

IMF Publication

A Survey of Experiences with Emerging
Market Sovereign Debt Restructurings

INTERNATIONAL MONETARY FUND

INTERNATIONAL MONETARY FUND

A Survey of Experiences with Emerging Market Sovereign Debt Restructurings

Prepared by the Monetary and Capital Markets Department

Approved by Ratna Sahay

June 5, 2012

This paper takes stock of past episodes of debt restructuring and reviews the relevant literature. Based on cross-country experience from the late 1990s through 2010 of *emerging markets* it offers some stylized facts. The key takeaways of the paper are:

- Despite lengthy negotiations and delays in many debt restructuring cases, creditor coordination and holdouts have not generally been a major problem.
- Bond restructurings have on average been quicker to implement than bank debt exchanges and participation rates have often exceeded 90 percent, even with dispersed bondholders.
- Creditor characteristics did not appear to play a major role in the duration of debt restructuring, although there is evidence that domestic restructurings were implemented in less time than external restructurings.
- Some features embodied in the bond contracts (e.g., CACs and other legal clauses) appeared to facilitate debt crisis resolution but their presence alone did not guarantee a smooth restructuring process.
- Macroeconomic indicators tended to improve in the immediate years after debt restructurings.
- Depending on the country's circumstances, market access could be restored relatively quickly after restructuring. However, post-restructuring access could come at a cost, as defaults affect credit risk spreads. Greater haircuts were associated with larger post-restructuring bond spreads, with the effect decreasing overtime.
- Debt restructurings in some cases were associated with spillovers into the financial sector but at least in one of those cases an effective backstopping mechanism was established to minimize the impact.

Contents	Page
I. Introduction	3
II. Overview and Basic Concepts.....	3
A. Definitions and General Considerations	3
B. Determinants of Restructurings and Defaults	4
III. Stylized Facts About Recent Debt Restructuring Episodes	6
A. Restructuring Episodes and Their Common Traits.....	6
B. Macroeconomic Implications of Debt Restructuring.....	17
C. Financial Stability Implications of Debt Restructuring.....	19
IV. Conclusions.....	22
Tables	
1. Characteristics of Main Sovereign Debt Restructurings with Foreign Banks and Bondholders	8
2. Legal Characteristics of Sovereign Bond Restructurings	15
Figures	
1. Litigation Against Sovereigns.....	12
2. Macroeconomic Indicators in Restructuring Periods.....	18
3. Ratings Evolution During Sovereign Restructuring Episodes.....	20
Boxes	
1. Risk Indicators for Default.....	5
2. Sovereign Debt Restructuring Episodes	9
3. Creditor Litigation and Vulture Funds.....	12
4. Impact of Sovereign Default and Restructuring on Financial System.....	20
5. Jamaica: Financial System Support Fund	21
Appendix	
I. Definitions and Roles of Clauses.....	23
References.....	24

I. INTRODUCTION¹

1. **This paper distills lessons from emerging market (EMs) sovereign debt restructuring episodes from the late 1990s (following the Brady exchange) through 2010.** It focuses on the role played by the nature of debt contracts and restructuring schemes on the restructuring outcomes.² While there is a growing literature describing specific experiences of individual countries, very little exists on summarizing the cross-country experiences of the 24 sovereign debt restructuring cases described in this paper.³ One reason is the lack of systematic data on the topic.

2. **Specifically, the paper examines several questions.** How do the structure and composition of the investor base contribute to the debt restructuring process and its outcome? What particular aspects/elements of restructuring slow down or expedite the process? How do financial stability considerations and other spillover concerns influence the design of a debt restructuring? Does the nature of a restructuring affect domestic financial intermediation and economic activity post restructuring?

3. **The remainder of the paper is organized as follows.** Section II provides an overview of the relevant concepts and discusses key determinants of a debt restructuring. Section III presents stylized facts and key outcomes of recent restructuring episodes. It discusses how different features of public debt have affected restructuring outcomes (such as, participation rates and length of negotiations) and what some common obstacles were in the restructuring process (to include, litigation, holdouts, financial sector linkages, and political environment). Section IV concludes.

II. OVERVIEW AND BASIC CONCEPTS

A. Definitions and General Considerations

4. **While there is no universally accepted definition, a sovereign debt restructuring can be defined as an exchange of outstanding sovereign debt instruments, such as loans or bonds, for new debt instruments or cash through a formal process.** Sovereign debt here refers to debt issued or guaranteed by the government of a sovereign state. One can generally distinguish two main elements in a debt restructuring: debt rescheduling, defined as a lengthening of maturities of the old debt, possibly involving lower interest rates; and debt reduction, defined as a reduction in the face (nominal) value of the old instruments. Since the 1950s, of a total of 186 sovereign debt-related episodes in EMs, only 57 episodes involved a face-value reduction of debt owed to the private sector; the remaining were purely rescheduling

¹ This paper was prepared by Udaibir Das, Michael Papaioannou, David Grigorian, and Samar Maziad (all MCMDM).

² The paper does not cover developments in the recent European debt crisis.

³ The list includes 18 debt restructuring cases involving both external and domestic debt and 6 cases aimed at domestic creditors.

deals (thus, limited to extension of maturities). Both types of debt operations involve a “haircut,” that is, a loss in the present value of creditor claims.⁴

5. **Rating agencies, such as Standard & Poor’s (2006), typically define distressed debt exchanges as restructurings at terms less favorable than the original bond or loan terms.** However, it is important to distinguish distressed debt exchanges from routine liability management operations (LMOs) aimed at improving the profile of public debt, such as debt swaps, which could occur in normal times (see Papaioannou, 2009).

6. **Default events and debt restructurings are closely related but not identical.** A default is the failure of a government to make a principal or interest payment on time (beyond the grace period).⁵ Defaults can be partial (i.e., when only parts of the country’s debt are not being serviced) or complete (involving a halt of all debt payments to creditors). In most cases, restructurings occur after a default, and are known as post-default restructurings. However, recent years have also seen a number of preemptive debt restructurings, where outstanding debt instruments are exchanged before the government misses any payments.

7. **The concept of a “credit event” has gained increasing attention in recent years and is mostly used in the context of credit default swaps (CDS), which have grown in importance in recent years.** Importantly, not all sovereign debt restructurings automatically trigger a credit event. Debt exchanges that are not forced upon creditors or debt exchanges in normal times may not constitute a credit event. More specifically, the International Swaps and Derivatives Association (ISDA) considers a restructuring a credit event only if: (i) it occurs as a result of deterioration in the creditworthiness or financial condition of the sovereign; and (ii) it is “binding on all holders” (i.e., applies in mandatory form to all bondholders of a series).⁶ These criteria apply irrespective of whether the debt restructuring is pre- or post-default.

B. Determinants of Restructurings and Defaults

8. **A wide range of factors have contributed to default. Most defaults and restructuring episodes were triggered by one or more of the following factors:** (i) a worsening of the terms of trade; (ii) a recession in countries that act as sources of capital; (iii) an increase in international borrowing costs (e.g., due to tighter monetary policy in creditor countries); (iv) consistently poor macroeconomic policies, leading to built up of vulnerabilities; and (v) a crisis in a systemic country that causes contagion across goods and financial markets (Sturzenegger and Zettelmeyer, 2006). Additional factors include macroeconomic volatility (Catao and Kapur, 2006); banking crises and related contingent liabilities (Reinhart and Rogoff, 2011), and political and institutional factors (Kohlscheen, 2007; van Rikieghem and Weder, 2009). From a more historical perspective, Reinhart, Rogoff, and Savastano (2003)

⁴ A further category of restructurings are debt buybacks, in which outstanding debt instruments are exchanged against cash, often at a discount. However, since the 1950s, with a total of only 26 known cases, debt reduction via buybacks has remained the exception in the debt restructuring context.

⁵ It should be noted that different loan agreements may have different definitions of “events of default.”

⁶ While most CDS contracts rely on the form ISDA agreement (and, therefore, would rely on ISDA’s determination of a credit event), there exist bilateral contracts that can in some instances be different.

identify the occurrence of past defaults as a main predictor of missed payments and restructuring events.^{7,8}

9. Market perception, too, may have influenced the timing and occurrence of sovereign debt restructurings. When markets perceive a government as less likely to repay in the future, this can rapidly raise its borrowing costs and, therefore, the likelihood of default. Common risk indicators include secondary market bond and sovereign CDS spreads as well as changes in sovereign ratings. Under extreme circumstances, a sudden change in investor perceptions may even act as a default trigger. Debt crises and restructurings can be self-fulfilling and caused by contagion (Cole and Kehoe, 2000). In case of a “debt run” or the effective exclusion from capital markets, countries may have no alternative than to halt payments. This risk is especially high when governments face large rollover risks (Detragiache and Spillimbergo, 2001).

