

Centre for International Governance Innovation

CIGI Papers No.126 - April 2017

Guaranteeing Sovereign Debt Restructuring

James A. Haley

CIGI Masthead

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For publications enquiries, please contact publications@cigionline.org.

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67 Erb Street West Waterloo, ON, Canada N2L 6C2 www.cigionline.org

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About the Author

James A. Haley is a CIGI senior fellow and former executive director for the Canadian-led constituency at the International Monetary Fund (IMF) in Washington, DC. He is currently a public policy fellow at the Woodrow Wilson International Center for Scholars in Washington. He served as Canada's executive director to the Inter-American Development Bank from 2012 to 2015. Prior to this appointment, he held a number of senior positions in the Canadian Treasury, and represented Canada at meetings of the Working Party 3 and the Economic Policy Committee of the Organisation for Economic Co-operation and Development and on numerous international working groups. He also co-chaired the Group of Twenty working group on rebalancing the global economy. His professional experience includes service as research director in the International Department of the Bank of Canada and as a staff member of the Research Department of the IMF. He has lectured on macroeconomics, international finance and international financial institutions at the McCourt School of Public Policy, Georgetown University, and at the Norman Paterson School of International Affairs, Carleton University. His published work has focused on international financial issues. the IMF and sovereign debt restructuring.

About the Program

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Executive Summary

The recurring nature of efforts to facilitate the timely restructuring of sovereign debt is explained by the fact that protracted delays in restructuring private sector claims can lead to deadweight losses to distressed borrowers and their creditors. Such delays may stem from two sources: intra-creditor coordination failures; and factors that impede efficient bargaining between the debtor country and private creditors. These impediments to bargaining include asymmetric and incomplete information, as well as the inability of sovereign borrowers to credibly commit to a stream of debt service. A well-designed guarantee of restructured debt that addresses these problems in the context of debt restructuring operations designed to assure debt sustainability could promote timely restructuring and reduce the potential risks to the global economy associated with severe indebtedness.

down the value of their claims, securing a lasting resolution of the debt problem. This outcome would contrast with the serial rescheduling common in past restructurings, which provided relief from short-term liquidity problems but preserved the net present values and did not address debt overhang. In this respect, the goal is an incentive-compatible framework for debt reduction, replicating the debt discharge under domestic bankruptcy and giving debtors a "fresh start" by putting them on a path of sustainable growth.

This paper does not purport to present guarantees as a fully articulated policy proposal. Its purpose is to stimulate further discussion; there are many issues that would have to be addressed before guarantees could be considered a viable option. Nevertheless, given the role of well-functioning capital markets in supporting global growth and in view of the current threat to international trade and payments posed by the rise of populist politics, efforts to promote timely, orderly restructuring of sovereign debt should continue. Guarantees may be one part of a framework that achieves this goal.

Introduction

Efforts to improve the framework for the timely, orderly restructuring of sovereign debt are a hardy perennial of the international policy agenda. Since the Mexican peso crisis more than two decades ago, proposals to reduce the costs of protracted payments disruptions have been debated annually in various international fora. The issue was discussed at the first meeting of Group of Twenty (G20) finance ministers and central bank governors, which was chaired by Canada's Paul Martin in Berlin, in November 1999. In one form or another, it will find its way onto the agenda of Germany's presidency of the G20 in 2017.

This paper contributes to this debate. It suggests the possible use of official sector guarantees to facilitate timely and durable restructurings. By binding sovereign debtors to a stream of debt service, guarantees could help overcome the commitment problem stemming from the environment of weak contract enforcement in which sovereign debt is issued. This problem can result in long delays in restructurings that impose costs on both the debtor and its creditors. Guarantees could create a contracting space for bargaining in which private creditors write

The Problem Defined

Stated bluntly, the problem of sovereign debt is enforcement (Eaton 1990). In contrast to domestic debt markets in which creditors obtain and enforce judgments for their claims through bankruptcy courts, sovereign lending is characterized by weak contract enforcement. Getting a judgment is not difficult — courts around the globe have proven willing to issue judgment against sovereigns. The challenge for creditors is collecting monies owed. Historically, the legal doctrine of sovereign immunity, which protects the assets of sovereigns against attachment, has meant that private creditors have limited recourse in the event of sovereign default. This principle has been weakened over the past three decades, yet sovereign debt remains more akin to a self-enforcing contract between issuer and individual creditors.1

The problem of weak enforcement results in default and protracted periods in which debtors are barred

¹ Ugo Panizza, Federico Sturzenegger and Jeromin Zettelmeyer (2009) survey the law and economics of sovereign debt.

