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Do We Need the IMF to Resolve a Crisis? Lessons from Past Episodes of Debt Restructuring

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Abstract

This study investigate how debt restructurings have evolved over the decades. Debtors and creditors have a long history of engaging an outsider – a "third party", such as the IMF – to organise and facilitate debt restructurings. As we show, the importance of these "third parties" has grown over time. At the same time, the financial environment has evolved rapidly, and financial markets have become more liquid and better able to spread risk in recent decades. In today's economic environment, the financial system of many advanced countries is better isolated from the negative consequences of a lengthy restructuring process. Consequently, from the perspective of creditor countries, the fact that "third parties" can facilitate and shorten the restructuring process has become less valuable. That said, emerging economies still benefit from involving a "third party", as this might help to overcome coordination problems among creditors and signal that the local authorities are effectively dealing with the crisis, which might help to restore confidence. This holds all the more since creditors have better access to litigation nowadays than during earlier episodes of debt restructurings.

JEL classification: N1, N2, E5, F3
Bank classification: Financial stability; International topics

Résumé

Nous examinons comment les schémas de restructuration de la dette ont évolué au cours des décennies. Débiteurs et créanciers ont depuis longtemps l'habitude de confier à un tiers, tel le FMI, le soin d'organiser et de faciliter la restructuration d'une dette. Nous montrons que ces tiers ont été appelés à jouer un rôle de plus en plus important au fil des ans. Parallèlement, durant les dernières décennies, le contexte financier a connu une transformation rapide, et les marchés financiers sont devenus plus liquides et mieux à même de répartir les risques. Dans l'environnement économique d'aujourd'hui, le système financier de nombreux pays avancés est mieux protégé contre les conséquences négatives que peut avoir un long processus de restructuration. Par conséquent, la capacité des tiers à faciliter et à accélérer ce processus a perdu de son attrait aux yeux des pays créanciers. Cela dit, les économies émergentes bénéficient toujours de l'intervention de ces tiers. Ces derniers, en effet, peuvent les aider à surmonter les problèmes de coordination entre les créanciers et envoyer le signal que les autorités locales prennent des mesures adéquates pour gérer la crise, ce qui peut contribuer à rétablir la confiance. Ce rôle est d'autant plus important que les créanciers ont aujourd'hui plus de recours qu'ils n'en avaient autrefois face aux débiteurs qui restructurent leur dette.

Classification JEL : N1, N2, E5, F3
Classification de la Banque : Stabilité financière; Questions internationales

1 Introduction

Situated at the centre of the international financial system, the IMF is an institution fostering international cooperation and helping individual countries to meet economic challenges. In light of the economic transformation brought about by globalization, however, the danger is – as the Bank of England's Governor Mervyn King of has put it – that the Fund might slide into obscurity. This is not because the world has run out of economic crises: recent sovereign debt crisis episodes include the Mexican crisis in 1994, East Asia in 1997, followed by Russia, Brazil, Pakistan and Ukraine in 1998, Ecuador in 1999, and finally Turkey, Argentina and again Brazil in 2001. The need to find ways to limit the economic costs that may arise from a disorderly debt restructuring process is there. The question is, however, whether the IMF is (still) the right institution to fulfil this task:[2]

> "The IMF was created some 60 years ago to oversee the global monetary system in an era of fixed exchange rates. But the world has changed dramatically in 60 years. […] Concerns have arisen that the Fund has not kept pace with the changes in the global economy. After 60 years, it's time to take a fundamental look at the role of the Fund in the global economy." (Macklem 2006)
>
> "The generic challenge facing [the IMF] is to find a role relevant to present circumstances, and to decide on the operational capabilities and instruments which that role requires. Holding meetings and issuing communiqués is not enough." (King 2006)

Against this backdrop, we investigate how debt restructurings have evolved over the decades. What were the market failures the IMF was supposed to fix, and are they still relevant in the globalized financial world we are living in today? We find that debtors and creditors have a long history of engaging a "third party" to organise and facilitate debt restructurings. Moreover, the importance of these "third parties" has increased over time. However, the financial environment has evolved considerably over the past decades, and the potential damage of a lengthy restructuring process to the global financial system has been reduced substantially.

We examine why some restructuring episodes were successful – and why others were not. Our contribution to the literature is that throughout this study we take a bargaining perspective, i.e. we identify the main incentives of debtors and creditors during these episodes, and the extent to which their incentives were conducive to an agreement. Also, we argue that that given the changes in financial markets since the 1990s – in particular better possibilities to spread and hedge against risk – creditor countries are nowadays better protected against negative spillovers from emerging market crises. From that

[2] In this study we focus on the IMF's role in restructuring debt. It should be noted that the IMF performs many other responsibilities, such as bilateral and multilateral surveillance, providing technical assistance etc. The usefulness of such tasks is not examined.

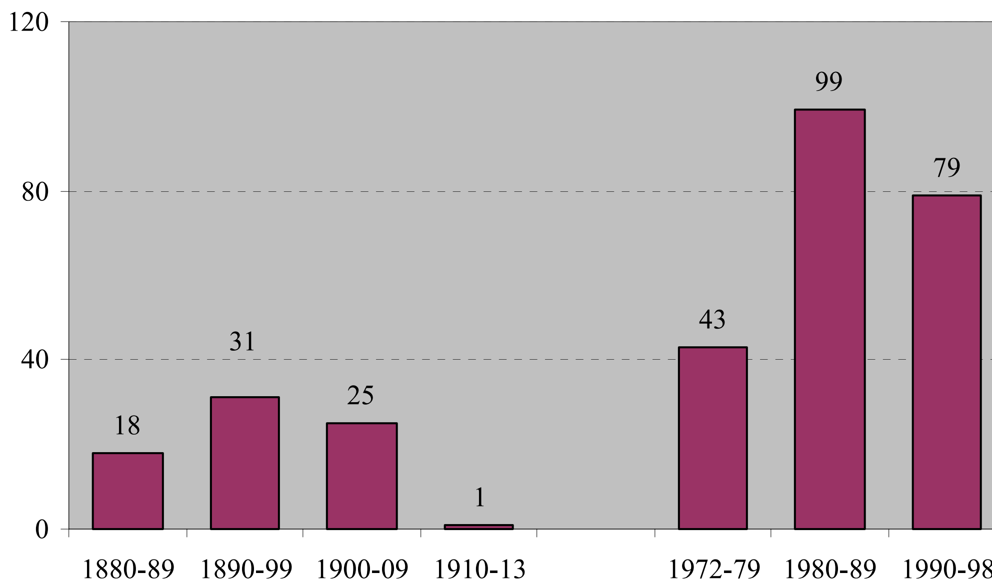
perspective, the importance of the IMF in resolving a crisis has declined. From the perspective of an emerging economy, however, involvement of the IMF may still be an important element to foster cooperation among creditors. This is all the more important, since incentives to reach an agreement have fallen, as investors have better access to litigation nowadays than during past episodes of debt restructurings.

