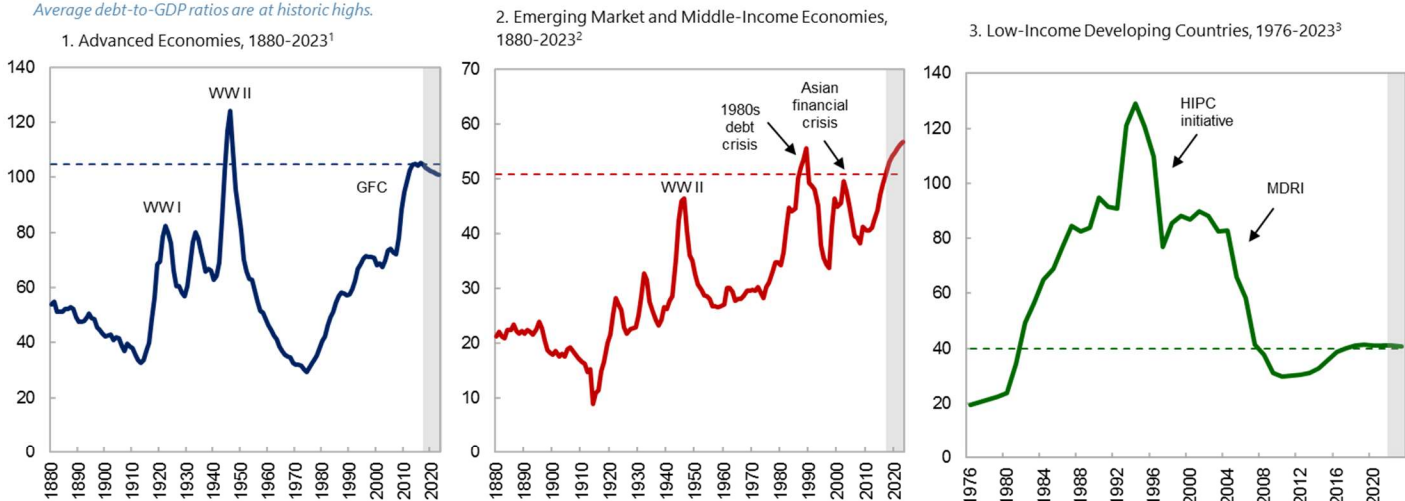
Section 1: The conjuncture

2. Since the financial crisis, global general government debt has risen by over 20 percent of GDP, reaching a post-war high. Despite this, Reinhart et al (2017) note that there have been surprisingly few defaults compared to similar episodes over the last two centuries. This section will dig down into the major recent trends in the scale and composition of sovereign debt, and consider whether these ‘missing defaults’ have been avoided or merely delayed, looking in turn at low-income, emerging and advanced economies (Figure 1).

Figure 1. General Government Debt

(Percent of GDP)

Average debt-to-GDP ratios are at historic highs.



Sources: Abbas and others 2010; Bolt and others 2018; IMF, Historic Public Debt Database; Maddison Project Database, version 2018; and IMF staff estimates and projections.

Note: Average is calculated using GDP at purchasing power parity. Dashed lines refer to the debt level in 2017. WWI = World War I; WWII = World War II; GFC = global financial crisis; HIPC = heavily indebted poor countries; MDRI = Multilateral Debt Relief Initiative.

¹ Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong SAR, Ireland, Italy, Japan, Korea, Netherland, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, Taiwan Province of China, United Kingdom, and United States.

² Argentina, Brazil, Bulgaria, Chile, China, Colombia, Egypt, Hungary, India, Indonesia, Iran, Jordan, Kazakhstan, Kenya, Malaysia, Mexico, Morocco, Pakistan, Peru, Philippines, Poland, Romania, Russia, South Africa, Sri Lanka, Thailand, Turkey, Ukraine, Uruguay, Venezuela.

³ Bangladesh, Benin, Burkina Faso, Cameroon, Chad, Democratic Republic of the Congo, Côte d'Ivoire, Ethiopia, Ghana, Haiti, Honduras, Kenya, Madagascar, Mali, Myanmar, Nepal, Nicaragua, Niger, Nigeria, Papua New Guinea, Rwanda, Senegal, Tanzania, Uganda, Vietnam, Zambia, Zimbabwe.

Rising debt in low-income countries

3. A striking feature of the 2008-09 global financial crisis was the absence of sovereign defaults in low-income countries (LICs). While much of the period since the 1980s had been characterized by repeated default and restructuring in many LICs, these countries entered the crisis with relatively strong fundamentals, including modest fiscal deficits and their lowest debt levels in decades, thanks largely to the debt relief efforts of the late-1990s and early 2000s (Figure 1).

4. The Heavily Indebted Poor Countries (HIPC) initiative, and associated Multilateral Debt Relief Initiative (MDRI), discussed in more detail in Chapter 1, *Public Debt through the Ages*, had sought to achieve a sustained exit from the cycle of repeat restructurings and refinancing of official sector loans to LICs. To achieve this, recipient countries were required to first establish a track-record of strong policy performance under IMF and World Bank supported programs, before receiving large write-downs of both official bilateral and multilateral debt. By 2007, this had resulted in the average debt-to-GDP ratio in recipient countries falling by around 70 percent, relative to the early 2000s, while the conditionality associated with debt relief likely contributed to the relatively robust fiscal position entering the subsequent crisis.

5. In the first years after the global financial crisis, new debt accumulation in LICs was contained, with only a few exceptions. Developments in the availability of external financing were probably a factor: traditional bilateral donors pivoted their support towards grant rather than loan financing in the aftermath of HIPC, in part due to a desire to avoid new debt buildups. The main exception occurred in so-called “frontier markets”, where financing constraints were less binding, and many of these countries took advantage of ample global liquidity in the years following the financial crisis to access external commercial borrowing, including a growing number of Eurobond issuances.

6. Since 2013, however, there has been a shift to broad-based debt accumulation in LICs. More than 80 percent of LICs have experienced an increase in debt since 2012, with an average increase of around 14 percent of GDP. The drivers of these debt increases have been diverse, but a few broad patterns stand out (IMF, 2018a):

- In commodity exporters such as Chad, Republic of Congo and Nigeria, the collapse of oil and other major commodity prices in 2012-13 has been a major factor. Fiscal deficits in many of these countries widened sharply following the commodity price shock, while growth slowdowns and real exchange rate depreciation exacerbated the impact on debt burdens.
- In diversified exporters, fiscal positions also deteriorated after 2012. The drivers of deteriorating fiscal positions are quite diverse, and include current spending overruns (e.g. Ghana and Kyrgyz Republic), spending on capital projects (Bhutan, Kenya, Rwanda), and revenue disappointments (e.g. Zimbabwe, Sao Tome and Principe).

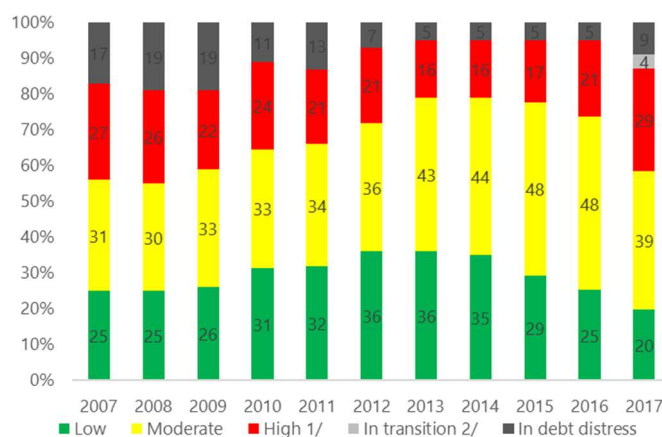
- In a few cases, fraud and corruption have been major factors, including hidden debts in Mozambique; fraud in Moldova's banking system that led to a large government bailout; and serious governance issues and embezzlement in The Gambia.
- Four countries were severely affected by internal conflict (Yemen and Burundi) or by the Ebola-epidemic (Liberia and Sierra Leone), and saw large debt increases.
- Increased rates of public investment have contributed to the debt buildups in many countries, but do not appear to have been a primary factor. For example, in the countries in which fiscal balances deteriorated since 2010, public investment increased in only half, and in only a third could it fully explain the fiscal balance deterioration.

7. In addition to the size of the recorded debt buildup, a further concern is that the true debt picture may be worse than revealed by headline debt data. Coverage of debt outside the central government, including on government guarantees and SOE debt, is often limited, despite the evidence that these claims often fall to the government (see Chapter 2, *The Current Landscape*). For example, there has been rapid growth in the use of public-private partnerships, creating substantial new contingent liabilities. These worries are exacerbated by several recent cases in which hidden debts have been revealed, including in Mozambique, Republic of Congo, and Togo (IMF-WB, 2018).

8. Shifts in the composition of finance towards less concessional borrowing have also increased the likelihood of debt service difficulties. As will be discussed in subsequent sections, there has been a shift towards loans from Non-Paris Club (NPC) creditors and external commercial borrowing, typically at shorter maturities and less favorable interest rates than the traditional sources of external financing in these countries. The result is that refinancing needs are elevated in many countries, and exposure to interest rate risk and capital flow reversals has increased, including from non-resident participants in domestic debt markets.

9. These developments have led to fears of a renewed debt crisis in LICs (Jubilee Debt Campaign, 2017). Debt vulnerabilities have risen substantially, as captured by deteriorating assessments under the IMF-WB's debt sustainability analyses (DSAs, Figure 2). Forty percent of LICs are now considered to face significant debt difficulties, and several countries are already facing acute distress. Chad was forced to seek a debt restructuring in 2018, while the Republic of Congo and Mozambique have fallen into default to external creditors and face difficult restructuring discussions. Absent a change in these trends, more cases could soon be on the horizon.

Figure 2: IMF-WB Risk of Debt Distress Ratings
(In percent of PRGT-eligible LIDCs with DSAs)



Source: IMF-WB LIC DSA database.

1/ Ethiopia was assessed as high risk in its latest DSA, which was approved in Jan., 2018.

2/ In transition countries are not yet formally rated in the DSA, but moving towards distress.

A changing creditor landscape

10. Accompanying the rise in debt vulnerabilities, there have been significant changes in debt and creditor structure in LICs that look set to complicate crisis resolution.

11. The first of these changes has been a dramatic shift in the ‘official’ creditor base, with various ‘non-traditional’ creditors growing in importance. NPC creditors have become the dominant source of official bilateral financing, particularly to LICs. These NPC creditors, most prominently China but including other major emerging markets (EMs) such as India and Brazil, have steadily increased their official lending over the last decade (IMF 2015). This lending extends beyond LICs, and includes for example significant loans to Asian and Latin American middle-income countries (Dreher et al, 2017). At the same time, Paris Club creditors have shifted the composition of their support to LICs towards debt relief and grants, with much more limited debt disbursements since HIPC. The result is that the largest part of official bilateral debt in many developing countries is now owed to NPC creditors.