Box 1. Risk Indicators for Default

Empirical studies have attempted to quantify the default thresholds for various country groupings. While these estimates have not provided a conclusive picture, partially because their predictive power remains limited, we present some of these findings here.

Reinhart, Rogoff, and Savastano (2003) point to “debt intolerance,” suggesting that the critical debt/GDP ratio depends largely on the country's record of default and inflation; noting that:

- the debt/GDP threshold for “safety from default” may be as low as 20 percent for some countries;
- the risk thresholds are much higher (above 60 percent of debt/GDP) for EM countries that have never defaulted; and
- a subsample of more recent debt crises, Finger and Mecagni (2007) show that most occurred at a debt/GDP level exceeding 39 percent.

Manasse and Roubini (2008) analyzed a wide range of “rules of thumb” for sovereign debt crises. They found the following thresholds in the EM context.

- External debt to GDP: > 50 percent
- Short-term debt to reserves: > 130 percent
- Public debt to revenues: > 215 percent
- Inflation > 10.5 percent
- Growth < - 5.5 percent
- Political uncertainty upcoming election

10. The structure of the debt portfolio has also impacted the likelihood and timing of default and debt negotiation. Factors that determine the debt profile (e.g., currency composition, fixed vs. floating interest rate, maturity, and creditor composition) may have

⁷ They argue that some debtor countries may be “debt intolerant,” in that they are less able to sustain high levels of debt to GDP without defaulting.

⁸ The circumstances of defaults and restructurings that highlight the idiosyncratic nature of those events are examined in further detail in a forthcoming working paper by Das, Papaioannou and Trebesch (2012).

implications for liquidity as well as solvency conditions and, therefore, the decision to restructure. However, sovereign debt portfolio risks are not always easy to assess, especially at times of generalized financial stress and heightened risk aversion. While often the decision to restructure or not depends on a combination of factors, the following considerations are broadly valid regarding each of these factors:

- *Currency composition.* Debt issued in foreign currency makes sovereigns vulnerable to exchange rate shocks and currency mismatches because governments typically collect most of their revenue in domestic currency.
- *Floating rate debt.* A high share of floating rate debt can increase the likelihood of severe debt distress due to the impact of interest rate shocks on countries' average borrowing costs.
- *Maturity structure.* Longer average maturity implies less rollover risks and, therefore, a lower likelihood of debt distress when credit markets shut down.
- *Creditor composition.* In addition to being more challenging politically, restructuring of mostly domestically- (as opposed to externally-) held debt may lead to a pile-up of contingent liabilities and bank bailouts. A decision to restructure may also depend on the share of debt held by official (bilateral) creditors and/or multilateral creditors, as these creditors may be approached in a different way than banks or private sector bondholders.

III. STYLIZED FACTS ABOUT RECENT DEBT RESTRUCTURING EPISODES

A. Restructuring Episodes and Their Common Traits

11. **This paper discusses sovereign debt restructuring episodes in EMs, focusing closely on restructurings that took place between 1998 and 2010.** Table 1 provides an overview of all bank and bond debt exchanges in EM economies involving foreign creditors that took place since the Brady deal, sorted by the date the restructuring was announced. Half of these restructurings occurred in Latin America and the Caribbean, four in Europe, three in the Middle East, and two in Africa. The topology of the wider universe of recent debt restructurings is discussed in Box 2.

12. **Several EM sovereign debt restructurings were implemented within a very short time period.** Of the 18 episodes listed in Table 1, seven restructurings took one year or less to complete and only three took more than two years to complete.

13. **The range of debt relief varied from an estimated 5 percent (in Dominican Republic, 2005) to nearly 90 percent (in Iraq, 2006) reduction in NPV.⁹** In turn, the cuts in

⁹ The reported values are computed by averaging the loss across all instruments exchanged. The authors follow the methodology suggested by Sturzenegger and Zettelmeyer (2007), which compares the present value (PV) of new debt instruments in the exchange with the PV of the old outstanding debt (including past due interest) discounted at imputed exit yields.

face value ranged from 0–82 percent of the eligible instruments.¹⁰ The reported estimates can be interpreted as measuring the loss realized in the exchange from the perspective of a participating creditor (“investor losses”). Interestingly, the post–default restructuring cases on average

¹⁰ The number of debt restructuring episodes with face value reduction (nominal debt write-downs) has notably increased since the late 1980s. A reason for the increase in frequency of face value reductions is that bank and bond debt exchanges now often involve a menu of options, which explicitly includes the face value reduction option.

Table 1. Characteristics of Main Sovereign Debt Restructurings with Foreign Banks and Bondholders
(1998–2010)

Case	Preemptive or Post-Default?	Default Date	Announcement of Restruct.	Start of Negotiations	Final Exchange Offer	Date of Exchange	Total Duration (Months)	Debt Exchanged in m US\$	Cut in Face Value	Haircut Estimate (Cruces/Trebesch)	Discount Rate (Cruces/Trebesch)	Outstanding Instruments Exchanged	New Instruments
Pakistan (Bank Loans)	Post-Default	Aug-98	Aug-98	Mar-99	May-99	Jul-99	11	777	0.0%	11.6%	0.132	Trade credits and debt arrears	1 Loan
Pakistan (Ext. Bonds)	Preemptive		Aug-99	Sep-99	Nov-99	Dec-99	4	610	0.0%	15.0%	0.146	3 Eurobonds	1 Eurobond
Ukraine (Ext. Bonds)	Preemptive		Dec-99	Jan-00	Feb-00	Apr-00	4	1,598	0.9%	18.0%	0.163	3 Bonds, 1 Loan	1 Eurobond
Ecuador (Ext. Bonds)	Post-Default	Aug-99	Jul-98	Sep-99	Jul-00	Aug-00	25	6,700	33.9%	38.3%	0.173	4 Brady Bonds, 2 Eurobonds	2 Eurobonds
Russia (Bank Loans)	Post-Default	Dec-98	Sep-98	May-99	Feb-00	Aug-00	23	31,943	36.4%	50.8%	0.125	PRINs, IANs, debt arrears	1 Eurobond
Moldova (Ext. Bonds)	Preemptive		Jun-02	Jun-02	Aug-02	Oct-02	4	40	0.0%	36.9%	0.193	1 Eurobond	1 Eurobond
Uruguay (Ext. Bonds)	Preemptive		Mar-03	Mar-03	Apr-03	May-03	2	3,127	0.0%	9.8%	0.090	18 Ext. Bonds	18 + 3 New Benchmark Bonds
Serbia & Monten. (Loans)	Post-Default	since 1990s	Dec-00	Sep-01	Jun-04	Jul-04	44 (since announcement)	2,700	59.3%	70.9%	0.097	Bank Loans, Arrears	1 Eurobond
Dominica (Bonds/Loans)	Post-Default	Jul-03	Jun-03	Dec-03	Apr-04	Sep-04	15	144	15.0%	54.0%	0.092	2 Bonds, short- and medium-term Loans	3 Bonds
Argentina (Ext. Bonds)	Post-Default	Jan-02	Oct-01	Mar-03	Jan-05	Apr-05	42	60,572	29.4%	76.8%	0.104	66 US\$ and AR\$ denominated Bonds	5 US\$ and AR\$ denominated Bonds
Dom. Rep. (Ext. Bonds)	Preemptive		Apr-04	Jan-05	Apr-05	May-05	13	1,100	0.0%	4.7%	0.095	2 Bonds	2 Bonds
Dom. Rep. (Bank Loans)	Post-Default	Feb-05	Apr-04	Aug-04	Jun-05	Oct-05	18	180	0.0%	11.3%	0.097	Bank Loans, Arrears	1 Loan
Grenada (Bonds/Loans)	Preemptive		Oct-04	Dec-04	Sep-05	Nov-05	13	210	0.0%	33.9%	0.097	5 Ext. Bonds, 8 Dom. Bonds, 2 Ext. Loans	1 US\$ Bond and 1 EC\$ Bond
Iraq (Bank/Comm. Loans)	Post-Default	since 2003	in 2004	Jul-05	Jul-05	Jan-06	20 (since announcement)	17,710	81.5%	89.4%	0.123	Loans, Supplier Credit, Arrears	Mostly Cash, 1 US\$ Bond, 1 Loan
Belize (Bonds/Loans)	Preemptive		Aug-06	Aug-06	Dec-06	Feb-07	6	516	0.0%	23.7%	0.096	7 Bonds, 8 Loans	1 Bond
Ecuador (Bond buy-back)	Post-Default	Dec-08	Jan-09	no neg.	Apr-09	June/Nov-09	12	3,190	68.6%	67.7%	0.130	2 Eurobonds	None (cash settlement)
Seychelles (Ext. Bonds)	Post-Default	Jul-08	Mar-09	Mar-09	Dec-09	Feb-10	19	320	50.0%	56.2%	0.107	1 Ext. Bond, 2 Ext. Loans, Notes	1 Bond
Cote D'Ivoire (Ext. Bonds)	Post-Default	Mar-00	Aug-09	Aug-08	Mar-10	Apr-10	21 (since announcement)	2,940	20.0%	55.2%	0.099	2 Brady Bonds, Arrears	1 Bond

Note: Debt exchanged refers to effective old debt exchanged in the deal, not eligible debt. Similarly, we only list old and new instruments that were actually exchanged.

