**INFORMAL SESSION TO ENGAGE**

FO/DIS/21/105
Correction 1

October 22, 2021

To: Members of the Executive Board

From: The Secretary

Subject: **Issues in Restructuring of Sovereign Domestic Debt**

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|---|---|
| Board Action: | The attached corrections to FO/DIS/21/105 (7/23/21) have been provided by the staff: |
| **Evident Ambiguity** | **Pages 6 (footnote 9), 10 (para. 12), 12, 26** |
| **Factual Errors Not Affecting the Presentation of Staff's Analysis or Views** | **Pages 3, 4 (para. 2; footnote 4), 9 (Figure 4), 13, 33, 36** |
| **Typographical Errors** | **Pages 4 (footnote 2), 6 (footnote 10), 9 (para. 9), 10 (footnote 16), 23, 24, 29, 39** |
| Questions: | Mr. Breuer, MCM (ext. 36364)<br>Ms. Ilyina, SPR (ext. 35351)<br>Mr. Pham, LEG (ext. 34479) |

## FIGURES



## ANNEX

# SECTION I. INTRODUCTION

**1. Restructuring domestic law sovereign debt—domestic debt for short—poses a different set of benefits and challenges compared to a restructuring of external sovereign debt.**[1] Unlike external debt, the sovereign can restructure its domestic debt through changes in domestic law.[2] Furthermore, restructuring only domestic law debt may offer a way of limiting the external reputational consequences of debt restructuring and perhaps avoiding loss of access to external debt markets. At the same time, a DDR must confront the fact that sovereign exposures of domestic banks and pension funds disproportionally take the form of domestic rather than external debt. This provides a channel for sovereign stress to spread to other parts of the economy, with potentially serious adverse effects on economic activity as the costs of such distress reverberate across creditors and the financial system.[3] The burden of adjustment for domestic residents increases further with fiscal consolidation to restore debt sustainability.

**2. Domestic debt restructurings may become more frequent in the future.** In tandem with the deepening of domestic capital markets, EMDEs have increasingly relied on domestic debt to finance their fiscal deficits. The share of domestic debt in total debt of EMDEs has risen from ~~33~~ 31 to 46 percent from 2000 to 2020 (Figure 1).[4] At the same time, overall public debt has also increased, with a notable spike in debt recently following the economic shock and the policy interventions in response to the COVID-19 pandemic (Figure 1).[5] Among emerging markets (EMs) whose external bonds are currently trading at distressed spread levels, domestic debt at end-2020 represented over 50 percent of public debt. Among low-income countries classified at high risk of or in debt distress under the IMF-World Bank debt sustainability framework for low-income countries (LIC-DSF), domestic debt amounted to 36 percent of public debt at end-2020.[6] In addition, non-EMDE countries issue mostly under domestic law, and any sovereign debt restructurings in these countries are likely to involve domestic debt (as was the case in the 2011-12~~0~~ and 2013 restructurings in Greece and Cyprus, respectively).

[1] For the purpose of this paper, Domestic Debt Restructuring (DDR) refers to changes to contractual payment terms of public domestic debt (including amortization, coupons, and any contingent or other payments) to the detriment of the creditors, either through legislative/executive acts or through agreement with creditors, or both. External debt restructurings are discussed in IMF (2013, 2015b, 2020) and Asonuma and Trebesch (2016).

[2] In this paper, domestic sovereign debt (domestic debt for short) is defined as public debt liabilities that are governed by domestic law, and subject to the exclusive jurisdiction of the domestic courts of a sovereign. Debt issued under foreign law is considered "external", even if domestic law may also govern certain aspects of the debt instrument or contract, such as debt authorization or the form of the debt contract. Note that this definition is separate from the currency denomination or the residency of the holders of the debt, although there is a considerable overlap in practice.

[3] For a discussion of the sovereign-bank nexus see IMF (2015c, 2018).

[4] Domestic debt data is based on residency due to data limitations. The data in this paper covers 86 EMs and 67 LICs. The analysis on domestic debt restructurings in Section II focuses on a smaller sample of 89 countries, all ~~around 90~~ EMDEs except for Greece and Cyprus which experienced at least one debt crisis episode.

[5] IMF (2021b) discusses the worsening of the sovereign-bank nexus in emerging markets as a result of domestic banks absorbing the bulk of increases in domestic debt during the pandemic.

[6] See https://www.imf.org/external/Pubs/ft/dsa/DSAlist.pdf and the accompanying background paper.

# SECTION II. AN OVERVIEW OF RECENT SOVEREIGN DEBT REDUCTION EPISODES

*Restructurings of domestic debt have become more frequent since the mid-1990s. Much like external debt restructurings, recent domestic debt restructuring operations were typically carried out through negotiations with creditors but tended to take less time to complete than external debt exchanges. Domestic debt-only restructurings tended to occur in countries with low external debt to private creditors and shallow financial systems, were rarely preceded by banking crises, and typically entailed smaller losses for creditors and milder post-restructuring economic contractions than other debt restructuring operations. Comprehensive debt restructurings (of both domestic and external debt) occurred mostly in EMs, were often triggered, or accompanied by severe shocks, including banking crises, and entailed larger losses for creditors and deeper economic contractions than domestic debt only operations.*