Table 1: Duration (years) of Debt Restructuring Negotiations

Forni et al. (2016)*	7.4
Benjamin and Wright (2013)	8.5
Inter-American Development Bank (2006)**	8

Notes: * Measured from start of default period to final restructuring.

from private credit markets. Such periods typically follow bouts of optimism, during which sovereign lending expands coincident with rising commodity prices, booming trade and favourable financial conditions (Panizza, Sturzenegger and Zettelmeyer 2009). Default can be costly to the debtor and its creditors alike. And such deadweight losses are particularly problematic if debt distress leads to the adoption of populist policies that destroy underlying asset values and reduces growth.

These polices are more likely to be adopted the longer that a lasting resolution of a sovereign's debt problems is delayed. This scenario arises because private creditors can impose costs on sovereign borrowers by blocking or restricting access to global capital markets, notwithstanding the considerable difficulties they encounter in enforcing legal judgments.² In any event, the duration of sovereign debt restructuring negotiations can be considerable (see Table 1).

At the same time, the threat of indefinite exclusion from credit markets lacks credibility, given the potential loss in asset values that would follow economic collapse in the sovereign borrower. Moreover, debtors in default do not service their obligations and thus investors dependent on cash flows from interest income would also suffer. Creditors are prepared, therefore, to write down the value of their claims, accepting a haircut as

Table 2: Estimated Haircuts (%) in Sovereign Debt Restructurings

Forni et al. (2016)	47
Cruces and Trebusch (2014)	38
Benjamin and Wright (2013)	51
Sturzenegger and Zettelmeyer (2008) [†]	33 (P)* / 46 (M)*
Global Committee of Argentina Bondholders (2004) [†]	42
Cline (1995) [†]	48
World Bank (1993) [†]	48

Notes: *P = "preferred" estimate; M = "market" estimate; †cited by David Benjamin and Mark Wright (2013).

the price of restoring interest payments. These haircuts can be substantial (see Table 2).

In view of the costs associated with delayed restructuring, the international community has sought to reduce the deadweight losses associated with sovereign debt restructurings. There are two basic problems to address.

Intra-creditor Coordination

The first is intra-creditor coordination; that is, how to secure agreement among a disparate group of creditors by overcoming coordination failures and incentives to "free ride" on the collective efforts of others. Twenty years ago, this problem was thought to represent a major obstacle to the efficient restructuring of sovereign debt. At that time, it was feared that restructuring would be greatly complicated by the fact that bonded debt, involving thousands of individual investors, had replaced bank loans as the primary source of external financing. But as Ran Bi, Marcos Chamon and Jeromin Zettelmeyer (2011) note, the use of bond exchanges, together with innovative legal strategies to raise the cost of holding unrestructured debt, resulted in relatively smooth restructurings, leading them to conclude that intra-creditor coordination is "the problem that wasn't." More recent developments. including the success of holdout strategies against Argentina in New York, and court decisions in London that bar the use of some legal innovations

^{**} From 1970 to 1990. In 1991–2005 period, the length of delays was found to be roughly half.

² In an environment of weak contract enforcement, these costs are needed to create incentives for repayment and to support lending.

under English law, have reanimated concerns about intra-creditor coordination problems. Nevertheless, it is clear that bond exchanges have greatly facilitated timely restructurings.