Sources: Cruces and Trebesch (2011), Trebesch (2011) and sources cited therein. The data on preemptive vs. post-default restructurings is from Asonuma and Trebesch (2011).

Box 2. Sovereign Debt Restructuring Episodes

Sovereign debt restructuring episodes have been widespread around the world, with more than 600 individual cases in 95 countries during the past 60 years alone. Of these, 186 were debt restructurings with private creditors (foreign banks and bondholders) and more than 450 involved restructurings with the Paris Club (government to government debt). Restructuring in LICs often proceeded differently from those in EMs, including through official debt relief initiatives, which makes their experience less relevant for EMs. Das, Papaioannou, and Trebesch (2012) provide a detailed classification of all sovereign debt restructurings that took place since 1950.

Of the 186 debt exchanges with foreign private creditors:

- 18 were sovereign bond restructurings, while 168 affected bank loans;
- 57 involved a cut in face value (debt reduction), while 129 implied only a lengthening of maturities (debt rescheduling);
- 109 cases occurred post-default, while 77 were preemptive; and
- Only 26 involved cash buybacks. Most buyback operations were implemented in the context of debt relief initiatives in poor, highly indebted countries, and involved discounts of 80 percent or more.

Bond restructurings re-entered the sovereign debt universe only after the Brady plan of the mid-1990s. Since 1998, with the debt crises in Pakistan, Russia, and Ukraine, there have been 18 sovereign bond exchanges with foreign bondholders. In addition to the 186 debt restructurings with external creditors, there have been several bond restructurings aimed at domestic creditors. These include Ukraine (1998), Russia (1998), Argentina (2001), Uruguay (2003), Dominican Republic (2005), and Jamaica (2010). Some of these exchanges were implemented in parallel to debt restructurings with foreign creditors, with Jamaica (2010) involving only domestically issued and held debt. Of the sovereign bond restructurings occurring since 1998, about half were preemptive. These include Pakistan (1999), Uruguay (2003), Ukraine (2000), Moldova (2002), Dominican Republic (2005), Grenada (2005), Belize (2007), and Jamaica (2010). In contrast, all of the bank debt restructurings of recent years were post-default cases (see Cruces and Trebesch, 2011).

achieved higher NPV haircut than preemptive restructuring cases.¹¹ Finally, the restructurings varied in complexity, with instruments restructured through these exchanges ranging from one bond to several bonds and loans.¹²

¹¹ This is consistent with Finger and Mecagni (2007).

¹² The performance of restructured bonds after an exchange differs across countries. Using representative benchmark bond prices in the two years following a debt restructuring for a few recent cases, we observe that average bond prices increase moderately after a restructuring, while volatility tends to be low in the first six months after the event. Also, bond prices performed better after preemptive restructurings compared to post-default restructurings over a two-year horizon.

14. **A combination of high participation rates and speedy completion of most recent debt restructuring episodes likely suggests that the underlying offers were seen by participating creditors as reasonable, in that they reflected governments' capacity to pay and offered adequate burden sharing.** Theoretical models too support this assessment. Bi, Chamon, and Zettelmeyer (2011) predict that haircuts that are not in line with the government's capacity to pay give small creditors incentives to coordinate and block an exchange offer, thus increasing the likelihood that an exchange offer will fail.

Domestic versus external debt restructurings

15. **While there are similarities between domestic and external debt restructurings, there are several noteworthy differences.** The negotiation process and the basic restructuring mechanics are essentially the same (see the case studies in Erce and Diaz-Cassou, 2010, and Sturzenegger and Zettelmeyer, 2006). However, there are also important differences. One difference is that domestic debt is adjudicated domestically, often leaving litigation in domestic courts as the only recourse available to investors. A second difference is that investors in domestic instruments are normally mostly residents (i.e., domestic banks, insurance companies, and pension funds), in which case a restructuring of domestic debt instruments will directly affect the balance sheets of domestic financial institutions and can affect the country's overall financial stability.¹³ Further, exchange rate considerations and currency mismatches play a lesser role in domestic debt than in external debt restructurings.¹⁴ Financial sector stability considerations often play an important role in domestic sovereign debt restructurings.

16. **Domestic debt restructurings were implemented in less time than external debt restructurings.** Argentina's domestic debt was restructured in November 2001, while the external bond exchange took four more years. Russia's domestic GKO bonds were restructured within six months (between August 1998 and March 1999), while the restructuring of external bank loans took until 2000 to complete. In Ukraine, the domestic debt exchange was implemented in less than two months, with separate offers for resident and nonresident holders (see Sturzenegger and Zettelmeyer (2006) for details). In Jamaica, the restructuring of a sizable stock of domestically issued debt took about two months.

17. **There have been instances of differential treatment of domestic versus external debt during restructurings.** In Belize (2007), the government restructured only the external bonds. In Ecuador (1998–2000), the authorities restructured both short- and long-term bonds held by nonresidents, but not medium- and long-term domestic debt. In a similar vein, Ecuador's (2008–2009) default and debt buyback only affected two outstanding international bonds, but no domestic debt. The Jamaica (2010) restructuring is the opposite case, where externally issued Eurobonds were excluded from the restructuring, primarily for market access considerations.

¹³ Indeed, some recent restructuring episodes revealed that nonresidents hold substantial amounts of domestic debt instruments (e.g., Russia, 1998, and Ukraine, 1998). Similarly, residents sometimes hold considerable shares of externally issued bonds (e.g., Pakistan, 1999, and Uruguay, 2003). Therefore, the type of debt instrument issued (i.e., domestic or external) is not necessarily a good predictor of the type of creditors affected by the exchange (i.e., residents vs. nonresidents).

¹⁴ Domestic debt can also be denominated in foreign currency.

Bank versus bond restructurings

18. **The key difference between sovereign bond and bank debt restructurings is the creditor structure, which in the former case is more dispersed.** Indeed, some bond restructurings of recent years (e.g., Argentina (2005) and Ukraine (2000)) involved thousands of individual creditors. A dispersed creditor structure can make it difficult to identify and communicate with bondholders, especially the retail bondholders.

19. **The problem of creditor holdouts and litigation has been widely seen as the main potential obstacle to timely and efficient bond debt restructurings.** The free-riding behavior and other forms of creditor coordination failures are often seen as more of a stumbling block in cases of bond financing compared to bank financing in emerging markets (e.g., Krueger, 2002).

20. **Although litigation case numbers following a default or restructuring on sovereign debt have increased notably (Box 3), the number of cases remains low.** There were only 112 individual litigation occurrences in the past thirty years (see Enderlein, Schumacher and Trebesch, 2012). More than half of all cases were initiated after 2000, despite the fact that the number of sovereign defaults and restructurings has gone down in the past decade. One reason behind this development is that countries have made deliberate choices to expand the circumstances under which lawsuits against sovereigns can be brought in their jurisdictions.¹⁵ The change in legal doctrine and related case law developments has been an important factor for the emergence of the so-called “vulture” creditors and the small number of high profile litigation successes in the mid- and end-1990s (see Box 3).