We proceed as follows. We start by briefly reviewing key "market failures" that a third party like the IMF might overcome. Next, we analyse how financial markets have dealt with these issues in the past, and we examine how financial markets evolved over the years. Looking ahead, we analyse debtor and creditor incentives to keep or change the current status of the IMF. The last section briefly summarises our main findings.

2 Where's the problem?

Debt crises are not a new phenomenon, although it might seem from the perspective of a casual observer that their frequency has somewhat increased in the past years. Eichengreen and Bordo (2002) show that crises are twice as prevalent today than they were in the pre-1914 era of financial globalisation (see figure 1). There is broad consensus about steps needed to reduce the frequency of financial crisis, but once a crisis has developed, consensus is lacking about how to manage and resolve it.[3]

Figure 1: Frequency of Banking, Credit and Debt Crisis 1880-1913, 1972-1998



Source: Eichengreen and Bordo (2002). The authors do not report crises between 1913 and 1972.

[3] Roubini and Setser (2004). Steps needed to reduce the frequency of crises include better macroeconomic policies, improved supervision and better 'early warning' systems to detect a crisis (Eichengreen and Bordo 2002). Mishkin (2005) describes how a financial crisis unfolds: it typically starts with severe fiscal imbalances, which trigger higher interest rates and decline in lending and asset prices. At some point this moves to a currency crisis and, possibly, a financial crisis.

With full information and perfect enforceability, debt restructurings would seem relatively straightforward: the sovereign borrower and its private creditors could negotiate on the reduction of debt in net present value terms to maximise debtor and creditor welfare, and the degree of domestic adjustment necessary. In the real world, however, such information is not available: typically, borrowers and lenders disagree on the future path of the economy and the policy adjustments necessary (and feasible) to ensure a sustainable, positive economic development. This is made worse by some countries being large enough to be "systemic" – i.e. if they find themselves in difficulties, economic hardship may spread to other economies as well (Didier et al. 2006).[4]

Is this sufficient to warrant involvement of a supra-national organisation, i.e. is there evidence of a serious market failure that needs to be corrected? Or – abstracting from the specific issues today's IMF might have – we can formulate the question more broadly: Let us define a "third party" as an institution to review proposals for policy adjustment from the sovereign and to facilitate coordination among creditors. This could be a private firm, a bank advisory committee, or a multilateral organisation like the IMF. In an ideal world this third party would not be subject to external pressure and could perform a role as an impartial mediator. What are the merits of involving such a "third party" in the negotiation between debtors and sovereigns?

An answer depends on the effects of third-party actions on negotiations between debtors and creditors. We can essentially distinguish two views (Rogoff and Zettelmeyer 2002). The first view holds that a third party can organize creditor actions. Absence of a third party can lead to deadweight losses for borrowers and lenders. Incentive problems on the creditor side can cause coordination failure between the public and the private sector, or free riding among the private sector (the *dual agency* problem).[5] A "race to the courthouse" can impede orderly negotiations, and debt panics could be avoided if a third party intervenes.

A related issue is that a third party might guide and oversee the restructuring process in the debtor country. The IMF may not have an informational advantage over private creditors and investors, but it can play the role of a monitor in situations where governments have more information about their economic condition and their intentions than the rest of the world. Given asymmetric information, contract enforcement is difficult. The IMF can serve as a *delegated monitor* (Tirole 2002), that is, it can complete contracts between international lenders and both sovereign and private borrowers in

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[4] Vines and Irwin (2005) underline the importance of an accurate assessment of the crisis (i.e. liquidity or solvency problem): While liquidity crises should be dealt with by a standstill, combined with lending into arrears, solvency crises should be resolved by debt write-downs.

[5] When sovereign countries borrow they contract with several lenders without taking into account the negative externality that each contract imposes on the other lenders. For example, when shifting the loan maturity structure towards the short term, the government and the new lender do not take into account that their contract devalues the claims of other, longer-term, investors since short-term borrowing increases the probability of not withstanding liquidity shocks in the near future (Tirole 2002). There are contractual mechanisms to mitigate this problem in the context of corporate borrowing, but such mechanisms are largely absent in the context of sovereign borrowing.

emerging market economies. And lastly, *ex ante* adoption of a restructuring plan proposed by a third party can be viewed as a screening device to discriminate between debtor countries that are willing to implement sound policies, and those that are not (Marchesi and Thomas 1999).

The second view acknowledges these benefits, yet stresses that limiting the costs of a debt restructuring through third-parties may trigger opportunistic defaults by sovereigns. Moreover, if this third party also provides funding (which might – directly or indirectly – limit the losses of investors or sovereigns), it might induce moral hazard from investors. For instance, Eichengreen (2000) argues that attempts to limit the moral hazard caused by international lending are not credible, and will not be effective, as long as the international community does not find alternative ways to resolve sovereign debt crises.

Concerns about opportunistic default and the role of the restructuring process in limiting these defaults have long been part of the fabric of domestic and international credit markets. If creditors cannot protect themselves from opportunistic defaults, access to loans will be restricted and borrowing costs will be higher. This implies that both creditors and sovereign debtors have an interest in developing mechanisms for limiting the possibility of opportunistic defaults.

Conceptually, there are many similarities between sovereign and corporate debt. Due to information problems, creditors have limited ability to determine the likelihood of a default. The probability of default and the amount of recovery upon default varies with events that occur after a loan has been given. They are also influenced by events beyond the control of the debtor. However, sovereign debt differs from commercial debt in that there is no ultimate threat of liquidation, so sovereigns may default on their debt opportunistically (Thomas 2004). Moreover, in the event that default occurs, creditors may be more subject to political pressure regarding the restructuring.

In the next section, we examine past evidence to see how the role of third parties has evolved over time. The existing evidence suggests merits in having a third party coordinate creditor actions and devise a restructuring plan. We also look at empirical studies investigating moral hazard risks on the part of investors and debtors to assess how important concerns about moral hazard are in practice.

3 Has the nature of sovereign debt crisis changed over time?

3.1 The first era of financial globalisation (until the 1930s)

The precarious nature of sovereign lending is apparent in a long history of sovereign defaults. It dates back to medieval times, when the English monarchy developed such a record of default that creditors required tangible collateral. Edward III, for example, had to pawn the crown jewels to obtain Florentine bank credit for his part in the Hundred Years War (Lewis 1986).