12. A similar trend, though less advanced, has occurred among multilateral creditors, with so-called “plurilateral” institutions growing in significance. These plurilateral creditors⁵ have more limited global membership than the traditional multilateral creditors⁶, particularly among advanced economies (AEs), but are steadily gaining importance, not least through the creation of new entities such as the Asian Infrastructure Investment Bank. While the long-established multilateral creditors have continued to extend new loans to developing countries,

⁵ See IMF (2018) for a list of multilateral and plurilateral lending institutions.

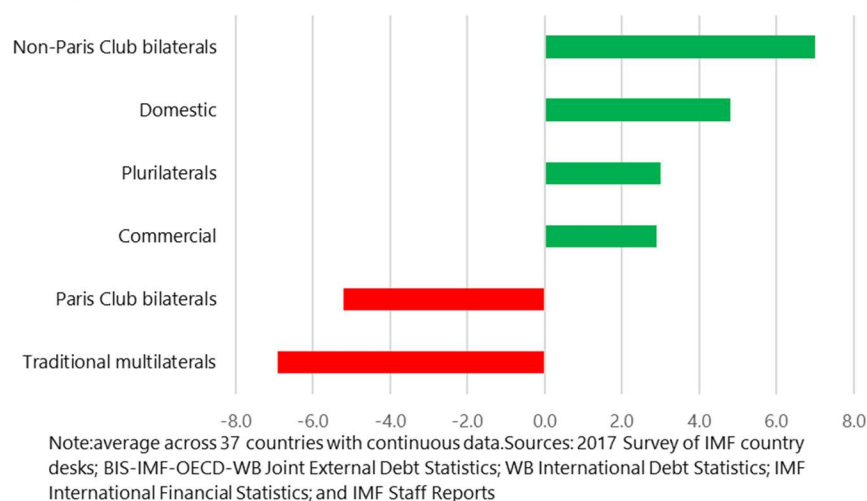
⁶ This group includes the African Development Bank, Asian Development Bank, Inter-American Development Bank, IMF and World Bank Group.

debt-relief granted under HIPC and MDRI have caused their shares of the debt stock to decline, further emphasizing this shift (Figure 3).

13. As explored in more detail in Section 3, this shift in the creditor base has the potential to create challenges for effective crisis resolution. The Paris Club has a well-developed framework for providing debt relief in a cooperative manner. Such a framework is absent for many of the new bilateral creditors and plurilateral institutions, increasing the risk of coordination problems, which could delay and complicate future restructurings.

Figure 3: Change in LIDC Creditor Composition

(in percent of GDP, 2007–16)



14. Another potentially problematic trend is the growth of collateralized debts. These arrangements are most common in the context of commodity exporters, and involve the provision of finance secured against either future commodity exports or, in some cases, specific project revenues (Brautigam and Hwang, 2016). In this sense, collateralization has been one way to overcome credit and legal risks by granting these creditors *de facto* seniority (limiting the ability of debtors to defer paying these creditors in a restructuring event). Such creditors include both commodity trading firms (Franke, Rechtsteiner and Sharp, 2017), and some NPC bilateral creditors. For sovereign borrowers, collateralization reduces room for maneuver in the event of a crisis, making restructurings more difficult. These debt contracts also raise other important questions, including their apparent inconsistency with negative pledge clauses, which are a feature of World Bank (IBRD and IDA) non-concessional lending policies, among others.⁷ Recent experiences have illustrated this challenge:

- In Chad, the government had undertaken loans from commercial creditors backed by oil shipments. Following the plunge in commodity prices in 2014, the government

⁷ These clauses prevent a debtor pledging as collateral assets that might jeopardize the repayment of an existing creditor.

experienced significant fiscal stress and sought to restructure this debt in 2015 and 2018. The presence of such collateralized debt significantly increased the complexity of the restructuring.

- The Republic of Congo’s government undertook oil-backed lending through two channels. First, it linked commercial loans from commodity traders to oil shipments. Second, it obtained concessional bilateral loans from China that were secured by oil receipts deposited in an offshore escrow account. Like Chad, Congo entered severe stress after oil prices dropped in 2014. The government has since sought to undertake policy adjustments and a debt restructuring to restore sustainability, though no definitive resolution has yet been reached.
- As Venezuela’s economic, financial, and legal situation has deteriorated, so has its access to unsecured debt. Although there are significant uncertainties as to the full terms of Venezuela’s borrowing, it is evident that it has used certain oil-based assets as collateral to secure lending, including from the Russian oil company Rosneft, and pledged future oil shipments to service debts extended by China.

15. Transparency concerns arise not only on account of potentially ‘hidden debts’, but also owing to uncertainties around the terms and conditions of borrowing, including collateralization arrangements (IMF-WB, 2018). The full extent of collateralization is often unknown, and in some of the recent crisis cases, such as Chad and Congo, only become clear once these countries were already experiencing debt distress. There are also information gaps on other terms and conditions, which can make it difficult to determine the extent of risks in the debtor country, and in some cases even to assess whether the claims are commercial or official in nature (Dreher et al, 2017).

16. The surge in collateralized debts is just one example of a recurrent issue in sovereign debt markets, namely the attempt to create ‘restructuring resistant’ contract designs. The general problem is that a sovereign subject to credit risk faces a temptation to reduce the interest rate on its new borrowing by introducing new ‘senior’ or ‘restructuring resistant’ debt (Bolton and Jeanne, 2009). The incentives for this kind of behavior only get stronger as the risk of default increases, and governments finding themselves close to default may be tempted to ‘gamble for redemption’ by introducing new, more senior debt.

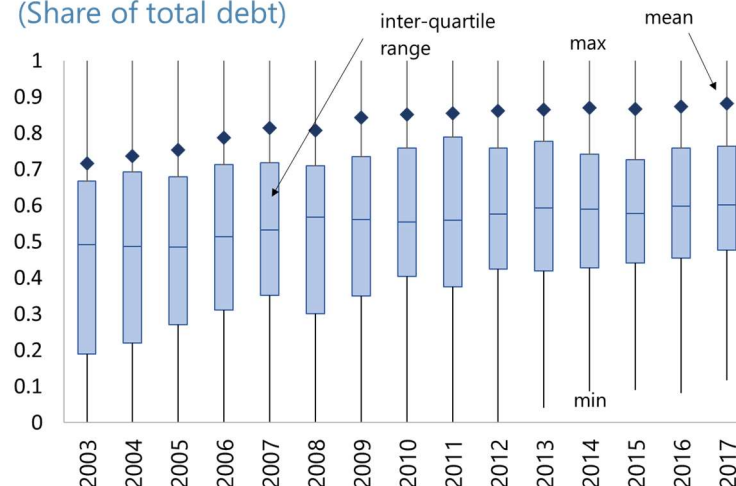
17. The growth of plurilateral lending could also be viewed through this lens, as the lending institutions seek to achieve seniority over official bilateral and private creditors. There is some evidence that in practice official bilateral creditors have *de facto* ranked below even private lenders in the creditor hierarchy (Schlegl et al, 2015), whereas multilateral creditors are typically viewed as ‘super senior’. A potential restructuring in Venezuela could raise similar issues (Buchheit and Gulati, 2017), since in addition to explicit collateralization, the state-owned oil company (PDVSA) has significant physical assets in the United States, which could be at risk of seizure by a US court, giving certain creditors an additional form of leverage in a negotiation.

Emerging markets, emerging risks

18. Following a sharp fall in GDP during the global financial crisis, EM growth quickly recovered to around the long-run average. This robust performance, despite tepid growth in AEs, is partly explained by the improved fundamentals of these countries as they entered the crisis, which allowed many to pursue counter-cyclical policies. But it was also linked to the extraordinary monetary stimulus undertaken in AEs, which led to huge capital inflows, and a corresponding increase in sovereign debt. In fact, the level of debt in 2017 (51 percent of GDP) was last seen in the late-1980s, just prior to the Brady debt relief operations. As global monetary conditions are set to tighten, this section explores some of the risks and vulnerabilities that this may expose in EMs.

19. Historically, a major source of vulnerability for EMs has been currency mismatches on the sovereign's balance sheet. The concept of 'Original Sin'—the experience of EMs historically being unable to borrow in local currency on international capital markets, despite sometimes strong fundamentals—is discussed in Chapter 5, *Debt Management*. However, since the seminal work by Eichengreen and Hausmann (1999) on this topic, EMs have been increasingly able to issue larger amounts of debt in domestic currency (Forsslund et al, 2011). While domestic-currency debt as a share of total debt has risen by around 10 percentage points for the median country over the last 15 years, the mean has increased by nearly 20 percentage points (Figure 4). This is because the largest EMs—China, India, Brazil, Russia, South Africa, and to a lesser extent Mexico—now issue virtually all of their debt in local currency. As well as strengthening balance sheets, this shift in the debt structure provides these economies with more flexibility to use the exchange rate to absorb shocks, rather than relying on selling reserves or internal adjustment.

Figure 4. Domestic currency debt
(Share of total debt)



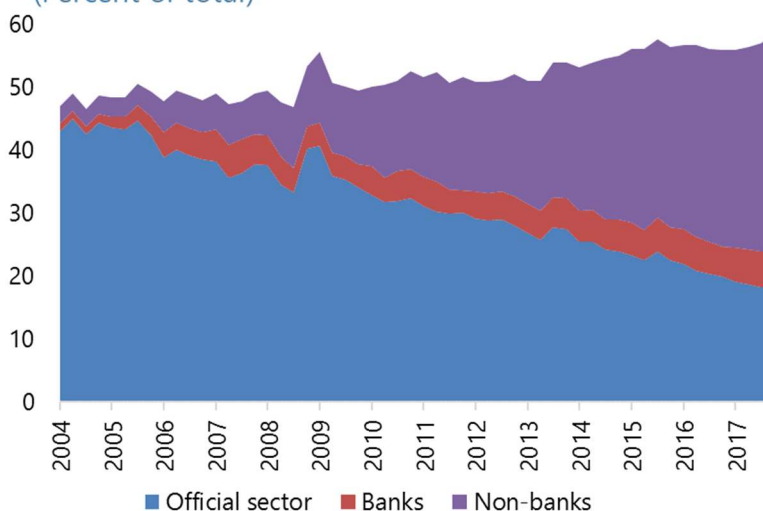
Source: WEO, Staff Analysis.