21. **Despite these concerns, bond restructurings have on average been quicker to implement than bank debt exchanges and participation rates have often exceeded 90 percent, even with dispersed bondholders (see Table 1).** Trebesch (2008) finds no robust evidence that creditor characteristics play a dominant role in the duration of debt restructurings. In addition, large holdout groups and inter-creditor disputes have remained the exception. Finally, the number of successful litigations by creditors remains very small, perhaps explained by the costly nature of holdout strategies and litigation and the need for specialized knowledge to carry out these strategies.¹⁶ These findings are in line with Bi, Chamon, and Zettelmeyer (2011), who develop a theoretical model to show why coordination failures and litigation have been rare in the recent decade.¹⁷

¹⁵ See Fisch and Gentile (2004) and Sturzenegger and Zettelmeyer (2006) for details and a broader historical account.

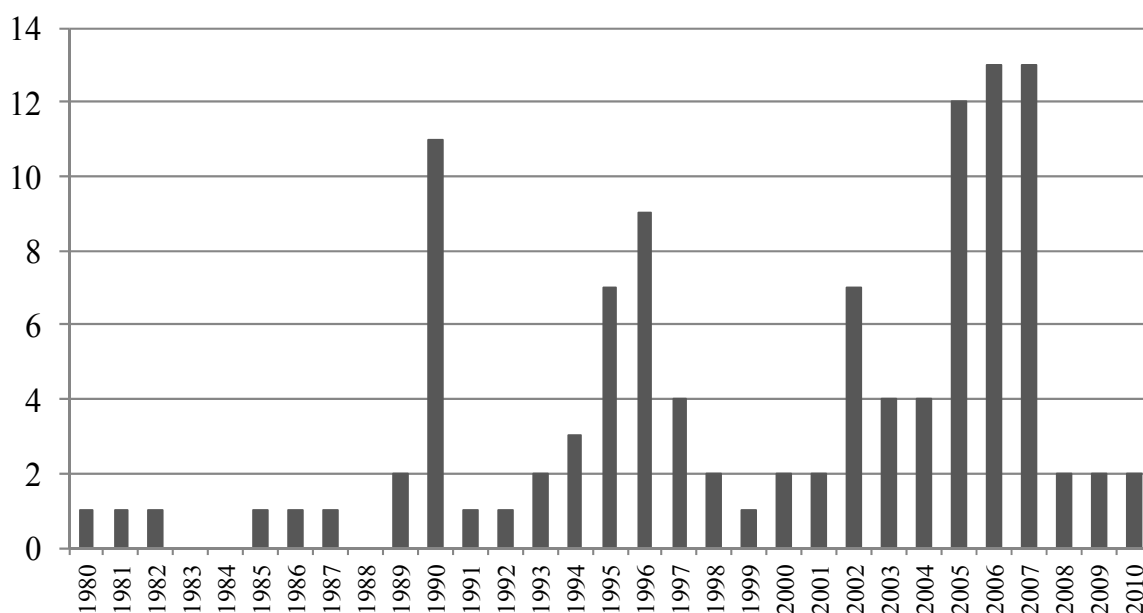
¹⁶ Litigation is cumbersome because sovereign debt is typically not backed by any collateral and there are few attachable government assets located outside national borders that could potentially be seized.

¹⁷ The authors show that even with dispersed creditors, full participation is the norm as long as neither the haircut nor the probability of successful holding out is too high. They also argue that holdout strategies and litigation are costly and require specialized knowledge.

Box 3. Creditor Litigation and Vulture Funds

In a stylized litigation scenario, a so-called “vulture” creditor buys sovereign debt claims at a deep discount on secondary markets, but then sues the debtor governments for full debt repayment (i.e., for 100 percent of the nominal value plus accumulated interest). This strategy is risky and can take many years to pay off. Nevertheless, it has become an attractive business model for a small number of specialized investor funds. Prominent examples of successful litigation cases include the case of Elliott vs. Peru in 1998 and the lawsuit by the Dart family against Brazil in the mid-1990s (see Fisch and Gentile, 2004, for details).¹⁸

Figure 1. Litigation Against Sovereigns
(Number of new cases filed per year, 1980–2009)



Source: Enderlein, Schumacher, and Trebesch (2011).

Note: Shows the annual new cases of creditor litigation filed in the U.S. and U.K. for all debtor countries.

Figure 1 illustrates the rise in the absolute number of cases filed against sovereigns in the U.K. and U.S. courts. The spike in 1990 is due to the large number of cases initiated against Peru in the run-up to its Brady deal, while the increase in the number of cases after 2001 relates to the dozens of lawsuits following Argentina’s default.

¹⁸ Enderlein, Schumacher, and Trebesch (2011) provide a new systematic database on litigation cases in the sovereign debt universe based on legal databases of NexisLexis and PACER.

It should be noted that despite the increase in lawsuits, the number of “successful” litigations (i.e., settlements or successful attachments of sovereign assets) has been quite small even in recent years. There continue to exist critical limits on the enforcement remedies that are available to creditors: even if a creditor obtains a judgment, it must still find assets that it can use to execute the judgment. Most sovereign assets outside of a country’s territory, however, continue to be subject to sovereign immunity protections. The long-running quest for assets by Argentina’s “vulture” creditors demonstrates the practical limits on litigating against sovereigns even where one has an enforceable judgment in hand.

In terms of the geography of adjudication, most lawsuits brought by holdout creditors against debtor nations that involve international debt contracts are filed either in New York or London courts. However, lawsuits are now increasingly being initiated in other creditor countries such as Germany, Italy, and Switzerland as well as in domestic courts of debtor countries, such as was the case following the Russia (1998) debt crisis (see Sturzenegger and Zettelmeyer, 2007).

22. In recent years, there were only two debt restructurings that faced considerable problems with holdouts and litigation. The global bond exchange in Argentina (2005) and the restructuring in Dominica (2004) are two recent cases that had a large share of holdout creditors and difficulties in re-accessing international capital markets after the exchange.¹⁹ These countries dealt with holdouts differently. Dominica gradually convinced individual creditors to accept its original exchange offer in the years between 2004 and 2007. Argentina, in turn, launched a new public exchange offer in April 2010, which achieved a 66 percent participation rate, thereby bringing the total participation rate to 92 percent (Hornbeck, 2010).²⁰

23. Where both types of instruments were restructured, creditor participation was somewhat lower in domestic debt exchanges than in external debt exchanges. Russia’s domestically issued GKO bond offer was accepted by 95 percent and 85 percent of residents and nonresidents, respectively, while the exchange of external PRINs and IANs reached a participation rate of 99 percent. In Ukraine, the exchange of domestic debt instruments achieved less than 85 percent of participation, compared to 97 percent for international bonds. Also, Argentina achieved only 65 percent participation for its domestic bond exchanges of 2001–2002. Uruguay’s 99 percent participation rate in its domestic bond exchange is at least partially attributed to moral suasion on the part of the government as well as to regulatory incentives.

¹⁹ In the case of Dominica, the holdouts were mainly linked to three institutions, while in Argentina they included thousands of investors, including many retail bondholders. The latter were hard to identify and prone to litigate, and asked for special treatment.

²⁰ Many of the remaining 8 percent holdouts, including distressed debt funds, continue their litigation efforts to this day.

Legal remedies and clauses

24. **A bond's governing law plays a major role for debt restructurings as it predefines the contractual provisions for restructuring as well as the jurisdiction for potential litigations.** A large majority of outstanding emerging market bonds issued in international markets are under New York law, with English law the second most common. The picture looks different for the European Union (EU) countries where since 2003 public bonds have been predominantly issued under domestic laws. An important dimension where the governing law makes a difference is that it gives a sovereign broader scope to seek to alter the substantive terms of its sovereign debt contracts by changing relevant laws of the sovereign.

25. **While the inclusion of Collective Action Clauses (CACs) has been the norm under English Law, their use has widened in recent years.**²¹ It is often argued that the presence of CACs can facilitate creditor-debtor negotiations in a restructuring situation, since they reduce the hurdle of having to achieve unanimity on a restructuring agreement (via the majority restructuring clause) and can limit the potential threat of litigation from “holdout” creditors.²²

26. **Mexico was the first country to include CACs in its sovereign bond issue in the New York market in February 2003.**²³ Other countries quickly followed suit, including Uruguay and Brazil (April 2003), Korea and South Africa (May), Belize (June), Italy (July), and Turkey (September). Since then, the inclusion of CACs in New York law bonds has become the norm. During the same period, EU countries agreed to update their bond documentation on internationally issued bonds to include CACs (ECFIN, 2004).²⁴

27. **The triggering of CACs in past debt restructuring episodes was not common and in the cases they were triggered the results were mixed (Table 2).** One example of a successful application is Ukraine (2000), where the authorities took advantage of CACs in the three Eurobonds governed under Luxembourg law. This helped in the implementation of the restructuring and eliminated potential holdout problems.²⁵ Also in the case of Moldova (2002) and Uruguay (2003), CACs under English law contributed to a quick restructuring. CACs were

²¹ In general, CACs cover the following two broad categories: (i) “*majority restructuring*” provisions, which allow a qualified majority of bondholders of an issuance to change the bonds’ financial terms and to bind in all other holders of that issuance, either before or after default; and (ii) “*majority enforcement*” provisions, which can limit the ability of a minority of bondholders to enforce their rights following a default.