## A. Debt Reduction Strategies

**6. When facing liquidity or solvency pressures sovereigns have employed a range of strategies to reduce the real burden of domestic public debt**. These strategies have included financial repression,[7] high inflation, retroactive use of withholding taxes,[8] and overt debt restructurings by law or executive acts or through negotiations with creditors. Based on the type of public debt held by private creditors (foreign law debt, domestic law debt, or both) and the approach to reducing the real burden of domestic debt, the public debt reduction/restructuring episodes generally fall into one of five categories[9]: (i) high inflation/financial repression episodes (IFR)[10]; (ii) standalone EDR events[11]; (iii) standalone DDR events; (iv) EDR events accompanied by high inflation or financial repression (EDR/IFR); and (v) comprehensive restructurings with both EDR and DDR (EDR/DDR).[12] Figure 2 shows the incidence of different types of debt

[7] Financial repression can take many forms, including (i) directing state-owned banks and enterprises or government-controlled entities (e.g., social security fund) to hold government securities, (ii) running interest-free arrears with domestic suppliers for extended periods, and (iii) setting interest rate on government securities below market rates.

[8] The use of tax law measures to reduce debt would need to be reconciled with any applicable legal terms of the domestic debt instrument itself to avoid the possible occurrence of an event of default.

[9] The sample is based on a range of sources (including the survey of country authorities conducted in March-April 2021) and includes all known episodes of restructuring of domestic-law debt held by private creditors (see background paper for details). Apart from addressing an unsustainable debt burden, the purposes of these episodes may have included other objectives (e.g. de-linking contracts from inflation indexation as part of broader macroeconomic reforms, Brazil (1986 and 1990)). Stand-alone restructuring of central bank and public sector holdings of sovereign domestic debt through bilateral arrangements are outside the scope of this paper.

[10] The high inflation/financial repression episodes (IFR) are defined as periods of at least 3 consecutive years of inflation at over 20 percent per annum; accompanied by financial repression (see background paper).

[11] Standalone external debt restructuring events (EDR) include the instances of restructuring of the public debt issued under foreign law and held by private creditors which were not accompanied by either DDR or IFR.

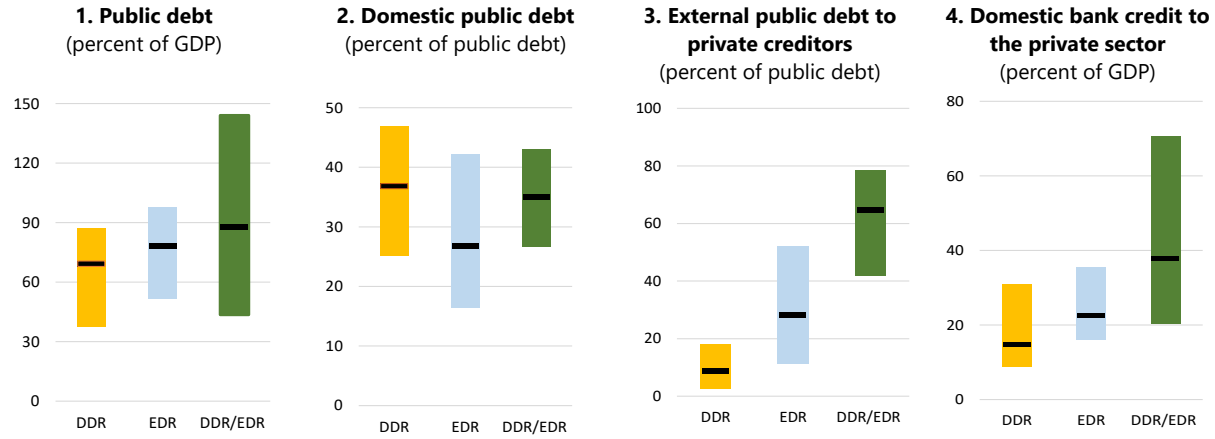
[12] The last two types of debt reduction events involve a comprehensive treatment of public debt, with both foreign and domestic debt included in a debt restructuring process albeit through different mechanisms.

restructuring), and hence the domestic output costs of the restructuring ~~is~~ are relatively small (Figure 4.4).

**Figure 4. Conditions Prior to Public Debt Restructuring Episodes ~~in EMDE~~, 1980–2020**

(all values are recorded one year before the debt restructuring events)

*Compared to other types of debt restructurings, the DDR-countries had relatively higher share of domestic debt, very low share of external public debt to private creditors and relatively low domestic bank credit to the private sector*




Sources: Reinhart and Rogoff (2011), Asonuma and Trebesch (2016), IMF staff reports, credit rating agencies, country authorities and staff calculations.

Notes: Based on the full sample (Figure 2). EDR= external debt restructuring events; DDR= domestic restructuring events; EDR/DDR=external debt restructuring accompanied by domestic debt restructuring.