20. While this shift to local currency debt has undoubtedly reduced currency risk, there has also been an increase in the share of debt held by non-residents, a creditor base which has

historically been volatile. Over the last decade, the share of EM sovereign debt held by non-residents has increased by 10 percentage points to around 60 percent of the total (Arslanalp and Tsuda, 2014). One potential explanation for the increase in foreign ownership of EM debt has been the rise in popularity of index-funds and benchmarks to track this debt (Raddatz et al, 2015). This rise in ‘passive’ investment strategies has also been attributed to an increase in the correlation between country yields, even for countries that differ substantially in terms of policies, quality of institutions and natural resources (Arslanalp and Tsuda, 2015). This suggests that foreign demand may have been shaped more by ‘push’ factors, than respective country fundamentals or ‘pull’ factors.

21. Perhaps more striking is the shift in composition of the foreign creditor base. As holdings by the official sector (bilateral and multilateral development agencies, export credit agencies etc.) has fallen, debt held by non-bank investors, such as pension and hedge funds, has increased dramatically (Figure 5). The rise in foreign ownership has been particularly acute for domestic-currency debt. And there are reasons to think that this creditor base may be particularly volatile. Investors that take on currency risk—seeking to benefit from ‘carry-trades’—are particularly sensitive to changes in global liquidity conditions and risk appetite (Menkhoff et al, 2012). A hint of this volatility was witnessed during the summer of 2013 after Federal Reserve Chairman Bernanke suggested that the U.S. Federal Reserve may begin to withdraw monetary accommodation, and many EMs saw substantial rises in their long-term local-currency bond yields. More recently, Argentina and Turkey have experienced significant capital outflows. Part of this was driven by weak fundamentals at home, but such pressures also coincided with a strong appreciation of the dollar and higher US bond yields.

Figure 5: Debt held by non-residents
(Percent of total)

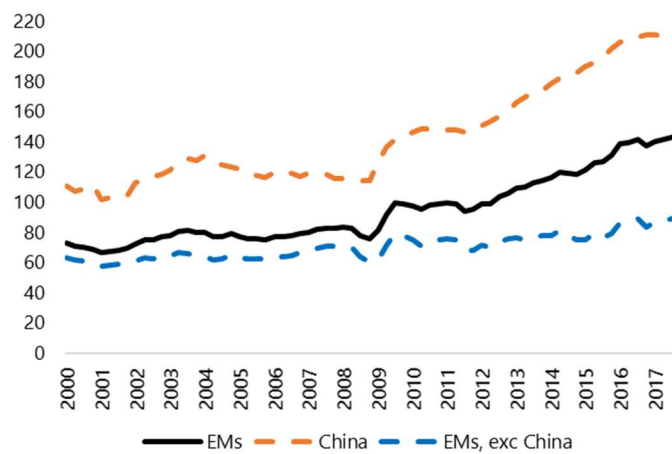


Source: Arslanalp and Tsuda, 2014

22. Private debt also poses a risk to the sovereign’s balance sheet. During the mid-1990s, many Asian economies experienced a rapid accumulation of private non-financial (PNF)

debt. The currency crises that followed exposed serious balance sheet vulnerabilities, triggering a loss of market access for many sovereigns, and forcing several into IMF-supported programs. The last 10 years has also seen a rapid increase in PNF debt (Figure 6). By far the largest contributor to this increase, however, has been China, which has accumulated a stock of such debt exceeding US\$26 trillion. This is almost twice the size of all other EMs' PNF debt combined; represents over 200 percent of GDP; and is over 10 times larger than its stock of foreign exchange reserves. A disorderly deleveraging process would not only harm China's economy but also have serious systemic spillovers to the rest of the world.

Figure 6: Non-financial private debt
(Percent of GDP)



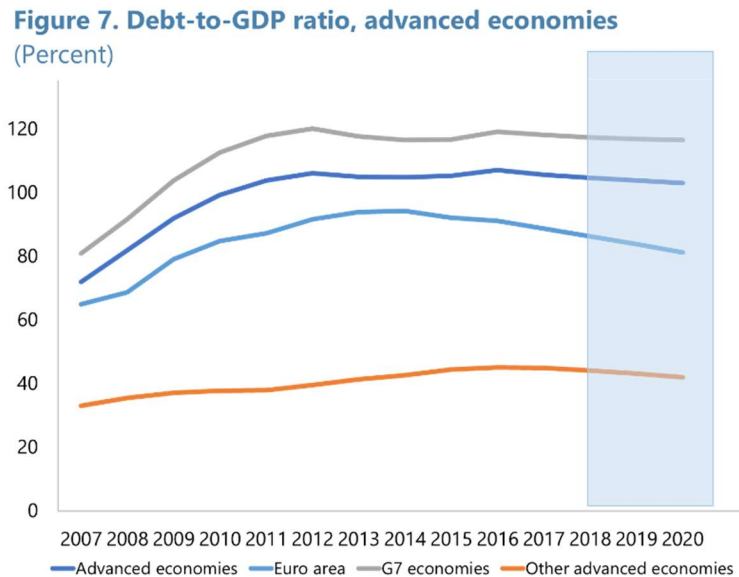
Source: BIS, Authors' calculations

23. Other EMs have also witnessed a sizable, albeit smaller, increase in PNF—from 70 percent of GDP in 2007 to 90 percent in 2017, levels slightly above that experienced before the Asian Financial Crisis (Beltran et al, 2017). Of this, around one-third is denominated in foreign currency, also similar (but slightly below) levels seen in 1996. Clearly this is a source of vulnerability, but it is important to acknowledge that part of this expansion in credit is linked to financial deepening. Since the Asian Financial Crisis, real GDP per capita has more than doubled; and the interest-coverage ratio of non-financial corporates is over twice the level it was in 1996 (Beltran et al, 2017).

24. In summary, as global interest rates tighten, and AE currencies (particularly the dollar and euro) appreciate, EMs are likely to experience a tightening in monetary conditions. Even with flexible exchange rates, sudden and large-scale capital outflows are a risk (Farhi and Warning, 2014; Rey, 2015), and can cause significant rollover problems for sovereign debt. While many EMs have built significant economic buffers in recent years, including substantial foreign exchange reserves, new vulnerabilities have also emerged. In particular, a significant increase in private sector debt—particularly in China—could compound problems from a sudden outflow of foreign capital.

High debt, low growth and big promises in advanced economies

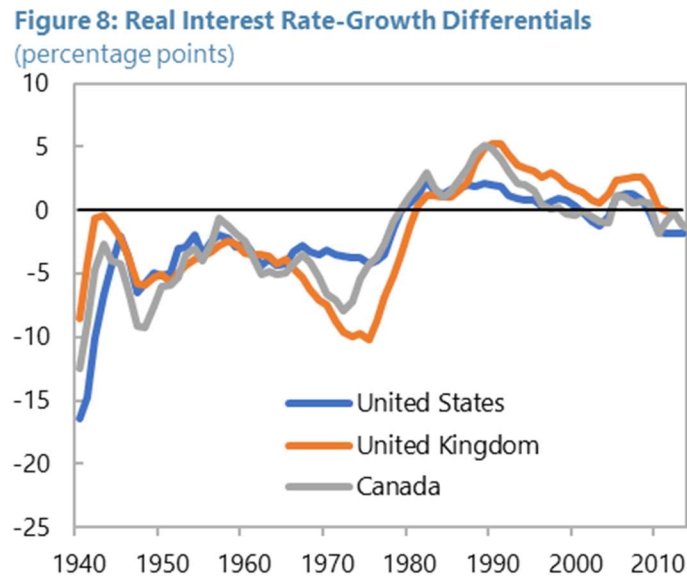
25. A decade after the global financial crisis, AE general government debt-to-GDP ratios are still over 30 percent of GDP above their pre-crisis level (Figure 7). After the immediate expansion of debt in the 2007-12 period, debt has essentially stabilized, with only euro area countries making some limited progress in reducing leverage. Chapter 3, *Debt Sustainability*, discusses the need to build ‘fiscal space’ in order to deal with future downturns, especially financial crises. This suggests that reducing debt to at least pre-crisis levels will require significant policy effort.



26. A range of factors have contributed to the absence of meaningful deleveraging since the crisis, the most notable being the slowdown of nominal GDP. Potential output growth has been subject to several downward revisions. And while the drivers of the decline in the long-run economic growth rate are numerous (e.g. population aging, trend decline in productivity, the leverage cycle—see Buttiglione et al, 2014), trend growth has been shown to be an important factor underlying government debt dynamics (Mauro et al. 2015). In addition, inflation has also failed to rebound. Part of the explanation for this slow recovery in nominal GDP growth is the fact that the private sector—households, banks, and corporates—has attempted to adjust in response to the spike in debt, which has held back demand.

27. Chapter 6, *Reducing Debt Short of Default*, showed that in the post-war era, debt reductions in AEs typically relied on very favorable interest rate-growth differentials, which reflected both strong growth and deeply negative real interest rates. The post-war economic boom was supported by favorable demographics and technology innovation. And financial repression and high inflation led to negative real interest rates in many countries. From the 1980s, growth weakened, inflation was tamed and the financial sector was deregulated, all of which contributed to a jump in the interest rate-growth differentials. More recently, as a

result of ultra-low interest rates, this differential has again fallen into negative territory. But what might be expected in future?



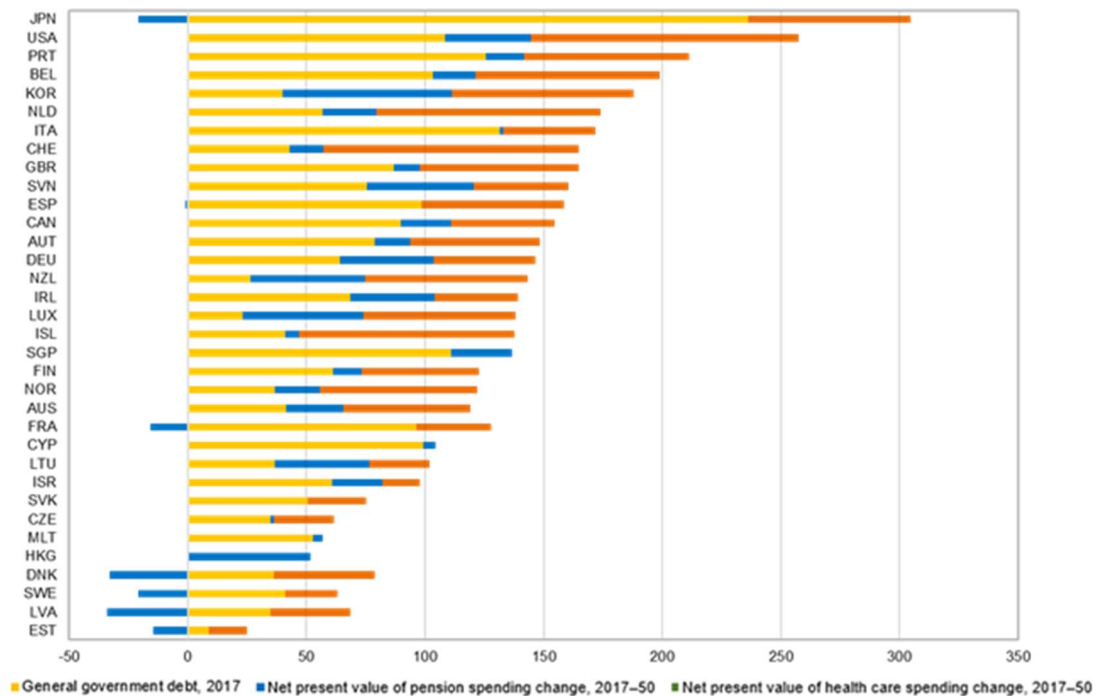
28. Medium-term growth prospects remain modest in AEs. The IMF WEO projects growth to be only 1.5 percent in 2023, compared to the pre-crisis (1960-2007) average of 3.5 percent. Part of this weakness is linked to demographic trends. Employment growth is expected to be only 0.3 percent in 2023 (compared to 1.2 percent, pre-crisis), and this trend is likely to become negative in the longer-term, absent reforms. Another explanation for the weak growth outlook is the idea of ‘secular stagnation’, which presumes a permanent aggregate demand deficiency, which cannot be cleared by a sufficient fall in the real interest rate (Eggertsson and Mehrotra, 2014). On the supply side, weak productivity growth has also been a puzzle in many AEs.

