

Can the Moral Hazard Caused by IMF Bailouts be Reduced?

Barry Eichengreen

CAN THE MORAL HAZARD CAUSED BY IMF BAILOUTS BE REDUCED?

Geneva Reports on the World Economy Special Report I

International Center for Monetary and Banking Studies (ICMB)

International Center for Monetary and Banking Studies
11 A Avenue de la Paix
1202 Geneva
Switzerland

Tel +41 22 734 9548
Fax +41 22 733 3853
Website: www.icmb.org

© International Center for Monetary and Banking Studies

Centre for Economic Policy Research (CEPR)

Centre for Economic Policy Research
90-98 Goswell Road
London EC1V 7RR
UK

Tel: +44 20 7878 2900
Fax: +44 20 7878 2999
Email: cepr@cepr.org
Website: www.cepr.org

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

ISBN: 1 898128 57 X

Printed and bound in the UK by Information Press

CAN THE MORAL HAZARD CAUSED BY IMF BAILOUTS BE REDUCED?

Geneva Reports on the World Economy Special Report I

Barry Eichengreen

University of California, Berkeley, and CEPR

ICMB INTERNATIONAL CENTER
FOR MONETARY
AND BANKING STUDIES

CIMB CENTRE INTERNATIONAL
D'ETUDES MONETAIRES
ET BANCAIRES



International Center for Monetary and Banking Studies (ICMB)

The International Center for Monetary and Banking Studies was created in 1973 as an independent, non-profit foundation. It is associated with Geneva's Graduate Institute of International Studies. Its aim is to foster exchange of views between the financial sector, central banks and academics on issues of common interest. It is financed through grants from banks, financial institutions and central banks.

The Center sponsors international conferences, public lectures, original research and publications. It has earned a solid reputation in the Swiss and international banking community where it is known for its contribution to bridging the gap between theory and practice in the field of international banking and finance.

In association with CEPR, the Center launched a new series of *Geneva Reports on the World Economy* in 1999. The first report, 'An Independent and Accountable IMF', was published last September. It has attracted considerable interest among practitioners, policy-makers and scholars working on the reform of international financial architecture.

The ICMB is non-partisan and does not take any view on policy. Its publications, including the present report, reflect the opinions of the authors, not of ICMB or of any of its sponsoring institutions.

Officers

President of the Foundation Board
Director

Jean-Pierre Roth
Charles Wyplosz

Centre for Economic Policy Research (CEPR)

The Centre for Economic Policy Research is a network of over 500 Research Fellows and Affiliates, based primarily in European universities. The Centre coordinates the research activities of its Fellows and Affiliates and communicates the results to the public and private sectors. CEPR is an entrepreneur, developing research initiatives with the producers, consumers and sponsors of research. Established in 1983, CEPR is a European economics research organization with uniquely wide-ranging scope and activities.

CEPR is a registered educational charity. Institutional (core) finance for the Centre is provided by major grants from the Economic and Social Research Council, under which an ESRC Resource Centre operates within CEPR; the Esmée Fairbairn Charitable Trust and the Bank of England. The Centre is also supported by the European Central Bank, the Bank for International Settlements, 22 national central banks and 45 companies. None of these organizations gives prior review to the Centre's publications, nor do they necessarily endorse the views expressed therein.

The Centre is pluralist and non-partisan, bringing economic research to bear on the analysis of medium- and long-run policy questions. CEPR research may include views on policy, but the Executive Committee of the Centre does not give prior review to its publications, and the Centre takes no institutional policy positions. The opinions expressed in this report are those of the author and not those of the Centre for Economic Policy Research.

Officers

President
Chief Executive Officer
Research Director

Richard Portes
Stephen Yeo
Mathias Dewatripont

About the Author

Barry Eichengreen is the George C. Pardee and Helen N. Pardee Professor of Economics and Political Science at the University of California, Berkeley, where he has taught since 1987. In 1997–8 he was Senior Policy Advisor at the International Monetary Fund. Professor Eichengreen is a Research Fellow of the Centre for Economic Policy Research (CEPR); a Research Associate of the National Bureau of Economic Research (NBER); and a Fellow of the American Academy of Arts and Sciences (class of 1997).

Barry Eichengreen has published widely on the history and current operation of the international monetary and financial system. His books include *'Toward a New International Financial Architecture'* (Institute for International Economics, 1999), *'Globalizing Capital: A History of the International Monetary System'* (Princeton University Press, 1997), *'European Monetary Unification'* (MIT Press, 1997), and *'Crisis? What Crisis? Orderly Workouts for Sovereign Debtors'* (with Richard Portes) (CEPR, 1995).

Contents

<i>Author Acknowledgements</i>	<i>ix</i>
<i>Foreword</i>	<i>xi</i>
<i>Preface</i>	<i>xiii</i>
<i>Executive Summary</i>	<i>xv</i>
1 Introduction	1
1.1 Two causes of crises and two solutions	2
2 Investor Panic	6
2.1 Why panics occur	6
2.2 Korea: the canonical case	6
2.3 Limitations of existing responses to the panic problem	7
3 Problems with Fundamentals Implying a Need to Restructure	13
3.1 Korea: an alternative interpretation	13
3.2 Limitations of existing responses to the restructuring problem	13
4 Problems with Existing Approaches to Reducing Moral Hazard	15
4.1 New rules for IMF lending	16
4.2 The ad hoc approach	17
5 Officially Sanctioned Standstills as a Solution to the Panic Problem	19
5.1 Implementation	21
5.2 Objections	23
5.3 Impact on borrowing costs	25
5.4 Implications	31
6 Collective Action Clauses as a Solution to the Restructuring Problem	33
6.1 Rationales	33
6.2 Objections	35
6.3 Impact on borrowing costs	36
6.4 Implications	38
7 Recommendations	40
Appendix: Other Initiatives	43
A.1 UDROPs	44
A.2 Creditor committees	45
A.3 Mediation	47
<i>References</i>	<i>49</i>

List of Tables

Table 5.1	Creditor rights in sample countries	20
Table 5.2	Basic regression results (dependent variable is launch spread)	28
Table 5.3	Regression results without sovereign borrowers (dependent variable is launch spread)	29
Table 5.4	Regression results without government borrowers (dependent variable is launch spread)	30
Table 6.1	Spreads, governing laws and sovereign interactions (selectivity corrected, where dependent variable is launch spread)	37

Author's Acknowledgments

This report was commissioned by the Swiss Federal Finance Administration and the International Center for Monetary and Banking Studies. I am grateful to Charles Wyplosz and Giorgio Dhima for making this arrangement possible. The Federal Finance Administration expressed particular interest in proposals for an internationally-sanctioned payments standstill, which accounts for the focus of the analysis.

Inevitably, the analysis here extends my previous research on options for strengthening the international financial architecture. I owe a debt to my collaborators in this effort, notably Ashoka Mody, Richard Portes and Christof Ruehl. They will hear many echoes – I hope not too many – our joint work.

For help with information, I am grateful to Elke Hanschel, Giorgio Dhima, John Murray, Ian Bennett and Howard Brown. For help with the analysis, I thank Galina Hale. For help with comments I thank Morris Goldstein, Richard Portes, Beat Siegenthaler, Alexander Swoboda, John Williamson, and Charles Wyplosz. And for help in shepherding the manuscript into print, I am grateful to Mindy Ruzicka at Berkeley and Sue Chapman and Tessa Ogden at CEPR.

Foreword

There has been extensive debate over how to strengthen the international financial architecture since 1998. A broad measure of agreement has developed on what is needed to limit the frequency and severity of crises. The official consensus was initially set out in the three reports of the Group of 22, which focus on crisis *prevention* rather than crisis *management*. This special issue of the *Geneva Reports on the World Economy* analyses some of the alternative strategies for securing private sector involvement once a crisis has occurred – the focus is therefore predominantly on crisis *management*.

Barry Eichengreen argues that investors must share in the burden of adjusting to crises in order to contain the moral hazard created by multilateral rescue loans. This is necessary to prevent investors lending without due regard for the risks – their investments are otherwise protected by the prospect of IMF ‘bailouts’ in the event of crises. Many accept this principle, but there is less agreement on how it should be implemented. This *Report* analyses the issue in depth and offers a series of recommendations to limit reliance on large-scale financial rescues.

This report was originally commissioned by the Swiss Federal Finance Administration from the International Center for Monetary and Banking Studies of the Graduate Institute of International Studies. We are indebted to Charles Wyplosz and Giorgio Dhima for arranging this commission.

The annual series of *Geneva Reports on the World Economy* was launched by ICMB and CEPR in 1999. The first two reports, ‘An Independent and Accountable IMF’¹ and ‘Asset Prices and Central Bank Policy’², have established the reports as an important source of discussion on the reform of the international financial and economic system. This ‘Special Report’ extends some of the previous research on options for strengthening the international financial architecture undertaken by Barry Eichengreen and his colleagues. It is a valuable addition to the *Geneva Reports on the World Economy* series.

Richard Portes
CEPR

Jean-Pierre Roth
ICMB

1 August 2000

¹ Eichengreen, B., J. De Gregorio, T. Ito and C. Wyplosz, ‘An Independent and Accountable IMF’ *Geneva Reports on the World Economy 1*, London, Centre for Economic Policy Research, September 1999.

² Cecchetti, S. G., H. Genberg, J. Lipsky and S. Wadhvani, ‘Asset Prices and Central Bank Policy’ *Geneva Reports on the World Economy 2*, London, Centre for Economic Policy Research, July 2000.

Preface

The debate on how to ensure appropriate private sector involvement in the prevention and resolution of financial crises is ongoing. In other areas, such as the improvement of transparency and accountability; the assessment of standards and codes; and the identification of financial sector vulnerability, efforts to strengthen the international monetary system have already produced some encouraging results. However, although private creditors have recently contributed to the financing of adjustment programs supported by the International Financial Institutions, the success of the case-by-case approach followed so far has only been partial, and progress towards a rules-based approach to private sector burden sharing has been slow indeed.

A thorough analysis of the feasibility of a rules-based approach will be necessary if the problem of private sector involvement is to be solved in a general and forward looking manner. It will also be necessary if the unwelcome side effects of the efforts made to date are to be avoided in the future. An officially sanctioned temporary stay on creditor litigation has been proposed as an element of such a rules-based approach. A temporary standstill imposed by the international community might – it is contended – serve to facilitate orderly procedures of resolving sovereign liquidity crises. It has been argued that such a scheme could improve the position of the sovereign debtor in negotiating creditor forbearance, thus providing a breathing space in which to implement adjustment policies and to restore confidence. This would serve to give stability to a system in which the importance of private financial flows has greatly increased.

Of course, there are many technical and legal questions to be answered before a substantial discussion on how to impose a temporary stay on litigation, sanctioned by the IMF or some other body, can develop in the fora of international policy making. Professor Eichengreen addresses a number of these questions in the present study. He does so with the same clarity in which he has dealt with numerous other issues in the extensive debate on the ‘new international financial architecture’.

This study was commissioned by the Swiss Federal Finance Administration. I believe it provides us with a most valuable contribution to many questions that need to be answered. Such is the advice officials should seek when confronted with issues like the one before us.

Kaspar Villiger
Federal Councillor
Head of the Federal Department of Finance

11 August 2000

Executive Summary

The need to limit IMF bailouts of crisis countries is a theme of the literature on how to strengthen the international financial architecture. These IMF-led financial rescues create moral hazard, their critics allege, and encourage excessive risk-taking. Overstated or not, these criticisms highlight the need to create alternative ways of managing financial crises.

One approach to this problem is to assume that IMF policy can simply be changed to prohibit rescues of countries with lax policies. Unfortunately, those who propose to prohibit IMF lending to certain countries assume that the Fund can simply stand aside when a crisis erupts in a country with problematic policies. The reality is that the costs of inaction (a severe economic contraction, an extended interruption to capital-market access, and a lengthy and difficult restructuring) are too painful for the official community to bear. Consequently, a commitment to stand aside will not be credible.

Similarly, the notion that IMF disbursements can be conditioned on commitments by private investors to agree to a restructuring, to contribute new money, or to roll over maturing claims is equally unrealistic. Often the holders of debt securities cannot even be identified in the relevant time frame – much less compelled to act collectively. More fundamentally, a commitment by the IMF to stand aside if investors refuse to cooperate would not be credible, again because the costs of inaction would be too painful and risky to bear. In the end, the Fund would be forced to back down and disburse whether the markets contribute to the operation or not.

While wishful thinking can wish away the bailout problem (in that it can assume away the sources of moral hazard) institutional reforms that speak to the underlying dilemmas are needed if the international policy community is to succeed in developing new approaches to resolving financial crises. What kind of reforms should be pursued depends on the predominant cause of financial crises. If crises are mainly caused by investor panic, then a payments standstill could give a country protection from a creditor grab race until lenders collect their wits and calm returns to the markets. Making provision for an IMF imposed or endorsed standstill would, therefore, provide an alternative to large-scale financial rescues for countries experiencing liquidity crises.

If, on the other hand, crises reflect inconsistent policies and disappointing performance, then the debts of the crisis country will have to be restructured, rendering initiatives to facilitate this restructuring process the priority. Specifically, adding collective action clauses to emerging market bonds would make agreement on restructuring easier to reach.