²² On some occasions (e.g., Uruguay and Jamaica), explicit announcement of minimum participation thresholds were used as another mechanism to solve coordination problems.

²³ In addition to the Fund (the role of which in this regard will be discussed in an upcoming joint SPR, MCM, and LEG paper), the official sector (e.g., the Group of Ten (1996, 2002), G7 as well as the U.S. Treasury), had promoted a more widespread use of CACs (Taylor, 2002).

²⁴ While CACs have gained considerable attention in the EU public debate in recent months, their inclusion in domestic bonds in continental Europe continues to be the exception rather than the rule.

²⁵ Holders of these bonds were invited to tender their instruments, and at the same time to grant an irrevocable proxy vote to be cast at bondholder meetings. This insured that bondholders who had tendered proxies could not change their minds and reject the proposed amendments at the meetings without incurring substantial civil liability (see IMF, 2001b for details).

also embedded in some of the instruments exchanged by Dominica (2004)²⁶ and Argentina (2005), but they did not prevent the serious holdout problem both countries faced after the restructuring.

Table 2. Legal Characteristics of Sovereign Bond Restructurings

(1999–2010)

	Pakistan 1999	Ecuador 2000	Ukraine 2000	Moldova 2002	Uruguay 2003	Dominica 2004	Argentina 2005	Dom. Rep. 2005	Grenada 2005	Belize 2007	Seychelles 2009	Jamaica 2010
Creditor Structure	Dispersed	Concentr.	Dispersed	Concentr.	Dispersed	Dispersed	Dispersed	n.a.	Concentr.	Concentr.	Dispersed	Dispersed
Dominant Governing Law	English	New York	Luxembourg, German	English	New York	English	New York	New York	New York	New York	English	Domestic
CACs and Exit Consents												
CACs in original bonds	Yes	No	Partly	Yes	Partly	Partly	Partly	No	No	Partly	Yes	No
CACs used in exchange	No	No	Yes	Yes	Yes	n.a.	No	No	No	Partly	Yes	No
CACs included in new bonds	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Exit consent used	No	Yes	No	n.a.	Yes	Yes	Yes	Yes	No	Yes	No	No
Holdouts and Litigation												
Holdouts (in %)	1%	2%	3%	0%	7%	28%	24%	6%	3%	2%	16%	1%
Settlement with Holdouts (including the continuation of debt service on old instruments)	Yes	Yes	n.a.	n.a.	Yes	Yes	Yes	Yes	No	Yes	n/a	Yes
Litigation Cases (filed in the US or UK)	0	2	only domestic	0	1	1 (plus domestic)	more than 100 (incl. retail)	0	1	0	0	0

Sources: Andritzky (2006, 2010); Cruces and Trebesch (2011); Enderlein, Schumacher, and Trebesch (2011); Sturzenegger and Zettelmeyer (2006); and IMF Staff and Country Reports.

28. **Exit consents proved to be another type of legal provision with some implications for debt restructuring.** Exit consents were first used in Ecuador's 2000 exchange of a sovereign bond issued under New York law (see Buchheit and Gulati, 2000). The terms of the exchange offer required each participating bondholder to also agree to a list of amendments of nonpayment terms. The Uruguay (2003) exit consents were mainly aimed at avoiding litigation and limited the possibility of attaching any future payments on the new bonds via a court ruling (waiver of sovereign immunity). In comparison, Ecuador requested amendments on a broader range of terms.²⁷ The use of exit consents in Ecuador was perceived as part of a "take-it or-leave-it" strategy, while in Uruguay participants could opt out of the exit consents (IMF, 2003a, p. 23).²⁸

²⁶ CACs were included in two Dominican bonds issued in the late 1990s for which Citibank and RBTT Merchant Bank acted as trustees.

²⁷ Specifically, these terms included "the deletion of the requirement that all payment defaults must be cured as a condition to any annulment of acceleration, the provision that restricts Ecuador from purchasing any of the Brady bonds while a payment default is continuing, the negative pledge covenant, and the covenant to maintain the listing of the defaulted instruments on the Luxembourg Stock Exchange" (IMF, 2001a, p. 35).

²⁸ Ultimately, more than 90 percent of participants in the Uruguay exchange approved the use of exit consents. Only one small Brady bond did not reach the minimum approval rate of 50 percent of bonds outstanding necessary to activate the exit consents (see Uruguay "Article IV Consultation and Third Review under the Stand-By Arrangement 2003" available at: <http://www.imf.org/external/pubs/ft/scr/2003/cr03247.pdf>).

Use of other (e.g., aggregation, acceleration, cross-default, and cross-acceleration) clauses in recent restructuring episodes has been limited (see Annex for the definition of these clauses).

29. **More recently, nonpayment terms have been amended in the bond restructurings of Dominica (2004), the Dominican Republic (2005), Argentina (2005), and Belize (2007).** The exchange prospectus of Argentina, for example, points out that the country might delist the old securities. However, as of January 2012, this delisting has not taken place. Furthermore, it should be underlined that exit consents under New York law have generally withstood legal challenges in U.S. courts. For example, U.S. courts have refused to invalidate exit consents that removed important bondholder rights and protections in a few corporate restructurings, including financial covenants (see IMF, 2001b, for more details).

Role of CDS in sovereign debt restructuring²⁹

30. **The introduction of CDSs is a relatively new development and their impact on debt restructuring remains uncertain.**³⁰ Announcement of a credit event by ISDA does not typically depend on whether the restructuring is a pre- or post-default, but instead is a function of the characteristics of the debt exchange, such as whether or not the terms of the exchange are binding for all creditors. There is a view that CDS holders who also own the underlying bond would have an incentive not to participate in a pre-default debt exchange offer but would prefer to force a default that constitutes a credit event. However, given the relatively small size of the sovereign CDS market in relation to that of the underlying outstanding debt, such risk would so far be fairly limited.

31. **There has only been one example in which the ISDA auction process has been used to determine the recovery rate for sovereign CDS, namely the case of the latest Ecuadorian default.** Payments on Ecuador's CDS were triggered on December 15, 2008, when President Rafael Correa refused to meet an interest payment due on the country's 2012 global bond. Following the announcement of the credit event, ISDA launched its first sovereign CDS auction and allowed those who could not obtain a bond for physical delivery to settle their contracts via cash. In the auction, the recovery rate was set at 31.75 percent.

²⁹ This section reflects the knowledge on the issue prior to the Greek debt exchange of 2012, which is nonetheless important.

³⁰ In essence, a CDS is a credit derivative contract between two counterparties, which is comparable to an insurance policy on a bond or loan. In a CDS contract, the buyer agrees to pay a quarterly premium to the seller who, in case of a credit event, commits to reimburse the buyer with the value of principal of the bond in exchange for the underlying bond (or its recovery value in cash). While still much smaller than the underlying sovereign bond market, the volume of outstanding contracts has increased sharply in the last five years and there is now a relatively liquid secondary market for sovereign CDS in Europe and the US.

B. Macroeconomic Implications of Debt Restructuring

32. **As expected, debt related indicators improved substantially following a debt restructuring.** Figure 2 plots the median values of a set of variables for a six-year interval around the year when the debt restructuring occurred.³¹ As expected, restructuring periods are associated with a notable drop in total public debt to GDP, from a median of over 50 percent to about 35 percent as well as an even stronger decline in the ratio of total external debt to GDP, from a median close to 80 percent to below 50 percent. The ratio of external short-term debt to reserves also shows a steep drop from a median of more than 110 percent to just over 55 percent in a single year.