Important progress has also been achieved through a series of contractual innovations. First-generation collective action clauses (CACs) now represent a key element of the boilerplate documentation of international bond issues. These clauses facilitate restructuring by allowing a "supermajority" of bondholders to approve changes to payment terms over the objections of a few recalcitrant investors. Previously, bonds issued under New York law required unanimity to change key financial provisions. In this respect, CACs reduce the leverage of a few holdout bondholders to block restructuring agreements that are broadly acceptable to most bondholders.

Notwithstanding their importance, first-generation CACs suffer from a basic problem: investors in a specific bond issue are unlikely to agree to a haircut if creditors in other bond issues are not prepared to accept the same reduction in the value of their claims. It is possible, therefore, for an investor to acquire a blocking position in a small bond issue and hold all other investors hostage to extract preferential treatment. Second-generation CACs target this problem by providing for the aggregation of claims and supermajority voting across all outstanding debt.³ These clauses have been embraced by international investors and emerging market issuers.⁴

Bargaining, Contract Failures and the Role of Guarantees

Such efforts are worthy of support. But they address only one facet of the problem; reducing intra-creditor coordination problems may be a necessary condition for achieving more timely, orderly restructuring of sovereign debt, but it is not a sufficient condition. Bargaining must also be addressed.

Unfortunately, non-cooperative bargaining theory suggests that efforts to negotiate a restructuring are subject to two critical hazards (Haley 2017a). The first hazard is the problem of incomplete and asymmetric information. Both debtors and creditors have imperfect information regarding the payoffs, preferences and prospects of the other. Moreover, creditors and borrowers have an incentive to adopt strategies that mislead others and thereby gain an advantage in negotiations by dissembling about outside opportunities, rates of time preference or the difficulties of implementing adjustment policies that could raise debt-servicing capacity. A possible consequence of such information problems is that, rather than converge to a durable agreement, negotiations devolve into a series of offers and counter-offers based on misperceptions.

The second hazard in debt restructuring negotiations is one of commitment. Given the environment of weak contract enforcement in which sovereign debt is issued, sovereign debtors cannot credibly commit to a future stream of debt-service payments. This can lead to protracted delays in restructuring as creditors learn about the debtor's economic prospects or wait for an exogenous shock, such as higher commodity prices, that increases the value of their claims. The key point here is that unrestructured debt represents an option on the full face value of the debt; once creditors agree to restructure, this option value is lost.

Delays in renegotiation can be "beneficial" if, for example, the debtor uses the resources freed up by default to increase investment that raises output and preserves asset values (Bi 2008). But this felicitous outcome is not assured. Borrowers can become trapped in a recession, waiting for a positive stochastic shock while political support for necessary reforms erodes; in such circumstances, distressed debtors may "defect" from sound policies, repudiating their debts, and adopt beggar-thy-neighbour policies, with negative spillover effects on others.

If a government intent on pursuing adjustment policies could credibly commit to service its debts, the duration of restructuring episodes might be reduced, to the benefit of the debtor and its creditors.

The commitment problem would be irrelevant in an environment of complete state-contingent contracts that provide for all possible states of the

³ See Makoff and Kahn (2015) for a complete discussion. Recent contractual innovations also address the unique interpretation given to pari passu clauses in the case of Argentina.

⁴ While the adoption of new clauses affects the "flow" of new bonds, given the outstanding "stock" of bonds without second-generation CACs, problems of intra-creditor coordination will remain for some time.

world. Such contracts would anticipate possible states that would entail default of "plain vanilla" non-state-contingent contracts. One way to meet the challenge of commitment is to issue debt with "equity-like" characteristics (Benford, Best and Joy 2016). GDP-linked debt merits further study. It is unclear, however, that it would resolve the commitment problem, particularly if such debt represents only a small share of the total stock.

Similarly, debt buybacks that reduce large debt burdens could also solve the problem of commitment. Unfortunately, the beneficial effects of buybacks depend on how they are financed; if official sector resources on which senior status is asserted are used to finance the buyback, the result can be a subordination of private creditors' claims. This effect is not conducive to the objective of promoting efficient international capital markets.