As always, reforms should be prioritized. Doing so means making a judgement about the predominant cause of crises and pursuing the reform best suited to addressing the consequences. It means pursuing reforms that are in the feasible set. Most observers are of the view that the majority of crises reflect problems with fundamentals, not simply investor panic. They will be inclined to believe that reforms which increase reliance on market forces and limit reliance on the IMF are steps in the right direction and more likely to attract political support. These judgements point to the conclusion that collective action clauses, and not international standstills, should be the priority for those seeking to strengthen the international financial architecture.

1 Introduction

The debate over how to strengthen the international financial architecture has been underway now for nearly three years.¹ In this time there has developed a broad-based consensus on what is needed to limit the frequency and severity of crises. Specifically, there is widespread agreement on the need for greater transparency on the part of financial market participants, strengthened prudential supervision and regulation, international standards for sound financial management, and appropriate policies toward exchange rates and the capital account.²

More contentious is how to encourage ‘private sector participation’ in those financial crises that continue to occur. ‘Private sector participation’ is the antiseptic official term for what market participants refer to more bluntly as the desire to see that investors ‘take a hit’ or ‘receive a haircut’ – to ensure that they do not escape all losses as a result of multilateral assistance for the crisis country. Seeing that investors bear part of the burden of crises is necessary to contain the moral hazard created by multilateral rescue loans. It is needed to prevent crisis packages like those extended to Mexico and the Asian countries since 1994 from encouraging investors to lend without regard for the risks.³

While there is general agreement on this principle, there is far less agreement on the practice. This is evident in the failure of efforts to date to significantly enhance the participation of the private sector in crisis management and resolution. The conclusion applies to the controversy provoked by the report of the Meltzer Commission over new rules and procedures to limit the frequency, magnitude and duration of IMF rescue loans.⁴ It applies to attempts in the cases of Romania, Ukraine, Pakistan and Ecuador to require investors to restructure problem debts, roll over maturing loans, and provide new money as a precondition for the disbursal of official funds. It applies to the effort to amend loan contracts to include provision for a bondholders meeting, rules permitting interest and principal repayment terms to be

¹ One may date the discussion from February 1998, when then-US Treasury Secretary Robert Rubin made a speech at Georgetown University giving prominence to the phrase and the issue.

² The definitive statement of this official consensus is the three reports of the Group of Twenty Two (1998a, 1998b, 1998c). The focus of these three documents is crisis *prevention* rather than crisis *management*, the second of which rightly remains the official community’s first priority. I devote limited attention to crisis prevention here because this report has a different focus, namely, strategies for securing private sector involvement once a crisis has occurred, not because I regard prevention as anything less than a priority.

³ This is not to imply that all investors in emerging-market securities escaped losses as a result of the Mexican and Asian rescues. In particular, holders of equities and long-term debt securities, especially those who sold at the height of these crises, took significant hits. Still, the fact that the strategy of investing in Russian debt securities in 1997–8 was referred to as the ‘moral hazard play’ suggests that the international community’s repeated resort to financial rescue packages influenced investor behaviour. (The official community’s decision not to avert a Russian default in August of 1998, and its bail-in efforts in Ukraine, Romania, Pakistan and Ecuador – described in Chapter 4 (see below) – were an attempt to moderate this expectation.) But regardless of whether subsequent analyses have overstated the extent of moral hazard, the fact of the matter is that US Congressional critics and others take it seriously, the implication being that comparable rescue operations are unlikely to be repeated in the future. Hence there is a need to contemplate alternative solutions to the financial-instability problem like those analyzed below.

⁴ This is the report of the International Financial Institution Advisory Commission (2000) chaired by Professor Allan Meltzer and analysed in Chapter 4 (see below).

2 *Can the Moral Hazard Caused by IMF Bailouts be Reduced?*

modified by a qualified majority of the bondholders, sharing clauses, and the like. And it applies to proposals tabled by the Canadian government and others to authorize the IMF to impose or endorse a temporary payments standstill. Reflecting a continued lack of consensus on how to proceed, progress in these areas remains elusive.

These are the issues tackled in the remainder of this study. It explains why the market cannot be relied on to prevent sovereign financial problems and to efficiently resolve those which arise. It critiques the new rules which have been suggested to govern lending by the international financial institutions (IFIs), arguing that the problem of private sector participation is too deeply embedded in the structure of the markets to be solved by simply proposing changes in IFI lending practices. It argues that a solution requires changing the broader set of institutional arrangements governing international financial transactions.

1.1 Two causes of crises and two solutions

The form of that solution should flow from a diagnosis of the nature and causes of crises. I distinguish two circumstances under which crises arise: when there are problems with a country's economic policies and performance, and when investors panic.⁵ How the private sector should be involved in the resolution of a crisis will depend on which of these causes is implicated. When a crisis is due to investor panic and not to problems with a country's macroeconomic and financial fundamentals, resolving it requires only a cooling-off period for investors to collect their wits, for the authorities to signal their commitment to sound and stable policies, and for calm to return to the markets. A payments standstill can create this breathing space. It can avert a destructive creditor grab race and, if endorsed by the IMF, avoid besmirching the reputation of the initiating government. Formally, the IMF's Articles of Agreement could be amended to give that institution the power to impose the standstill, and legislation designed to give that amendment force in their courts could be passed by the creditor countries. Less formally, the IMF's Executive Directors could simply declare that they were prepared to voice their approval of a crisis country's decision to impose capital controls and to lend into sovereign arrears under appropriate conditions, which is not very different from the status quo. The first approach is less tractable and realistic politically, but the second would not shelter the country from disruptive legal action by its creditors.

In contrast, when a crisis reflects problems with economic fundamentals that prevent a country from servicing its obligations, resolving it will require debt restructuring. It follows that the most important policy innovations are those which promise to do the most to facilitate this restructuring process. Under this heading I devote special attention to case for adding renegotiation-friendly collective action clauses (CACs) to loan agreements, a reform that is already on the official agenda.⁶ There may also be a case for an IMF imposed or sanctioned standstill, but only if there is reason to think that the country to which it is applied will satisfy the conditionality the Fund attaches to its support and make good-faith efforts to adjust and resume debt service on reasonable terms.

⁵ Throughout this study I distinguish crises due to poor economic policy and performance (problems with fundamentals) from investor panics (crises occurring in the absence of problems with fundamentals). This is preferable to the distinction between 'liquidity' and 'solvency' crises insofar as the notion of an 'insolvent country' is problematic (see Guidotti and Kumar (1991)).

⁶ In the Appendix (see below) I discuss some complementary measures – the creation of standing committees of creditors and third-party mediation – that are similarly designed to expedite the restructuring of problem loans. Interestingly, in the Ecuadorian exchange offer underway at the time of writing, exit consents (in which a bondholder is asked, in the content of an exchange offer, to consent to an amendment of one or more terms of the old bonds, such as covenants, negative pledge clauses, grace periods and the like) seem to be playing a role analogous to collective action clauses in binding in recalcitrant creditors. On exit consents, see Buchheit (2000). The general point is that a variety of measures can be used to facilitate collective action by the creditors and to solve the hold-out problem.

The key point is that there should be a correspondence between the nature of crises and the nature of the reforms pursued to enhance the official community's capacity to contain and resolve them. If the dominant problem is investor panic, then all that is needed (by assumption) is to ride out the panic, after which business as usual can resume. A temporary standstill on payments is the obvious means to this end. Because there is no problem with fundamentals (by definition, in the pure panic case), there is no need to attach conditions to the official community's endorsement of the temporary stay on payments. And because there is no need to restructure countries' debts, reforms designed to ease restructuring, such as collective action clauses, are largely superfluous.

If, on the other hand, crises reflect problems with domestic economic policies and performance that jeopardize countries' ability to service their debts, then an officially-sanctioned standstill may be problematic. Like regulatory forbearance for an insolvent bank, it may only facilitate the further dissipation of the borrower's assets; in other words, it may allow problems to fester by putting off the day of reckoning. Only if the international community can attach conditions to its support for a standstill, requiring the government to eliminate the problems that brought on the crisis, and only if its conditions can be guaranteed to deliver the desired result will the measure solve problems rather than creating them. These prerequisites are likely to be met in only a subset of instances where countries with flawed policies experience debt-servicing difficulties, given the limitations of IMF conditionality. It follows that an internationally imposed or endorsed standstill will have wide applicability to investor-panic cases but will be appropriate in only certain crises caused by policy problems.

Whether one believes that most crises reflect problems with fundamentals or panic pure and simple, and whether one is, therefore, more attracted to the idea of collective action clauses or internationally-sanctioned standstills, it is important to weigh the benefits of these policy innovations against their costs. In the present context, the potential downside is the increase in the cost of borrowing for emerging markets due to the weakening of creditor rights. By making it more tempting for borrowers to restructure, collective action clauses could make investors less willing to lend. By making it harder for investors to withdraw their money, an internationally-sanctioned debt standstill could similarly render them more reluctant to commit their funds in the first place.

However, there are also arguments pointing in the other direction. While an officially-sanctioned standstill and collective action clauses weaken creditor rights in the aforementioned sense, they may also help to avert unnecessary crises (by halting investor panics which can give rise to a destructive investor grab race) and minimize the duration of interruptions to external debt service (by facilitating the negotiation of readjustment terms). In other words, both innovations could reduce rather than raising borrowing costs. Which effect dominates is an empirical question.

Evidence addressing it is marshalled in this study. For collective action clauses it is possible to study the pricing of debt securities that already contain such provisions and to contrast them with other comparable bonds. Specifically, I compare the pricing of international debt securities subject to the provisions of UK law, which typically include collective action clauses, and otherwise comparable securities subject to New York law, which do not. I utilize new data and extend earlier analyses by distinguishing sovereigns from other borrowers.

4 *Can the Moral Hazard Caused by IMF Bailouts be Reduced?*

Empirical analysis of the standstill idea is more difficult, for no such policy is in place. It is necessary to reason by analogy – specifically, by drawing inferences from experience with national bankruptcy and insolvency laws. A closely parallel debate in fact surrounds national bankruptcy and re-organization procedures, which are praised for preventing destructive creditor grab races on the one hand but criticized for weakening creditor rights and raising the cost of capital on the other.⁷ This makes it possible to use the features of domestic legislation affecting creditor rights in emerging markets, including the presence or absence of an automatic-stay provision, to analyze the likely effect of an IMF-sanctioned measure.

To anticipate, the evidence in both cases casts doubt on the presumption that these measures would raise borrowing costs. For collective action clauses, borrowing costs would rise for countries with poor credit but decline for their more credit-worthy counterparts. The obvious interpretation is that more credit-worthy emerging-market borrowers value their capital-market access and are unlikely to walk away from their debts: adding collective action clauses to their loan contracts would not create significant moral hazard. In exceptional circumstances where they have difficulty servicing their debts, the fact that they can resort to provisions facilitating the orderly restructuring of their obligations is viewed positively by the markets. For less credit-worthy borrowers, in contrast, the presence of collective action clauses significantly aggravates moral hazard and increases borrowing costs. As shown below, these results are no different for sovereigns than other borrowers.

In the case of a standstill on payments, there is evidence that provision for a standstill may in fact reduce funding costs, as if any weakening of creditor rights is more than offset by the benefits of the standstill provision in averting a creditor grab race and allowing the debtor to re-organize his debts. To be sure, an international standstill would differ from its domestic counterpart due to the absence of a judicial authority empowered impose sanctions on those responsible for managing the entity receiving this protection, raising the danger that an international standstill on sovereign obligations would create greater moral hazard. While this danger cannot be dismissed, the results do not indicate that the favourable impact of the standstill in fact hinges on the possession by the relevant judicial authority of these other powers.

Thus, the evidence does not obviously support the presumption that collective action clauses and internationally-sanctioned standstills would raise borrowing costs. Which initiative is given higher priority should depend, therefore, not on any differential impact on borrowing costs but on what the international community concludes is the dominant cause of crises: policy imbalances or investor panic.⁸

Some will insist that both panic and flawed policies are implicated in most crises and will embrace both standstills and collection action clauses.⁹ A fully-armed official community, they will argue, should have both arrows in its quiver. But reformers have limited political capital. They are not likely to be able to attain every change in the international financial architecture on their wish list. This means that reforms should be prioritized. Doing so means making a judgement about the predominant cause of crises and

⁷ See for example La Porta *et al.* (1998).

⁸ In addition, both ideas should be rated *vis-à-vis* other proposals, such as ad hoc bail ins, creditors committees, mediation, and universal debt rollover options with penalty, which are considered elsewhere in this study.

⁹ This is the implication of modern models of speculative attacks in which the possibility of multiple equilibria arises only when fundamentals deteriorate sufficiently to place the country in a zone of vulnerability. See Obstfeld (1996), Ozkan and Sutherland (1998) and Chang and Velasco (1999).

pursuing the reform best suited to addressing the consequences. It means pursuing reforms that are politically feasible. Most observers are of the view that the majority of crises reflect problems with fundamentals, not simply investor panic. They will be inclined to believe that reforms which increase reliance on market forces and limit reliance on the IMF are steps in the right direction and more likely to meet with political support. These judgements point to the recommendation that collective action clauses and not international standstills should be the priority.