29. It might be argued that low growth is not an issue if interest rates also remain low. Indeed, the standard neo-classical framework suggests that these variables should be bound together (Holston et al, 2016). Interest rates have been persistently low in many AEs since the global financial crisis. However, empirical evidence has not always been supportive of such a close link between trend output growth and the natural rate of interest (Hamilton et al., 2015). A sudden rise in interest rates could shift an economy from a situation of stable debt and low interest rates into a bad equilibrium (Mauro and Zilinsky, 2016). Such a jump might be triggered by an increase in the risk premia, driven perhaps by geo-political risks, concerns over a trade-war or financial sector fragilities. These issues are explored in detail in Chapter 6, *Reducing Debt, Short of Default*. On balance, however, it is reasonable to expect that nominal GDP growth and interest rates are likely to settle at modest levels over the medium term, suggesting that the differential between the two will be correspondingly small by historical standards. As such, this channel cannot be relied upon to substantially reduce debt burdens going forward.

30. If AEs are unlikely to experience persistently negative interest rate-growth differentials, what role can fiscal consolidation play? As discussed in Chapter 6, *Reducing Debt, Short of Default*, the median improvement of the cyclically adjusted primary balance over consolidation episodes was about 3 percent of GDP. Since 2007, AEs have, on average, only tightened their fiscal stance by around 0.5 percent of potential GDP (recall, the recent austerity drive was preceded by a large fiscal stimulus). If these economies were able to gradually tighten by a further 2.5 percent of potential GDP, a rough calculation suggests debt would not fall to pre-crisis levels until around 2032.⁸ Importantly, Abbas et al. (2013) note that very few debt reversals occurred in a challenging environment of moderate growth i.e. below 2 percent. Furthermore, an ageing population also increases health and social security spending commitments (Figure 9). In most AEs, the adjustment needed to stabilize (explicit and implicit) debt-to-GDP ratios highlights important fiscal gaps (Lee and Mason, 2017). All of this suggests that, even with the necessary adjustment efforts, persistently high debt is likely to remain an issue in AEs for at least a generation.

Figure 9. Debt-to-GDP Including Implicit Liabilities from Pension and Healthcare Spending, 2017
(Percent)

Debt-to-GDP ratios more than double when implicit liabilities linked to aging are included.



⁸ This is based on the standard debt accumulation equation summarized in Chapter 6. Growth and interest rates are assumed to be equal to those projected in the 2018 Spring IMF WEO from 2018—2023, and then remain constant at their 2023 level thereafter.

Section 2: Strengthening Crisis Prevention

31. Prevention is better than cure. Chapters 6 and 7 illustrated that during times of crisis, the costs of policies designed to rapidly reduce debt can significantly damage growth, destroy wealth, de-anchor inflation and erode trust in institutions. Avoiding these actions should be a priority for policymakers. Nevertheless, any policy designed to meaningfully reduce such risks has costs. In Chapter 3, *The Motive to Borrow*, we saw that government borrowing can be beneficial—supporting growth when demand is weak or for investing in infrastructure and education to boost future growth. So cutting back on borrowing can involve significant opportunity costs. Similarly, in Chapter 5, *Debt Management*, a more resilient debt structure often involves paying higher interest rates. This chapter will not repeat the discussion of these policies. Instead, it will focus on some of the more recent policy innovations regarding crisis prevention strategies.

Avoiding Unsustainable Debt Build-Ups

32. This section will consider various policies that both seek to prevent debt building up to high or unsustainable levels and guide debt ratios to lower levels when they are too high. It will cover three main areas: fiscal rules, risks from private debt, and debt transparency and responsible lending.

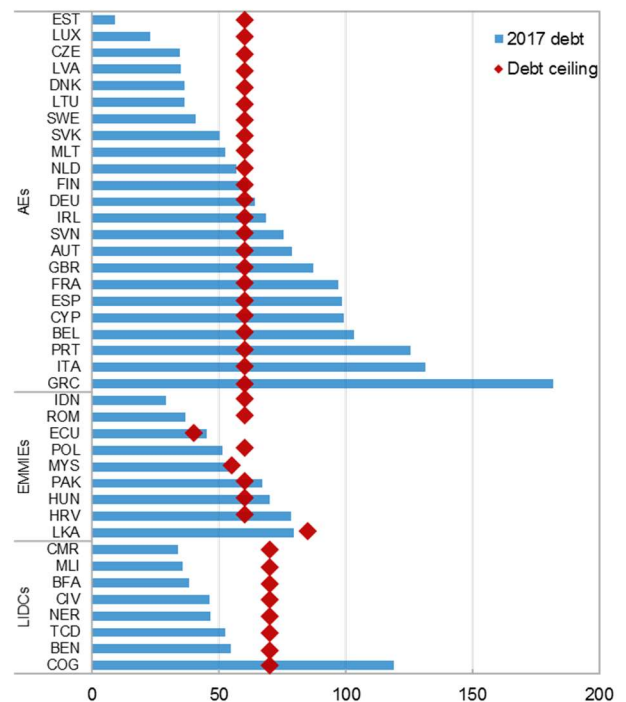
Fiscal rules

33. Fiscal rules—formal conditions that impose numerical limits on budgetary aggregates—are in fashion. As of end-2015, of the 96 countries included in the IMF’s Fiscal Rules Dataset (Schaechter et al, 2012), 92 have some form of national or supranational fiscal rule, most taking the form of budget balance or debt rules. But it would be a stretch to argue that each of these countries is a stellar example of fiscal prudence. Some rules have so many exemptions and loopholes that they are rarely binding. Others are overly restrictive, preventing governments from reacting to changing economic needs. Others are simply ignored. So, what makes a good fiscal rule?

34. Fiscal rules are designed to act against some of the impulses to over-borrow and over-spend, described in Chapter 3, *The Motive to Borrow*. These impulses often occur when times are good, such as in an economic upswing or

Figure 10. Debt Levels in 2017 and Debt Ceilings under Fiscal Rules
(Percent of GDP)

In several countries, debt is close to or above debt ceilings defined under their fiscal rule.



Sources: IMF, Fiscal Rules Database; and IMF staff estimates.
Note: Data labels in the figure use International Organization for Standardization (ISO) country codes. AEs = Advanced economies; EMMIEs = Emerging market and middle-income economies; and LIDCs = Low-income developing countries.

when commodity exports are booming. Fiscal rules seek to provide discipline on current and future governments. This suggests that such rules benefit from being i) simple and commonly understood, so it is clear when the rule has been breached; ii) flexible enough to adapt to unusual circumstances and changes in the economic environment, notably the business cycle, while remaining a binding constraint on government, and; iii) costly if broken, to ensure compliance is incentivized. Against these criteria, expenditure rules—for example, where spending should not grow faster than trend GDP growth—have much to recommend them. They can be clearly defined, they are simple to articulate, and they are relatively robust to the economic cycle.

35. How effective are these rules in practice? Eyraud et al (2018) show that countries with fiscal rules tend to have both smaller fiscal deficits and lower debt. Of course, as the authors acknowledge, there is a causality problem here. Prudent countries are both more likely to use fiscal rules and pursue sustainable policies. Heinemann et al (2018) survey the existing literature and find that studies that attempt to control for this apparent endogeneity show little evidence that fiscal rules work, on average. However, as discussed above, there is a wide variation in the *quality* of fiscal rules. Caselli and Reynaud (*forthcoming*) use an instrumental-variable approach, which confirms that, on average, fiscal rules have little causal effect on fiscal outcomes. Critically, however, they find that ‘well designed’ rules (based on the IMF fiscal rule index, see IMF, 2009) tend to lead to stronger budget balances i.e. fiscal rules can be binding.

36. A more radical approach, as suggested by Wyplosz (2005) for example, might be to make the fiscal authorities completely independent agencies. The agency could be given control over the government’s overall borrowing envelope (perhaps governed by a medium-term debt target), while elected officials would decide on the details of how money is raised and spent. This, in theory, could significantly reduce ‘debt bias’. However, such a large transfer of power to unelected officials raises questions about democratic legitimacy, and perhaps for this reason, there has been little serious policy discussion on this idea. A more common, although less ambitious initiative has been the introduction of fiscal councils— independent public institutions aimed at promoting sustainable public finances. These can play an important watchdog function over elected officials. They are typically viewed as important complements, rather than substitutes, for fiscal rules as they can magnify the reputational costs of breaching the rules, making them more effective.

37. Finally, in the context of IMF and World Bank supported programs, there are often borrowing and debt limits agreed with the country in the form of conditionality. These are often used to support the adjustment process required to resolve internal and external macroeconomic imbalance. However, while these limits act to support adjustment in times of crisis, they do not provide a long-term anchor, so cannot substitute for strong, transparent and responsible fiscal institutions. Developing such institutions typically requires broad domestic political support (Acemoglu and Robinson, 2013).

Risks from the financial sector

38. While gradual build-ups in debt can often be attributed to the ‘debt bias’ of governments, this cannot explain sudden increases—the debt spikes. Such spikes are often driven by a collapse in the exchange rate, causing a jump in the burden of foreign currency debt, or because the government assumes the debt of private agents – a contingent liability shock (Jaramillo et al, 2016). Of these contingent liability shocks, the bail-out of financial institutions, especially banks, is often the key source. Bova et al (2016), show that the average fiscal cost of a financial sector bail-out episode is 9.7 percent of GDP, and has historically been as high as 57 percent of GDP. Furthermore, these episodes often occur in the midst of a recession, when the government debt is already growing, and such financial shocks will often exacerbate the downturn and deepen indirect fiscal costs further (Reinhart and Rogoff, 2008).