Guaranteeing Debt Restructuring

Guaranteeing restructured debt might address the obstacles to efficient bargaining between sovereign borrowers and their private sector creditors by allowing debtors to credibly commit to a stream of debt-service payments.5 Official creditors would continue to restructure claims at the Paris Club as at present; the terms of such arrangements would, of course, reflect the amount of debt relief needed to ensure a durable restructuring, one that sets the debtor on a path of sustainable growth. Moreover, Paris Club treatments would establish expectations for private sector haircuts that the guarantee is intended to support. Such guarantees could be provided by a new multilateral institution created expressly for this purpose. However, achieving the required consensus on a new multilateral body in the current environment is highly unlikely. For the

In addition to these considerations, three broad issues stand out: first, the size of debt relief that is achieved; second, the pricing of guarantees and risk mitigation; and, third, the effectiveness of possible guarantees in achieving the desired goals. These issues are sketched out below in the context of incentive-compatible contracts.⁶

Securing Debt Relief

Debt guarantees could help facilitate restructuring — reducing deadweight losses to creditors and debtors — by securing agreement on the quantum of resources the debtor allocates to debt service and an adjustment effort that reduces the subsequent risk of default. The guarantee represents a credit enhancement that protects the creditor over its term. The quid pro quo for this enhancement would be a reduction in the net present value of the debt.

The guarantee must therefore be structured in such a way that creditors are made better off by the combination of haircut and guarantee than they would be under the status quo. Such an outcome is possible once it is recognized that both the value of creditors' claims and the borrower's debt-service capacity are a function of possible stochastic shocks, such as shocks to global commodity prices, and the policy actions of the debtor. The first challenge is to ensure that, for the threshold investor, the expected value of agreeing to a haircut exceeds the expected value of rescheduling debt without a haircut.⁷

purposes of exposition, it is assumed that existing multilateral development banks (MDBs) acting in concert with the International Monetary Fund (IMF) would provide the guarantee. An instrument that allows MDBs to assist their members deal with the vagaries of the global capital market might be attractive for institutions looking to remain relevant in a world of large private capital flows and middle-income members that are "graduating" from a traditional borrower relationship. Several key issues are associated with this approach (Haley 2017a), which are summarized in Box 1.

⁵ The guarantee helps to complete financial markets, or bridges a contracting divide that opens up because of the inability of sovereign debtors to credibly pre-commit to sharing upside outcomes. If that gap did not exist, a sovereign debtor could ask its creditors to provide bigger upfront debt relief today in return for sharing in upside potential tomorrow. And growth warrants have been employed precisely for this reason. The use of warrants is limited, however, by the same monitoring and reporting challenges that generate the problem of commitment in the first place. Needless to say, if the market for state-contingent contracts develops, the need for a restructuring guarantee might diminish.

⁶ A technical treatment of the design of the guarantee is provided in Haley (forthcoming 2017b).

⁷ That is, the investor whose agreement is required to meet the minimum threshold for the completion of a bond exchange. For clarity of exposition, it is assumed that intra-creditor coordination failures are inconsequential. In practice, it is possible that a guarantee could exacerbate the holdout problem. Such an effect would have to be carefully considered in the design of the guarantee.

Box 1: Issues for Consideration

Modalities of the Guarantee

Securing the objective timely, durable restructuring requires a judicious balancing between providing incentives to participate in a debt restructuring, on the one hand, and the need to guard against the transfer of risk, on the other. For example, a guarantee that is too expansive would distort incentives and could result in pathologies: such guarantees would entail a degree of potential subordination that renders private debt markets unworkable, be beyond the balance sheet capacity of the MDB, and could have damaging dynamic effects in terms of dulling incentives to undertake careful risk analysis. Consideration would have to be given to the type of loss covered — interest, amortization and/or first-loss — and the level at which protection is capped. Similarly, the maturity of the guarantee is an important factor; whether it would extend over the full maturity of the bond or is limited to an initial period of greatest uncertainty in which policy frameworks are strengthened and growth is restored.