2 Investor Panic

An elaborate analysis of these issues is superfluous if one believes that the prevention and resolution of crises can be left to the markets. Faced with a creditor panic, the indebted government can raise interest rates, draw on commercial credits or, failing this, impose capital controls. To limit moral hazard, the IMF can refuse to lend to a country reluctant to put its house in order and leave the consenting adults involved to clean up the mess. Before proceeding, it is therefore necessary to explain why purely market-based solutions are problematic.

2.1 Why panics occur

Theoretical models of investor panic¹ are driven by the assumption of asymmetric information. Not only is information incomplete, but assessments of that information, even where the latter is available in abundance, will vary across investors.

In such situations, individual investors may base their inferences on the actions of other, potentially better informed investors. This can lead them to scramble out of a market when they see others doing likewise. Asymmetric information can thus encourage herding which amplifies market volatility.² An extreme form of the phenomenon is creditor panic.

2.2 Korea: the canonical case

Korea in 1997 is the canonical case.³ Prior to its crisis, Korea had few obvious macroeconomic problems. Investment and savings rates were high. The budget was in balance, and inflation was subdued by the standards of late-developing economies.⁴ Growth was proceeding rapidly, albeit at a decelerating pace. (Real GDP grew at an annual average rate of 7.8% between 1990 and 1995, by 7.1% in 1996, and by 5.5% in 1997 when it was slowed by a glut in global semiconductor markets and by the outbreak of crisis elsewhere in Asia.) The current account was close to balance, except in 1996 when the deficit ballooned to 4.8% of GDP, another development plausibly attributable to the weakness of semi-conductor prices, although it then narrowed to 1.9% in 1997.

Observations like these inform the creditor-panic interpretation of the Korean crisis. Korea being a 'miracle' economy, there was no clear justification, in this view, for the attack on the won. But the country was vulnerable because its banks had funded themselves offshore, relying heavily on short-term credits. The government had allowed foreign finance to enter through the banking system while continuing to limit

¹ See Diamond and Dybvig (1983).

² See Bikhchandani and Sharma (2000).

³ See Radelet and Sachs (1998) and Furman and Stiglitz (1998).

⁴ One expects higher inflation in rapidly growing, late-developing countries, other things equal, due to the operation of the Balassa-Samuelson effect.

inward FDI and foreign purchases of Korean securities. Because these liabilities were owed to foreigners and denominated in foreign currency, the capacity of the government and central bank to lend in the last resort was limited by the stock of international reserves. By the end of 1996, short-term external liabilities as a share of foreign exchange reserves had risen to 280%.⁵ When instability spread to Thailand and Indonesia in the summer of 1997 and Taiwan devalued in October, foreign banks refused to renew their maturing Korean credits and sought to withdraw their funds from the country *en masse*, despite – some would say with the assistance of – IMF and G-7 loans.

With short-term foreign debt maturing at the rate of \$1 billion a day, it seemed inevitable that Korea's reserves would be exhausted by the end of the year. Its banks and government were pushed to the brink of default, and the authorities are said to have contemplated the imposition of capital controls. Only emergency negotiations between foreign banks and the Korean authorities under the stewardship of the G-7 and IMF averted these consequences. Toward the end of January, under pressure from the G-7 and the multilaterals, the banks agreed to roll over their maturing short-term credits with the intent of converting them subsequently into long-term bonds.⁶ The panic receded, and Korea mounted a v-shaped recovery from its crisis.⁷

2.3 Limitations of existing responses to the panic problem

There are six obvious responses to an investor panic (some of which require making preparations in advance). These are: (i) liquidating assets in order to raise liquidity; (ii) borrowing abroad via pre-negotiated commercial credit facilities; (iii) utilizing international reserves, (iv) raising interest rates in an effort to restore investor confidence and attract back flight capital; (v) unilaterally halting payments; and (vi) negotiating creditor forbearance. (Actually, there is also a seventh – obtaining emergency liquidity from the IMF – that receives separate consideration in Chapter 4 (see below)). Each is problematic, however, in an environment of asymmetric information.

i) Liquidating assets

A debtor seeking to raise emergency liquidity by selling assets will typically be able to do so only at financially-damaging fire-sale prices, given uncertainty about the worth of those assets and the shadow cast over his or her balance sheet. Because outsiders know less than the debtor about the value of those assets – this, after all, is the essence of asymmetric information – they will be prepared to purchase them only at deep discounts. Consequently, this response to the panic problem may further damage the financial viability of the entity experiencing the crisis and may therefore be ineffectual in restoring investor confidence.

An emerging market will similarly lack assets to post as collateral when it seeks to borrow the foreign exchange needed to pay off creditors holding foreign-currency-denominated claims and seeking to exit. A distinguishing feature of an emerging market, from this point of view, is its limited ability to borrow abroad

⁵ The practice of placing official deposits with the overseas branches of Korean banks further reduced usable reserves.

⁶ Two reasons this agreement was concluded successfully were that the Korean government guaranteed private debts to foreign financial institutions, and that it then agreed to rich spreads on the bonds into which those debts were converted (on the order of 225 basis points). As I explain below, it may be difficult to replicate these conditions in other instances where a government wishes to obtain the collective forbearance of its creditors.

⁷ After slumping to negative 6% in 1998, growth turned sharply positive, reaching double digits in 1999.

in its own currency.⁸ It follows that its external liabilities will be mainly denominated in foreign currency, implying that the capacity of its central bank to provide the liquidity needed to pay off foreign creditors will be limited to its stock of foreign reserves.⁹ While domestic-currency-denominated assets may be perfectly good collateral at the current exchange rate, they will be worth much less following a devaluation. Given uncertainty about whether the government can succeed in defending the exchange rate, it will, therefore, be unable to mobilize additional foreign exchange in order to fend off a threat to the stability of the currency.

ii) Prenegotiating credit lines

It has been suggested that governments can finesse this problem by negotiating credit lines with foreign banks as insurance against liquidity crises. Argentina, Indonesia and Mexico have experimented along these lines.¹⁰ But the Mexican and Indonesian arrangements have been allowed to expire and have not been emulated by other countries. One reason is that commercial credits are expensive. By extending a standing line, the foreign bank commits to lend into a panic, for which it will require compensation. The higher the commitment fee and interest cost, the more the facility aggravates fiscal strains and therefore undermines rather than buttressing confidence.¹¹ The cost may be so high that a government will be unable to secure the relevant lines on more than a token scale.¹²

Moreover, in order to hedge their additional exposure, banks with other loans to the country may call them when asked to disburse the credit line. Thus, the Mexican authorities were warned that the banks would cut their credits to Mexican corporations if the government insisted on drawing its lines in 1998.¹³ The additionality obtained through pre-negotiating commercial credit lines is thus an open question.

iii) Accumulating reserves

Accumulating foreign reserves is a related defence against a creditor panic.¹⁴ The Guidotti-Greenspan rule is that countries should accumulate a cushion of reserves equalling all foreign obligations falling due within 12 months.

Again, this form of insurance is expensive: the interest rate on reserve assets tends to be low relative to the costs of servicing short-term foreign obligations. Consequently, sterilizing capital inflows in order to accumulate reserves can aggravate budgetary strains and undermine rather than enhance confidence in the

⁸ This is a point that Ricardo Hausmann has emphasized in a number of publications, including one with the present author – see Eichengreen and Hausmann (2000).

⁹ This observation points to the desirability of holding reserves as insurance against crises; I consider the costs and benefits of this strategy below.

¹⁰ These facilities omit the no-adverse-material-change clause that typically permits banks to back out of an agreement in the event of a crisis. Argentina's agreement with 13 commercial banks provides \$7 billion in stand-by credits through a repurchase facility (its drawings are collateralized by the deposit of an equivalent amount of peso-denominated government bonds). The Mexican facility, in contrast, was a pure credit line. Mexico drew its in September 1998 in the wake of the Russian crisis. Indonesia made two drawings on its stand-by facilities, totalling \$1.5 billion (most recently in April 1998).

¹¹ Buiter (1987) sketches a model in which borrowing foreign reserves can actually bring forward the date of a crisis, rather than delaying it, if the associated interest costs are sufficiently high. Flood and Jeanne (2000) make the same point with regard to the use of interest rates.

¹² This kind of credit rationing is a widely-remarked-upon phenomenon in credit markets.

¹³ It can be objected that the banks already will have curtailed those lines in circumstances where a crisis appears imminent, in which case nothing additional is lost. The counter is that the banks can also short other assets which they do not own in order to dynamically hedge their additional exposures to the country.

¹⁴ As suggested by Guidotti (1999), Greenspan (1999) and Feldstein (1999).

government's fiscal position.¹⁵ And, given the liquidity of the markets, there is a real question of whether even very substantial reserves will suffice if confidence is suddenly lost.¹⁶

iv) Raising interest rates

Another standard response to the loss of investor confidence is to hike interest rates. Higher rates will compensate investors for the uncertainty of keeping their money in a country whose ability to meet its future obligations is uncertain. They will signal the readiness of the authorities to allow defence of the exchange rate to take precedence over all other goals of economic policy. For both reasons, 'raise interest rates' is the standard advice for calming a panic.

Given the possibility of a large exchange-rate change in short order or of a complete halt to debt servicing payments for even a limited period, interest rates will have to be hiked to very high levels to render investors indifferent between holding domestic and foreign assets.¹⁷ One can reasonably question the authorities' ability to hold interest rates at high levels, given the economic and financial distress this may cause the private sector and the additional debt-servicing costs implied for the government. If the pain is sufficiently severe, the signal of commitment that the authorities wish to send may be less than credible. Raising interest rates may suggest that they are desperate – that they are hoping against hope that good news will turn up – not that they are committed to the currency's defence.

These problems will be especially severe when the economy is highly geared. When corporations have high debt-equity ratios and much of that debt is short term, as was the case in many Asian economies in the 1990s, sharply higher interest rates can threaten much of the private sector with bankruptcy. The knowledge that the corporate sector is on the verge of bankruptcy will deter the authorities from holding interest rates at high levels, rendering their stated commitment to defend the currency less than credible.

But it is not clear that low interest rates work any better. If the authorities fail to raise rates and instead allow the currency to fall, banks and firms with large foreign-currency-denominated liabilities will find their solvency threatened by the increase in the domestic-currency cost of servicing those foreign debts.¹⁸ If higher interest rates won't help, and lower interest rates won't help, there is an obvious temptation to consider other options, such as a suspension of payments.¹⁹

v) Unilaterally halting payments

In other words, a country can simply stop paying until the crisis passes, at which point debt service can be resumed. To be effective, the suspension would have to be comprehensive. The danger with attempting to halt payments selectively, as Ecuador discovered, is that cross-default and acceleration clauses may be activated, engulfing the entire range of financial claims.²⁰ If investors scramble out of other assets in

¹⁵ See Calvo (1991) and Kletzer (2000). More generally, in this situation where the shadow price of reserves exceeds the cost of short-term credit, questions can be raised about whether it makes sense to open the capital account to short-term inflows in the first place.

¹⁶ Hong Kong had \$60 billion to \$100 billion of reserves and a pledge of support from Beijing, and even this did not suffice to insulate it from the Asian crisis. Jeanne and Wyplosz (1999) provide a theoretical treatment of this point.

¹⁷ Eichengreen and Wyplosz (1993) present some representative calculations. The famous case is Sweden in 1992, when the Riksbank raised its marginal lending rate to fully 500% without producing the desired effect.

¹⁸ See Krugman (1999) and Jeanne and Wyplosz (2000).

¹⁹ This is the logic underlying the controversial proposals of Krugman (1998).

²⁰ In August 1999, Ecuador's President Jamil Mahuad announced that the authorities had decided not to pay \$96 million of interest due on a subset of the country's \$6 billion worth of Brady bonds, whose interest and principal were collateralized. Apparently the authorities' expectation (and that of their foreign advisors) was that this would force the bondholders to come to

anticipation of these eventualities, the government may feel compelled to respond with across-the-board controls.

Why the imposition of controls is not a palatable solution to the creditor-panic problem – as the behaviour of most governments reveals – is a deep question.²¹ One answer is that regular resort to controls may aggravate the panic problem if investors learn to anticipate their application and scramble out of the market in advance.²² Another is that governments worry that the unilateral imposition of controls will damage their credit worthiness. Resort to controls may be taken as a worrisome signal of the government's readiness to interfere with private debt contracts. This will be especially the case where investors are unable to judge whether controls have been applied in response to a temporary liquidity crisis, in which case they are likely to be transitory and have no implications for the future service of external debts, or whether the country has more serious problems with fundamentals, in which case controls may imply a reluctance to adjust and a reduced ability to collect.

vi) Negotiating creditor forbearance

If the problem is one of liquidity, then an obvious solution is to bring the creditors together in an effort to get them to recognize their collective interest in avoiding a costly and unnecessary default. Even when it is in the interest of each individual creditor to exit, it may be in their collective interest to renew their maturing claims if their cooperation can be negotiated. Korea in late 1997 and early 1998, where direct negotiations between the government and the foreign creditors succeeded in resolving the crisis, is frequently cited as a case in point.