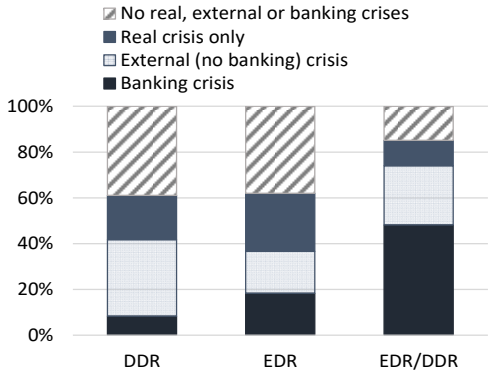
## C. Macro-financial Patterns Around Sovereign Debt Restructurings

**10. Most sovereign debt restructurings were preceded by economic and fiscal pressures triggered or exacerbated by shocks.** On average, roughly 70 percent of all debt restructuring events in EMDEs during 1980–2020 were preceded or accompanied by either real, external, or banking crises, with the rest likely triggered by political upheavals or fiscal pressures (Figure 5). DDRs were often preceded by recessions and/or external shocks, and very rarely by banking crises. In contrast, over half of all comprehensive restructurings were preceded or accompanied by banking crises and about a third were associated with triple (real, external, and banking) crisis events.

**Figure 5. Types of Shocks that Preceded Public Debt Restructurings, 1980–2020**

(number of events in percent of total)

*The most common DDR triggers were external and real shocks, and banking crises for EDR/DDRs*




Sources: Reinhart and Rogoff (2011), Asonuma and Trebesch (2016), IMF staff reports, credit rating agencies, country authorities and staff calculations.

Notes: Based on the full sample (Figure 2). A debt restructuring (DR) event is preceded or accompanied by a crisis if a crisis occurs at time t, t-1, t-2, or t-3 where t is the first year of a DR event.

**11. Comprehensive restructurings (EDR/DDRs) typically occurred under more stressed economic conditions and were followed by sharper output and credit contractions than stand-alone DDRs or EDRs**. A comparison of the macro-financial patterns around different types of debt restructuring events suggests that pre-restructuring growth rates were typically lower for EDR/DDRs than for standalone DDRs and EDRs (Figure 6, 1a–1c). Furthermore, post-restructuring cumulative output declines observed in EDR/DDRs were sharper, on average, than in standalone EDRs and DDRs (Figure 6, 2a–2c).[15] These differences could, in part, be explained by the fact that both domestic and external financing channels became impaired during comprehensive restructurings (as seen in the credit/GDP and capital inflows/GDP patterns in Figure 6). In contrast, the repercussions of DDRs on external financing conditions were limited: Figure 6, 2c shows that capital inflows/GDP tended to *rise* after stand-alone DDRs.[16] The more muted credit contractions in DDRs (Figure 6, 2b) compared to EDR/DDRs could be explained by relatively shallow financial systems in countries that opted for DDRs. Overall, the post-restructuring outcomes tend to be shaped by pre-existing debt problems, shocks and restructuring choices.

**12. Public debt restructurings accompanied by banking crises were associated with larger output losses** (Figure 6, 1a–1c).[17] A comparison of the real GDP contractions during the year in which an EDR/DDR restructuring took place suggests that the worst outcomes were observed when banking crises occurred in the same year as debt restructurings, followed by debt restructurings that occurred after~~followed~~ banking crises, that is, when financial systems were already weak (Figure 7).

**13. The differences in macroeconomic outcomes may also reflect the severity of the pre-existing debt problems and hence, the scale of restructuring and creditor losses**. More granular information available for more recent debt restructuring operations (Figure 8 and Annex 1) suggests that: (i) pre-emptive operations were more prevalent for DDRs and EDRs than for EDR/DDRs (Figure 8.1),[18] (ii) the share of restructured debt was, on average, lower in DDRs and EDRs than in EDR/DDRs (Figure 8.2), and (iii) DDRs typically took less time to complete than other restructurings (Figures 8.3–8.4), likely due to the pre-emptive nature of these operations and a greater sovereign control over the terms and laws governing domestic debt. In addition, information available for some of the recent episodes suggests that net present value (NPV) losses tended to be lower in DDRs than in other restructurings.[19] Thus, the evidence from this sample shows that stand-alone DDRs took less

[15] While it is not possible to fully address endogeneity issues given the small sample size, controlling for some key economic factors, Erce and Mallucci (2018) conclude that the impacts of standalone domestic and external debt defaults on growth are similar in size and smaller than the impact of combined domestic and external defaults.

[16] For example, Jamaica's decision to undertake a standalone DDR in 2013 was partly based on the desire to maintain access to external markets. As a result, it was able to re-access external markets faster than the domestic market.

[17] The maximum cumulative output loss in an average EDR/DDR that coincided with the banking crisis was about 10 percent (and about 11 percent for similar EDR events). This is somewhat lower than a median loss of nearly 14 percent (cumulative over four years) for low- and middle-income countries that experienced a banking crisis (see Laeven and Valencia (2020)).

[18] Restructurings are defined as "pre-emptive" if (i) no payments are missed (no default under contractual terms) or (ii) some payments are missed, but only temporarily and after the start of formal or informal negotiations with creditor representatives.

[19] See background paper for details on the case studies.