Earmarking Revenues

To mitigate risks to the MDB and to align incentives, the debtor could be required to earmark a share of revenues to a debt-service fund. If the debtor follows through on policy commitments and shocks are not as severe as factored in the IMF's Debt Sustainability Analysis (DSA), which in most cases and in most periods would be the case, surplus revenues would be freed up for social spending and investment once a buffer equal to, say, two years of interest payments has been accumulated.

Preserving Inter-creditor Equity and the Holdout Problem

To promote efficient capital markets, the guarantee should not undermine inter-creditor equity — the principle that similar creditors receive similar treatment. Senior private creditors could argue, however, that guarantees conferring a de facto senior ranking on junior creditors are prejudicial to senior creditors. These concerns could be addressed by a menu of bond exchange options tailored to creditors of different seniority. The effects of the guarantee on incentives would also have to be examined since, by helping debtors meet high thresholds in bond exchanges with larger haircuts, a guarantee could inadvertently increase the returns to a strategy of holding out.

Nature of IMF Engagement

Debt reduction that restores sustainability and creates conditions for sustained growth would reduce the need for large "exceptional access" IMF programs and mitigate the risk of subordination of private sector claims. However, the IMF would play a key role through its DSA and its full and frank analysis of economic prospects and potential need for debt discharge. Its credibility in this capacity could be strengthened, since concerns regarding potential conflicts of interest as disinterested adviser and large creditor would be assuaged. The IMF would also include a delegated-monitoring function to MDBs providing guarantees.

The debtor's adjustment effort is a key factor in the decision calculus. Strong, sustained adjustment efforts would increase the value of creditors' claims; weak adjustment efforts reduce their value. The contracting problem is that the true level of adjustment is imperfectly observed by creditors.8 The purpose of the

guarantee is thus to elicit both a haircut from creditors and strong adjustment by debtors.

Of course, creditors would prefer to avoid a haircut, obtain a guarantee and have the debtor exert high adjustment effort, but this ignores the fact that a debt overhang can distort the debtor's incentives to adjust. The debtor must have an incentive to bear the economic and political costs associated with adjustment. This is achieved when the debtor's expected utility associated with a haircut of sufficient size to induce high

⁸ Performance covenants are a feature of sovereign bonds, but are limited. Even if adjustment were perfectly observable, however, debt contracts contingent on finely articulated policy actions would still be subject to the enforcement problem.

adjustment effort exceeds the expected utility associated with the alternative of benefiting from the haircut and exerting low adjustment effort.

If the stochastic shocks that affect the debtor's income stream and the value of creditors' claims are not observable to both parties, the debtor would prefer to obtain the haircut, claim high adjustment effort and hope for a realization of a positive shock that is sufficiently high to avoid triggering the guarantee — a dissembling for redemption strategy. The extent to which the debtor's adjustment efforts pay off in terms of higher output (foreign exchange earnings) and, in particular, whether the rewards from adjustment compensate for the higher costs of undertaking more ambitious adjustment is key. This condition is more likely to hold if adjustment is influenced by the degree of debt reduction; that is, debtors are prepared to do more adjustment if the debt overhang distorting investment decisions is removed.9

At the same time, there may be realizations of negative shocks that are sufficiently costly to the debtor that the guarantee is triggered even under high adjustment. Given these possible scenarios, the guarantee must be structured such that its pricing and design deter opportunistic behaviour, while differentiating between cases where the guarantee is activated because of unfavourable shocks and where the debtor has reneged on commitments to undertake strong adjustment.¹⁰

This result underscores the importance of monitoring by the IMF and the need for close cooperation between the MDB and the IMF. The problem of dissembling for redemption could be assuaged by, for example, a financial penalty (loan surcharge) levied on a debtor

that fails to meet agreed qualitative targets or structural benchmarks under an IMF program.¹¹