It is worth considering the Korean case in more detail, since it reveals the limitations as well as the appeal of this approach. The last week of 1997 saw emergency negotiations between the foreign banks that had extended credits to Korea and the new government of Kim Dae Jung, under the stewardship and with the moral suasion of G-7 governments and central banks. US, Japanese and European banks agreed to roll over their loans through March of 1998, giving the Korean government the breathing space needed to negotiate a more comprehensive restructuring package. On 28 January, Korea and the banks reached agreement on the rescheduling of \$24 billion of debt and on a plan to replace the bank loans with sovereign-guaranteed bonds. \$22 billion of interbank claims was converted into bonds with a maturity of one to three years and a spread of 225 to 275 basis points. Korea's short-term debt was reduced from \$61 billion at the end of March 1998 to \$41 billion at the end of April. While this did not avert a serious recession, compounded by the high interest rates that the authorities were forced to maintain to encourage the markets to take up the bonds, default was avoided, which facilitated the rapid restoration of the country's credit worthiness. Korea was able to re-enter international capital markets as early as May of

the table to negotiate restructuring terms. The country bought time and avoided immediate default by paying interest on its non-collateralized Brady bonds (past due interest, or PDI, bonds) while asking investors in collateralized Brady bonds (Discount bonds) to use the 30 day grace period to authorize the release of interest collateral. Using this collateral to make interest payments would have avoided a formal default on the Discount bonds (and the activation of cross default clauses affecting other instruments) and provided a breathing space for restructuring negotiations. Presumably this was why the Brady bonds were chosen as the first instrument to restructure, and why the IFIs acquiesced. The authorities subsequently offered to swap Brady bonds for long-term domestic bonds in a voluntary debt exchange, while using the interest collateral as a sweetener to encourage the creditors holding Discount bonds to engage in restructuring talks. In the event, investors dissatisfied by these terms called the necessary quorum of 25% of all bondholders to vote for acceleration before the authorities could marshal an agreement to restructure. Ecuador was asked to accelerate the principal on its outstanding Brady bonds, constituting the first default on these instruments since their inception in 1990.

²¹ Malaysia is a counterexample but remains exceptional in this regard.

²² See Dellas and Stockman (1993).

1998. And this resolution of the country's debt and liquidity problems arguably set the stage for its subsequent recovery.

But there are reasons to doubt that this approach can be regularized.²³ For one thing, securitized debt is apt to play a larger role in future operations, and negotiations will therefore involve more numerous and varied creditors. To be sure, loans will continue to be extended by foreign banks and continue to pose special problems, especially to the extent that they are short term. But in Korea's case, the amount of external debt acquired through the bond and bill market was relatively small, permitting it to be carved out of the rescheduling agreement. The disproportionate importance of bank debt reflected the asymmetric opening of the Korean capital account (while bank-to-bank lending was liberalized, access to the bond market continued to be restricted), a policy which heightened the country's susceptibility to crisis. As other countries learn to appreciate the importance of opening the capital account more symmetrically, this mistake is unlikely to be repeated. While this will reduce the risk of instability, it will also make negotiating creditor forbearance in the event of a crisis more difficult.

Moreover, the technological changes powering the forward march of securitization also work in the direction of heightening the relative importance of securitized claims. Bond debt rose from about 20% of total non-official, non-FDI-related credit to emerging markets in 1990 to 70% in 1997, indicative of this trend.

The implication is that it will not be possible to arrange creditor forbearance by organizing a conference call among a handful of investment and commercial bankers. Moral suasion by central banks, regulators and governments will operate less effectively on a large population of hedge funds, mutual funds and individual investors than on a small number of international banks. The information needed to verify creditors' compliance with an agreement to exercise forbearance will be more difficult to assemble when more open capital accounts permit foreign banks to hold a wider range of marketable securities and enable corporates as well as banks to borrow offshore.²⁴

In addition, it is important to recall that Korea had the advantage of a relatively strong economy; this made it possible to convince the banks that its plight was primarily a liquidity crisis, rather than a deeper problem with fundamentals which would have raised doubts about whether it would be able to service its debts in full. And insofar as the country had economic problems, it also had a newly-elected democratic government committed to pushing through reforms. Where governments have less credibility and concerted lending is seen as lessening the pressure for adjustment, creditors may not be as inclined to exercise forbearance. Moreover, the sovereign guarantee extended first to Korean banks and then to the bonds into which the bank debt was converted was viable only by virtue of the sovereign's relatively light debt load, an advantage not all governments will enjoy. Finally, there is the fact that bank-to-bank credits had been run down between October and December, as IMF monies and other funds were used to finance the exit of cash-strapped Japanese institutions. Effectively, IMF finance permitted exit by the creditors least willing to participate while giving comfort to those who did participate by lending more credibility to the sovereign guarantee.

²³ As the IMF has acknowledged (see IMF (1999a)).

²⁴ The mechanisms put in place to monitor external liabilities and compliance with concerted rollover agreements have, to my knowledge, been limited to the external liabilities of domestic banks.

12 *Can the Moral Hazard Caused by IMF Bailouts be Reduced?*

In all these respects, the circumstances in Korea were exceptional. This raises real questions about whether the creditor forbearance that was arranged there can also be arranged in other times and places.

The implication is that there are serious problems with each of the available responses to the panic problem: liquidating assets, borrowing externally, accumulating reserves, hiking interest rates, suspending payments unilaterally, and attempting to negotiate creditor forbearance.

3 Problems with Fundamentals Implying a Need to Restructure

Investor panic is not the only reason crises occur. Far more important in the mainstream view are problems with economic policy and performance that prevent a country from continuing to service its debts. Even the Korean crisis, the favourite case of proponents of the investor-panic view, can be interpreted in this light.

3.1 Korea: an alternative interpretation

This alternative interpretation of the Korean crisis emphasizes non-performing loans in the banking system and ‘soft rot’ in the industrial conglomerates (*chaebols*). South Korea had been sustaining its growth, in this view, by pumping semiconductors, autos and steel into weak world markets and building capacity where capacity was already excessive. These processes were underwritten by a banking system which enjoyed government guarantees (received in return for advancing the government’s industrial-policy goals), whose availability enhanced the ability of the banks to fund themselves offshore. The unsustainable nature of these developments was reflected in the banks’ declining returns on assets and equity, which had been trending steadily downward from the early 1990s.¹ The rise in Korean industry’s incremental capital-output ratio between the 1980s and 1990s was similarly indicative of the country’s declining industrial efficiency.

By this interpretation, the Korean crisis reflected a fundamental misallocation of resources to which investors suddenly awoke when financial turmoil engulfed East Asia.² The withdrawal of funds from Korean banks and the ensuing crisis were simply triggers for a long-overdue process of industrial and financial restructuring.

3.2 Limitations of existing responses to the restructuring problem

When a country has problems with fundamentals that prevent it from meeting its obligations, it has to restructure its debts. Absent a ‘miracle on 19th Street’ (that is, multilateral assistance), the debtor cannot pay. And absent a restructuring agreement, the overhang of debts that are not currently being serviced acts as a tax on new money. Investors worry that any revenues associated with their project will be garnished by the government, which needs them to fund existing debt service, or by senior creditors, who may take recourse to the courts.³

Unfortunately, debt restructuring is problematic under present institutional arrangements. Not only does securitization imply a significant increase in the number of creditors, small creditors in particular,

¹ See Hahm and Mishkin (2000).

² Indeed Goldstein, Kaminsky and Reinhart (2000) raise questions about whether the wake-up call should have been so startling on the grounds that the Korean crisis was entirely predictable on the basis of fundamentals.

³ See Cohen (1993).

aggravating collective action problems (as explained above), but any attempt to restructure a sovereign bond issued in the United States – more precisely, under the legal provisions governing bonds issued in that country – must surmount formidable obstacles. No bondholder can be forced by other bondholders to agree to new terms of payment of principal and interest, and each bondholder can sue the issuer if the latter alters those terms. A lawsuit can trigger cross-default clauses in the country's other debt instruments, in turn activating acceleration clauses requiring those debts to be repaid immediately. Unlike syndicated bank loans, bonds lack sharing clauses requiring individual creditors to share any amounts recovered with other bondholders and thereby discouraging recourse to lawsuits. There are no counterparts to the central banks and regulators who used their powers of moral suasion to encourage cooperative behaviour by the members of commercial bank syndicates in the 1980s.⁴ Neither do sovereign issuers have recourse to a bankruptcy filing under which they would be protected from lawsuits and in whose context terms could be imposed on non-cooperative creditors.

Agreement being difficult to reach, debtors are understandably reluctant to contemplate restructuring. And in the event they do, hedge funds and other 'vultures' have an incentive to purchase bonds from less patient investors and to threaten lawsuits against the debtor. Wishing to avoid expensive and embarrassing litigation, the debtor may then feel compelled to buy them out at full price. Taken to the extreme, this suggests that maverick creditors will buy up all the defaulted debt and litigate to prevent sovereign issuers from settling for less than 100 cents on the dollar. Restructuring that involves writing down principal and interest will be impossible.

One need not accept this extreme scenario to see that the provisions governing the issuance of sovereign bonds complicate renegotiation and restructuring. It is hardly a mystery that, under present arrangements, governments are reluctant to go this route.

The difficulty of voluntary restructuring in turn intensifies the pressure for the IMF to extend a bailout. The Mexican rescue is prototypical: rather than requiring Mexico to restructure its *tesobonos* in 1994–5, the IMF and G-7 extended it a loan that permitted the government to pay off the holders of these dollar-indexed securities in full.⁵ But bailouts create moral hazard, which weakens market discipline and heightens crisis risk. Moreover, since the IMF ultimately gets paid back and foreign investors escape without 'taking a hit,' it is taxpayers in the (typically poor) crisis country who end up footing the bill. This means that continued reliance on bailouts is unlikely to be acceptable on either efficiency and equity grounds.

The next chapter considers this problem – and some equally problematic solutions – in greater detail.

⁴ To be sure, a non-negligible fraction of foreign bonds is held by commercial banks. And pension funds, mutual funds and insurance companies are also subject to regulatory oversight, if not always with the same intensity as banks. But institutional investors as a group hold only a fraction of the bonds outstanding, in contrast to the earlier situation with syndicated bank loans, which is likely to render moral suasion less effective.

⁵ The Mexican case was special, to be sure, since a restructuring coming so quickly after ratification of the North American Free Trade Agreement would have been embarrassing to the US government, but there is also the more general point.

4 Problems with Existing Approaches to Reducing Moral Hazard

The other obvious response to a crisis, besides those described in Chapters 2 and 3 (see above), is to seek emergency assistance from the IMF.¹ Sufficiently generous IMF assistance will solve a liquidity crisis by definition. And if the problem is with fundamentals, sufficiently generous and long-lasting assistance from the IMF will still enable the country to pay off its obligations to other creditors while allowing the problem of paying back the Fund to be left for another day.

While this may be attractive to investors, it is problematic for the official community. The vast increase in the scale of rescue packages since 1994, which have been spearheaded if not wholly financed by the IMF, is criticized for creating investor and country moral hazard.² Investor moral hazard in particular has been seen as threatening market discipline in the wake of the Mexican and Asian crises. The implication is that crisis countries will not receive the same access to official financing in the future as did Mexico in 1994–5 and South Korea and other Asian countries in 1997–8.

As the Mexican and Asian crises recede into the past, it has become fashionable to suggest that the way the international community responded to these problems – with large financial rescue packages – wasn't so bad.³ Although Mexico and Korea suffered sharp recessions, they also mounted impressive recoveries.⁴ Far from killing the patient, the medicine ultimately had the desired effect. And it is hard to believe that the *tsunami* of liquidity that flooded into Asia in the mid-1990s resulted entirely from the Mexican rescue, since in Mexico it was the holders of dollar-indexed securities who were rescued, while the important lenders to Asia were banks. Similarly, it is hard to maintain that moral hazard encouraged reckless lending to Russia when in fact Russia was permitted to default. But this interpretation of the Russian crisis is wisdom after the fact.⁵ And while the magnitude of the moral hazard created by the Mexican rescue can be questioned, it is hard to dispute the existence of moral hazard per se. In any case, there is clearly a new resolve in the US Congress and elsewhere to avoid a repeat of this experience.

¹ As well as from other IFIs and foreign governments.

² Country moral hazard is when governments follow riskier policies in the knowledge that they will receive official assistance if they experience difficulties. Investor moral hazard is when creditors lend without due regard to the risks, in anticipation of being able to exit without losses courtesy of multilateral assistance. On this distinction, see Jeanne and Zettelmeyer (2000).

³ See for example De Long (2000).

⁴ Some commentators add Brazil to this list.

⁵ Indeed, it can be argued that the international community was forced to stand back and allow events in Russia to run their course precisely because the moral hazard caused by the previous pattern of rescue operations had become so gross. In any case, given the alarming disruptions that followed Russia's default, it is unclear whether there is the stomach to repeat this experiment, absent the sort of institutional changes described in the remainder of this report.