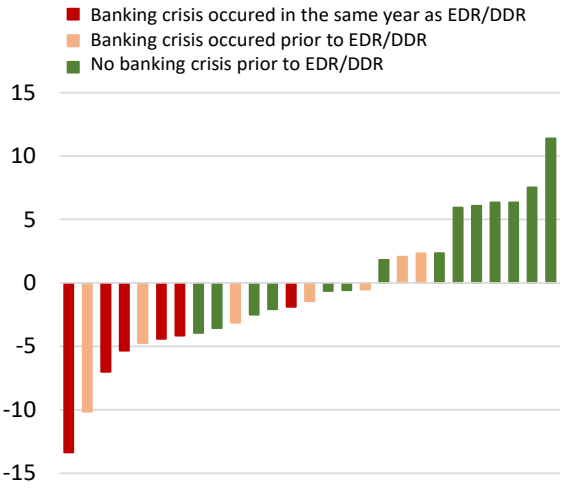
to avoid an EDR if the potential debt relief is too small to offset the external reputational costs and adverse effects on access to external finance.[20]

- *Second*, stand-alone EDRs were more likely to be chosen when the total public debt and the share of external debt to private creditors were relatively high. These are cases where external restructuring was necessary (despite adverse effects on access to external finance), while domestic restructuring was either avoidable or too costly.

- *Third*, comprehensive restructurings (EDR/DDRs) tended to be chosen when both the debt problem and pre-restructuring economic stress were significant, that is, in settings in which a more targeted restructuring was unlikely to have solved the debt problem. In these cases, sharp post-restructuring economic contractions were likely also driven by the simultaneous impairment of domestic and external financing channels.

**Figure 7. ~~Comprehensive Debt Restructurings (1980–2020):~~ Real GDP Growth Rates During the Year of a Debt Restructuring in EDR/DDRs: 1980–2020**

(in percent)




Sources: Reinhart and Rogoff (2011), Asonuma and Trebesch (2016), IMF staff reports, credit rating agencies, country authorities, and staff calculations.
Notes: based on the sample of 27 EDR/DDRs that occurred during 1980–2020.

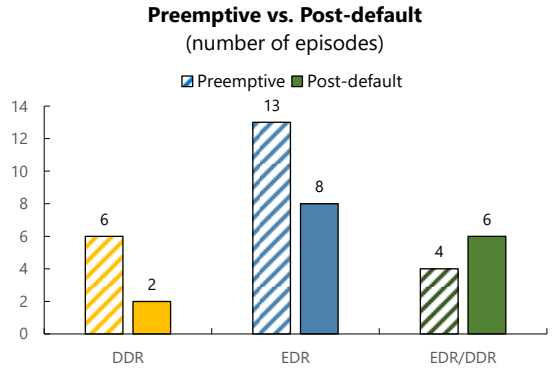
- *Fourth*, public debt restructurings accompanied by banking crises were associated with larger output losses, on average, for any form of public debt restructuring. This is because a combination of a banking crisis and a standalone EDR would likely have similar effects on the domestic and external financing channels as an EDR/DDR. Case studies of restructurings in Argentina (2001), Greece (2012), and Cyprus (2013) show that large-scale domestic debt restructuring can erode the solvency of the banking system (see background paper).

Thus, while each debt restructuring is complex and shaped by many country-specific factors, these considerations derived from past experiences can help guide the design of a restructuring process and the instruments to be included in a restructuring, as discussed in the next section.

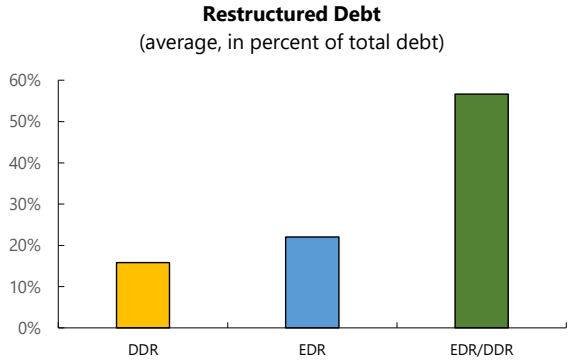
[20] As discussed above the impact of EDRs and EDR/DDRs on capital inflows/GDP is more severe than that of DDRs.

## Figure 8. ~~EMDEs:~~ Public Marketable Debt Restructuring Episodes, 1998–2020

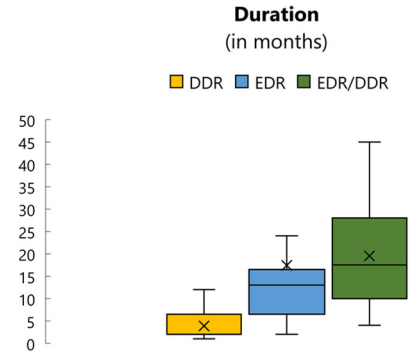
*Pre-emptive debt exchanges were more prevalent for DDRs and EDRs than for comprehensive restructurings*



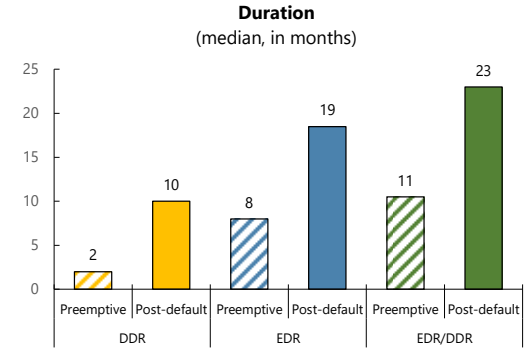

*The share of restructured debt was typically higher in comprehensive restructurings than in EDRs or DDRs*




*DDR episodes concluded more than a year faster than episodes where external debt was restructured*




*DDRs' reliance on pre-emptive restructurings contributed to shorter durations than EDRs*




Sources: Asonuma and Trebesch (2016); IMF (2015b); IMF (2020b); Moody's (2020); IMF country reports; and country authorities' websites.