This structure of international lending remained largely unchanged from the 17th through the early 20th century. Foreign lending took the form of either short-term trade finance or special purpose loans at fixed interest rates. The main creditors were banks. Sovereign debt defaults remained common, but creditor country governments generally maintained

a hands-off approach (with certain notable exceptions, such as the British occupation of Egypt in 1880 and the French occupation of Mexico in 1863).

The early years of the 20th century has been called "the first era of financial globalisation". At that time, debt restructurings were characterised by a lack of mediation or formal rules. Soon, however, dissatisfaction with the restructuring process led to the invention of the "*Money doctors*" (Sgard 2004). Money doctors were economic experts who produced a comprehensive account of a troubled country's economic and financial position, and its capacity to resume its debt service. On the basis of this, the money doctor would recommend a stabilisation policy (Flandreau 2003). In other words: the advisory role of the money doctor was not so different from that of the IMF today, except that the money doctor would not provide lending.

Interestingly, private investors never attempted to fall back on the previous non-mediated framework of the 19th century, despite the fact that experience with money doctors were not always positive: some were corrupt, others were side-lined; and regularly their advice would prove wrong (Sgard 2004). But all in all, the money doctors exemplify the importance of a third party to review debtor policies and to coordinate creditor actions.

3.2 The crisis of the 1930s

After World War I, countries such as Argentina, Brazil, Chile, and Cuba began issuing bonds in the United States (Truglia et al. 1995). With the beginning of the Great Depression, these sovereign debtors experienced difficulties servicing their bonds (Moody's 1999). By 1933, twelve Latin American debtors suspended at least part of their debt servicing, and by 1934 only Argentina, Haiti, and the Dominican Republic had not suspended normal debt servicing (Aggarwal 2003). To resolve the crisis, protective committees were formed to negotiate with the sovereign debtors. These, however, had mixed success: high administrative expenses, lack of authority to speak for the bondholders, and a proliferation of competing committees led the State Department to sponsor plans for the creation of a permanent organisation to represent bondholders. In 1933, the *Foreign Bondholders Protective Council* was organised (Eichengreen and Portes 1995). The Council derived authority from its status as a statutorily-created institution. However, it still lacked power to bind bondholders. It could only recommend settlements, which the bondholders accepted or rejected. Further concessions from sovereign debtors were rare once the Council recommended a settlement to the bondholders, as the Council then ceased negotiations (Jorgensen and Sachs 1989).

From a bargaining perspective, this meant that the Foreign Bondholders Protective Council could not enforce its restructuring proposals. At the same time, litigation was not a viable option for holdout creditors: because of the doctrine of sovereign immunity, creditors had no enforceable rights (MacMillan 1995). In essence, sovereign debtors were unable to be sued without their consent.

Lacking both a focal point for an agreement and a mechanism to force an accord, negotiations between bondholders (represented by the Council) and sovereign debtors were lengthy, taking years or even decades to complete.[6] This contributed to the collapse

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[6] E.g. Bolivia was the first country to default in 1931. The restructuring was not completed until 1958.

of the market for sovereign bonds. From that point on, the majority of loans to Latin America was made by public institutions like the World Bank or the Inter-American Development Bank, as well as by other sovereigns (notably the United States).

3.3 The crisis of the 1980s

A fundamental shift in borrowing and lending patterns occurred in the 1970s, as international commercial banks located in the United States, Western Europe, and Japan became the principal source of sovereign loans in Latin America. A new wave of debt problems emerged in the 1980s. In August 1982, Mexico declared that the country could no longer service its debts to foreign creditors. It was soon followed by Brazil, Argentina, Bolivia and Venezuela.

At the time Mexico declared that it could no longer service its debt, more than 500 commercial banks were listed as creditors (Buchheit and Reisner 1988). Negotiations between debtors and each of their creditors were not possible. To overcome coordination problems, commercial banks formed *bank advisory committees* to negotiate with sovereign debtors. Officially, the task of these committees was to facilitate exchange of information between debtors and creditors; but in practice they negotiated the terms of the restructuring. Typically, the bank holding the largest claim against the sovereign debtor served as the chair of the committee; other commercial banks with significant claims served as other committee members. Most bank advisory committees had ten to fifteen members, based on geographic concentration of the loans.

In negotiating the restructuring, the bank advisory committees adhered to a principal of treating all commercial banks equally. This appealed to the "simple-minded equity among banks" (Lipson 1985), making it harder for individual creditors to hold out for special treatment. That said, although banks supported the principle of equal treatment, they did not necessarily prefer the same terms of agreement. Banks faced very different situations, due to differences in the sizes of the loans they had made relative to their total assets, and differences in the regulations to which they were subject.

Again, the committees lacked the authority to bind the commercial banks to the agreement reached with sovereign debtors. However, the specific circumstances of the 1980s made it possible to force an agreement. This was primarily due to the difficult situation of the large U.S. banks.

3.3.1 Large U.S. banks

Large U.S. commercial banks had made very large loans to sovereign debtors in Latin America. When these countries refused to pay back, many of these banks faced a serious threat of insolvency (Fisch and Gentile 2004). In addition, U.S. banks were confronted with a difficult regulatory environment: regulations required a loan to be declared "non-performing" in the event that interest accrued on the loan was not paid within 90 days after its due date (Power 1996). This meant that banks had to set aside adequate reserves for non-performing loans. Since the total value of the loans exceeded the total value of the capital of many large commercial U.S. banks, creating sufficient reserves was impossible in a timely manner.

The bank advisory committees proposed that sovereign debtors continue to pay interest on the loans as they came due. This way, sovereigns were technically not defaulting. This prevented large U.S. banks from becoming bankrupt. An important element of this plan was that it required commercial banks to make additional loans, as the sovereign debtors lacked foreign currency reserves to pay the interest. As this was the only way to prevent insolvency, large commercial U.S. banks readily supported this restructuring plan.

In addition, various large banks had business relationships with the sovereign debtor, which they were eager to broaden. This acted as an added incentive to support restructuring efforts. Even banks with more limited exposure had participated in loan syndications[7] and were linked to each other through a network of financial operations. In essence, most large U.S. banks had relatively similar interests.

3.3.2 Small U.S. banks

Smaller U.S. banks with small portfolios of loans to sovereign debtors were less inclined to support this restructuring plan. They were not on the brink of insolvency and they did not have business relationships with sovereign debtors. These smaller banks were opposed to making new loans to troubled sovereign debtors, which they considered "throwing good money after bad" (Power 1996).