4.1 New Rules for IMF Lending

New rules for IMF lending have been proposed to address the moral hazard problem. A task force convened by the Council on Foreign Relations (1999) recommends that IMF loans be limited – that the Fund return to its traditional practice of lending no more than 100% of quota in a year and 300% of quota over the life of a program, except under exceptional circumstances that threaten systemic stability. Investors and governments will then realize that the assistance on offer is limited and lend and borrow more cautiously.

But while limited lending might limit moral hazard, it might also fail to calm an investor panic. The \$21 billion that the IMF (with the assistance of the multilateral development banks and various G-7 governments) lent South Korea was 2,000% of quota and even then did not suffice to stem the panic. 100% of quota would have been a drop in the bucket. If IMF lending is to be limited in this way, then other mechanisms will have to be devised to solve the crisis problem.

The International Financial Institution Advisory Commission (2000), or IFIAC, has attempted to square this circle by proposing that the IMF should lend more freely to countries encountering liquidity crises, but that the Fund should avoid lending to countries experiencing crises for reasons having to do with flawed fundamentals. It proposes to draw this distinction by having the Fund lend only for short periods and only to countries with strong banking systems (those which adequately capitalize their banks and open domestic financial markets to foreign entry), strong fiscal policies, and a willingness to treat obligations to the Fund as senior to other liabilities. It recommends that the IMF lend at penalty rates. If banking systems and budgets are sound, its argument runs, there can be a presumption that the problem is one of liquidity rather than fundamentals. If it lends only for short periods, countries needing assistance for extended periods in order to pay off otherwise unviable debts will be precluded from obtaining those resources from the Fund. And if the IMF lends only at penalty rates, then a country with deep structural problems will stand to lose by borrowing from the Fund on senior terms at a penalty rate, since borrowing from the Fund subordinates existing debts, exacerbates the deficit (through the high borrowing cost), and makes it harder to repay private debts. The Fund will then receive requests for assistance only from illiquid countries, while those with inadequate long-term fundamentals will opt to adjust.⁶

In practice, the assumption that high interest rates on IMF loans will filter out borrowers with serious structural problems who in principle stand to lose by borrowing from the Fund is problematic. It assumes that officials have the same discount rates as society, despite the limited life expectancy of governments.⁷ It assumes away gambling for resurrection by politicians whose livelihood is threatened by adverse financial developments. These are reasons to doubt that penalty rates will filter out insolvent countries.⁸

⁶ G-7 finance ministers, in a July 2000 communique (see Group of Seven (2000)), similarly recommended raising interest rates on IMF loans with the goal of developing a ‘more focused and selective financing role for the institution’. Rates would rise not only with the duration of IMF loans but also with their size. But the ministers’ notion was not that penalty rates would filter out all potential borrowers except those with purely liquidity-related problems, but rather that rates which rose with the length of time loans are outstanding would discourage regular recourse to IMF credit.

⁷ An expectancy that is likely to be especially limited in the face of a crisis.

⁸ If the burden of drawing this distinction is placed instead on the Fund, then the assumption is that the latter will be able to distinguish liquidity from other problems. This too is questionable. Take Korea: even now, nearly three years after its crisis, observers continue to disagree about the extent to which it simply experienced a liquidity crisis or was suffering from deep structural problems. Doing so was an order of magnitude more difficult in 1997 without the benefit of three years of hindsight. While countries which balance their budgets, adequately capitalize their banks, and open their financial markets to foreign entry are presumably less likely than their neighbors to experience deep structural problems, the sources of structural problems are not limited to the above: the presence or absence of these policies is unlikely to provide an adequate filter.

More fundamentally, this solution to the moral hazard problem downplays the domestic consequences and systemic repercussions of having the IMF stand aside. Even if it makes economic sense to refuse to lend to a country because its problems are structural rather than liquidity related, inaction is unlikely to be politically palatable so long as society's poorest bear the costs. Under present institutional arrangements, countries that default suffer extended periods of stagnation – witness Ecuador. Inaction in the face of these consequences is politically unacceptable.

Moreover, for the IMF to stand aside when confronted with such problems, especially when they occur in a systemically significant country, raises concerns for the stability of the international financial system. While the extent of systemic risk is disputed, the aftermath of Russia's default in 1998 is a reminder that these risks cannot be ignored. Acknowledging the importance of systemic risk, the IFIAC report acknowledges *force majeure* considerations that might justify exceptional lending to countries which do not meet its list of preconditions. Obviously, countries will take these considerations into account when deciding on policies *ex ante*. It is unclear therefore how effectively the moral hazard problem can be solved through the adoption of these recommendations.

The implication is that changes in the framework for negotiations to make restructuring a viable option are required to lend credibility to the IFIs threat to withhold assistance if the crisis involves more than investor panic.

4.2 The ad hoc approach

The same conclusion applies to the IMF's ad hoc efforts to 'bail in the private sector' – that is, to condition the extension of multilateral assistance on a prior commitment by the private sector to roll over maturing claims, provide new money, or restructure existing debts. To date, there have been four experiments with this approach: Pakistan, Ecuador, Romania and Ukraine.⁹ In each case, the obligations have been bonds, and the debtors have been sovereigns. Each of these experiments has failed to varying degrees, again reflecting the incredible nature of the IMF's commitment to stand aside under present institutional arrangements.

In particular, requiring countries seeking IMF assistance to first raise new money is problematic, given the reluctance of investors who do not already have a stake in the country to lend into uncertain conditions. Thus, having demanded that Romania raise new money as a condition for receiving an official disbursement, the Fund was forced to back down and disburse upon learning that the country was unable to mobilize new money in the requisite amounts. Demanding that creditors roll over their maturing claims as a condition for multilateral assistance may be slightly more realistic, given incumbent investors' stake in the country, but still must overcome formidable collective action problems when the creditors are bondholders. Thus, having made such a rollover a precondition for disbursing to Ukraine, the Fund was

⁹ At the time of writing, another case – that of Nigeria – is under discussion. I leave the case of the Pakistan case aside (except for some brief discussion in Chapter 6 (see below)), since the country's situation was special in that its debts were primarily to other governments, and the Paris Club rather than the IMF took the lead in attempting to engineer the bail in. As emerging markets continue to gain private market access, intergovernmental loans will become less of an issue, loans to private investors (as in Ukraine, Romania and Ecuador) more. Additional detail on Pakistan (and the other three cases) can be found in Eichengreen and Ruehl (2000). In addition, Korea (as well as Thailand) have been cited as experiments with this approach, although for reasons enumerated in Chapter 2 (see above) there is reason to think that this case (or these cases) are *sui generis*. In concentrating on Ecuador, Romania and Ukraine, I focus on problems of refinancing or writing down their bonds, which constitute the bulk of the debt in question. In previous cases (South Korea, Thailand), bank loans have instead been involved, which poses a different set of issues.

again forced to back down and disburse anyway in the face of repeated delays and hesitations on the part of creditors asked to renew their maturing claims. And encouraging countries to suspend payments as a way of driving the bondholders to the bargaining table will be disastrous so long as there is no bargaining table to be driven to. The result, as in Ecuador, will be formal declarations of default, the activation of cross-default and acceleration clauses, and an extended period of messy negotiation and lost capital-market access.

The problem with the ad hoc approach, to repeat the point of the preceding subsection, is that default and restructuring are so difficult under present arrangements that it is simply not credible for the IFIs to threaten to stand aside if the markets refuse to roll over maturing claims, provide new money, or restructure problem debts, especially if a country is large and systemically significant.¹⁰ These facts create pressure to disburse anyway in the event that investors fail to comply, and investors are aware of this fact. Hence, their behaviour is unlikely to be modified by the IFIs' less than credible threats of withholding assistance.¹¹ Changes in the framework for negotiations designed to make restructuring a viable option are thus required to lend credibility to the IFIs' threat to withhold assistance if the private sector fails to contribute. In other words, such changes in contracts or institutions are a prerequisite for making bail-ins work.

In sum, there is a need for new options for dealing with crises resulting from both investor panic and problems with fundamentals.

¹⁰ On the other hand, it can be argued that the creditors are less likely to stand on principle and resist bail-in initiatives and are more likely to be pragmatic when the country is large and significant amounts of money are at stake. But if they are confident that the official community will back down in the end, this distinction is of little relevance.

¹¹ And the IFIs are then placed in the unenviable position of having to back down on their previous promises, which further damages their reputation for consistency.

5 Officially-Sanctioned Standstills as a Solution to the Panic Problem

If the problem is panic, then a standstill on payments would allow investors to collect their wits.¹ It would give them time to reflect and to agree on mutually beneficial actions. It would allow the authorities to communicate with the creditors and reaffirm their commitment to the policies needed for the maintenance of investor confidence. A temporary stay would ensure that the country's finances were not be undermined by the attempt by hedge funds and others to seize assets. Disruptions to the financial system and the economy, and the recession induced by the crisis, would be moderated. And insofar as economic activity was stabilized, payments to the creditors (in present-value terms) could be greater than if investors succumbed to the temptation to engage in a disruptive grab race.

The appeal of these ideas derives from the analogy with national bankruptcy codes, which in many cases include standstill provisions designed to prevent creditors from engaging in a grab race (as shown in Table 5.1 (see below) for a selection of emerging markets).² With the commercialization and securitization of international lending – ‘as sovereign debt becomes more like commercial debt,’³ – the analogy acquires additional force. It should be expected, in other words, that efficient rules in the sovereign bond market will come to more closely resemble those governing the market in commercial bonds.

The problem, as noted above, is that countries are reluctant to declare a standstill unilaterally. This creates an argument for the IMF or a related body to sanction or endorse the policy. In their report last year on strengthening the international financial architecture, G-7 governments concluded that ‘in exceptional cases, countries may impose capital or exchange controls as part of payments suspensions or standstills, in conjunction with IMF support for their policies and programs, to provide time for an orderly debt restructuring’.⁴ The form of this ‘IMF support’ was left unspecified, purposely one suspects. One possibility is IMF sanction or endorsement of that payments suspension or standstill.

¹ The idea of empowering the IMF to endorse or sanction a stay on payments was first mooted by Williamson (1992) and Sachs (1994) in the context of proposals for an international bankruptcy court. It was appraised by Eichengreen and Portes (1995) in a study written as a background paper for the Rey Report (see Group of Ten (1996)). In 1998 Canadian Finance Minister Paul Martin put a proposal to the Interim Committee of the IMF to compel member countries to enact legislation requiring all bonds and other international borrowing instruments to include a covenant allowing the IMF to declare and/or approve a debt moratorium (see Martin (1998, 1999)). The report of the Willard Group (see Group of Twenty Two (1998c)) provided a sympathetic but cautious discussion of the idea: after acknowledging that there could be cases where it could make sense for a government to impose a standstill on foreign payments, it supported the IMF's decision to extend its policy of lending to countries in arrears on payments to private creditors as a way of signaling its approval, but cautioned that such support should only be provided when the international community was convinced that the decision to suspend payments was the only reasonable course open to the government, when the national authorities were implementing a strong program of adjustment, and when they were making every effort to reach agreement with their creditors. Subsequently, UNCTAD (1998) provided strong support for the idea of a standstill mechanism.

² I explain momentarily why this particular sample of emerging markets was selected.

³ In the words of Miller and Zhang (2000).

⁴ See Group of Seven (1999), para. 50.

Table 5.1 Creditor rights in sample countries

<i>Country</i>	<i>1=exists in the law</i>			
	<i>Restrictions for going into re-organization</i>	<i>Automatic stay on assets</i>	<i>Secured creditors first paid</i>	<i>Management stays in re-organization</i>
Hong Kong	1	0	1	0
India	1	0	1	0
Kenya	1	0	1	0
Malaysia	1	0	1	0
Nigeria	1	0	1	0
Pakistan	1	0	1	0
Singapore	1	0	1	0
South Africa	1	1	1	0
Thailand	0	0	1	0
Zimbabwe	1	0	1	0
Argentina	0	1	1	1
Brazil	1	1	0	1
Chile	1	1	1	1
Colombia	0	1	0	1
Ecuador	1	0	1	0
Egypt	1	0	1	0
Indonesia	1	0	1	0
Mexico	0	1	0	1
Peru	0	1	0	1
Philippines	0	1	0	1
Turkey	1	1	1	1
Uruguay	0	1	1	0
South Korea	0	0	1	0
Taiwan	0	0	1	1

Source: La Porta *et al.* (1998)

5.1 Implementation

One can imagine several approaches to the implementation of this proposal. Most ambitiously, the IMF's Articles of Agreement could be amended to give the institution the power to impose or sanction a stay on payments. Article VIII.2(b) provides that:

'exchange contracts which involve the currency of any member and which are contrary to the exchange control regulations of that member maintained or imposed consistently with this Agreement shall be unenforceable in the territories of any member.'

In other words, it gives sanction to certain types of exchange and capital controls. The shareholders in the Fund could agree to amend Article VIII.2(b) to make clear that it applies to capital and exchange controls imposed in support of a standstill or stay on payments. Doing so would require the approval of at least 50% of IMF member countries, who together hold 85% of total shares in the Fund. To give the amendment legal effect in their national courts, the parliaments and congresses of the creditor countries would then have to pass legislation that modified domestic contract law. Alternatively, the courts of the countries in question, in response to a specific legal action, could issue precedent-setting interpretations.