Notes: FC=Foreign currency; LC=Local currency; Both=Foreign and local currency denominated debt involved in the debt restructuring episode. DDR=Domestic Debt Restructuring; EDR=External Debt Restructuring; DDR + EDR= Both Domestic and External Debt Restructuring. Restructurings are defined as "pre-emptive" if (i) no payments are missed (no legal default) or (ii) some payments are missed, but only temporarily and after the start of formal or informal negotiations with creditor representatives (no unilateral default). "Post-default" restructurings are all other cases, in which payments are missed unilaterally and without the agreement of creditor representatives.

### Box 2. Retrofitted Collective Action Mechanism

**The retrofitted collective action mechanism adopted in past domestic debt restructurings has some notable features.** First, this mechanism was imposed unilaterally and retroactively by the sovereign debtor to apply to all previously issued bonds. Second, this mechanism has been structured as a single limb aggregated voting procedure, without protections for a minority of creditors that are included in enhanced CACs (e.g., the "uniformly applicable" requirement).[1, 2] Third, in certain cases (e.g., Barbados, 2018), this mechanism did not include a disenfranchisement provision which excludes bonds owned or controlled directly or indirectly by the sovereign debtor for voting and quorum purposes under this mechanism.[3]

**The sovereign debtor's use of the retrofitted collective action mechanism could be subject to certain limits under the sovereign's constitutional or other domestic law as well as international treaty provisions that guarantee and protect property and investment rights.** For example, creditors had litigated against Greece's use of such retrofitted mechanism in its 2012 DDR in domestic, foreign, international courts, and (investment) arbitration tribunals. All of these challenges have, however, been unsuccessful on the grounds of Greece's sovereign immunity or lack of jurisdiction by courts, or due to Greece's affirmative defense that the restructuring served a legitimate public interest and, was necessary to avert imminent insolvency, and proportionate to the debtor's aim as well as the present value of creditors' claims.[4]

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[1] The single limb aggregated voting procedure under enhanced CACs requires only a single vote calculated on an aggregated basis across all affected bond series, removing the possibility of obtaining a controlling position within a series to block the restructuring of that series.

[2] Under the "uniformly applicable" feature of the single limb aggregated CAC as promulgated by ICMA, the sovereign needs to offer all affected bondholders (i) the same new instruments or other consideration or (ii) new instruments or other consideration from an identical menu.

[3] CACs typically include disenfranchisement provisions excluding for voting and quorum purposes all bonds owned or controlled directly or indirectly by the issuer (i.e., reducing the risk that a sovereign manipulates the voting process by influencing the votes of entities it control). See IMF, ~~2014 (~~2014b (~~,~~ paragraphs 33–34 and 46).

[4] See Buchheit and Gulati (2010), and Grund (2017).

**34. CACs in domestic bonds can offer an alternative—and potentially superior—mechanism to support effective DDRs.** Compared to the retrofitted collection action mechanism, the use of CACs could increase legal certainty and predictability for investors and reduce the risk of legal challenges to the restructuring. Since 2013, all new sovereign bonds issued by euro area members are required to include CACs in domestic and foreign law bonds with a maturity of more than one year to facilitate debt restructurings based on majority creditor voting. Outside the euro area, however, no country has so far adopted this approach in its domestically issued bonds. As domestic bonds in EMDEs typically have shorter maturities than external bonds, it would take relatively less time for CACs to be included in a substantial portion of the domestic debt stock than for external bonds. Given the lack of the established practices, the potential benefits and costs of including CACs in its domestic bonds require further exploration (Box 3).[43]

[43] Similar to the potential inclusion of CACs in domestic bonds, staff has recommended developing model majority restructuring clauses for inclusion in loan contracts (IMF 2020).

### Box 3. Potential Benefits and Issues of Including CACs in Domestic Bonds

**Since 2003, the Fund has promoted the inclusion of CACs in international sovereign bonds given the greater legal leverage of holdouts.** When the Fund reviewed the potential reform to address the collectiveon action problems in sovereign debt restructuring in 2014, Fund staff held extensive consultations on whether bonds governed by domestic law should also be covered by enhanced CACs. During this consultation, some investors noted that "relying on the contractual approach for the restructuring of all forms of debt would help better protect creditors' rights and support the attractiveness of sovereign debt as an asset class." However, some other investors were "worried that aggregating foreign and domestic law bonds could give the issuer the ability to use its influence over local investors to force an undesirable outcome on the holders of the foreign law bonds", underlying the key concern of the sovereign issuer's control and influence over domestic creditors' voting. At the end, the Fund decided to endorse key features of enhanced CACs for inclusion in international sovereign bonds given the greater legal leverage possessed by holdouts under such bonds, while there is usually much less of a holdout problem involving the restructuring of domestic bonds (IMF, 2014b, paragraph 39).