Bank advisory committees never "bought out" recalcitrant commercial banks. Instead, they sought the voluntary co-operation of the smaller banks. If negotiations proved difficult, officials of the larger banks warned the smaller bank that failure to cooperate might create difficulties in purchasing participations in new syndicated loans. It was also pointed out to them that they risked developing a reputation as an "unreliable partner in difficult situations" (Lipson 1985).[8]

3.3.3 Non-U.S. banks

Commercial banks located outside the United States were sceptical about the bank advisory committees' restructuring plan. Again, the basis for opposition was the requirement of making new loans to troubled debtors. On average, Western European commercial banks were less exposed to Latin America than large U.S. banks. And even for those that did suffer substantial losses, the regulatory environment was more favourable, as Western European banks were not forced to degrade the value of a loan if interest was not paid within 90 days after its due date (Lipson 1985).

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[7] In a syndicated loan commercial banks join together to form a group to provide funds to a particular debtor under one loan agreement (see Buchheit and Reisner 1988 for details).

[8] Lipson (1985) reports the views of a syndications manager: 'No banks have ever been bought out of a rescheduling. If we did that… that would be the end. The [rescheduling] would unravel like a cheap sweater as other smaller [banks] stood in line for the same deal.'

Consequently, Western European banks preferred to capitalize accrued but unpaid interest, that is, to add the interest to the principal amount of the loans rather than making additional loans to provide sovereign debtors with cash to make interest payments. Capitalising the interest, however, threatened the solvency of large U.S. commercial banks.

3.3.4 The external environment

U.S. regulators could also exert pressure on smaller U.S. banks, as they had relatively broad discretion to determine whether or not a bank was required to maintain greater reserves. This turned out to be an important element to secure cooperation of smaller U.S. banks. The IMF also exerted pressure indirectly. In 1982, the Fund initiated the practice of conditioning new IMF loans to a troubled sovereign debtor on a commitment from all commercial banks involved to make new loans. Commercial banks were eager to see sovereigns adopt austerity programs proposed by the IMF and to submit the countries to IMF monitoring. This change in IMF policy thus increased pressure on recalcitrant banks.

3.3.5 Reaching agreements

Ultimately, this tension was resolved in favour of the U.S. banks simply because they could credibly commit to supporting only restructuring plans that included new loans to troubled sovereigns. Any other plan would have meant their insolvency. Western European banks could not credibly refuse to support restructuring, even if it meant making new loans. Even though these plans were not their preferred option, implementation would not imply large losses either. Once large Western European banks had agreed to support a restructuring plan, they could use their relationships with smaller European commercial banks to make them ratify the agreements negotiated with the sovereigns.

In other words, the negotiations had a clear focal point, given that only one option was viable. Pressure could also be applied to force an accord. This made the situation in the 1980s very favourable from a bargaining perspective. Utilising pressure from bank advisory committees, banking regulators and the IMF, commercial banks concluded 42 debt restructurings with governments from 32 countries in the period 1982-1984.

3.4 The Brady plan

In the 1980s, debt restructurings occurred in rapid succession. Mexico, for instance, restructured its debt to foreign creditors no less than 12 times between 1983 and 1990. At some point, these repeated restructurings caused strains among the participating banks. Consequently, banks became willing to sell their sovereign loans for cash, even if the sales required selling these loans at substantial discounts from their face value (Fisch and Gentile 2004). Such sales led to the development of the inter-bank swap market, a secondary market for loans made to sovereign debtors.[9]

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[9] Commercial banks may differ in their preference to hold sovereign debt, e.g. because banks may have better relationships with some debtors, or because regulation may create differences among banks regarding the desirability of holding loans of certain debtors.

As commercial banks began selling loans made to sovereign debtors, the threat of insolvency for the large U.S. commercial banks was gradually eliminated. From a bargaining perspective, this development had important consequences. First, it dramatically reduced the incentives of these banks to work to avoid default on the loans. Second, with the threat of insolvency absent, large U.S. banks could no longer credibly commit to support only their most preferred agreements with sovereign debtors. This weakened an important element for forcing cohesiveness among banks.

In 1989, the Brady plan sought to end the repeated restructurings. In exchange for commercial bank loans, debtor countries issued new bonds for the principal and, in some cases, unpaid interest. The key innovation behind the introduction of Brady Bonds was to allow the commercial banks to exchange their claims on developing countries for *tradable instruments*, allowing them to get the debt off their balance sheets. As a result, the borrower's debt to the commercial banks was extinguished and the commercial banks were able to exit the market for loans to sovereign debtors.

At the same time, the IMF altered its policies regarding loans to sovereign debtors in times of crisis. Previously, the IMF required sovereign debtors to eliminate arrears to both official creditors and private banks before providing additional loans. This was an additional incentive to reach an agreement. Following the implementation of the Brady plan, the IMF provided loans to sovereign debtors so long as they were implementing a credible adjustment program and negotiating in good faith (Fisch and Gentile 2004). The rationale for adopting "lending into arrears" was to signal confidence in the debtor countries' policies.

3.5 The crisis of the 1990s and the situation today

As the market for sovereign bonds grew, governments of emerging economies (most notably in Latin America) realised that they could access the bond markets directly. One of the most important advantages of bonds over loans from commercial banks is their flexibility: bonds have longer maturities than commercial loans. Also the covenants in the agreements governing the bonds are generally less restrictive than the covenants contained in the agreements governing the commercial loans (Fisch and Gentile 2004). Moreover, rating agencies assign credit ratings to sovereign bonds, providing investors with risk assessments. This facilitates daily market pricing. As a result, bonds replaced bank loans as the main form of private capital flows to emerging market economies during the 1990s (see Figure 2).

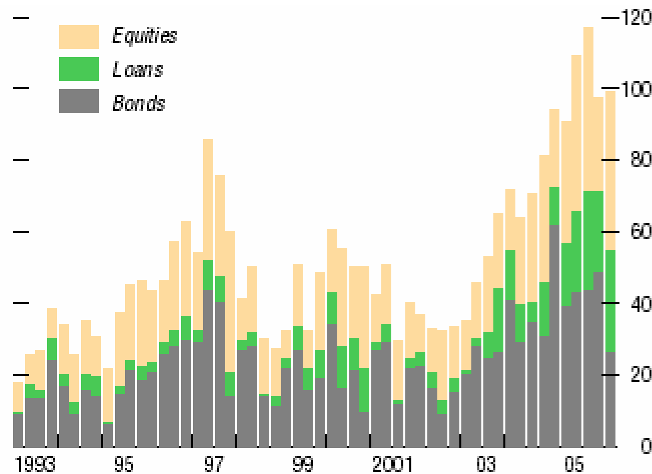
By 1994, a new series of debt crises involving sovereign bonds erupted. Compared with previous decades, the financial environment had changed substantially. A new eurobond market had developed and had been tapped by sovereigns. These differences added complexity to the restructuring process, as the bonds are more diverse than in the 1930s.