Pricing and Risk Mitigation

This result illustrates the importance of the IMF in providing delegated monitoring and underscores the need for co-operation between the Fund and the MDB to address agency problems in international lending (Tirole 2003). The IMF can play a critical role in mitigating risk through its DSA.12 In this respect, rather than balance on some knife edge of sustainability with respect to expected growth and interest rates, the DSA of a program-supporting guarantee would need to be robust to a more demanding range of growth and interest rate shocks. Such a program could be inconsistent with the IMF's mandate to assist its members in striking the right balance between financing and adjustment absent debt reduction. With a carefully calibrated haircut, however, this burden would be reduced along with the risks to the program. Moreover, with the haircut, a severely distressed debtor planning to implement painful adjustment measures would have an incentive to follow through on those plans, thereby reducing the risk that the guarantee will be activated.13

If carefully designed and appropriately priced, a debt reduction guarantee need not pose any more risk than the status quo. ¹⁴ Indeed, with the same

⁹ Carmen Reinhart and Christoph Trebesch (2015) review the historical record, concluding that "The economic landscape of debtor countries improves significantly after debt relief operations, but only if these involve debt write-offs. Softer forms of debt relief, such as maturity extensions and interest rate reductions, are not generally followed by higher economic growth or improved credit ratings."

¹⁰ The relationship between the debtor's adjustment efforts on output and how the costs of adjustment vary with respect to adjustment are important considerations in the design of the guarantee. This challenge is simplified if high adjustment effort always generates a greater return than low effort, regardless of the realization of the shock, while the cost of high adjustment exceeds the cost associated with low adjustment effort. It is likely that adjustment costs are inversely related to realizations of shocks, such that the costs of adjustment are reduced under favourable conditions.

¹¹ Here it is assumed that the MDB converts payouts made under the guarantee to a loan on which the MDB's senior status is applied. Note that the guarantee secures the debt reduction necessary to restore growth without the ex ante subordination of private claims that is associated with a leveraged buyback. The subordination of claims under the guarantee can be thought of as the cost of exercising the insurance contract.

¹² Note, however, that while the IMF may enjoy an informational advantage over private creditors (and the MDB) by virtue of its special relationship with its members, it does not have complete, perfect information. Risk remains in the system and the goal should be to promote the efficient distribution and bearing of risk.

¹³ One approach to binding the debtor to the optimal adjustment effort would be to require a "debt-service" fund held in escrow. Once the fund cumulates to a pre-determined size (equivalent to, say, two years of debt service), excess funds would be freed up to finance public investment in infrastructure or health and education.

¹⁴ Stijn Claessens and Sweder van Wijnbergen (1990) demonstrated that guarantees can be priced as Black-Scholes options to assess the impact of collateral (which provided a de facto guarantee) in the context of Brady bonds. Their approach expresses payments on debt as a function of the fixed contractual payment and the foreign exchange resources available to meet payments. This formulation implies that the binding constraint on the debtor's debt service is ability to repay rather than willingness. They show that debt payment can be decomposed as a certain payment, minus the value of a put option written on foreign exchange earnings with a strike price determined by the discount rate, the time over which the guarantee is issued and the standard deviation of the flow of foreign exchange earnings.

degree of risk bearing, an MDB guarantee may lead to a Pareto improvement. To see this, compare the case of an MDB guarantee with a hypothetical case under existing crisis-management protocol, in which the MDB is mobilized (catalyzed) to provide policy-based loans to close the financing gap for a highly indebted country that has lost access to private capital markets. Because the obligation owed to an MDB is still debt, the net result would be increased MDB exposure without debt reduction and, conceivably, no appreciable improvement in growth prospects.15 In the event of future debt difficulties, however, private sector claims are subordinated by the senior status of the MDB debt. In this regard, the country could be made worse off, as conditions deteriorate and broad public support for adjustment erodes, while private creditors are potentially harmed. The MDB, meanwhile, is indifferent between this case and providing the guarantee, which is converted to a loan if exercised. But if the guarantee is designed to reduce the deadweight losses associated with re-negotiation delays, and unleashes effective adjustment efforts, a Pareto improvement could result.