**Following the same approach for enhanced CACs in 2014 for international sovereign bonds, sovereigns' decision on introducing CACs into domestic bonds could be informed by the following considerations:**

- *Market acceptability:* The decision on whether to include CACs in domestic bonds would warrant discussion with a sovereign's creditor base as to implications for pricing and investor demand. Such considerations would depend on many factors, including the composition and expected evolution of the sovereign domestic debt portfolio, impact on borrowing costs, attractiveness to creditors, the risks of holdout behavior in its potential DDR, design of such clauses and currently available legal mechanisms for restructuring. The design, in particular, would presumably need to address investors' concern about the sovereign's influence over creditors' voting under the terms of domestic bonds.
- *Potential changes to domestic legal framework and bond issuance practice:* A sovereign would need to carefully analyze its applicable legal and regulatory framework. A sovereign's inclusion of CACs in its domestic bonds may likely require changes to its legal framework and bond issuance practice. For example, the sovereign's public debt management law may need to be rewritten to allow CACs in domestic bonds. Further, the inclusion of CACs in domestic bonds would need to overcome the current practice of limited documentation and disclosure relating to domestic bond issuance. In that regard, the model enhanced CACs in international sovereign bonds contain not only voting procedures, but also key investor protection features such as information covenants, disenfranchisement provisions, and minority protections (e.g., "uniform applicability" in the single-limb voting procedure).

**35. In addition, sovereigns should adopt robust public debt management legal and regulatory frameworks to ensure due authorization, accurate recording and reporting of its public debt (Awadzi, 2015).** A key challenge for a sovereign in a restructuring of its domestic (or external) debt is to verify the amount of total public sector debt including arrears owed to suppliers and debt of those public entities outside the central government. Such laws and regulations should, for example, stipulate a clear and comprehensive definition and coverage of public debt and government guaranteed debt), and appropriate reporting requirements (i.e., who needs to report data, to whom and how frequently). Robust securities holding laws that ensure the dematerialized circulation of the debt instruments are also helpful in this regard (Bossu et al., 2020)

governed by foreign rather than domestic law (Zettelmeyer, Trebesch, and Gulati, 2013). Another carrot could include support to mitigate foreign exchange risk: one way to entice creditors with unhedged exposures to hold local currency debt is to provide a natural hedge to investors through indexation to inflation (e.g., Argentina, 2001). In other cases, sovereigns provided the banks with means to close their open foreign currency positions (e.g., Turkey, 2000 and Jamaica, 2010).[46] Finally, tax policy could be used as a carrot allowing losses from the exchange to be carried forward without a limit.

- *"Sticks":* Subjecting old securities to 100 percent risk-weighting and not accepting them as collateral in central bank liquidity facilities played an important role in yielding a participation rate of 99 percent in Uruguay's 2003 DDR. In Jamaica (2010), the introduction of a tax surcharge on interest income earned and exercising the call option embedded in old bonds were seen as the two main disincentives to hold out, contributing to a participation rate of more than 99 percent.[47] In the cases of Greece (2012) and Barbados (2018), the authorities made use of their legal authority to retrofit collective action mechanisms into marketable securities to facilitate the restructuring (Box 2). In the use of "sticks", a sovereign needs to be mindful of limitations under its constitution and/or other domestic laws as well as its obligations under international treaties.

**39. Constructively liaising with domestic debt holders helps the restructuring process.** It is generally advisable that the sovereign hires external advisors to ascertain who are the holders of domestic debt and what is their ability to absorb losses. The advisors should gauge the scope to produce a menu of new debt securities that can be tailored to accommodate constraints of different creditor categories while considering concerns around participation in the restructuring arising from intercreditor equity. For negotiated DDRs, the role of creditor consultations becomes more important as there is a need to secure a sufficient level of creditor consent before executing the debt restructuring.

**40. Without domestic equivalents to the international debt architecture (e.g., Paris Club, G20 Common Framework), the country's debt advisors will often have to create *ad hoc* means of communicating (and negotiating) with domestic creditors.** In the case of a negotiated DDR, a creditor committee can fulfill the same important role it plays in many EDRs, facilitating information sharing and negotiations. Creditor committees can also be an important venue to negotiate important intra-creditor tradeoffs.

**41. An effective communication strategy with different stakeholders is key to a successful domestic debt exchange.** Striking the right balance between confidentiality and transparency will

[46] Unless holders of local currency debt are able to hedge the ensuing foreign exchange open position, investors will have a preference for maintaining the foreign currency denomination for the old debt.

[47] The use of tax law measures as a "stick" to target debt servicing payments would need to be reconciled with any applicable legal terms of the domestic debt instrument itself to avoid the possible occurrence of an event of default. In particular, domestic bond instruments may include provisions fixing the tax liability of bondholders and thus imposition of additional tax may constitute an event of default (e.g., Moody's considered Turkey's imposition of a retroactive withholding tax on interest income from domestic currency bonds in December 1999 led to a contractual "event of default" although this was disputed by the authorities). Unilateral, ex-post measures may also trigger investment arbitration disputes, depending on the applicable Bilateral Investment Treaty.