And the rise of the sovereign bond market brought about another important change. Although individual bondholders may face insolvency, defaults often do not give rise to *systemic risks*. This means that today's defaults rarely jeopardise the stability of the international capital market, as risk can be better hedged. While this is good news from a financial stability viewpoint, a focal point for reaching agreement among bondholders is removed. Also, absent threats for financial stability, government regulators and

multinational institutions no longer need to become involved. Hence, pressure from these institutions is lacking. Lastly, bondholders and their interests have become increasingly diverse.

What will these changes imply for current and future restructurings?

Figure 2: Gross quarterly issuance of bonds, loans, and equity by emerging markets (in billions of U.S. dollar)[10]



3.5.1 Bondholders are more heterogeneous

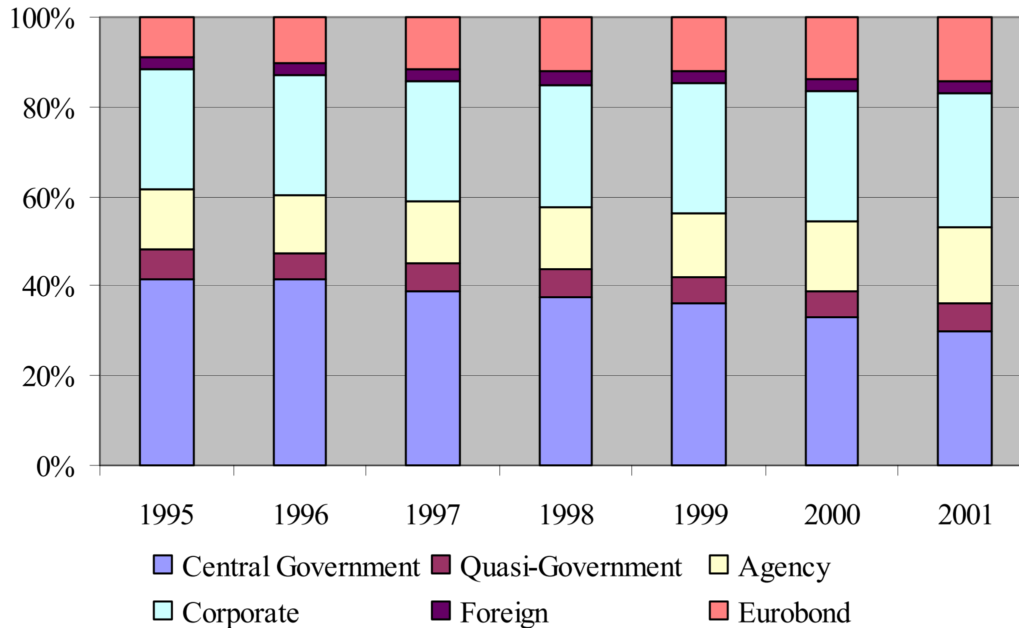
Since the 1990s, sovereign bonds are held by large or small banks, local banks, investment banks, insurance companies, pension funds, mutual funds, hedge funds, non-financial companies and retail investors. Merrill Lynch (2002) documents the changes in the composition of the world bond market by sector (figure 3). Also the geographic location of bondholders has changed considerably over time. For example, total holdings of Mexican government securities held by foreign residents have quadrupled between 2003 and 2005. When Ecuador restructured its debt in 1999/2000, the bonds offered for exchange were widely held by institutional investors in New York and London, whereas for Pakistan in 1999, approximately a third of the bonds to be exchanged were held by domestic residents (financial institutions and retail investors in the Middle East were holding most of the remaining bonds, see Roubini and Setser 2004).

An added complexity is that even if bondholders agree that all holders should be treated equally, they are unlikely to prefer the same terms of agreement. Investors face different regulations. Banks and many institutional investors, for instance, record the values of their portfolios at market prices (often daily and certainly quarterly). Retail investors do not; they only record gains and losses upon sales of bonds.

[10] Source: IMF (IMF 2006).

Lastly, some investors have ongoing relationships with sovereign debtors that they are eager to broaden. These investors may be willing to suffer a greater loss as a means of solidifying a relationship with the sovereign debtor and to establish a reputation for success in bond restructurings. Conversely, retail investors may seek a higher immediate return. Lastly, "vulture funds" may have paid a much lower price for the bonds and so may be willing to accept substantial discounts from principal amounts.

Figure 3: The changing composition of the world bond market by sector



Data is from Merryl Lynch (2002), and represents percentage share of the world bond market (in USD)

3.5.2 Bonds are more heterogeneous

The purchase of bonds at different prices engenders disagreement about the appropriate measure of the discounts. If bondholders agree on a "haircut", they typically disagree on the point from which the discount is to be calculated. Investors who have purchased bonds at the principal value may argue that rather than the principal amounts of the bonds, the haircut should be applied to the prices at which investors purchased the bonds.

3.5.3 Assessment

The restructurings of the 1930s were facilitated by the fact that sovereign bonds were held by relatively few investors. The restructurings of the 1980s were successful because sovereign debt consisted of loans made by commercial banks, and sufficient possibilities existed to force an agreement among creditors. Today's environment is characterised by many different types of investors, which differ in their risk exposure, regulatory environment, and degree of involvement in the international capital market. National or

international policymakers have few possibilities to force an agreement among investors.[11]

Moreover, creditors nowadays have unprecedented access to litigation. In 1952, the United States adopted a theory of sovereign immunity stating that sovereigns retain immunity for their public or sovereign acts, but that they can be sued in U.S. courts for their commercial acts (Fisch and Gentile 2004). Courts widely interpret issuance of sovereign bonds as commercial activity. Sovereign debtors have increasingly waived their sovereign immunity and consent to the jurisdiction of the U.S. courts. Not surprisingly, creditors started to enforce their rights through litigation (the first of these attempts occurred in the 1980s), some with success.[12] Although holdout creditors may not always be fully satisfied with the outcome of litigation, the possibility to sue a sovereign has increased creditors' bargaining position and weakened incentives for investors to reach a collective agreement.

3.6 Have the "penalties" for bad policies increased?

As shown, the incentives for creditors to reach an agreement have fallen. What about the sovereigns? One could argue that the "penalties" for bad policies have increased in today's world of volatile capital flows. Although creditors may find it difficult to reach a deal, sovereigns would have relatively stronger incentives to push for an agreement.