Given the prevailing political climate, it seems unlikely that such a large majority of the IMF's shareholders would agree to vesting additional powers in the hands of the institution. For the same reasons, there are good grounds for doubting that national contract law would be revised to give the amendment force in domestic courts or that those courts would issue the necessary precedent-setting interpretation.

Somewhat less ambitiously, the Executive Board could give Article VIII.2(b) a new, definitive interpretation consistent with this broader coverage without taking a vote. In the first instance, this would only require the support of governments while obviating the need for legislative ratification. In other words, it would require convincing the US Administration, which gives instructions to the US Executive Director, but not the US Congress. However, to the extent that the Administration is answerable to the Congress, and governments in other countries require legislative support, little would be gained from this approach.

Either way, the problem of giving the measure force in the courts of the creditor countries would remain. In the past, US and UK courts have interpreted Article VIII.2(b) narrowly, independently of the IMF Executive Board's interpretation.⁵ In other words, if the Fund went the route of reinterpretation rather than amendment, it would still be necessary for the creditor countries to pass legislation that modified or overrode their existing contract law to give that reinterpretation effect at the national level.

A related approach, suggested by Canada's Finance Minister Paul Martin, is to give the standstill legal force by requiring all cross-border financial contracts to include, *ex ante*, a provision recognizing the authority of the Fund to declare a standstill. If the provision was included in all cross-border contracts, the courts would only have to uphold the provisions of existing contracts in order to give the standstill legal effect. While this is straightforward in principle, it only pushes the political problem back a step.⁶ Mandating the inclusion of this provision in all cross-border financial contracts would require national legislation. There is

⁵ See Mann (1992), chapter XIV. During the Latin American debt crisis of the 1980s, US courts, when asked to consider the relevance of Article VIII.2(b) found in the Allied Bank case that even a small minority creditor who held out against a restructuring would not lose the right to sue in support of his claim.

⁶ And it leaves open the problems created by inherited debts that omitted these *ex ante* provisions on issuance. This may not be an insurmountable problem, however; it arises also in connection with collective action clauses (see below), where debt exchanges, conceivably subsidized by the multilaterals, have been pointed to as a solution (again, as described below).

likely to be very considerable political resistance in the creditor countries to giving the Fund these additional powers. In other words, this approach has no obvious advantage relative to amending or reinterpreting the Articles of Agreement.

A less formal approach would have the IMF simply indicate its approval of the government-declared standstill even if doing so had no formal effect in national courts. The Fund would merely express its opinion that the country was experiencing a crisis for no fault of its own – that the problem was one of liquidity and that its policies were fundamentally sound. Insofar as the rationale for the standstill is to give investors an opportunity to collect their wits, the Fund's reassurances that the problem is purely one of liquidity would work to speed the recovery of confidence. If the country also had problems with fundamentals, the IMF could condition its approval on the government's good-faith commitment to undertake the requisite reforms.

The IMF could indicate its approval by words and deeds, where the latter might include lending into sovereign arrears. No new decision by the Fund's Executive Board or shareholders would be needed in order for it to proceed in this manner. Lending into sovereign arrears is something that the Fund has long done when a government is making a concerted effort to adjust and has shown good faith in its negotiations with its creditors. A September 1998 decision by the IMF's Executive Board broadened the policy to from bank loans to bonds and other non-bank credits.⁷ And the G-7's October 1998 statement on strengthening the international financial architecture called on the Fund to 'move ahead', under carefully designed conditions and on a case by case basis, with its recently reaffirmed policy of lending into arrears.

To be sure, the Fund's approval or sanction would not protect the debtor from legal action initiated by the creditors. How likely investors are to take legal recourse, and how troubled policy makers should be by this limitation of the informal approach, is uncertain.

A Steering Committee of the Institute of International Finance has asserted that:

'Concerns about "disorderly" behaviour by private investors in workout situations have led some officials to propose amending or interpreting the IMF Articles of Agreement to give the IMF clear authority to block creditor litigation. These concerns seem to reflect an exaggerated view of the frequency of creditor litigation. Litigation is rarely used to solve problems of global finance.'⁸

In fact, the evidence on this issue does not speak clearly. On the one hand, there are cases like Ukraine, where a government suspended payments and tabled an exchange offer without precipitating legal action.⁹ On the other hand, there are cases like the Dart family in Brazil, where lawsuits followed the suspension of debt-service payments. What seems clear is that the danger of litigation will rise as the population of creditors continues to grow and their forbearance becomes more difficult to arrange.

⁷ Institute of International Finance (1999a), p.76.

⁸ Institute of International Finance (1999b), p.12. But the passage then revealingly continues: 'However, the right to litigate is a basic factor in preserving the respect for contractual obligations that underpins all cross-border flows of capital'.

⁹ Market intelligence has it that some investors in Ukrainian bonds did threaten to sue but that moral suasion by the IMF caused them to change their minds. A more systematic explanation is that four of the five debt instruments subject to Ukraine's exchange offer contained collective action clauses making provision for a bondholders' meeting (a point to which I return below). The offer could therefore be conditioned on the holders of the bonds first giving their votes to an exchange agent who would act as their proxy at a bondholders' meeting and who could thereby bind in non-participating bondholders. According to Dixon and Wall (2000): 'The CACs are thought to have contributed to achieving over 98% acceptance by the [April] cut-off date for exchange'.

Notwithstanding this limitation, if ‘IMF support’ for a standstill is to be extended, this is likely to occur through informal mechanisms, given the political obstacles to the formal approach of amending or reinterpreting the Articles of Agreement. The Fund would signal its approval of the standstill imposed by the national authorities and of the actions they are taking to put the crisis behind them through a statement of opinion and by lending into arrears on the country’s external debt. No amendment of the Articles would be required, only a clear understanding of the circumstances under which that IMF support would be extended. This is not an inconsequential prerequisite, as we are about to see; perhaps the word ‘all’ in the preceding sentence should be surrounded by quotation marks.

5.2 Objections

Possible objections to this manner of proceeding include the following:

i) Where is the need for an internationally-sanctioned standstill when governments can unilaterally impose capital controls?

The most convincing answer invokes the reputational consequences of the unilateral imposition of controls. While the use of controls may be prompted by the creditor panic problem, controls can also be used by governments for less savoury purposes, *viz.* to expropriate foreign investors. Not knowing which of these motivations actually prompts the imposition of controls, creditors may be reluctant to lend to countries whose governments utilize this option. The unilateral imposition of controls will then have large costs in terms of reputation and therefore in terms of the price and availability of external finance.

Selective IMF endorsement, possibly subject to policy conditionality, could limit this danger.¹⁰ The Fund would indicate its approval of the standstill only if it was confident that the country was suffering the effects of an investor panic through no fault of its own or, in the event of deeper policy problems, if the government agreed to pursue the reforms needed to restart debt service on reasonable terms. This would minimize the reputational consequences for the country. Note that this rationale would appear to support the case for an informal ‘signalling’ role for the IMF rather than formal powers given effect in national courts.

ii) Doesn’t the IMF have a conflict of interest, since it is a senior creditor of the same countries?

The Fund’s Articles of Agreement allow it to lend only when it has a reasonable expectation of being paid back. This provision may make it difficult for the Executive Board or IMF management to invoke a standstill without violating the rules governing the institution’s operation. Alternatively, there may be a temptation to authorize a standstill on commercial debts with the understanding that the government will continue to service its debts to the Fund.¹¹ But then the IMF could be accused, with some justification, of using the standstill to enable the country to husband its scarce foreign reserves so as to continue servicing its obligations to the Fund at the expense of private-sector creditors.

The question then becomes whether the provision can be designed in a way that addresses this potential conflict. One possibility would be to assign the decision to authorize the temporary standstill to a third party, like a panel of independent wise men, as suggested by UNCTAD (1998). This is not likely to be acceptable to the Fund’s principal shareholders, however, who would be reluctant to relinquish their

¹⁰ This role for IMF conditionality is a theme of Kumar, Masson and Miller (2000).

¹¹ The fact that obligations to the IMF have been exempt in the past from debt restructurings provides a precedent that might be invoked in support of this distinction.

24 *Can the Moral Hazard Caused by IMF Bailouts be Reduced?*

decision-making authority. There is no avoiding the conclusion that potential conflicts of interest are a serious problem for this idea.

iii) Wouldn't the existence of the standstill option reduce the incentive for the IMF to invest in crisis prevention?

Having recourse to easy treatment, the Fund might feel less pressure to push governments to take the hard steps needed to prevent liquidity problems from arising in the first place. This suggests that even if other objections to the standstill proposal are overcome, its adoption makes sense only as part of a broader reform of the international financial architecture and the international financial institutions designed to strengthen IMF surveillance and other crisis-prevention measures.

*iv) If investors anticipate repeated recourse to this instrument, won't they run for the exits more frequently, precipitating additional crises?*¹²

The answer to this question is not clear. In rebuttal, it can be argued that knowing that there is no point to racing to attach assets, given the authorities' enhanced ability to call a halt to the process, the incentive to participate in the grab race could be less. The measure could then have the 'self-fulfilling feature' that it would never have to be used.¹³

Which case obtains will hinge on whether the investors believe that the measure will be applied only when a crisis is caused by pure panic, and when a country whose crisis reflects domestic problems is prepared to adopt the adjustment measures needed to restart debt service on reasonable terms. In these cases there is no reason for incumbents to anticipate additional losses in the event that the exit door is closed by a payments standstill; hence, they have no reason to rush for the exits. But this scenario requires that the authorities responsible for the measure understand this logic, and that the markets believe that officials are capable in practice of distinguishing these cases at the outset of a crisis. It requires that when the Fund's endorsement of a standstill is conditioned on policy reforms that the conditionality is effective – that the reforms in question actually follow. Given the demanding nature of these assumptions, the fear that the availability of this instrument may only precipitate additional crises is not easy to dismiss.

v) Wouldn't recourse to standstills create a new transmission belt for contagion?

International financial institutions have positions in a variety of emerging markets. Hence, the imposition of a standstill in one country may lead investors to liquidate some or all of their claims on other countries in order to raise liquidity, as was the case following the outbreak of the Korean crisis in late 1997 and following Russia's default in August 1998. In addition, if one country shows a readiness to impose a standstill, investors may revise upward their estimates of the readiness of others to do likewise and scramble out of other seemingly-similar emerging markets.

While the risk of collateral damage to other countries cannot be dismissed, it is important to frame the issue as a 'compared-to-what' question. Faced with a creditor panic and absent any provision for an internationally-sanctioned standstill, the only options available will be (i) a large-scale rescue loan from the IMF and G-7 governments and (ii) the unilateral suspension of payments. The former threatens to spread instability through another channel, namely, moral hazard and its corrosive effect on market discipline; it is important to bear in mind that the perception that moral hazard has risen to unacceptable levels is the

¹² This is the same objection registered to the Buiters-Sibert UDROP proposal (as described in the Appendix (see below)) and to the idea of automatic haircuts for investors in crisis countries (as discussed in Chapter 4 (see above)).

¹³ As argued by Miller and Stiglitz (1999).

rationale for considering reforms of the international financial architecture, including standstills, in the first place. An argument can be made that the instability resulting from standstills would be less than the instability resulting from repeated bailout loans.¹⁴

Moreover, the other alternative, a unilateral standstill, would create the same liquidity problems for creditors as its internationally-sanctioned counterpart. If investors were confident that the IMF was prepared to make judicious use of the measure – to apply or endorse it only when a country was hit by a creditor panic but its policies and performance were fundamentally sound, and when the country in question had policy problems but was prepared to undertake the adjustments needed to restart debt service on reasonable terms – then there would be little reason to fear that investors would scramble out of superficially-similar countries. But if there were fears that the Fund might take blanket recourse to the measure, the opposite would be true.

Thus, while the case for an internationally-sanctioned standstill is seductive, there are serious problems of political economy and practical application standing in the way of implementation.

5.3 Impact on Borrowing Costs

Even if these obstacles are overcome, there is another objection: wouldn't the existence of such a mechanism raise the cost of borrowing for developing countries? The Institute of International Finance has written that:

'The more investors perceive that institutional arrangements are trending towards "no-fault default", with minimal pain for the borrower and substantial risk of the politicization of debt the less willing they will be to supply capital to the emerging markets.'¹⁵

The point has been made specifically in connection with proposals for an IMF-approved stay of litigation:

'Far from contributing to "orderly" solutions, official statements [advocating IMF approval of stays of litigation by creditors]...are raising doubts among market participants about the official community's commitment to upholding private contracts.'¹⁶

In particular, it is argued that the IMF does not have powers akin to those of a bankruptcy judge, who can replace the management of a company in receivership, reorganize its financial affairs, and impose terms on uncooperative creditors. The danger that recourse to a standstill therefore might discourage adjustment by the government of the crisis country is a serious objection. As Summers¹⁷ put it, the analogy with corporate bankruptcy is flawed because 'the safeguards against moral hazard built into domestic bankruptcy codes cannot be applied to sovereign debtors.'

¹⁴ Of course, dissenters from the conventional wisdom regarding the severity of the moral hazard created by multilateral bailouts will be unconvinced.