With a hit to its capital base and/or profitability, banks could pull back from lending to the private sector. Other indirect effects that could put pressure on financial institutions balance sheets include:

- Capital flight and the attendants effects on the net international reserves position;
- Margin calls or withdrawal of foreign credit lines triggered by a sovereign rating downgrade, requiring topping up of the collateral or repayment;
- Exchange rate depreciation pressures driven by a run to safety or increased demand for foreign currency to meet margin calls;[51]
- Loss of ability to access the central bank's normal liquidity facilities due to limited eligibility of restructured assets as collateral;
- Rapid decline in asset values driven by fire sale of assets and deleveraging by banks;
- Spillovers due to ownership and financial interlinkages with affected financial institutions (i.e., among banks, insurance companies, investment funds, etc.).

**46. The combination of these side effects could give rise to sizable bank recapitalization needs.** As discussed in Section III, the resulting financial and economic costs would reduce the debt service relief achieved as a result of the restructuring. For example, the Greek (2012) restructuring involving a nominal haircut of 53 percent for the banking sector, resulted in a loss of 170 percent of the core Tier 1 capital for the consolidated banking sector.[52] Similarly, in some countries with a substantial exposure of the domestic banking sector to government debt and an *ex ante* vulnerable banking system, a large DDR had significant negative effects on the health of the banking sector (Argentina, 2001; Ecuador, 1999; Russia, 1998).

## B. Managing the Impact on the Banking System

**47. A domestic debt restructuring can be designed to limit bank losses, but those losses should not be hidden.** For example, the impact of a sovereign domestic debt restructuring on banks' balance sheet has in some cases been limited when the restructuring did not involve any principal haircut but was designed as reprofiling with moderate NPV loss (IMF, 2014).[53] Limiting the NPV haircut can reduce the impact of a debt restructuring on the banking sector and minimize the loss of banking capital (e.g., Jamaica, 2010; Barbados, 2018; Grenada, 2013; St. Kitts and Nevis, 2012).

[51] The default on domestic debt may be followed by a sharp exchange rate devaluation which, in turn, can lead to a banking crisis (e.g., Russia, 1998).

[52] As part of the restructuring process in Greece, the authorities set aside €50 billion from their external borrowing envelope for recapitalizing domestic banks, thus reducing the fiscal savings from the exchange (see background paper for details).

[53] The criterion used to assess whether the bond exchange had a material impact on the banking sector was if, as a direct result of the bond exchange, any bank in the country needed either additional provisioning or recapitalization.

## D. Managing the Impact on the Central Bank and the Need for Systemic Liquidity

**56. A sovereign DDR should be calibrated to minimize the effect on the central bank's ability to conduct its main functions.** Apart from direct losses, a DDR may reduce the central bank's ability to (i) manage liquidity in the financial system through open market operations; (ii) define and implement collateral policy given the decline in the stock of available government securities; and (iii) hold government securities as counterpart to central bank liabilities, such as currency in circulation and commercial bank deposits with the central bank.[60] A temporary relaxation of collateralization rules may have implications on the quality of the central banks' assets. In some cases, a recapitalization of the central bank by the government (to compensate for the losses from haircuts on its holdings of government securities) may be unavoidable (e.g., Barbados, 2018). If this is not feasible without endangering the sustainability of general government debt, the only solution may be to imposing a higher debt relief burden on other creditors.

**57. Liquidity facilities designed to provide emergency support to eligible institutions affected by DDR have been key elements of the financial safety net in some recent episodes.** A liquidity backstop serves as a lifeline for financial institutions which may lose access to market or deposit funding. It could be especially useful for a banking system with a high degree of interconnectedness and for financial institutions which otherwise do not have access to a central bank window for liquidity support. Collateral eligibility requirements may need to be reviewed, especially if banks face large haircuts on government bonds typically used as collateral for central bank operations. In countries where financial markets are not well developed, however, the size and scope of liquidity backstop facilities would be limited.

**58. The establishment of a financial sector stability fund, possibly supported by IFIs, can help provide liquidity support to the banking system and enhance investor confidence.** When set up with contributions from IFIs (including the IMF), such a fund can serve as a useful confidence building instrument for the affected financial institutions.[61] The primary role of the stability funds in past restructuring episodes was to provide liquidity support in the event of pressure on deposits, or external funding calls, or assets under management that are attributable to debt restructuring. Liquidity support could be provided up to a threshold (as a share of the affected institution's capital), beyond which regulatory interventions would be triggered. Inclusion of non-bank institutions which normally do not have access to central bank liquidity can also benefit from such funds. A key rationale for setting up a *dedicated* stability fund is to ring-fence external funding.

[60] Although non-sovereign securities can be eligible as collateral for the central bank in normal times, EMDEs with relatively small undeveloped financial markets, will generally not have alternative liquid securities.

[61] Financial Stability Funds were set up during domestic debt restructuring events in Jamaica and, St. Kitts and Nevis and Uruguay (see background paper, Annex 1). In Jamaica, the Financial Stability Fund was not limited to liquidity support and could provide solvency support subject to appropriate conditions.