Arguably the best measure to assess the negative economic consequences of a crisis is the loss in GDP growth. Using this measure, Eichengreen and Bordo (2002) show that the drop in output after a pre-1914 crisis was slightly less severe than today. At the same time, the post-crisis recovery is faster today (with the notable exception of a pure currency crisis).[13] The main factor driving this development is the change in exchange rate regimes. Under the gold standard, countries only suspended the peg in a national emergency. Today, pegs are abandoned more quickly. Hence, the notion that the penalty for defaulting has increased is only partly confirmed by the data.

Note, however, that Eichengreen and Bordo (2002) find that flexible exchange rates isolate advanced economies quite effectively from most emerging market crises. This again limits their incentives to get engaged in emerging market debt restructurings.

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[11] The growing diversity of investors has also been cited as a factor complicating restructurings in the report by the Counterparty Risk Management Policy Group (2005).

[12] Arguably one of the most prominent examples is the "vulture fund" Elliott Associates, who bought $20m of Peruvian commercial loans in the late 1990s. When Peru restructured, Elliott demanded full repayment and interest. In June 2000, Elliott obtained a judgment for $56m and an attachment order against Peruvian assets used for commercial activity in the United States. This targeted the interest payments that Peru was due to pay to its Brady bond holders. In the end, Peru settled (Krueger 2001).

[13] See Bordo et al. (1999). The major difference between the pre-1914 crises and today's crises is the tendency for (banking) crises to spill over to the currency market. Banking crises are as frequent today as they were a century ago, but they seemed to have been less prone to undermine confidence in a currency under the gold standard's fixed exchange rate system.

4 Implications for the international financial architecture

4.1 As financial market have evolved, incentives have changed

From the emergence of the “money doctors” to the bank advisory committees and, eventually, the creation of the IMF, there seems to have been a “historical trend” to strengthen and further institutionalise the position of a “third party” to facilitate negotiations between debtors and sovereigns (Sgard 2004). This has been beneficial for bondholders. As Esteves (2005) shows, investors received higher ex-post default returns when they were able to coordinate their actions through bondholder organisations.

The situation today is somewhat comparable to the 1930s in the sense that investors are diverse, face different incentives, and that an agreement is not easy to reach. But note two important differences in comparing it to the 1930s. First, sovereigns today face increasing threats from courthouses. And, it is likely that investor motives are (even) less aligned than they were in the past, simply because they have become more geographically dispersed, and because incentives to pursue long-term relationships with sovereigns have decreased.[14] Second, financial markets have become deeper and better able to deal with, and hedge against, risk. They also have access to better information and regulatory practices have improved considerably. Even if major emerging economies face difficulties, the concerns for financial stability are much more limited today than they were 20-30 years ago.

One could therefore argue that the situation for a *defaulting country* has not changed dramatically over time. However, the interests of *advanced economies* are much better protected today than they were even several decades ago.

Is this good or bad news for emerging economies? A pessimist would say that advanced economies might lose interest in the fate of defaulting economies because creditors are less vulnerable. Even if a large country were to default, development of new financial instruments and more liquid markets imply that markets are better equipped to spread risks. Also regulation has improved considerably, so the impact of a default of an emerging country on advanced economies is likely to be limited.

In contrast, an optimist might argue that, over the long term, these developments might actually have positive effects on the ability of emerging markets to borrow money. Shleifer (2003) argues that sovereign debt markets work best when the rights of creditors are protected most effectively. The stronger the creditor rights in the event of a default, the better developed are the debt markets. This view is supported by evidence from personal bankruptcy regulation. For instance, higher exemptions reduce the amount of credit available to low asset households (Gropp et al. 1997). Also La Porta et al.(1997, 1998) show that countries with stronger credit rights have larger debt markets. Greater legal shareholder rights are associated with broader and more valuable equity markets.

[14] An important aspect for consideration is the investor base of the sovereign (Moody's 2002): If the investor base is small, discrete and identifiable, the incentives of the few investors are often similarly aligned. If, on the other hand, the investor base is large, disparate and unidentifiable – as was the case in Argentina – then cooperation becomes a cumbersome and tedious process.

4.2 The demand for a “third party” may still exist, but it need not be the IMF

From the first wave of financial globalisation on, a third party was deemed necessary for the restructuring of debt obligations (the “money doctors”). This indicates that debt restructuring without a competent institution mediating and evaluating adjustment proposals may not work very well. A different issue is whether this third party needs to be a multi- or supra-national organisation, such as the IMF.

In principle, given the demand for a third party, it is not inconceivable that the market could find a different solution. One such solution is the introduction of collective action clauses (CAC). CACs are designed to help overcome collective representation and collective action problems, and in this way facilitate bond restructuring (Eichengreen and Portes 1995). Important elements of CACs are mechanisms for co-ordinating discussions and actions between the issuer and bondholders and provisions allowing a qualified ‘super-majority’ of creditors to change the terms of a debt contract, which is binding on any dissenting bondholders. In particular, the latter could help to overcome coordination problems and mitigate the threat of litigation. Some have argued that use of such clauses will be associated with increased borrowing costs. Studies by Dixon and Wall (2000) and Becker (2001), however, do not find evidence that the presence of CACs increases yields for either higher- or lower-rated issuers. Hence, it seems that the introduction of CACs could yield coordination benefits at little or no costs. That said, a difficulty with CACs is that they are structured to help coordinate the actions of holders of a *specific* bond issue. When countries have multiple bond issues – for example, Argentina had about 80 outstanding bond issues in 2004 (Kletzer 2004) – new coordination problems arise. In particular, the qualified majority of a single bond issue can hold up the renegotiation of a country's debt.

A fundamentally different approach could involve private financial institutions evaluating debtors’ proposals for restructuring and overseeing the adjustment. Given that different financial institutions compete against each other, they are less likely to be subject to political pressure than an international organisation. Having an unbiased review of the situation, and an assessment on the best way to move on, could coordinate and align creditor incentives. Also, a more formal mechanism of sovereign debt restructuring, for instance along the lines proposed by Krueger (2001), might facilitate the process. This could justify the involvement of a supra-national organization (as opposed to a purely market-based solution), although one that would probably bear little resemblance with today’s IMF.

In our view, the key difference between a third party and the IMF is the provision of (emergency) funding. De facto, the IMF acts, to a certain degree, as a lender of last resort. This strengthens its position and – if necessary – may help force participants to agree. But at the same time, the provision of funding might change the IMF’s set of incentives, for instance if the Fund becomes concerned about being repaid.