39. Policies that seek to control the credit cycle to dampen boom-bust tendencies (macroprudential regulation, capital controls etc.) and those that strengthen financial sector resilience (robust regulation and supervision) will not only reduce the fiscal risks, but also reduce the volatility of growth. Detailed discussion on dampening the credit cycle and strengthening financial stability is beyond the scope of this book—an interesting discussion can be found in Borio (2012). Instead, this section will focus on policies that explicitly limit the need and ability of governments to bail-out financial institutions, particularly banks, once a crisis has begun.

40. When a large (or even not so large) bank gets into trouble and is close to failure, there is often some expectation that the government will provide support to that institution for fear that a disorderly collapse could have systemic implications on the rest of the sector. Of course, this expectation is not only present in times of crisis, but will also change incentives in normal times. If investors anticipate at least some probability that their downside losses are limited, they are likely to be more tolerant of risk than otherwise (Nier and Baumann, 2006; Hryckiewicz, 2014; Hett and Schmidt, 2017). This moral hazard-induced increase in risk-taking increases the probability of a crisis and implies an implicit subsidy from the taxpayer to the banks.

41. So why don’t governments simply stop providing bail-outs? Here lies a time-consistency problem. Such a commitment tends to lack credibility, as investors anticipate that in times of crisis, the costs of letting a bank fail will be seen by policymakers as outweighing the immediate benefits, regardless of the long-term implication. Any law, policy or commitment passed in normal times may not survive the crisis, and investors anticipate this. Furthermore, there may be circumstances where well-designed support policies may *improve* financial stability and reduce the risk of bail-outs. Ratnovski and Dell’Ariccia (2012) argue that a bank’s success depends not only on the idiosyncratic risks they take, but also the

stability of the system. If authorities can provide ‘systemic insurance’, which is specifically designed to limit contagion, then the incentives to be prudent may indeed increase. Farhi and Tirole (2012) suggest that governments should focus on system-wide support (lower policy rates, debt guarantees, lowering liquidity collateral standards, secondary market asset purchases), rather than individual bail-outs. Bianchi (2016) argues that the moral hazard effects of a bailout are relatively limited if undertaken during a systemic crisis, and Keister (2015) argues that the complete prohibition of bail-outs will be detrimental to society. Finally, Tucker (2015) discusses the important role of central banks in providing systemic liquidity insurance during a banking crisis, without straying into providing fiscal relief.

42. Governments are less likely to bail out a bank if measures have been put in place in advance to reduce the cost of ‘bail-in’ i.e. policies that make it easier for bank creditors to bear losses (see Dell’Ariccia et al., 2018, for a nice summary). In addition to requiring banks to retain more equity, subordinated debt, including contingent convertible (‘co-co’) bonds, is also increasingly used to increase the loss-absorbing capacity of banks.⁹ In circumstances where equity and subordinated debt is insufficient to absorb all losses, many jurisdictions (including in the US, European Union, Japan) have developed statutory bail-in powers. Here, authorities can impose losses on unsecured senior creditors (normally with limits to losses on retail investors) without putting the bank through the slow process of liquidation. In principle, these tools are designed to maintain the viability of a systemically important bank without requiring taxpayer support.

43. Of course, such action risks spreading contagion if it has not been fully anticipated by markets. As discussed, policy credibility is critical to aligning investor expectations and reducing the risk of policy surprises. Many jurisdictions require banks to develop ‘living wills’—plans designed by the bank to map their resolution—which help investors consider and prepare for the consequences of bank failure. And cross-border agreements between authorities to resolve multinational banks provide an important contingency planning mechanism. But perhaps the most credible—and likely most costly and controversial—policy action would be to force banks to become smaller and less inter-connected. In the UK, banks are required to ‘ring-fence’ their retail banking services, in principle making it easier to rescue this part while letting the reminder fail. More ambitiously, the 1933 Glass-Steagall Act forced the actual separation of commercial and investment banking activities in the US. Interestingly, in 2016, both the Republican and Democratic Parties pledged in their election platforms to reinstate some form of this act. Time will tell whether this is ever enacted and in what form.

⁹ Dagher et al (2016) estimate that a risk-weighted bank capital ratio of 15-23 percent would allow banks to absorb most historic shocks – avoiding the need for bailouts.

Debt transparency and responsible lending

44. Section 1 of this chapter illustrated a worrying trend of rising debt in LICs, with fraud and corruption playing a key role in a handful of cases. These incidents were driven by ‘hidden debts,’ a combination of off-balance sheet borrowing activities, weak public debt recording and reporting, and poor governance. All of this has taken place amid a changing creditor and instrument landscape, evidenced by a shift toward non-traditional creditors and commercial debt. This section will look at what can be done to increase transparency on the scale and terms of lending to reduce the risk of such ‘debt surprises.’

45. Part of the solution must lie in improving the capacity of the institutions that record, monitor and report debt (debt managers, budget approval teams, fiscal councils etc.). The IMF, World Bank, United Nations and other international institutions all provide resources and training to support such capacity building at the country level. Unfortunately, there seems to have been little improvement in recent years—in fact, the World Bank’s measure of ‘debt policy’ capacity¹⁰ actually shows a modest deterioration over the last decade, which corresponds to a more general decline in the quality of ‘economic management.’ While support from the international community can always be improved—and stepped-up efforts are underway—this points to the need for political commitment at the highest levels to ensure that the appropriate checks and balances are in place to correctly govern and control the issuance of new debt. Pressure can come from domestic sources, such as civil society or the legislative branch; or from external sources, both from the creditors and other actors.

46. On the creditor side, there are several codes of conduct in existence that seek to bind official creditors to a common set of lending principles (see for example, UNCTAD, 2012; G20, 2017; OECD, 2018). Typically, signatories pledge, among other things, to ensure some degree of disclosure on at least the scale of lending provided to countries; and also a commitment for lenders to cooperate when a debtor faces repayment difficulties. Given that these codes are not legally binding on creditors, ‘enforcement’ typically comes through a combination of peer pressure from other creditors and pressure from civil society. Regarding the latter, Hausmann and Panizza (2017) propose setting up ‘odiousness ratings for public debt’. Akin to credit ratings, the debt of regimes would be rated in terms of the extent to which it is intended to benefit the citizens of the country, rather than the regime. It would become part of ‘soft international law’ and might be used to determine, for example, whether debt is included in the calculation of emerging-market indices.

¹⁰ Taken from the World Bank’s Country Policy and Institutional Assessment (CPIA) rating for ‘debt policy’. The reference is for the unweighted average of all International Development Association eligible countries.

Tackling uncertainty: the role of state-contingent debt

47. The previous sections explored how countries can limit the risk of debt build-ups. Nevertheless, it is unrealistic to assume that all risks—external and domestic; economic and financial; man-made and natural—can be eliminated. In this context, the ability to share risk with creditors can be extremely beneficial. There are many ways to do this, and it is worth remarking that conventional debt contracts implicitly involve some potential risk sharing, in the sense that in extreme states of the world, sovereigns can and do renege on their debt obligations. But Chapter 7, *Sovereign Default*, illustrates how costly this can be, especially when pursued through a disorderly default. In addition to the ‘deadweight costs’ of default, such risk-sharing is also inefficient because it is largely confined to tail-events. There are many other states of the world where risk sharing—via more complete markets—could benefit both the sovereign debtor and their creditors, but these opportunities have not been realized.

48. State Contingent Debt Instruments (SCDIs) offer such risk-sharing benefits. These instruments explicitly link debt service obligations to pre-defined variables or states of the world. They are designed to alleviate pressure on debt obligation and/or financing needs in times of difficulty. SCDIs can include continuous adjustment features, for instance by linking debt to GDP or commodity prices; or discrete adjustment features, which kick-in when a certain event (such as a natural disaster) or threshold (such as a pre-defined interest rate) is reached. Over the last three decades, many proposals have been suggested, including by Krugman (1988), Shiller (1993), Borenszstein and Mauro (2004), Summers (2015), and Blanchard et al. (2016). Yet these instruments have only been used in a handful of cases and often in the context of a distressed debt exchange.

Benefits

49. SCDIs create ‘policy space’ when needed, making it easier to use fiscal and monetary tools to mitigate the impact of adverse shocks. Take the example of GDP-linked bonds, which directly link debt service to the level of nominal GDP (see for example, Benford et al, 2016). During a recession, the value of this debt will decline, providing automatic debt relief and increasing fiscal space, which could be used for counter-cyclical policies. Similarly, by reducing the risk of default, it is less likely that the credit spread will tighten monetary conditions, thereby further supporting growth. Pienkowski (2017) illustrates how GDP-linked bonds act to raise a country’s maximum sustainable debt i.e. its debt limit (see Chapter 4, *Debt Sustainability*). And like any countercyclical tool, SCDIs can help attenuate boom-bust cycles in public spending by requiring the sovereign to allocate a larger share of revenue to debt service in ‘good times.’

Costs and constraints

50. While the theoretical case for SCDIs seems strong, critics point to several practical costs and constraints that have inhibited their issuance. ‘First-mover problems’ might mean

that while a market could function well once established, being the first to issue is just too costly. Of course, even once established, SCDIs will be more expensive than traditional debt as they pass risk on to the creditor. However, in IMF (2017a) it is shown that the ‘volatility risk premium’ on a GDP-linked bond may be relatively low, with estimates ranging from 20-150 basis points. The cost of borrowing may fall even further if markets anticipate that default risk on debt is also lower because of these instruments.

51. As with all forms of insurance, SCDIs bring with them the risk of adverse selection and moral hazard. Adverse selection might occur when investors have limited and asymmetric information of the ‘fundamentals’ of a sovereign, such that the issuance of SCDIs may be perceived as a signal that the sovereign is riskier than previously thought. Moral hazard is also a concern, insofar as the sovereign may choose to pursue more risky policies because it has downside protection from SCDIs, thus increasing the risk of a crisis. While both factors might deter issuance, it is worth bearing in mind that such problems are also present in other debt management strategies, such as issuing at longer maturities or in local currency. And for countries with greater transparency and strong institutional and policy frameworks, these issues may not be acute.

52. Political economy constraints may also prevent issuance. As discussed in Chapter 3, *The Motive to Borrow*, policymakers may focus on short-term costs at the expense of the benefits from longer-term risk mitigation. In this sense, myopic policymakers may choose not to pay the upfront cost of SCDIs, even if they are in the longer-term interests of their country. Relatedly, some have expressed concern that policymakers may manipulate data to artificially reduce debt service payments—for example, by reporting lower than actual GDP figures. While it is not clear how acute this risk might be (is a government really going to report a recession when it doesn’t need to?), it does highlight the importance of clear and easily verifiable SCDI contracts.