33. **Moreover, macroeconomic conditions also improved post restructuring.** Median real growth was only around 1.5 percent three years before final agreements, but stayed consistently above 4 percent during the three years following the exchange.³² In a similar vein, the median inflation decreased from around 20 percent three years before restructuring to just 7.5 percent three years after restructuring. However, the median budget balance improved substantially prior to restructuring in some cases reflecting a strong policy effort (see Figure 1, panel 6).³³

34. **However, the costs and consequences of defaults and debt restructurings should be carefully considered and compared against the alternative of not restructuring.** There appeared to be reputational spillovers from sovereign default and restructurings on other parts of the economy, in particular FDI and access to credit. Countries that undergo a debt restructuring often see a drop in private sector access to external credit, of up to 40 percent in the year after the restructuring (see Arteta and Hale, 2008, and Das, Papaioannou, and Trebesch, 2010). Other research suggests a drop in FDI flows of up to 2 percent of GDP per year (Fuentes and Saravia, 2010). However, since the counterfactual is difficult to establish, these results should be interpreted with caution.

35. **Similar to macroeconomic conditions, credit ratings deteriorated notably prior to a default, while improving only slowly in the aftermath of debt restructurings.** Figure 3 shows the evolution of Moody's ratings across nine recent bond restructuring episodes (for which ratings data was available). Ratings decline markedly, by more than four notches in the three years prior to a sovereign default event, and started to recover after restructurings, but gained only an average of 1.7 notches in the three subsequent years. After one year, most sovereign bonds retained a C-rating (i.e., having a poor standing and subject to very high credit risk). It is.

³¹ When interpreting these figures, it is important to underline once more that a restructuring can occur many years after the first payment default of a country. In fact, restructuring episodes often mark the end of a crisis and not its beginning (see also Levy-Yeyati and Panizza, 2011).

³² Reinhart and Rogoff (2008) find that output declines associated with domestic debt default appear to be worse than for external debt crises. On average, the output decline in the year prior to a domestic default is 4 percent, compared to only 1.2 percent in the year before external defaults.

³³ It should be noted that sovereign debt crises are associated with a notable decline in trade and output. The size of output costs largely depends on whether debt crises occur simultaneously with banking and currency crises. "Twin" or "triple crises" are associated with much larger output costs than debt crises alone. Defaults tend to follow, and not precede, output contractions.

Figure 2. Macroeconomic Indicators in Restructuring Periods



Source: IMF's IFS dataset; the World Bank's GDF and WDI datasets; and the Economist Intelligence Unit.

Note: Median values for a six-year time interval around the restructuring year are plotted for a sample of 44 "final restructurings" (bonds and loans) that have taken place since 1980s (final restructurings are those not followed by another restructuring by that country in the following four years).

also evident that restructurings rarely come as a surprise. All sovereigns in the list had low ratings in the speculative range one year prior to the default or restructuring event. The best rating just prior to the default was B3, which is the lowest B-category rating. One notable outlier is Uruguay, which had investment grade status (Baa3) up to March 2002 and restructured its debt only 14 months later

36. **While largely depending on the specifics of individual cases, market access has been restored in a relative short period after debt restructuring.** Some recent research shows that most defaulters regain access to new credit within one or two years after a crisis (Gelos, Sandleris, and Sahay, 2011). The authors also show that the period of exclusion from capital markets during recent restructuring episodes has considerably shortened compared to the 1980s. The case of Argentina perhaps remains the most extreme, where the country has not been able to access the global markets since its 2001 default. Ecuador is a case of a protracted loss of access to international financial markets, where it took the country five years (in 2005) after restructuring to regain access.

37. **However, post-restructuring access could come at a cost.** Research points out that defaults affect risk spreads only in the first and second year after the restructuring (Borensztein and Panizza, 2009). More recent work, however, shows that the impact on market access post-restructuring may depend significantly on the outcome of the restructuring process. Cruces and Trebesch (2011) show that greater haircuts are associated with much larger post-restructuring bond spreads, after controlling for fundamentals as well as country and time fixed effects. The effect decreases over time but is still significant in years six and seven after the restructuring. The authors find evidence that haircut size is also highly correlated with the duration of capital market exclusion.

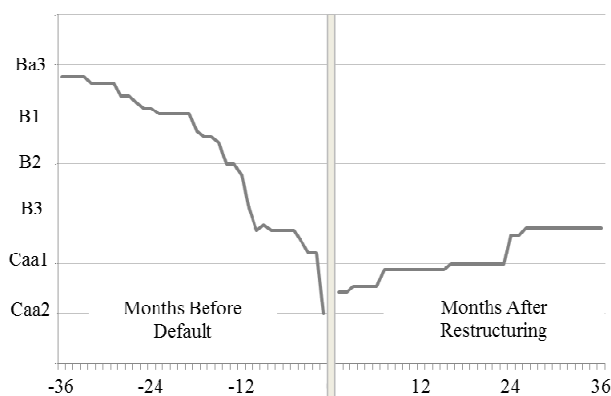
C. Financial Stability Implications of Debt Restructuring

38. **Sovereign restructuring episodes can be costly for the financial sector of a debtor country for several reasons.** First, the asset side of banks' balance sheets will take a direct hit from the loss of value of the restructured assets. Second, on the liability side, banks can experience deposit withdrawals and the interruption of interbank credit lines. This can negatively affect their ability to mobilize resources at a time of stress. Finally, restructuring episodes have also triggered interest rate hikes, thereby, increasing the cost of banks' funding and affecting their income position. Altogether these factors may impair the financial position of domestic institutions to a degree that it threatens financial stability and raises pressures for bank recapitalization and official sector bail-outs (Box 4, a survey of empirical literature on the topic). Depending on specific circumstances, governments may ultimately bear the costs of bank recapitalizations in order to maintain banking system stability and secure the flow of credit to the economy.

39. **In general, debt restructurings have adversely affected domestic financial sectors.** Two main examples are the defaults of Russia and Ecuador, which contributed to the effective collapse of the domestic banking systems in these countries. In Russia, the large Moscow-based commercial banks were affected most owing to their significant exposures to domestic treasury bills and currency mismatches on their balance sheets. This resulted in insolvency and default of some banks on their external obligations. In Ecuador, the sovereign default had already been

preceded by a systemic banking crisis (accompanied by liquidation of five financial institutions), yet the restructuring process led to a further significant dent in banks' capital. In the recent Jamaica (2010) restructuring, concerns about financial sector stability prompted the government

Figure 3. Ratings Evolution During Sovereign Restructuring Episodes



Note: Ratings evolution over time, averaged across the following nine recent bond restructuring episodes: Pakistan (1999), Ecuador (1999 and 2008), Argentina (2001), Moldova (2002), Uruguay (2003), Dominican Republic (2005), Belize (2006), and Jamaica (2010).

Box 4. Impact of Sovereign Default and Restructuring on Financial System

The effects of emerging market defaults on Western banking systems have been analyzed by Cornell and Shapiro (1986) and Bruner and Simms (1987). These studies assess the impact of the 1982 Mexican debt default, and of rumors about it, on Western banks' financial market valuations. They find a significant and long-lasting negative effect, especially for those banks with large exposures to Mexican debt. Slovin and Jayant (1993) show that this negative effect was more pronounced for capital deficient banks than for banks with larger capital adequacy buffers. In a similar vein, Musumeci and Sinkey (1990) and Karafiath *et al.* (1991) document a negative market value effect as well as contagion across banks, after the Brazilian debt moratorium of 1987. Unal *et al.* (2003) show that the announcement of the Brady plan in 1989 led to a significant drop in the stock prices of U.S. banking multinationals, while Japanese bank stocks were less affected. Also, the Russian (1998) debt default was associated with a stark and long-lasting drop in U.S. bank valuations and a rapid widening of default spreads on bank debt for the top 25 bank holding companies in the United States. In a similar vein, Arezki *et al.* (2011) find that sovereign rating downgrades have significant spillover effects both across countries and financial markets, including on corporate CDS prices, and on bank and insurance sector stocks.

Other papers do not focus on bank valuation or spread effects, but specifically on the link between debt crises and banking crises. Levy-Yeyati *et al.* (2010) find that sovereign distress affects the behavior of depositors and can contribute to bank runs. In a similar vein, Borensztein and Panizza (2009) provide indicative evidence that debt crises may trigger systemic banking crises. More recently, Gennaioli, Martin, and Rossi (2010) reassess the link between government default and

domestic financial markets in a panel of emerging and developed countries from 1980 to 2005. The authors find that public defaults are followed by large and systematic drops in aggregate financial activity. They also find that the post-default credit crunch is stronger for countries in which banks hold more government debt.

to adopt a preventive financial sector contingency plan. Specifically, with the help of international financial institutions, the government introduced a facility to provide temporary liquidity support to solvent banks that might be affected by sovereign restructuring. In the event, there were no requests for such liquidity assistance (Box 5).