And it raises a different, though related, issue. If the organisation instrumental in the restructuring process also provides loans, what should its lending strategy look like? Models like Wells (1993) suggest that the lending strategy might substantially affect the bargaining position of the sovereign and the creditors:

- A policy of not lending into arrears improves the creditors' bargaining position, as they realise that the debtor has extra incentives to reach an agreement and they can capture a substantial share of the surplus from an agreement.
- Conversely, lending into arrears improves the short-term bargaining position of the debtor and decreases the surplus going to creditors. This holds all the more if the IMF has preferred creditor status. Over the long term, lending into arrears might help to preserve the debtor's future ability to pay. This could raise the value of outstanding claims in the long run.

Hence, while lending need not facilitate reaching an agreement, the nature of the lending strategy might determine who bears the "larger burden" in the short term during the restructuring process.

4.3 Evaluation

We can distinguish two perspectives. First, from a sovereign's perspective the benefits from IMF involvement are still present. Litigation is increasingly becoming a threat, which complicates the sovereign's position. As financial institutions are less likely to become insolvent in the event a sovereign defaults, a focal point for reaching an agreement has vanished.

The second view approaches these issues from the perspective of industrialised countries: as debt restructurings have limited impacts on financial stability nowadays, the IMF is no longer needed to limit negative consequences on advanced countries' economies. Consequently, advanced countries have become increasingly critical of the IMF, in that IMF involvement may lead to market distortions and moral hazard.

The above considerations do not take into account the "repeated game" nature of sovereign lending. When sovereigns have easy access to foreign finance, and if the costs of defaulting are low, there is an incentive for countries to borrow as much as possible and not to pay back. IMF programs can lower the costs of a crisis by providing emergency funding. Hence, to the extent that IMF programs encourage opportunistic default, they create a deadweight loss. If financial markets anticipate such behaviour correctly, then interest rates for the sovereign should increase. Still, investors might undertake riskier projects if they anticipate that a troubled country might be "bailed out" by the IMF (Dooley and Verma 2003). Thus, the benefits of creating mechanisms to speed up a debt restructuring and to reduce the cost of a crisis need to be balanced against possible changes to the behaviour of investors and borrowers, which might make future crises more likely.

How much evidence is there for moral hazard? Taking a political economy perspective, Eichengreen (2000) questions the possibility of conditioning international assistance on agreements by investors to restructure existing loans, roll over maturing issues, or provide new money. This is because investors understand that the international community will be compelled to help the crisis country anyway (even if the markets fail to cooperate) as "the costs of inaction... have repeatedly been shown to be too painful for the international community to bear" (Eichengreen 2000). Outspoken critics of the IMF like Barro (1998) note that "the availability of IMF and other foreign money provided an excuse to avoid making tough political decisions."

The empirical evidence for moral hazard is somewhat more mixed. Dell'Ariccia et al. (2002) find some evidence for moral hazard, as emerging market spreads became more sensitive to a country's fundamentals after the IMF did not bail out Russia in 1998. In contrast, a study by Brealey and Kaplanis (2004) finds only very minor effects, a conclusion supported by Rogoff (2002). More detailed tests, e.g. by Gai and Taylor (2004), show that countries are more likely to rely on IMF lending the more systemically important the debtor country is. And lastly, Lee and Shin (2007) find that investor moral hazard is primarily a concern if countries have strong political connections to the IMF and are therefore more likely to be bailed out.

Taken together, the evidence suggests that we should not entirely exclude the possibility of moral hazard. For investors, this holds all the more as in the past lending decisions by the IMF were not always predictable. Therefore, a central element in shaping private sector expectations is the knowledge that the official sector will behave predictably. One way to alleviate concerns about moral hazard could be to impose strict access limits to IMF financing, ensuring that private sector involvement is a crucial part of crisis resolution, and encouraging debtors and creditors to seek cooperative solutions to a crisis (Haldane and Kruger 2001, Murray 2004). Efforts to resolve a crisis along these lines could still benefit from the involvement of a third party, but would be less prone to concerns about moral hazard.

5 Conclusion

Sovereign debt crises are by no means a new phenomenon, and even though the economic environment has recently been favourable for many emerging economies, it is not likely that they will become an issue of the past. Given that debt crises come at high macroeconomic costs, setting up an environment facilitating orderly debt restructuring is vital. While it is easy to reach agreement on these points, views diverge on the role of the IMF in debt restructurings in today's international financial environment.

Looking at past episodes of sovereign debt restructuring, we investigated conditions to promote timely and orderly restructuring. Applying this analysis, a simple extrapolation of past trends would lead to a strengthening of IMF's position. However, given changes of the financial environment, it is not surprising that the need for an institution like the IMF has been questioned.

- **From the perspective of a sovereign of an emerging economy,** IMF involvement remains very attractive (certainly if combined with access to funding). It might help to overcome coordination problems among creditors and official negotiations with the IMF might also act as a signal for financial markets that the local authorities are effectively dealing with the crisis (which might help to restore confidence in a troubled economy).
- **From the perspective of an advanced economy,** the need for IMF involvement in debt restructuring has fallen considerably. Deeper financial markets are better able to hedge against emerging market risk and in most instances debt crisis are no longer a threat for financial stability. Also, there is the risk that the IMF encourages opportunistic defaults and overly risky investor behaviour.

The key conclusion that emerges from this study is that there is a need for a third party to coordinate creditor actions and to oversee the restructuring process, but that this third party need not necessarily perform the lending function of the IMF.

Looking at the debate about reforming the IMF, it is quite striking that many popular reform proposals for the international financial architecture are quite radical, ranging from the adoption of an International Bankruptcy Court to abolishing the IMF in favour of market-based restructuring. Clearly, it is useful to start with a blank page and to think about what an ideal outcome of the reform process should look. However, as King (2006) noted, when thinking about the role of the IMF in the 21st century, one should take into account "the constraints of history". Advocates of radical changes will probably have to face that an institution like the IMF is not likely to be closed down or completely changed overnight. Also, the creation of a completely new institution with 184 members would be very difficult. Therefore, we should continue working on reforming the IMF, even if that a reform process can be slow and painful at times. This study has demonstrated the merits of having a third party overseeing the restructuring; future research and policy work should focus on how to transform the existing IMF to fulfil that role in the most effective way.

References

Aggarwal, V. K. 2003. The evolution of debt crisis: Origins, managment and policy lessons, pp. 281-287 In V. K. Aggarwal and B. Granville [eds.], Sovereign debt: Origins, crises and restructuring. RIIA, London.

Barro, R. J. 1998. The IMF Doesn't Put Out Fires, It Starts Them. Business Week 7.

Becker, T., A. J. Richards, and Y. Thaicharoen. 2001. Bond Restructuring and Moral Hazard: Are Collective Actions Clauses Costly? IMF Working Paper WP/01/92.

Bordo, M. D., B. Eichengreen, and D. A. Irwin. 1999. Is Globalization Today Really Different than Globalization a Hunderd Years Ago? NBER Working Paper 7195.