Design and policy support

53. Careful instrument design has the potential to mitigate some of the complications noted above. Importantly, instruments need to be designed such that they:

- link natural issuers with investors, thus supporting risk-hedging and also ensuring that these instruments are held by those able to bear losses;
- have relatively simple and homogenous contracts, preventing investors needing to invest resources in understanding new instruments;
- are supported by robust institutions and contracts that reduce the risk of abuse and manipulation, and;
- are supported by appropriate regulation and market treatment to prevent excessive risk migrating from the public to private sector, but also ensuring that the regulatory costs are not onerous.

54. Contract design, however, can only go so far in addressing the costs and constraints associated with SCDIs. And insofar as there are potential positive system-wide externalities associated with these instruments, official sector support may be warranted to kick-start larger scale issuance. Possible initiatives—increasing in ambition—could include:

- *Developing commonly agreed model contracts.* The official sector could partner with the private sector to mitigate the start-up costs associated with designing SCDIs.
- *Technical assistance to sovereigns.* There is scope for IFIs, think tanks, and practitioners to continue to discuss and explain the various features of SCDIs.
- *Development banks could underwrite and guarantee SCDIs.* This could support the issuance of SCDIs in cases where countries cannot afford such instruments on their own, notwithstanding the significant benefits associated with them.
- *Official creditors could expand or introduce state-contingent features in their lending.* Following the lead of the French development agency's (AFD) countercyclical loans (which have adjustable grace period tied to exports), official loans could be made more state contingent.
- *A large sovereign (or institution) could lead-issue to help kick-start SCDI markets.* Issuance by a major sovereign is likely to command greater investor confidence and be associated with lower issuance premia.
- *Coordinated issuance by several sovereigns.* Such action may remove first-mover reticence and reduce the novelty and liquidity premia associated with the initial use of SCDIs.

Section 3: Strengthening Crisis Resolution

55. Despite best efforts to prevent the seeds of debt crises from taking root, some will inevitably take hold. This raises an important question: once crises do occur, how can they be resolved as quickly as possible, and with minimal costs to debtors, creditors and ‘innocent bystanders’? Can the architecture of the international monetary system be improved to better meet such ends? A key requirement here is that such a system facilitates coordination among all the relevant actors in the crisis: the debtor, its creditors (official and private) and multilateral organizations—which may have divergent interests—and bring them all to the table to find workable solutions. This requires striking a balance between predictability and flexibility. The following section takes a look at the various legislative, contractual and institutional reforms that might be pursued to strengthen the system.

Current framework

56. Three institutions have historically been central to sovereign debt crisis resolution in the post-war era: (i) the IMF, which as *de facto* lender of last resort, helps both to lend to a country and coordinate other creditors in providing finance; (ii) the Paris Club, a forum designed to coordinate debt relief amongst official bilateral creditors; and (iii) the London Club, which was an organic response to the 1980s Latin American debt crisis and served as the main forum for private sector involvement (PSI) during this period. Over time, this framework has been increasingly tested by the fragmentation of creditor bases, both private and official.

57. The London Club essentially disappeared in the years following the Brady Bond Initiative. Syndicated bank lending fell out of fashion, and EMs predominantly issued external debt in the form of bonds. Rather than debt being held by a relatively small number of large banks, sovereign bonds were held by potentially thousands of small and diverse creditors, from retail savers to hedge funds to other governments. Given the lack of an effective institution to coordinate such creditors, contractual remedies were introduced to support crisis resolution (see below).

58. On the official side, as discussed in Section 1, LIC and EM debt is now held by a diverse range of new lenders, including NPC bilateral creditors, ‘plurilateral’ institutions and sovereign wealth funds. Creditor coordination is much more challenging in this new landscape. This is partly because of the difficulty in getting such a large number of players with differing interests to come to the table in a timely manner and on a common set of terms, when a crisis hits. But it also reflects the fact that the established boundaries between say, official bilateral and private claims, and between bilateral and multilateral claims, have become blurred. In other words, creditor seniority has become much more uncertain—and contentious.

59. In the past, seniority was a relatively straightforward issue, with creditor hierarchies accepted *ex-ante*, clearly identified, and generally respected. As discussed in detail in

Chapter 7, *Sovereign Default*, official claims have traditionally been broadly accepted as deserving of more favorable treatment in a debt restructuring relative to private claims. This was essentially because the underlying financing was usually extended for public policy purposes, at preferential rates or at a time when recourse to private credit was not available. The architecture, including the IMF's arrears policies (see Chapter 8), supported such norms. It was also fairly straightforward to identify whether a claim was official, as almost all official bilateral financing took the form of loans extended by one sovereign entity to another. Finally, the Paris Club's 'comparability of treatment principle' helped ensure that NPC bilateral or private creditors would contribute on terms at least as generous as those provided by the Club. But with Paris Club claims now often in the minority, this mechanism can no longer always be relied upon.

60. In sum, the current framework falls short, both in accommodating all types of creditors and catering sufficiently to all types of claims. There is no clear forum for resolving disputes should they arise. This ambiguity can delay restructurings and prolong sovereign stress, raising costs for all parties involved. There are several restructurings on the horizon that typify this new, more complex creditor landscape. Venezuela and The Gambia—where many NPC bilateral creditors, 'plurilateral' creditors, and multilaterals are involved—provide two notable examples (see *Case Study*, below). So, what can be done to strengthen the crisis resolution architecture?

Changing the law

61. One way to better formalize the rules of restructurings, *ex ante*, would be to give all actors a predictable and binding set of actions to follow in a restructuring via a statutory approach. There is a long history of proposals to create statutory-based mechanisms to deal with debt crises—see Rogoff and Zettelmeyer (2002), for a survey. The best-known, from the IMF in the early 2000s, was the Sovereign Debt Restructuring Mechanism (SDRM). Motivated by Argentina's debt restructuring, the SDRM contemplated an amendment to the IMF's foundational treaty—the Articles of Agreement—to create a statutory framework for sovereign debt restructuring (Hagan, 2005). The framework had many features of a corporate insolvency regime: majority restructuring, a stay on creditor action, and priority for new financing. The terms of the restructuring would have been subject to approval by the IMF, in the context of an IMF-supported program. Despite initial enthusiasm, a growing chorus of voices arose against the proposal. Creditor countries felt their rights would be diluted; debtor countries feared that it would discourage creditors from lending to them in the first place; and there was a general unease that such a framework would weaken sovereign rights and create moral hazard problems. However, the debate about the merits of a statutory framework to resolve sovereign debt have continued. In particular, there is a lively recent discussion about treaty-based approaches to sovereign debt restructuring in Europe (Buchheit et al, 2013).

62. While a multilateral statutory response seems unlikely, at least in the immediate future, some countries have adopted legislation to address more specific obstacles to

effective debt restructurings.¹¹ There has been a particular focus on the activities of ‘vulture funds,’ which aim to recover the full value of their claims by litigation. There is a trade-off here, however. While distressed debt investors can adopt tactics that are highly disruptive, they can also provide important liquidity to bond markets and help with price discovery. Therefore, any efforts to address holdout behavior through legislation need to strike the right balance between deterring disruptive creditor behavior and preserving secondary market liquidity.

Contract design

63. In the aftermath of the Argentina default and following the failure to establish the SDRM, attention turned to contractual approaches to solve coordination problems among private creditors. The main initiative in this regard was the widescale introduction of collective action clauses (CACs) into international bond contracts. As discussed in detail in Chapter 8, *The Sovereign Debt Restructuring Process*, such clauses allow a restructuring deal agreed by a *qualified* majority of creditors to be binding on all creditors in a specific bond series. This was a significant step forward in limiting bondholders’ abilities to ‘hold-out’ of restructurings in order to benefit at the expense of other creditors. However, it did not entirely eliminate the hold-out problem. In the 2012 Greek government debt restructuring several international bonds (the few that were not governed by Greek law) did not take part in the debt exchange, despite having CACs (Zettelmeyer et al, 2013). These bondholders refused to participate and were paid in full. This led to a further innovation (again, explained in detail in Chapter 8): the creation of ‘aggregation clauses,’ which allow for voting to be pooled across issuances. There are several variants of this contract—‘single-limb’, ‘two-limb’—that offer varying degrees of power to the majority of creditors at the potential expense of the minority. A case can be made for encouraging issuers to use a single standard design, so as to support legal and market clarity over such contracts.

64. The use of *pari passu* clauses—traditionally ‘boiler plate’ clauses that call for comparable treatment amongst creditors—has raised additional creditor cooperation challenges. In particular, in the course of Argentina’s most recent debt exchanges, holdout creditors successfully argued, in US courts, that this clause had been breached. The courts ruled in favor of the creditors, and interpreted this clause as requiring a ‘ratable payment.’ This meant that, if Argentina made all required payments to previously restructured bonds, then it would need to make all required payments on the defaulted bonds—implying that holdout creditors would be paid out in full. In the aftermath of this ruling, sovereign issuers (for example, Ecuador and Greece) have changed the wording of their *pari passu* clauses to explicitly rule out the US courts’ interpretation. Moreover, the International Capital Market

¹¹ For example, in 2010, England passed a law preventing creditors from pursuing debtors seeking debt relief under the Heavily Indebted Poor Countries (HIPC) initiative. Similarly, Belgium passed a broad anti-vulture funds law, which limits recovery by certain creditors to the amount they paid on the secondary market for the debt.

Association has proposed a standard *pari passu* clause for sovereign debt contracts, which also rules out any obligation to make ‘ratable payments.’ Concerted efforts to include these strengthened clauses in all new contracts would help limit legal vulnerabilities and enhance creditor coordination.

65. While improved debt contract design has helped to limit failures in creditor coordination for new issuances, it does not address the vulnerabilities in the existing *stock* of debt outstanding, implying that risks will diminish only gradually. For example, as of September 2017, it is estimated that only 27 percent of outstanding sovereign bonds included CACs with aggregation clauses (IMF, 2017). Therefore, the vast majority of the existing debt stock will remain vulnerable to hold-out risks for many years to come. One strategy to overcome this would be to use standard debt management operations to swap this legacy debt for bonds with the latest contract design. Such operations are often used to smooth the maturity profile of existing debt and, if undertaken when market conditions are benign, this is unlikely to be particularly costly. Indeed, over the long-run liquidity conditions could potentially improve if contract design within a country’s debt stock were made more homogenous.

Strengthening institutions

66. Turning to the *official* sector, it is clear that the fragmentation of the traditional creditor base has the potential to impede effective coordination. In this regard, existing institutions may need to adapt, and new ones may need to be created.

67. There already exists an institution to deal with official bilateral claims that has a track record in working with the IMF and others to resolve sovereign debt crises since the 1950s—namely, the Paris Club. Adding more seats to the table can help bring more official creditors on board, whether permanently (as in the recent accession of Brazil and South Korea) or on an *ad hoc* basis (South Africa and some Gulf countries). Given the established role of the Paris Club in ‘official sector involvement,’ such an expansion would facilitate coordination among official creditors using a set of rules that have proven effective in the past.