Two important caveats with respect to risk mitigation and pricing must be addressed. First, there is a potential problem of non-diversified risk. MDBs have regional mandates; if they provide guarantees to their members only, there is a risk that a common regional shock could pose a severe balance sheet shock, undermining the credibility of the guarantee. This problem could be assuaged by the various MDBs trading exposures among themselves, perhaps with the World Bank, given its universal mandate, facilitating the exchange to achieve better risk diversification. Second, internal risk-management policies of the MDBs must be addressed. At present, sovereign guarantees are fully booked on approval. From the MDB's capital allocation perspective, there is no difference between a loan of a given size and a guarantee of potential exposure of the same size. This implies that MDBs have no incentive to use guarantees. In the context of G20 efforts to better mobilize the balance sheets of the MDBs, an alternative approach would be to require MDBs to attach a probability of activation to a guarantee and allocate capital on that basis.¹6 This approach may require fundamental governance changes at the MDBs to ensure adequate controls are maintained over the extension of guarantees and shareholders have sufficient assurance that risks are carefully assessed and monitored. The challenges associated with such reforms should not be discounted.

Effectiveness

The effectiveness of a limited guarantee of the kind considered here could be questioned. What would a limited, two-year rolling guarantee do to enhance the likelihood of timely, orderly restructuring of sovereign debt? One response is that such a facility could help to restore credit market access by increasing the liquidity of a distressed sovereign's debt. This would allow investors unwilling to hold the debt to sell their asset to investors that are prepared to accept the risk, fostering more stable financial market conditions, with beneficial effects for the economy as spreads narrow and confidence is restored. Another response is that, for creditors weighing debt restructuring, there is always uncertainty about future outcomes; risk-averse individuals are prepared to pay a premium for the certainty equivalence of the expected value of a given income stream. In this respect, the debt reduction guarantee would eliminate risk over the term of the guarantee and, by fostering strong policies by the debtor, reduce the uncertainty regarding the underlying value of the asset over the remaining term of the debt.

Brady bonds are a possible benchmark for the evaluation of guarantees for debt restructuring. Named after then US Treasury Secretary Nicholas Brady when introduced almost 30 years ago, these instruments facilitated the restructuring of developing countries' debt not being fully serviced. In exchange for writing down the value of claims, international banks received new bonds that were typically backed by 30-year US Treasury zero-coupon bonds and US

¹⁵ David Benjamin and Mark Wright (2013) cite evidence of repeat rescheduling that results in an increase in debt burdens.

¹⁶ The probability of activation would reflect a range of factors, including the robustness of an IMF-supported adjustment program and the vulnerability of the country to external shocks. Because these probabilities would need to be reviewed on a periodic basis and in response to developments, careful consideration would have to be given to the MDB's counter-cyclical lending capacity.

Treasury bills.¹⁷ This collateral provided protection analogous to a debt restructuring guarantee. However, the Brady bond experience is that investors did not fully value the implicit guarantee provided by the underlying collateral.¹⁸ This result could represent a serious obstacle to the use of guarantees to promote restructuring.

One explanation for the undervaluation of the collateral supporting most Brady bonds is found in how the collateral was financed. Debtors used a combination of their own resources and funds borrowed from the IMF and the World Bank. It is possible that investors discounted the value of the implicit guarantee knowing that, in the event of payment difficulties, private sector claims would be subordinated by the large stock of senior official sector debt accumulated over a decade or more of debt distress. Collateral may have offered protection for the stock of principle invested, but would not have necessarily safeguarded the flow of coupon payments should a highly indebted sovereign suspend payments to private creditors to make payments to official sector creditors. At the same time, investors' discounting of collateral may have reflected the belief that haircuts were insufficient to elicit strengthened debtor adjustment efforts; that future restructuring would be required, thus triggering the possible subordination effect.

There is no panacea that will solve all problems associated with sovereign debt restructuring. Any possible intervention must be judged against the benefits and costs of alternatives and the status quo. The potential use of guarantees to support restricting is no different. In this regard, the Brady bond experience with respect to the discounting of collateral is an important issue, one of many that merits further study.