Brealey, R. A. and E. Kaplanis. 2004. The impact of IMF programs on asset values. Journal of International Money and Finance 23:253-270.

Buchheit, L. C. and R. Reisner. 1988. The effect of the sovereign debt restructuring process on inter-creditor relationships. University of Illinois Law Review 2 (Summer):493-506.

Counterparty Risk Management Policy Group. 2005. Towards greater financial stability: A private sector perspective. www. crmpolicygroup. org (July 27, 2005).

Dell'Ariccia, G., I. Schnabel, and J. Zettelmeyer. 2002. Moral Hazard and International Crisis Lending: A Test. IMF Working Paper 02/181.

Didier, T., P. Mauro, and S. L. Schmukler. 2006. Vanishing contagion? IMF Policy Discussion Paper PDP/06/1.

Dixon, L. and D. Wall. 2000. Collection Action Problems and Collective Action Clauses. Bank of England Financial Stability Review June:142-153.

Dooley, M. and S. Verma. 2003. Rescue Packages and Output Losses During Crises. NBER Working Paper 8315.

Eichengreen, B. 2000. Can the moral hazard caused by IMF bailouts be reduced? Geneva Reports on the World Economy Special Report 1.

Eichengreen, B. and M. D. Bordo. 2002. Crises now and then: What lessons from the last era of financial globalization? NBER Working Paper 8716.

Eichengreen, B. and R. Portes. 1995. Crisis? What crisis? Orderly workouts for sovereign debtors. Centre for Economic Policy Research.

Esteves, R. P. 2005. Quis custodiet quem? Sovereign Debt and Bondholders' Protection Before 1914. mimeo.

Fisch, J. E. and C. M. Gentile. 2004. Vultures or Vanguards?: The Role of Litigation in Sovereign Debt Restructuring. Emory Law Journal 53:1043.

Flandreau, M. 2003. Money Doctors: The Experience of Financial Advising, 1850-2000. Routledge, New York.

Gai, P. and A. Taylor. 2004. International Financial Rescues and Debtor-Country Moral Hazard. International Finance 7:391-420.

Gropp, R., J. K. Scholtz, and M. White. 1997. Personal bankruptcy and credit supply and demand. Quarterly Journal of Economics 112:217-252.

Haldane, A. G. and M. Kruger. 2001. The resolution of international financial crisis: Private finance and public funds. Bank of Canada Working Paper 2001-20.

IMF. 2006. Emerging market financing flows. Global financial stability report: Market developments and issues September.

Jorgensen, E. and J. Sachs. 1989. Default and Renegotiation of Latin American Foreign Bonds in the Interwar Years, In B. Eichengreen and P. H. Lindert [eds.], The International Debt Crisis in International Perspective. MIT Press, Cambridge.

King, M. 2006. Through the looking glass: Reform of the international institutions. Inaugural International Distinguished Lecture to the Melbourne Centre for Financial Studies, Australia, December 21.

Kletzer, K. M. 2004. Resolving Sovereign Debt Crises with Collective Action Clauses. FRBSF Economic letter 06, February 20.

Krueger, A. O. 2001. International Financial Architecture for 2002: A New Approach to Sovereign Debt Restructuring. Speech given at the National Economists' Club Annual Members' Dinner, American Enterprise Institute, Washington DC.

La Porta, R., F. Lopez-de-Silandes, A. Shleifer, and R. Vishny. 1997. Legal determinants of external finance. Journal of Finance 52:1161-1150.

La Porta, R., F. Lopez-de-Silandes, A. Shleifer, and R. Vishny. 1998. Law and finance. Journal of Political Economy 106:1113-1155.

Lee, J.-W. and H. S. Shin. 2007. IMF bailouts and moral hazard. Journal of International Money and Finance forthcoming.

Lewis, C. M. 1986. When Countries Go Broke: Debt through the Ages. National Interest Winter 1986/1987:46-52.

Lipson, C. 1985. Bankers'Dilemmas: Private Cooperation in Rescheduling Sovereign Debts. World Politics 38:200-225.

Macklem, T. 2006. Renewing the IMF: Some Lessons from Modern Central Banking. Global Interdependence Center, Philadelphia, Pennsylvania, U. S. A. March 9.

MacMillan, R. 1995. The next sovereign debt crisis. Stanford Journal of International Law 31.

Marchesi, S. and J. P. Thomas. 1999. IMF Conditionality as a Screening Device. The Economic Journal 109:111-125.

Merrill Lynch. 2002. Size and structure of world bond markets. Fixed income strategy April.

Mishkin, F. S. 2005. Is financial globalization beneficial? NBER Working Paper 11891.

Moody's. 1999. Historical Default Rates of Corporate Bond Issuers, 1920-1998. Moody's, Special Comment January.

Moody's. 2002. Proposed frameworks for sovereign debt restructuring. Special comment September.

Murray, J. 2004. Comments on "Reflections on moral hazard and private sector involvement in the resolution of emerging market financial crises", In A. G. Haldane [ed.], Fixing Financial Crises in the Twenty-first Century. Routledge, London.

Power, P. J. 1996. Sovereign Debt: The Rise of the Secondary Market and Its Implications for Future Restructurings. Fordham Law Review 64:2701-2772.

Rogoff, K. S. 2002. Moral hazard in IMF loans: How big a concern? Finance and Development 39:56-57.

Rogoff, K. S. and J. Zettelmeyer. 2002. Bankruptcy procedures for Sovereigns: A history of ideas, 1976-2001. IMF Staff Papers 49.

Roubini, N. and B. Setser. 2004. Bailouts Or bail-ins? Responding to Financial Crises in Emerging Economies. Institute for International Economics, Washington, D.C.

Sgard, J. 2004. IMF in theory: Sovereign debts, judicialisation and multilateralism. CEPII Working Paper 2004-21.

Shleifer, A. 2003. Will the sovereign debt market survive? American Economic Review 93:85-90.

Thomas, J. P. 2004. Bankruptcy Proceedings for Sovereign State Insolvency. World Economy 27:265-279.

Tirole, J. 2002. Financial crises, liquidity, and the international monetary system. Princeton University Press Princeton, NJ.

Truglia, V., D. Levey, and C. Mahoney. 1995. Sovereign Risk: Bank Deposits vs Loans. Moody's Special Comment, October.

Vines, D. and G. Irwin. 2005. The efficient resolution of capital account crises: How to avoid moral hazard. International Journal of Finance & Economics 10:233-250.

Wells, R. 1993. Tolerance of Arrearages: How IMF Loan Policy Can Effect Debt Reduction. The American Economic Review 83:621-633.