68. More wide-ranging efforts to bring different creditor groups together might also pay dividends in facilitating effective debt resolution. The recently established ‘Paris Forum’ was a first step in fostering greater dialogue between *all* official creditors and sovereign debtors. The focus of this group has been on policy dialogue, rather than looking into country-specific restructurings. But it could conceivably evolve over time into a vehicle that supports official creditor coordination in country cases, as a complement to the Paris Club. New approaches might also be required to help coordinate other forms of sovereign-to-sovereign claims that are not considered ‘official’—a situation that can arise where the original loans were not made for the purpose of providing support to the sovereign debtor. Take for instance the case

where a sovereign entity holds *part* of a bond series issued by another sovereign.¹² An example would be a sovereign wealth fund that holds a portfolio of assets that includes other sovereign bonds. Given that this type of debt is typically bought on the secondary market, and bonds in the same series will be held by other creditors, it would not be appropriate for the wealth fund's claims to have seniority over other bondholders just because it is 'sovereign.'¹³ Nevertheless, given the rising importance of this creditor group, it could help facilitate a debt restructuring if there were a forum designed to promote coordination among public sector entities holding secondary-market claims.

69. A more ambitious reform might be to seek better coordination between all creditors—private and official. Gitlin and House (2014) have suggested the need for a Sovereign Debt Forum. This non-statutory, membership-based, forum would provide a venue—much like the Paris or London Clubs—to facilitate early engagement among creditors, debtors and other stakeholders when sovereigns encounter trouble. However, achieving coordination with such a disparate group of creditors would be particularly challenging, especially in the absence of a rules-based mechanism such as the SDRM.

¹² Sovereign bonds that were issued to, and entirely held by, another sovereign (for example Russia's bond claim with Ukraine), are presumably less problematic, as these can clearly be defined as 'official' and could be treated under the auspices of the Paris Club.

¹³ If such claims were to be treated as official, a sovereign wealth fund could buy distressed debt on the secondary market, claim seniority in a debt restructuring and get paid in full, whilst the remaining creditors get diluted.

Case Study. Complicated Potential Restructurings

The following two country cases illustrate the complications nested in looming restructurings:

Venezuela

Despite having the world's largest oil reserves, Venezuela is undergoing an unprecedented economic crisis, and is on the verge of what could be an extremely disorderly and complicated debt restructuring. Debts by the Venezuelan government and the state-owned oil company, *Petróleos de Venezuela, S.A. (PDVSA)* will be difficult to resolve for several reasons:

- The creditor base is very heterogenous, comprising of private creditors, official bilateral creditors (of which the largest claim lies with a NPC creditor, China), and multilateral agencies. Given challenges to coordination, separate debt restructuring operations might have to be conducted in parallel with each of these groups.
- The debt structure is complex. Some of the loans are collateralized making creditor interests diverge from that of the broader group. Of the tradable bonds, whereas most of the Venezuelan government bonds include CACs, the PDVSA bonds do not, raising the likelihood of holdouts. There have also been cases where debt instruments (including so called 'promissory notes') have been sold to creditors at highly discounted prices relative to the face value. This raises the question of how to determine the appropriate size of a claim in a restructuring.
- The perimeter of the debt to be included in the restructuring is unclear, incentivizing holdouts and raising inter-creditor equity concerns. The jurisdiction of each type of debt could also create complications: in the case of PDVSA's New York law governed bonds, creditors could have recourse to seize the Venezuelan government or PDVSA assets abroad (such as its US refinery, CITGO whose shares have already been pledged to bondholders).
- Sanctions by the United States prevents US-based institutions from buying Venezuelan bonds, including those potentially issued under a debt exchange.

The Gambia

The experience of The Gambia illustrates the issues that can arise in addressing debt sustainability with plurilateral creditors. In Gambia's case, debt sustainability concerns have been the result of an erosion of economic institutions and institutional capacity, political instability, susceptibility to climate shocks, and theft of public funds by a former regime. Reflecting the legacy of these vulnerabilities, the IMF's latest assessment (IMF, 2018b) reports debt be 'unsustainable', having reached 129 percent of GDP at end-2017—an exceptionally high level for a LIC.

The Gambia's high debt stock is characterized by a sizable amount of loans extended by relatively new 'plurilateral' institutions, at over one-third of external debt (Table below). These include the Islamic Development Bank, the Arab Bank for Economic Development in Africa, the OPEC Fund for International Development, and the Economic Community of

West African States (ECOWAS). These entities are a part of the official sector and extend non-commercial credit to other sovereigns. However, while they have more than one share holder, and are therefore not bilateral lenders, they do not have universal or open memberships.¹

The Gambia: Structure of Public and Publicly-Guaranteed External Public Debt, end-2017

	Nominal Value			Present Value ¹		
	US\$ millions	Percent of		US\$ millions	Percent of	
		GDP	External Debt		GDP	External Debt
Total External	685.6	67.5	100.0	489.3	48.1	100.0
Multilateral creditors	239.8	24.1	35.8	149.1	15.0	31.2
International Development Association	105.1	10.6	15.7	58.3	5.9	12.2
African Development Bank	55.4	5.6	8.3	31.4	3.2	6.6
International Monetary Fund	51.5	5.2	7.7	41.3	4.2	8.6
International Fund for Agricultural Development	27.7	2.8	4.1	18.2	1.8	3.8
Plurilateral creditors	238.8	24.0	35.6	180.1	18.1	37.7
Islamic Development Bank	141.8	14.3	21.2	102.7	10.3	21.5
Arab Bank for Economic Development in Africa	43.4	4.4	6.5	32.5	3.3	6.8
OPEC Fund for International Development	34.6	3.5	5.2	28.9	2.9	6.1
ECOWAS	18.9	1.9	2.8	15.9	1.6	3.3
Bilateral Official creditors	163.4	15.2	22.6	128.6	12.0	24.9
Paris Club	5.6	0.6	0.8	4.6	0.5	1.0
Non-Paris Club	157.7	15.9	23.5	123.9	12.5	26.0
<i>Of which: Kuwait Fund</i>	42.7	4.3	6.4	33.5	3.4	7.0
<i>Of which: Saudi Fund for Development</i>	30.2	3.0	4.5	16.7	1.7	3.5
<i>Of which: Export-Import Bank of India</i>	28.0	2.8	4.2	22.9	2.3	4.8
Private creditors	43.7	4.1	6.0	31.5	2.9	6.1

Sources: Gambian authorities, major creditors, and IMF staff calculations

¹ Calculated at a discount rate of 5 percent, see IMF (2013) *Unification of Discount Rates Used in External Debt Analysis for Low-Income Countries*.

Established policies and procedures for dealing with overborrowing have little to say about how to involve plurilateral creditors in finding solutions to unsustainable debt situations. Given that they are not bilateral lenders, there is no forum like the Paris Club to guide effective creditor cooperation. Moreover, it is also not clear how policies like the IMF's Non-Tolerance of External Arrears policy (see Chapter 8) would apply, especially as there has been no consistent definition of what characteristics constitute a multilateral institution. Moreover, within these plurilateral creditors themselves, given that they are relatively new, there is little experience on restructuring debt.

¹ In contrast to established multilateral institutions including the African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, Inter-American Development Bank, and the World Bank.

References

- Abbas, Ali, S., Akitoby, Bernardin, Andritzky, Jochen, Berger, Helge, Komatusuzaki, Takujii, and Justin Tyson (2013), “Dealing with High Debt in an Era of Low Growth”, IMF Staff Discussion Note, No. 07.
- Acemoglu, D. and Robinson, J. (2013), “Why Nations Fail: The Origins of Power, Prosperity, and Poverty”, Crown Business
- Amaglobeli, D., N. End, M. Jarmuzek and G. Palomba (2015), ‘From Systemic Banking Crises to Fiscal Costs: Risk Factors’, IMF Working Paper No. 15/166. Available at: <https://ssrn.com/abstract=2653619>
- Arslanalp, S. and Tsuda, T., (2014), “Tracking Global Demand for Emerging Market Sovereign Debt”, IMF Working Paper WP/14/39
- Arslanalp, S. and Tsuda, T. (2015), “Emerging Market Portfolio Flows: The Role of Benchmark-Driven Investors. IMF Working Paper WP/15/263
- Asonuma, T., Li, M., Papaioannou, M, Thomas, S., and Togo, E. (2017), “Sovereign Debt Restructurings in Grenada: Causes, Processes, Outcomes, and Lessons Learned”, IMF working paper WP/17/171
- Beltran, D., Garud, K. and Rosenblum, A. (2017), “Emerging Market Nonfinancial Corporate Debt: How Concerned Should We Be?”, IFDP Notes, available at: <https://www.federalreserve.gov/econres/notes/ifdp-notes/emerging-market-nonfinancial-corporate-debt-how-concerned-should-we-be-20170601.htm>
- Benford, J., Best, T., and Joy, M., (with contributions from other central banks), 2016, “Sovereign GDP-Linked Bonds,” Bank of England Financial Stability Paper No. 39, (September 2016)
- Bianchi, J. (2016), “Efficient Bailouts?”, American Economic Review
- Blanchard, O., P. Mauro, and Acalin, J., 2016, “The Case for Growth Indexed Bonds in Advanced Economies Today,” Peterson Institute for International Economics, Policy Brief No. 16–2.
- Bloom, Nicholas (2009), “The impact of uncertainty shocks”, *Econometrica*, 77(3), 623-685.
- Bolton, P. and O. Jeanne, 2007. “Structuring and Restructuring Sovereign Debt: The Role of a Bankruptcy Regime,” *Journal of Political Economy*, University of Chicago Press, vol. 115(6), pages 901-924, December.
- Borensztein, E., and Mauro, P., 2004, “The Case for GDP-Indexed Bonds,” *Economic Policy*, Vol. 19, No. 38, pp. 166–216.

Borio, C. (2012), “The financial cycle and macroeconomics: What have we learnt?”, BIS Working Papers no 395

Bova, E., Ruiz-Arranz, M., Toscani, F. and Ture, H. E. (2016), “The Fiscal Costs of Contingent Liabilities: A New Dataset”, IMF Working Paper WP/16/14

Brautigam, D., and J. Hwang, 2016, “Eastern Promises: New Data on Chinese Loans in Africa, 2000 to 2014,” Johns Hopkins School of Advanced International Studies, China Africa Research Initiative Working Paper 4.