40. **Debt restructuring in one country could have cross-border implications.** Banks and financial institutions exposed to sovereign risks in a country that undergoes restructuring could transmit the shock across borders, be it directly via loss of value of government securities or indirectly via their exposure to the banking sector of that country.³⁴ Among the larger recent restructuring episodes, German banks and funds were most heavily exposed to the Russian default of 1998, while the U.S. financial institutions and European retail investors were most affected by the Argentinean default and debt exchange of 2001 to 2005.

Box 5. Jamaica: Financial System Support Fund

A Financial Sector Support Fund (FSSF) was established with US\$950 million in multilateral funds as a contingent measure to address possible adverse impacts of the debt exchange on the financial sector. The FSSF was to be available to individual institutions that encounter specified problems, primarily liquidity, directly related to the debt exchange. Access to the fund was restricted to those financial institutions (banks, securities dealers and insurance companies) that participated at a rate of at least 90 percent in the debt exchange. In this context, the FSSF acted as an incentive to participate in the debt exchange.

The primary use of the FSSF was to provide liquidity support in the event of external funding calls or pressure on deposits or assets under management that were attributable to the debt exchange. The interest rate was set to avoid any fiscal costs. Any borrowing from the FSSF was to be repaid within 6 months or else a punitive rate would begin to apply. Liquidity support above a threshold level (as a percent of the capital of the borrowing institution) would trigger increased regulatory intervention. A regulatory circular would be issued specifying supervisory actions to be taken when emergency liquidity support reached predefined trigger levels. Banks and nonbank financial institutions would be intervened if a maximum level was breached. However, during and after the restructuring process no requests for assistance from the FSSF were filed.

³⁴ The exposure of the banks and nonbank financial institutions to sovereign risk has grown and reached unprecedented levels during the crisis.

IV. CONCLUSIONS

41. **This paper reviews historical experience with debt restructuring episodes and summarizes a number of general observations based on EM country experience over the past two decades.** A number of factors can be identified that appear to have played a role in determining the outcomes of the restructuring process. These can be summarized as follows:

- Despite lengthy negotiations and delays in many debt restructuring cases, creditor coordination and holdouts have not generally been a major problem.
- Bond restructurings have on average been quicker to implement than bank debt exchanges and participation rates have often exceeded 90 percent, even with dispersed bondholders.
- Creditor characteristics did not appear to play a major role in the duration of debt restructuring, although there is evidence that domestic restructurings were implemented in less time than external restructurings.
- Some features embodied in the bond contracts (e.g., CACs and other legal clauses) appeared to facilitate debt crisis resolution but their presence alone did not guarantee a smooth restructuring process.
- Macroeconomic indicators tended to improve in the immediate years after debt restructurings.
- Depending on the country's circumstances, market access could be restored relatively quickly after restructuring. However, post-restructuring access could come at a cost, as defaults affect credit risk spreads. Greater haircuts were associated with larger post-restructuring bond spreads, with the effect decreasing overtime.
- Debt restructurings in some cases were associated with spillovers into the financial sector but at least in one of those cases an effective backstopping mechanism was established to minimize the impact.

APPENDIX I. DEFINITIONS AND ROLES OF CLAUSES

42. **The following is a general description of terms and provisions used in bond contracts.**

Exit consent

43. *Exit consents (or exit amendments) are legal provisions that allow a simple majority of bondholders to modify the nonpayment terms of old bonds in an exchange to render the old bonds unattractive or illiquid. By stripping away favorable bond features and creditor rights, the old bonds become less attractive, thus inducing bondholders to participate in the exchange into new bonds.*

44. **Exit consents can be particularly useful for restructuring bonds that do not contain CACs to alter payment terms.** Instead of changing the financial characteristics of old bonds via majority *restructuring* provisions, exit consents can be used to alter *nonpayment terms*, for example legal features that affect the bond's liquidity or the holder's ability to litigate. Most commonly, exit consents include: (i) the de-listing of the outstanding bonds to reduce liquidity; (ii) the removal of cross-default clauses; and (iii) the removal of acceleration clauses. The decision to use exit consents has to occur in agreement with the issuer and often takes place in the context of a bondholder meeting. After the exchange, nonparticipating bondholders will generally not be able to reverse the amendments without the consent of the sovereign issuer. This can considerably reduce the leverage of holdouts, as they may be left with less liquid bonds with unattractive legal features and lower secondary market values.

Acceleration clauses

45. *Acceleration clauses are a standard feature in sovereign debt contracts and entitle creditors to “accelerate” unmatured principal following a default event (see Buchheit and Gulati, 2002).* In the case of any missed payments, all principal and accrued interest become immediately due and payable. Typically, the decision to accelerate payments requires a minority vote of at least 25 percent of outstanding principal. This practice follows the general rule for corporate bonds issued in the United States (see Buchheit and Gulati, 2002). Depending on the drafting of terms, an acceleration can also be revoked or vetoed (“de-accelerated”) by a majority of bondholders, provided that the default has been “cured.” One example was the debt exchange in Ecuador 2000, which was made conditional on bondholders revoking the acceleration decision on their old bonds (see Sturzenegger and Zettelmeyer, 2007).

Cross-default and cross-acceleration clauses

46. *A cross-default takes place if a default event on one debt contract can trigger a default on another agreement.* This implies that a missed payment (including a coupon payment) can trigger a default vis-à-vis the remainder of government's (bank and bond) obligations. In essence, cross-default clauses can strengthen the principle of inter-creditor equity and act as a deterrent to selective default (i.e., the decision to pick and choose which bondholders or banks to repay). During the 1980s, cross-default clauses in sovereign loan contracts protected banks from

selectively defaulting on syndicated loans or parts thereof. Also, Eurobonds and Brady bonds issued since the 1990s typically contain cross-default clauses. Note, however, that many bonds provide for a minimum amount (e.g., 25 percent) to trigger cross-default provisions.

47. ***Cross-acceleration implies that the acceleration on one debt contract may accelerate other (third party) debt contracts as well.*** Exit consents are often used to remove this type of clause from the old bond contracts to protect new bondholders from legal remedies by nonparticipating holdouts. Once the cross-default and cross-acceleration clauses are removed, any nonpayments or disputes related to the old bonds will no longer trigger default and acceleration on the new bonds. Cross-acceleration clauses too often require a minimum vote share to be triggered.

Aggregation clauses

48. **Often, CACs, exit consents, and other innovations in individual debt contracts are insufficient to deal with the broader problems of collective action problems, as they can only bind bondholders *within* the same issue without affecting bondholders *across* other bond issuances or other types of debt (e.g., bank debt and trade credit).**

49. ***Aggregation clauses are provisions that allow the aggregation of creditor claims across all bonds and other debt instruments for voting purposes.*** Depending on the exact language of the clause, a supermajority of bondholders could then be enabled to amend the payment terms of a multitude of individual bond series at the same time.

50. **The use of aggregation clauses in sovereign bonds remains limited. Uruguay introduced them during the 2003 exchange and was followed by Argentina (2005) and several smaller issuers, including Belize and the Dominican Republic.** The aggregated CACs in the bonds of *Argentina* and Uruguay both contain a dual voting threshold structure with two-tiered voting.³⁵ However, aggregation clauses have not been called yet in any sovereign debt workout in recent years.

³⁵ Specifically, a modification of terms require an approval by a total of 85 percent of bonds of all affected series (aggregate of at least two bonds) as well as by 66 percent of outstanding bonds of each affected series (issue-by-issue).