# Annex I. ~~EMDEs:~~ Public Marketable Debt Restructurings – Selected Episodes, 1998–2020

| Country | Start of default or restructuring process[1] | End of restructuring process[2] | Length of process (in months) | EDR / DDR[3] | Preemptive/ Post-default[4] | FC, LC or Both[5] |
|---|---|---|---|---|---|---|
| Ukraine | Aug-1998 | Sep-1998 | 2 | DDR | Preemptive | Both |
| Russia | Aug-1998 | Aug-2000 | 26 | DDR + EDR | Post-default | Both |
| Pakistan | Jan-1999 | Dec-1999 | 12 | EDR | Preemptive | FC |
| Ecuador | Jan-1999 | Aug-2000 | 20 | DDR + EDR | Post-default | Both |
| Ukraine | Feb-2000 | Apr-2000 | 3 | EDR | Preemptive | FC |
| Côte d'Ivoire | Mar-2000 | Apr-2010 | 124 | EDR | Post-default | FC |
| Argentina | Nov-2001 | Jun-2005 | 45 | DDR + EDR | Post-default | Both |
| Moldova | Jun-2002 | Oct-2002 | 6 | EDR | Preemptive | FC |
| Paraguay | Dec-2002 | Nov-2003 | 12 | DDR | Post-default | Both |
| Uruguay | Mar-2003 | May-2003 | 4 | DDR + EDR | Preemptive | FC |
| Nicaragua | Jul-2003 | Jul-2003 | 1 | DDR | Preemptive | LC |
| Dominica | Jul-2003 | Jun-2004 | 13 | EDR | Post-default | Both |
| Dominican Republic | Apr-2004 | May-2005 | 15 | EDR | Preemptive | FC* |
| Dominican Republic | Aug-2004 | Oct-2005 | 16 | EDR | Post-default | FC |
| Cameroon | Sep-2004 | Apr-2005 | 8 | DDR | Post-default | LC |
| Grenada | Oct-2004 | Nov-2005 | 15 | DDR + EDR | Preemptive | Both |
| Iraq | Jul-2005 | Jul-2006 | 13 | EDR | Post-default | FC |
| Belize | Aug-2006 | Feb-2007 | 8 | EDR | Preemptive | FC |
| Nicaragua | Jun-2008 | Jul-2008 | 2 | DDR | Preemptive | LC |
| Seychelles | Jul-2008 | Feb-2010 | 21 | EDR | Post-default | FC |
| Ecuador | Nov-2008 | Jun-2009 | 8 | EDR | Post-default | FC |
| Jamaica | Jan-2010 | Feb-2010 | 2 | DDR | Preemptive | Both |
| Côte d'Ivoire | Jan-2011 | Nov-2012 | 23 | EDR | Post-default | Both |
| St. Kitts and Nevis | Jun-2011 | Apr-2012 | 11 | DDR + EDR | Preemptive | Both |
| Greece | Jul-2011 | Mar-2012 | 10 | DDR + EDR | Preemptive | Both |
| Belize | Aug-2012 | Mar-2013 | 7 | EDR | Preemptive | FC |
| Jamaica | Feb-2013 | Mar-2013 | 2 | DDR | Preemptive | Both |
| Grenada | Mar-2013 | Nov-2015 | 34 | DDR + EDR | Post-default | Both |
| Cyprus | Jun-2013 | Jul-2013 | 2 | DDR | Preemptive | LC |
| Argentina | Jul-2014 | Jun-2016 | 24 | DDR + EDR | Post-default | FC |
| Chad | Sep-2014 | Dec-2015 | 16 | EDR | Preemptive | FC |
| Ukraine | Jan-2015 | Apr-2016 | 16 | EDR | Preemptive | FC |
| Mozambique | Jun-2015 | Apr-2016 | 11 | EDR | Preemptive | FC |
| Belize | Nov-2016 | Mar-2017 | 5 | EDR | Preemptive | FC |
| Mongolia | Feb-2017 | Mar-2017 | 2 | EDR | Preemptive | FC |
| Chad | Feb-2017 | Jun-2018 | 17 | EDR | Preemptive | FC |
| Barbados | Jun-2018 | Dec-2019 | 20 | DDR + EDR | Post-default | Both |
| Argentina | Dec-2019 | Sep-2020 | 10 | DDR + EDR | Post-default | Both |
| Ecuador | Mar-2020 | Aug-2020 | 6 | EDR | Preemptive | FC |

Sources: Asonuma and Trebesch (2016); IMF (2015b); IMF (2020b); Moody's (2020); IMF country reports; and country authorities' websites.

Note: Ongoing cases as of March-2021 have been excluded.

[1] The start of a default/restructuring process is defined as the default month or the month in which a distressed restructuring was announced. When both a default and an announcement take place, the earliest date is used.

[2] The end of a restructuring is defined as the month of the final agreement or the implementation of the debt exchange.

[3] DDR=Domestic Debt Restructuring; EDR=External Debt Restructuring; DDR + EDR= Both Domestic and External Debt Restructuring. The classification of domestic and external is based on the governing law under which the public debt liabilities were issued.

[4] Restructurings are defined as "pre-emptive" if (i) no payments are missed (no legal default) or (ii) some payments are missed, but only temporarily and after the start of formal or informal negotiations with creditor representatives (no unilateral default). "Post-default" restructurings are all other cases, in which payments are missed unilaterally and without the agreement of creditor representatives.

[5] FC=Foreign currency; LC=Local currency; Both=Foreign and local currency denominated debt involved in the debt restructuring episode.

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