Buchheit, L., Gelpern, A., Gulati, M., Panizza, U., Weder di Mauro, B. and Zettelmeyer, J. (2013), “Revisiting Sovereign Bankruptcy”, Committee on International Economic Policy and Reform. Available at: https://www.brookings.edu/wp-content/uploads/2016/06/CIEPR_2013_RevisitingSovereignBankruptcyReport.pdf

Buchheit, L.C. and G. M. Gulati, 2017, “How to Restructure Venezuelan Debt”, Duke Law School Public Law & Legal Theory Series No. 2017-52

Buttiglione, Luigi, Lane, Philip, Reichlin, Lucrezia, and Vincent Reinhart, 2014, “Deleveraging? What Deleveraging?”, Geneva Reports on the World Economy 16, International Center for Monetary and Banking Studies, CEPR.

Carvalho, Carlos, Andrea Ferrero, and Fernanda Nechio (2016), “Demographics and real interest rates: Inspecting the mechanism”, *European Economic Review*.

Caselli, F and Reynaud, E (*forthcoming*), “Do Fiscal Rules Improve the Fiscal Balance, A New Instrumental Variable Strategy”

Dagher, J., Dell’Ariccia, G., Laeven, L., Ratnovski, L. and Tong, H. (2016), “Benefits and Costs of Bank Capital”, IMF Staff Discussion Note SDN/16/04

Dell’Ariccia, G., Peria, M. S. M., Igan, D., Awadzi, E., A., Dobler, M. and Sandri, D. (2018), “Trade-offs in Bank Resolution”, IMF Staff Discussion Note SDN/18/02

Dreher, A., A. Fuchs, B. Parks, A. M. Strange, and M. J. Tierney, 2017, “Aid, China, and Growth: Evidence from a New Global Development Finance Dataset”. AidData Working Paper #46. Williamsburg, VA: AidData

Eggertsson, Gauti B., and Neil R. Mehrotra (2014), “A Model of Secular Stagnation”, NBER Working Papers 20574, National Bureau of Economic Research, October.

Eichengreen, Barry (2015), “Secular Stagnation: The Long View”, *American Economic Review*, 105(5), 66-70.

Eichengreen, B. and Hausmann, R. (1999), “Exchange Rates and Financial Fragility”, NBER Working Paper No. 7418

European Commission (2018), EU Debt Sustainability Monitor, 2017.

Eyraud, L, X Debrun, A Hodge, V Lledó, and C Pattillo (2018), “Second-Generation Fiscal Rules: Balancing Simplicity, Flexibility, and Enforceability”, IMF Staff Discussion Notes 18/04.

Farhi, Emmanuel, and Ivan Werning. 2014. “Dilemma not Trilemma? Capital Controls and Exchange Rates with Volatile Capital Flows.” IMF Economic Review (Special Volume in Honor of Stanley Fischer) 62: 569-605.

Farhi, E. and Tirole, J. (2012), “Collective Moral Hazard, Maturity Mismatch, and Systemic Bailouts”, American Economic Review

Ferguson N., Schaab A., and M. Schularick (2014), “Central bank balance sheets: expansion and reduction since 1900”, *Forum on Central Banking: Monetary Policy in a Changing Financial Landscape*, Sintra, Portugal, 25-27 May 2014.

Forslund, K., Lima, L. and Panizza, U. (2011), “The determinants of the composition of public debt in developing and emerging market countries”, Review of Development Finance

Franke A., R Rechsteiner, G. Sharp, 2017, “The Endgame for Commodity Traders”, Oliver Wyman Insights

G20 (2017), “G20 Operational Guidelines for Sustainable Financing”, available at: https://www.bundesfinanzministerium.de/Content/DE/Standardartikel/Themen/Schlaglichter/G20-2016/g20-operational-guidelines-for-sustainable-financing.pdf?__blob=publicationFile&v=2

Gitlin, R. and House, B. (2014) “A Blueprint for a Sovereign Debt Forum”, CIGI Paper No. 27

Gourinchas, Pierre-Olivier and Helen Rey (2016), “Real Interest Rates, Imbalances and the the Curse of Regional Safe Asset Providers at the Zero Lower Bound”, National Bureau of Economic Research WB 22618.

Hagan Sean, 2005, ‘Designing a Legal Framework to Restructure Sovereign Debt’ 36 Georgetown Journal of International Law 299; Anne Krueger, [A New Approach to Sovereign Debt Restructuring](#) (International Monetary Fund 2002) <<http://www.imf.org/en/Publications/Pamphlet-Series/Issues/2016/12/30/A-New-Approach-to-Sovereign-Debt-Restructuring-15722>> last accessed 2 August 2018.

Hamilton, James D., Ethan S. Harris, Jan Hatzius, and Keneth D. West (2015), “The Equilibrium Real Funds Rate: Past, Present, and Future”, NBER Working Papers 21476, National Bureau of Economic Research, August.

Hausmann, R. and Panizza, U. (2017), “Odiousness Ratings for Public Debt”, Project Syndicate

Heinemann, F., Moessinger, M., D., and Yeter, M. (2018), “Do fiscal rules constrain fiscal policy? A meta-regression-analysis”, *European Journal of Political Economy*, 51 (2018) 69–92

Hett, F. and Schmidt, A. (2017), “Bank rescues and bailout expectations: The erosion of market discipline during the financial crisis”, *Journal of Financial Economics*

Hryckiewicz, A., (2014), “What do we know about the impact of government interventions in the banking sector? An assessment of various bailout programs on bank behavior”, *Journal of Banking & Finance*

International Monetary Fund (2009), “Fiscal Rules – Anchoring Expectations for Sustainable Public Finances,” IMF Policy Paper

International Monetary Fund, (2017a), “[State-Contingent Debt Instruments for Sovereigns](#)”, IMF Policy Paper, May 22, (Washington).

International Monetary Fund, (2017b), “Second Progress Report on Inclusion of Enhanced Contractual Provisions in International Sovereign Bond Contracts” (Washington).

International Monetary Fund, 2018a, “Macroeconomic Developments and Prospects in Low-Income Developing Countries.” (Washington).

International Monetary Fund, 2018b, “Second Review Under the Staff-Monitored Program” (Washington).

International Monetary Fund and World Bank, 2015, “Public Debt Vulnerabilities in LICs: The Evolving Landscape,” (Washington).

International Monetary Fund and World Bank, 2018, “Strengthening Public Debt Transparency – the Role of the IMF and the World Bank,” (Washington).

Jaramillo, L., Mulas-Granados, C. and Kimani, E. (2016), “The Blind Side of Public Debt Spikes”, IMF Working Paper WP/16/202

Jubilee Debt Campaign (2017), “The New Developing World Debt Crisis”, <http://jubileedebt.org.uk/reports-briefings/report/new-developing-world-debt-crisis>.

Holston, K., Laubach, T. and Williams, J. (2017), “Measuring the Natural Rate of Interest: International Trends and Determinants”, Federal Reserve Bank of San Francisco Working Paper

Keister, T. (2015), “Bailouts and Financial Fragility”, Review of Economic Studies

Krugman, P., 1988, “Financing vs. Forgiving a Debt Overhang,” NBER Working Paper No. 2486.

Lee C. Buchheit and others, ‘Revisiting Sovereign Bankruptcy’ Committee on International Economic Policy and Reform Report (October 2013)

<<https://www.brookings.edu/research/revisiting-sovereign-bankruptcy/>> last accessed 1 August 2018.

Lee, R. and Mason, A. (2017) “Cost of Aging”, Finance and Development, March 2017, Vol. 54, No. 1

Mauro, Paolo and Jan Zilinsky (2016), “Reducing Government Debt in an Era of Low Growth”, Policy Brief 16-10, Washington Peterson Institute for International Economics.

Mauro, Polo and Jan Zilinsky (2015), “Fiscal tightening and Economic growth: exploring cross-country correlations”, PIIE Policy Brief 15-15, Washington Peterson Institute for International Economics.

Menkhoff, L., Sarno, L., Schmeling, M. and schrimpf, A. (2012), “Carry Trades and Global Foreign Exchange Volatility”, The Journal of Finance

Nier, E. and Baumann, U. (2006), “Market discipline, disclosure and moral hazard in banking”, Journal of Financial Intermediation

OECD (2018), “Recommendation of the Council on Sustainable Lending Practices and Officially Supported Export Credits”, available at:

<https://legalinstruments.oecd.org/public/doc/637/637.en.pdf>

Pienkowski, A. (2017), ‘Debt Limits and the Structure of Public Debt’, IMF Working Paper. Available at: <https://www.imf.org/en/Publications/WP/Issues/2017/05/22/DebtLimits-and-the-Structure-of-Public-Debt-44913>

Raddatz, C., S. Schmukler, and T. Williams, 2015, “International Asset Allocations and Capital Flows: The Benchmark Effect.” HKIMR Working Paper No. 04/2015.

Ratnovski, L. and Dell'Ariccia, G. (2012), "Bailouts, Contagion, and Bank Risk-Taking," 2012 Meeting Papers 133, Society for Economic Dynamics.

Reinhart, C. Reinhart, V. and Trebesch, C (2017), “Capital Flow Cycles: A Long, Global View”, IMF Jacques Polak Annual Research Conference, November, 2-3

Reinhart, C. and Rogoff, K. (2008), “Banking Crises: An Equal Opportunity Menace”, NBER Working Paper No. 14587

Rey, H. (2015), “Dilemma not Trilemma: The Global Financial Cycle and Monetary Policy Independence”, NBER Working Paper 21162

Rogoff, K. and Zettelmeyer, J. (2002), “Bankruptcy Procedures for Sovereigns: A History of Ideas, 1976–2001”, IMF Staff Papers Vol. 49, No. 3

Schaechter A., Kinda T., Budina N., Weber A. (2012), “Fiscal Rules in Response to the Crisis—Towards the 'Next-Generation' Rules. A New Dataset”, IMF Working Paper WP/12/187

Schlegl, M, C Trebesch and M Wright (2015), “Sovereign debt repayments: Evidence on Seniority”, Vox EU <https://voxeu.org/article/sovereign-debt-repayments-evidence-seniority>

Shiller, R., 1993, “Macro Markets: Creating Institutions for Managing Society’s Largest Economic Risks,” Oxford University Press.

Summers, L., 2015, “Pandemic Bonds have Potential to be Win-win-win”, Financial Times. Available at: <http://blogs.ft.com/larry-summers/2015/10/14/pandemic-bonds-have-potential-to-bewin-win-win/>

Tucker, P. (2015), “How can central banks deliver credible commitment and be “emergency institutions”?”, Stanford University, Hoover Institution Conference - <http://paultucker.me/how-can-central-banks-deliver-credible-commitment-and-be-emergency-institutions/>

UNCTAD (2012), “Principles on promoting responsible sovereign lending and borrowing”, available at: http://unctad.org/en/PublicationsLibrary/gdsddf2012misc1_en.pdf

Wyplosz, C. (2005), “Fiscal Policy: Institutions versus Rules”, National Institute Economic Review

Zettelmeyer, J., Trebesch, C. and Gulati, M. (2013), “The Greek Debt Restructuring: An Autopsy”, Peterson Institute for International Economics, Working Paper 13