REFERENCES

- Arezki, Rabah, Candelon, Bertrand and Amadou Sy, 2011. "Sovereign Rating News and Financial Markets Spillovers: Evidence from the European Debt Crisis," IMF Working Paper No. 11/68.
- Asonuma, Tamon, and Christoph Trebesch, 2011 "Preemptive versus Post-Default Debt Renegotiation." Unpublished Paper.
- Bi, Ran, Marcos Chamon, and Jeromin Zettelmeyer, 2011. "The Problem that Wasn't: Coordination Failures in Sovereign Debt Restructurings." Forthcoming IMF Working Paper.
- Borensztein, Eduardo and Ugo Panizza, 2009. "The Costs of Sovereign Default," IMF Staff Papers, vol. 56(4), pages 683-741.
- Buchheit, Lee C. and Mitu G. Gulati, 2000. "Exit Consents in Sovereign Bond Exchanges." *UCLA Law Review*, 48 : 1–31.
- Catão, Luis and Sandeep Kapur, 2006. "Volatility and the Debt-Intolerance Paradox," IMF Staff Papers, vol. 53(2), pages 195-218.
- Cole, Harold, and Timothy Kehoe, 2000. "Self-fulfilling Debt Crises." *Review of Economic Studies* 67(1): 91–116.
- Cornell, Bradford and Alan Shapiro, 1986. "The reaction of bank stock prices to the international debt crisis," *Journal of Banking and Finance* 10(1): 55-73.
- Cotarelli, Carlo, Forni, Lorenzo, Gottschalk, Jan and Paolo Mauro, 2010. "Default in Today's Advanced Economies: Unnecessary, Undesirable, and Unlikely." IMF Staff Position Note 10/12. International Monetary Fund.
- Cruces, Juan and Christoph Trebesch, 2011. "Sovereign Defaults: The Price of Haircuts." CESifo Working Paper, No. 3604.
- Das, Udaibir S., Papaioannou, Michael G., and Christoph Trebesch, 2012. "Sovereign Debt Restructurings 1950–2010: Literature Survey, Data, and Stylized Facts." IMF Working Paper (forthcoming), International Monetary Fund.
- Das, Udaibir S., Papaioannou, Michael G., and Christoph Trebesch, 2010, "Sovereign Default Risk and Private Sector Access to Capital in Emerging Markets," IMF Working Paper 10/10. International Monetary Fund.
- Detragiache, Enrica and Antonio Spilimbergo, 2001. Crises and Liquidity: Evidence and Interpretation. IMF Working Paper No. 01/2. International Monetary Fund.

- ECFIN, 2004. "Implementation of the EU commitment on Collective Action Clauses in documentation of International Debt Issuance" Available at http://europa.eu/efc/sub_committee/pdf/cacs_en.pdf.
- Enderlein, Henrik, Schumacher, Julian and Christoph Trebesch, 2011. „Explaining Creditor Litigation in Sovereign Debt Crises.” Unpublished Paper. Hertie School of Governance.
- Fisch, Jill E. and Caroline M. Gentile, 2004. "Vultures or Vanguard?: The Role of Litigation in Sovereign Debt Restructuring." *Emory Law Journal* 53: 1043-1113.
- Fuentes, Miguel and Diego Saravia, 2010, "Sovereign Defaulters: Do International Capital Markets Punish Them?" *Journal of Development Economics* 91(2): 336-347.
- Gelos, Gaston R., Guido Sandleris and Ratna Sahay, 2011. "Sovereign Borrowing by Developing Countries: What Determines Market Access?," *Journal of International Economics* 83(2): 243-254.
- Gennaioli, Nicola, Martin, Alberto and Stefano Rossi, 2010. "Sovereign Default, Domestic Banks and Financial Institutions," CEPR Discussion Papers 7955.
- Group of Ten, 1996. "The resolution of sovereign liquidity crises" Washington, DC: Group of Ten. Available at: www.bis.org/publ/gten03.pdf
- Group of Ten, 2002. "Report of the G-10 Working Group on Contractual Clauses," Washington, DC: Group of Ten. Available at: www.bis.org/publ/gten08.pdf
- Hornbeck, Jeff, 2010. "Argentina's Defaulted Sovereign Debt: Dealing with the 'Holdouts'" Congressional Research Service. Available at: <http://fpc.state.gov/documents/organization/142740.pdf>
- IMF, 2003. "Reviewing the Process for Sovereign Debt Restructuring within the Existing Legal Framework." International Monetary Fund, Washington, DC. Available at: <http://www.imf.org/external/np/pdr/sdrm/2003/080103.htm>
- IMF, 2001a. "Official Financing for Developing Countries." International Monetary Fund, Washington, DC. Available at: <http://www.imf.org/external/pubs/cat/longres.cfm?sk=14803.0>
- IMF, 2001b. "Involving the Private Sector in the Resolution of Financial Crises - Restructuring International Sovereign Bonds." International Monetary Fund, Washington, DC. Available at: <http://www.imf.org/external/pubs/ft/series/03/IPS.pdf>
- Karafiath, Imre, Mynatt, Ross and Kenneth L. Smith, 1991. "The Brazilian default announcement and the contagion effect hypothesis," *Journal of Banking and Finance* 15(3): 699-716.

- Kohlscheen, Emanuel, 2007. "Why are there Serial Defaulters? Evidence from Constitutions." *Journal of Law and Economics* 50(4): 713–30.
- Krueger, Anne, 2002. "A New Approach to Sovereign Debt Restructuring." International Monetary Fund. Available at: <http://www.imf.org/external/pubs/ft/exrp/sdrm/eng/index.htm>
- Levy-Yeyati, Eduardo, Martinez Peria, Maria S. and Sergio L. Schmukler, 2010. "Depositor Behavior under Macroeconomic Risk: Evidence from Bank Runs in Emerging Economies," *Journal of Money, Credit and Banking* 42(4): 585-614.
- Levy-Yeyati, Eduardo and Ugo Panizza, 2011. "The Elusive Cost of Sovereign Defaults." *Journal of Development Economics* 94(1): 95-105.
- Manasse, Paolo, and Nouriel Roubini, 2009. "Rules of Thumb" for Sovereign Debt Crises," *Journal of International Economics* 78(2): 192-205.
- Medeiros, Carlos I., Ramlogan, Parmeshwar and Magdalena Polan, 2007. "A Primer on Sovereign Debt Buybacks and Swaps," IMF Working Papers 07/58, International Monetary Fund.
- Musumeci, James and Joseph Sinkey, 1990. "The International Debt Crisis, Investor Contagion, and Bank Security Returns in 1987: The Brazilian Experience," *Journal of Money, Credit and Banking* 22(2): 209-20.
- Papaioannou, Michael G, 2009. "Exchange Rate Risk Measurement and Management: Issues and Approaches for Public Debt Managers." *South-Eastern Europe Journal of Economics* 7(1): 7-34.
- Pitchford, Rohan, and Mark L. J. Wright, 2008. "Holdouts in Sovereign Debt Restructuring: A Theory of Negotiation in a Weak Contractual Environment." Unpublished Paper, UCLA.
- Reinhart, Carmen, Kenneth Rogoff, and Miguel Savastano, 2003. "Debt Intolerance." *Brookings Papers on Economic Activity* 2003(1): 1–70.
- Reinhart, Carmen, and Kenneth Rogoff, 2008. *This Time is Different: Eight Centuries of Financial Folly*, Princeton: Princeton University Press.
- Reinhart, Carmen M. and Rogoff, Kenneth, 2011. "From Financial Crash to Debt Crisis." *American Economic Review* 101(5): 1676-1706.
- Slovin, Myron and Subbarao Jayanti. 1993. "Bank capital regulation and the valuation effects of Latin American debt moratoriums," *Journal of Banking and Finance* 17(1): 159-174.

- Standard & Poor's. 2006. "Sovereign Defaults and Rating Transition Data: 2006 Update." Available at http://www2.standardandpoors.com/spf/pdf/fixedincome/KR_sovereign_SovDefaultsTransitionData2006.pdf
- Sturzenegger, Federico, and Jeromin Zettelmeyer. 2006. *Debt Defaults and Lessons from a Decade of Crises*. Cambridge, MA: MIT Press.
- Sturzenegger, Federico, and Jeromin Zettelmeyer. 2007. "Creditors Losses versus Debt Relief: Results from a Decade of Sovereign Debt Crises." *Journal of the European Economic Association* 5(2-3): 343-351.
- Taylor, John, 2002. "Sovereign Debt Restructuring: A U.S. Perspective," Treasury News, Available at: <http://www.treas.gov/press/releases/po2056.htm>.
- Trebesch, Christoph. 2008. "Delays in Sovereign Debt Restructurings." Unpublished Paper, Free University Berlin.
- Trebesch, Christoph. 2011. "Sovereign Debt Restructurings 1950-2010: A New Database." Unpublished Paper, University of Munich.
- Unal, Haluk, Demirguc-Kunt, Asli and Leung Kwok-Wai. 1993. "The Brady Plan, the 1989 Mexican debt reduction agreement, and bank stock returns in the United States and Japan," *Journal of Money, Credit and Banking* 25(3): 410-29.
- van Rijckeghem, Caroline, and Beatrice Weder. 2009. "Political Institutions and Debt Crises." *Public Choice* 138(3): 387-408.
- World Bank. 2007. "Debt Reduction Facility for IDA-Only Countries: Progress Update and Proposed Extension," Board Report 39310, Washington, D.C.