¹⁵ Institute of International Finance (1996), Appendix A, p.29.

¹⁶ See Dallara (1999), p.7. Or, as the IIF has put the point in another document: 'Further consideration of stays is likely to have a significant dampening effect on the willingness of private creditors to provide cross-border financing and could thereby introduce an element of disorder.' Institute of International Finance (1999b), p.12.

¹⁷ See Summers (1996), p.4.

Others dispute this conclusion. Miller and Zhang¹⁸ suggest that the IMF could limit this moral hazard by attaching conditions to the activation of the provision. Even more strongly, Miller and Stiglitz¹⁹ suggest that if the measure is effective in halting the creditors' costly scramble for assets, it could actually reduce the risks and costs of borrowing.²⁰ Hence, borrowing costs, rather than rising, could fall.²¹

A closely analogous debate surrounds the effects of domestic bankruptcy and insolvency laws. Reorganization procedures in the advanced industrial countries, which typically include standstill provisions, have been criticized for weakening creditor rights and increasing funding costs. Bankruptcy procedures in emerging markets like Thailand and Indonesia have been similarly criticized for favouring debtors over creditors and for discouraging foreigners in particular from investing in the country.

It should therefore be possible to use the features of domestic legislation affecting creditor rights in emerging markets, including the presence or absence of provision for a standstill on payments, to infer the likely effect of an IMF-sanctioned measure. La Porta *et al.*²² provide data that can be used to analyze this question. For 49 countries they provide four indicators of creditor rights: whether there are restrictions on going into reorganization, whether secured creditors are paid first in the event of reorganization, whether management remains in place following a reorganization, and – critically for present purposes – whether there is provision for an automatic stay on assets. The question is what effect this last variable has on the cost of borrowing.

I add the La Porta *et al.* measure of creditor rights, which is a sum of the four zero-one indicator variables enumerated in the previous paragraph, to the model of emerging market spreads estimated by Eichengreen and Mody.²³ The sample is all international bonds (sovereign, other governmental, and corporate) issued by emerging markets in the 1990s. (Note that, below, I also analyze corporate issues separately.) While there is information for some 3,000 bonds, the number of observations usable here is limited by the overlap between bond data set and the La Porta *et al.* indices. That said, I still have observations for more than 2,000 bonds issued by 24 countries. Table 5.1 (see above) displays the La Porta *et al.* data for the 24 emerging markets in question.

The dependent variable for this analysis is the launch spread – the spread over the interest rate on otherwise comparable high-quality government bonds at the time the bond was issued. The independent (control) variables include a long list of issue, issuer and country characteristics, including the size, maturity and currency composition of the issue; whether the issuer is a sovereign, other government or corporation; and the rate of growth and debt ratio of the country in which the issuer resides. I estimate the determinants of spreads by ordinary least squares (OLS) and, alternatively, as part of a two-equation system along with a

¹⁸ See Miller and Zhang (2000).

¹⁹ See Miller and Stiglitz (1999).

²⁰ And knowing that a crisis is less likely to result, investors will be less inclined to launch the grab race in the first place. Thus, the model that Miller and Stiglitz analyze is one characterized by multiple equilibria. The effect of the standstill provision may then be to prevent the inferior equilibrium from being realized. There is a close parallel with the model of multiple equilibria due to balance sheet effects elaborated by Krugman (1999).

²¹ If the provision was so effective in preventing destructive creditor panics that it had the self-fulfilling feature that it will never be used, it would hard to argue that it would have much impact on borrowing costs, one way or the other. Even if an automatic-stay provision would increase borrowing costs by weakening debt-holder rights, it is not obvious that this is undesirable. If spreads on international bonds have been artificially compressed by the investor moral hazard created by the prospect of IMF bailouts, then it need not follow that wider spreads are efficiency reducing.

²² See LaPorta *et al.* (1998).

²³ See Eichengreen and Mody (2000a). The data set, and hence the results, differ slightly because the data have been updated since this previous working paper was circulated.

probit for the decision to issue a bond. Estimating this system by maximum likelihood allows me to correct for selectivity – for the fact that not all potential borrowers are in the market at each point in time.²⁴

The first column of Table 5.2 (see below) shows the result of adding the La Porta *et al.* 0-4 index of creditor rights to the basic equation, estimated by ordinary least squares. (Note that this variable *increases* when an automatic stay provision is *absent*.) Equation 1 suggests that this measure has a negligible impact on spreads: the coefficient on the creditor-rights variable is small, and its t-statistic is only 0.6. But when in the second column of the Table 5.2 I break creditor rights into two components – one which measures the absence of an automatic-stay provision ('no stay'), and another which is the sum of the other three measures of creditors' rights ('right3') – I get stronger effects.²⁵ While the sum of the other three components continues to enter with a zero coefficient, as before, the absence of a stay provision now enters positively, with a large coefficient and a large t-statistic. It would appear that countries with automatic stay provisions are in fact able to borrow for less.²⁶

In the third and fourth columns of Table 5.2 (see below), I report the results when the equation is corrected for selectivity. The OLS results are reinforced. When all four aspects of creditor rights are considered together (in the second column), the coefficient and t-statistic on the overall index are even smaller. And when I distinguish the presence or absence of the automatic stay provision from other aspects of creditor rights (in the fourth column), the contrast between the significance of the former and the insignificance of the latter is now stronger than before.

Thus, it would appear that a standstill provision designed to prevent a creditor grab race does more to attract investors than any consequent weakening of creditor rights does to repel them. By implication, a well-designed IMF-sanctioned standstill provision could have a similarly positive effect.

It can be objected that an IMF-sanctioned standstill, unlike a domestic bankruptcy law, would not be accompanied by other measures to prevent the debtor from using the measure strategically. Some of the other creditor protections emphasized by La Porta *et al.* – for example, limits on the ability of the debtor to go into re-organization and whether management stays in place following re-organization – can be seen as mechanisms for limiting this moral hazard. The IMF would not have the power to 'replace the government' in the same way that a court can replace the management of a corporation in re-organization. This is a valid objection to the comparison with sovereign debt and one that is impossible to dismiss on the basis of this evidence. Still, it is revealing that the results for the 'no stay' variable remain the same when these other provisions of bankruptcy procedures ('right3') are dropped from the equation. In other words, it is the presence or absence of the stay and not of the various legal provisions together that appears to matter for spreads.

²⁴ It turns out that the results for the effects of the standstill provision are insensitive to the choice of estimator (as described below). But this is not the case when the model is used to estimate the impact on spreads of the presence or absence of collective-action clauses, as in Chapter 6, which motivates the reporting of results using alternative estimators here.

²⁵ I also tried breaking the LaPorta *et al.* measure into its four individual components, but this did not yield further insight (or economically-intuitive results) due to a high degree of multicollinearity among the constituents (given that I have both bond-market and bankruptcy-law data for only 24 countries).

²⁶ Note that this result is contrary to the implication of La Porta *et al.* (1998) themselves, whose theme is that the weakening of creditor rights caused by the presence of a standstill provision should raise borrowing costs.

Table 5.2 Basic regression results (dependent variable is launch spread)

<i>Variable</i>	<i>OLS</i>	<i>OLS</i>	<i>Selectivity corrected</i>	<i>Selectivity corrected</i>
Log amount	-15.07 (-3.42)	-0.03 (-2.76)	-16.44 (-3.72)	-13.60 (-3.10)
Private placement	4.85 (0.73)	7.47 (1.14)	9.74 (1.45)	12.78 (1.92)
Log of 10 year US treasury rate	-97.75 (-2.99)	-101.09 (-3.12)	-109.51 (-3.32)	-118.18 (-3.69)
Credit rating residual	-6.05 (0.59)	-7.50 (-12.04)	-6.88 (-11.08)	-8.14 (-12.62)
Debt/GNP	227.23 (8.05)	258.83 (9.15)	241.49 (8.47)	267.71 (9.35)
Debt rescheduled in previous year	56.63 (5.62)	72.10 (7.07)	56.97 (5.57)	72.77 (7.02)
GDP growth	-2008.44 (-3.92)	-2620.96 (-5.10)	-1811.00 (-3.28)	-2500.98 (-4.50)
Standard deviation of export growth	133.93 (2.53)	189.14 (3.58)	164.95 (3.07)	210.95 (3.93)
Reserves/short-term debt	-29.57 (-5.33)	-30.18 (-5.50)	-26.39 (-4.65)	-27.88 (-4.93)
Ratio of domestic credit to GDP	-9.49 (-2.35)	-19.62 (-4.61)	-7.94 (-1.97)	-18.70 (-4.35)
Log of swap rate	70.72 (5.32)	71.00 (5.41)	82.93 (6.07)	82.05 (6.03)
<i>Dummy for:</i>				
Public borrower	20.66 (1.52)	9.33 (0.69)	16.56 (1.21)	6.00 (0.44)
Private borrower	67.63 (4.79)	57.87 (4.13)	57.81 (3.95)	51.82 (3.51)
Asia	-28.39 (-1.52)	-10.76 (-0.58)	-32.07 (-1.72)	-12.08 (-0.65)
Latin America	101.45 (6.93)	176.72 (9.73)	92.94 (6.18)	171.93 (8.96)
Japanese Yen issue	-29.76 (-2.30)	-31.58 (-2.46)	-30.35 (-2.35)	-31.82 (-2.49)
Euro or Deutschmark issue	25.99 (1.81)	30.64 (2.16)	29.49 (2.07)	33.50 (2.38)
Other currencies' issue	-19.64 (-1.25)	-19.89 (-1.28)	-21.42 (-1.37)	-20.66 (-1.33)
Fixed rate issue	82.24 (8.61)	91.28 (9.57)	80.11 (8.37)	88.64 (9.30)
Manufacturing sector	5.18 (0.40)	2.82 (0.22)	4.42 (0.35)	1.64 (0.13)
Financial services sector	-14.67 (-1.53)	-17.42 (-1.84)	-14.80 (-1.55)	-16.81 (-1.78)
Other services	8.07 (0.52)	13.49 (0.88)	6.78 (0.44)	12.62 (0.83)
Guarantee	31.03 (3.65)	32.83 (3.90)	28.99 (-11.08)	31.06 (3.72)
Creditor rights	5.43 (0.59)		0.09 (0.01)	
Right3		12.03 (1.31)		6.72 (0.73)
No stay		109.70 (5.73)		115.95 (5.97)
Constant	114.88 (1.33)	26.64 (0.31)	118.26 (1.36)	35.09 (0.41)
Lambda			-13.78 (-1.40)	-5.31 (-0.35)
Number of bonds	1946	1946	1916	1916
Adjusted R-squared	0.54	0.55		
Log of likelihood			-13559.33	-13536.43

Note: t-statistics in parentheses. The selectivity correction is implemented for estimating the spreads equation jointly with a probit for the issue decision (using maximum likelihood). For details on the procedure and the probit, see Eichengreen and Mody (2000a).

Table 5.3 Regression results without sovereign borrowers (dependent variable is launch spread)

<i>Variable</i>	<i>OLS</i>	<i>OLS</i>	<i>Selectivity corrected</i>	<i>Selectivity corrected</i>
Log amount	-23.40 (-4.72)	-18.89 (-3.86)	-24.59 (-4.93)	-20.37 (-4.15)
Private placement	7.22 (0.99)	10.59 (1.49)	12.09 (1.65)	16.11 (2.23)
Log of 10 year US treasury rate	-64.94 (-1.79)	-65.59 (-1.84)	-86.89 (-2.38)	-92.49 (-2.58)
Credit rating residual	-5.79 (-9.01)	-7.86 (-11.56)	-6.51 (-9.73)	-8.45 (-11.97)
Debt/GNP	219.38 (7.03)	241.49 (8.82)	229.87 (7.35)	285.60 (9.05)
Debt rescheduled in previous year	64.15 (5.75)	83.76 (7.47)	63.83 (5.63)	84.98 (7.45)
GDP growth	-2004.84 (-3.35)	-2828.04 (-4.75)	-1770.09 (-2.74)	-2750.69 (-4.27)
Standard deviation of export growth	232.07 (3.23)	300.99 (4.24)	282.76 (3.82)	335.38 (4.53)
Reserves/short-term debt	-28.65 (-4.91)	-26.39 (-5.15)	-25.44 (-4.25)	-27.64 (-4.61)
Ratio of domestic credit to GDP	-4.81 (-1.10)	-16.46 (-3.65)	-3.81 (-0.88)	-16.30 (-3.62)
Log of swap rate	52.05 (3.47)	49.41 (3.36)	63.57 (4.09)	60.32 (3.89)
<i>Dummy for:</i>				
Public borrower	-46.42 (-4.87)	-47.67 (-5.10)	-42.19 (-4.26)	-47.10 (-4.65)
Asia	-48.17 (-2.36)	-13.19 (-0.64)	-51.59 (-2.52)	-10.94 (-0.53)
Latin America	90.76 (5.34)	230.09 (9.61)	83.68 (4.81)	233.38 (9.16)
Japanese Yen issue	-33.89 (-2.21)	-33.95 (-2.26)	-36.19 (-2.37)	-35.80 (-2.39)
Euro issue	34.96 (1.76)	36.11 (1.85)	38.45 (1.95)	38.18 (1.97)
Other currencies' issue	-7.08 (-0.36)	-5.02 (-0.26)	-7.19 (-0.36)	-4.83 (-0.25)
Fixed rate issue	92.06 (8.68)	99.03 (9.48)	90.75 (8.54)	97.27 (9.31)
Manufacturing sector	2.54 (0.19)	-1.31 (-0.10)	1.58 (0.12)	-2.74 (-0.21)
Financial services sector	-18.64 (-1.89)	-22.53 (-2.32)	-18.69 (-1.89)	-21.51 (-2.21)
Other services	5.64 (0.36)	9.97 (0.64)	4.41 (0.28)	9.39 (0.61)
Government entitites	24.88 (2.76)	27.49 (3.11)	23.49 (2.63)	26.72 (3.05)
Creditor rights	-8.36 (-0.80)		-15.29 (-1.45)	
Right3		-5.08 (-0.49)		-11.58 (-1.12)
No Stay		183.75 (7.68)		197.95 (8.14)
Constant	237.94 (2.53)	60.21 (0.65)	251.31 (2.66)	71.57 (0.78)
Lambda			-13.05 (-1.27)	-5.42 (-0.39)
Number of bonds	1669	1669	1642	1642
Adjusted R-squared	0.55	0.57		
Log of likelihood			-11332.07	-11298.01

Note: t-statistics in parentheses. The selectivity correction is implemented for estimating the spreads equation jointly with a probit for the issue decision (using maximum likelihood). For details on the procedure and the probit, see Eichengreen and Mody (2000a).