Conclusion

International attention on the issue of sovereign debt restructuring reflects two broad considerations. First, that it is central to the international financial architecture and the role of the IMF. The IMF was created to assist its members in striking a felicitous balance between financing and adjustment and thereby support sustained global growth and trade liberalization. In the past, concerns have arisen that disorderly restructuring processes or the pernicious effects of an overhang of debt threaten growth and impair the IMF's ability to effectively assist its members to achieve that balance. Second, sovereign debt restructuring remains on the international policy agenda because of the potential for debtor and creditor moral hazard that arises from public policy interventions: the concern that IMF lending could delay needed adjustment, as governments "gamble for redemption" hoping that higher growth will materialize, and may allow private creditors to evade the consequences of bad decisions, in particular, investors with short-term claims.

These concerns remain relevant; indeed, sovereign debt restructuring is likely to figure prominently going forward. With the United States at, or rapidly approaching, full employment, US interest rates are widely expected to rise. Meanwhile, with the recovery in other economies lagging, a divergence in global interest rates would contribute to large exchange rate movements. For countries with large US dollar-denominated debts, this conjuncture could result in severe financial strains and lead to balance-of-payments difficulties. 19 Meanwhile, Greece's long-standing debt saga, which is unlikely to be fully resolved for the foreseeable future, could profoundly affect the IMF's lendinginto-arrears policy with potential implications for official sector preferred creditor status. More generally, the rising tide of anti-globalization angst and populist sentiment puts a premium on the timely resolution of sovereign debt problems so that countries can be restored to a growth path.

¹⁷ Not all deals were collateralized. Banks chose from a menu of options when exchanging their claims for new bonded debt. The menu included: par bonds, with fixed coupons or coupon schedules and bullet maturities of 25 to 30 years with debt relief provided through lower interest payments; discount bonds, featuring floating-rate coupons, typically linked to LIBOR (London Inter Bank Offered Rate) exchanged for a lower face value; front-loaded interest-reduction bonds that provided a temporary interest rate reduction; and debt conversion bonds and new money bonds issued at par and yielding a market rate, which provided incentives for banks to extend new loans such that for each dollar of new money bonds purchased, existing debt was converted to a new money bond at a fixed proportion. Regardless of the option selected, the transaction was structured to provide an equivalent degree of debt relief.

¹⁸ A market soon developed in which the underlying collateral of the bonds was stripped out and traded separately. The author is indebted to Ed Bartholomew for this observation. It should also be pointed out that the development of the Brady bond market opened the way for the remarkable development of the market for emerging market debt.

¹⁹ A possible risk arises from the very large US dollar debts issued by the corporate sectors in several emerging markets. Severe financial difficulties arising from, for example, a mismatching of these liabilities and domestic currency revenue streams could "migrate" from private to government balance sheets, increasing debt-servicing costs of the public sector.

Important progress has been achieved with respect to possible failures associated with intracreditor coordination. This paper suggests that the use of MDB guarantees may help assuage the bargaining problems that arise from incomplete and imperfect information, which are manifested in an inability for a sovereign debtor to credibly pre-commit to sharing upside outcomes that would result from debt discharge and a return to sustainability. Guarantees can also be used to advance key principles — debt reduction operations that preserve the bonding role of debt while providing incentives to the sovereign borrower to implement sound policies that preserve asset values and "grow the pie" to the benefit of taxpayers and private creditors alike.

The objective is a timely, voluntary restructuring. In this regard, the guarantee can be viewed as a credit enhancement to meet thresholds in CACs. But not all investors are risk-averse. There are investors with a higher tolerance for risk who are prepared to buy distressed debt with the intent to use the courts to extract higher payments. For this reason, a debt restructuring guarantee, even if it is feasible and effective, is no panacea. Work to construct a better framework for the timely, orderly restructuring of sovereign debt should therefore continue.

Author's Note

The views expressed are those of the author and should not be attributed to CIGI or the Wilson Center. Helpful comments from two anonymous referees are gratefully acknowledged. Any remaining errors are the sole responsibility of the author.

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