Table 5.4 Regression results without government borrowers (dependent variable is launch spread)

<i>Variable</i>	<i>OLS</i>	<i>OLS</i>	<i>Selectivity corrected</i>	<i>Selectivity corrected</i>
Log amount	-31.32 (-5.07)	-26.64 (-4.36)	-32.95 (-5.31)	-28.60 (-4.67)
Private placement	8.13 (0.93)	11.95 (1.38)	11.84 (1.34)	15.55 (1.70)
Log of 10 year US treasury rate	-11.97 (-0.27)	-7.88 (-0.18)	-33.88 (-0.75)	-32.06 (-0.73)
Credit rating residual	-6.50 (-8.40)	-8.51 (-10.40)	-6.93 (8.72)	-8.80 (-9.73)
Debt/GNP	197.91 (5.19)	260.79 (6.75)	206.08 (5.41)	269.70 (6.84)
Debt rescheduled in previous year	67.51 (5.10)	86.47 (6.49)	68.29 (5.06)	89.86 (6.53)
GDP growth	-1916.64 (-2.62)	-2755.88 (-3.77)	-1936.46 (-2.45)	-2934.46 (-3.57)
Standard deviation of export growth	227.44 (2.59)	301.63 (3.47)	242.18 (2.74)	289.61 (2.87)
Reserves/short-term debt	-27.62 (-3.82)	-25.79 (-3.62)	-25.61 (-3.46)	-26.79 (-2.79)
Ratio of domestic credit to GDP	2.38 (0.45)	-9.74 (-1.77)	2.51 (0.48)	-10.87 (-1.97)
Log of swap rate	52.69 (2.81)	52.39 (2.84)	65.26 (3.36)	61.08 (2.57)
<i>Dummy for:</i>				
Asia	-117.03 (-4.59)	-71.98 (-4.54)	-115.23 (25.38)	-60.17 (-2.18)
Latin America	60.51 (2.88)	211.48 (6.90)	55.15 (2.57)	231.72 (5.13)
Japanese Yen issue	-70.65 (-2.98)	-75.73 (-3.25)	-71.26 (-3.01)	-76.62 (-3.30)
Euro issue	35.81 (1.33)	21.70 (0.82)	38.32 (1.44)	19.51 (0.72)
Other currencies' issue	-16.18 (-0.62)	-13.87 (-0.54)	-16.90 (-0.64)	-13.97 (-0.54)
Fixed rate issue	97.98 (7.12)	107.14 (7.88)	96.49 (7.00)	105.00 (7.73)
Manufacturing sector	-18.14 (-1.15)	-23.52 (-1.52)	-20.10 (-1.29)	-25.97 (-1.69)
Financial services sector	-42.79 (-3.19)	-47.93 (-3.63)	-43.62 (-3.27)	-46.68 (-3.39)
Other services	-18.91 (-1.01)	-15.16 (-0.83)	-21.17 (-1.14)	-16.58 (-0.91)
Government entitites	31.70 (3.00)	31.99 (3.08)	31.19 (2.97)	32.54 (3.14)
Creditor rights	-41.92 (-3.22)		-45.22 (-3.49)	
Right3		-38.41 (-3.00)		-40.48 (-3.15)
No Stay		225.45 (7.41)		246.29 (7.42)
Constant	275.76 (2.34)	30.70 (0.26)	287.38(2.45)	34.69 (0.30)
Lambda			26.76 (50.49)	38.48 (49.97)
Number of bonds	1263	1263	1247	1247
Adjusted R-squared	0.53	0.55		
Log of likelihood			-8493.59	-8469.03

Note. t-statistics in parentheses. The selectivity correction is implemented for estimating the spreads equation jointly with a probit for the issue decision (using maximum likelihood). For details on the procedure and the probit, see Eichengreen and Mody (2000a).

It can be objected that the La Porta *et al.* indices of creditor rights are capturing other, unmeasured characteristics of countries that are omitted from the equation. This scepticism might seem warranted by the fact that the data in question include sovereign as well as private borrowers, where the sovereign's finances do not come under the jurisdiction of the bankruptcy court. But when I exclude sovereigns, as in Table 5.3 (see above) the results are unchanged. The coefficient on the overall creditor-rights variable remains insignificantly different from zero, as does 'right3.' The absence of an automatic stay provision continues to enter with a positive coefficient, and now even more strongly than before. The obvious interpretation is that this aspect of creditor rights, by exposing investors to the grab race problem, really does affect the cost of borrowing, since the effect is stronger with the omission of sovereigns than when they are included.

It is possible to shed further light on the insignificance of the other three aspects of creditor rights by excluding not only sovereigns but in addition other public borrowers. For private borrowers the coefficient for the absence of the automatic-stay provision is the same as before, positive and significant, presumably reflecting the grab-race problem. Now, however, the coefficient on 'right3' is significantly less than zero at standard confidence levels.²⁷ An interpretation is that the presence of a provision authorizing the bankruptcy court to, *inter alia*, replace management when the entity is reorganized lowers the return required by lenders when the borrower is a corporate but not when the borrower is a public entity (in which case this provision is unlikely to apply). That the impact in reducing moral hazard, and hence in reducing borrowing costs, shows up most strongly for corporate borrowers is not surprising, since these are the borrowers over which the bankruptcy court has the strongest sway.

5.4 Implications

The results here are not inconsistent with the idea that provision for internationally-sanctioned standstill could reduce rather than raise borrowing costs, for this is how domestic standstill provisions appear to affect corporate funding costs. By analogy, an internationally-sanctioned standstill to address sovereign financial crises caused by credit panic may actually have a beneficial impact on national funding costs. To be sure, it is not possible to dismiss the notion that moral hazard is a more serious problem in the sovereign than the corporate context, since no court would have the power to replace the government of a country invoking this provision in the way that national bankruptcy courts can replace the management of a firm entering reorganization. But the limited evidence which speaks to this question does not indicate that the impact of the standstill provision on funding costs hinges on the presence or absence of these other powers. Thus, the available evidence does not obviously suggest that an internationally-sanctioned debt standstill would have a deleterious impact on borrowing costs.

Even so, proposals to vest the IMF with the power to declare an international standstill are sure to meet with resistance. The political economy is problematic. Empowering the Fund to override private contracts will be seen by some as interfering with rather than strengthening market mechanisms – as vesting additional power in the hands of an already over-powerful and inadequately accountable international bureaucracy. Moreover, the practical difficulties are formidable. The Fund would have a conflict of interest if it was at the same time empowered to declare the standstill, a priority creditor of the crisis country, and a confidential advisor of its government. But delegating the decision to declare a standstill to an independent body of wise men is likely to create even more serious problems of accountability and thus would be

²⁷ Note that the overall La Porta *et al.* index, incorporating all four measures of creditor rights, enters the equation for this subsample as well with a zero coefficient, reflecting the positive effect of the no-stay component and the negative effect of the other three components.

32 *Can the Moral Hazard Caused by IMF Bailouts be Reduced?*

resisted by the Fund's principal shareholders. A standstill would have adverse accounting consequences likely to disrupt the flow of new money to the crisis country, and the measure could become a transmission belt for contagion to other countries where the creditors also have claims.

Thus, while the case for internationally-sanctioned standstills is theoretically seductive, its political economy and practical application are problematic. These are reasons to proceed cautiously even if one believes that most crises are caused by investor panic. And if one rejects this premise, then the case is still weaker, as I now explain.

6 Collective Action Clauses as a Solution to the Restructuring Problem

Many observers will insist that problems with economic policies and performance that undermine a country's capacity to service its external debts, and not simply investor panic, are at the root of most crises. If so, then the idea of a standstill designed to create a temporary breathing space is less appealing. In some sense, internationally-approved standstills are beside the point: the debtor, unable to pay, has to suspend payments and restructure whether there is official sanction for doing so or not. There may still be an argument for protecting the country against the destructive effects of a creditor grab race and providing the breathing space needed to negotiate an orderly restructuring, just as there is a case for standstill protection under domestic bankruptcy law for individual debtors entering re-organization. But a country, unlike a company, can secure that protection unilaterally by imposing capital controls. When it has policy imbalances that prevent it from servicing its debts, implying the need to restructure, it has no choice but to suspend payments on its debts. If there are cross-default and acceleration clauses in its other debt instruments, it will then have to impose across-the-board controls. It can be argued that IMF endorsement of those controls, conditioned on a commitment to adjust, still serves the useful purpose of signalling that the government is committed to adopting the policy reforms needed to support an acceptable restructuring, but this assumes, as noted above, that IMF conditionality is effective. Obviously, this caveat renders this rationale for international support less compelling than in the case of standstills applied in response to investor panic, where no such preconditions must be met.

And if the government is not in fact committed to the requisite policy adjustments, an internationally-sanctioned standstill that puts off the inevitable restructuring will only worsen the underlying problem. Like regulatory forbearance that allows an insolvent bank to continue gambling for redemption, it will allow losses due to the pursuit of unviable investment projects to continue to mount.

The appropriate innovations in this case are those designed to facilitate restructuring. The key to restarting the flow of trade credits and other forms of new money is to restructure problem debts and put the borrowing enterprise or government back on a solid footing. This in turn requires an institutional framework within which constructive negotiations can take place. Specifically, it requires a framework to solve the problems of collective representation and collective action that often stymie negotiations.

6.1 Rationales

In practice, the elements of such a framework do not presently exist. Most emerging market bonds are bearer bonds: their owners are not registered with the debtor or the underwriter. This creates obvious difficulties for a government seeking to get in touch with its bondholders in order to avoid a formal declaration of default, the activation of acceleration and cross-default clauses, and the initiation of legal action which will then close off other avenues of market access.

Moreover, American-style instruments governed by State of New York law typically require the unanimous consent of the bondholders to any restructuring.¹ Indeed, many US-style bonds do not even include provisions for assembling or otherwise polling the bondholders. This contrasts with bonds governed by UK law, which typically include provisions enabling the holders of debt securities to call a bondholder assembly empowered to pass resolutions addressing issues relating to the settlement of defaults and other modifications of the original bond covenant subject to the consent of bondholders holding a clear majority of the outstanding principal.² Such resolutions are binding on all bondholders so long as the requisite majority has agreed. Moreover, American-style bonds generally contain no prohibition on legal action by dissident bondholders, exposing those seeking to restructure to lawsuits from ‘vultures’ seeking to hold up the restructuring.³

This brings us to the other approach to encouraging private sector burden sharing: amending loan contracts to include sharing, majority voting, and collective-representation clauses so as to make restructuring a viable option.⁴ Majority-voting and sharing clauses would discourage maverick creditors from resorting to lawsuits and erecting other obstacles to a settlement beneficial to the debtor and the majority of creditors. Clauses specifying who represents the bondholders and making provision for a bondholders assembly would allow orderly solutions to be reached.⁵

Such modifications of loan contracts would solve or at least ameliorate the principal obstacles to restructuring. The task of restructuring problem debts could be left to the consenting adults involved, greater reliance on the markets after all being the purpose of the bail-in exercise. Countries that attach a high value to the maintenance of market access would be free to take the measures needed to keep current on their debts, while restructuring would now be viable for countries without the same capacity to adjust and which therefore attach priority to obtaining a reduction in debt-servicing costs. Most importantly, the IMF could stand aside rather than automatically running to the rescue with a bushel basket full of funds, since problem debts could be re-organized without subjecting the crisis country to an extended period of disruption.

¹ Although there are exceptions: certain US-style bonds also provide for amendments, even to payment terms, with the approval of a qualified majority of bondholders. These details and the surrounding discussion are drawn from Eichengreen and Mody (2000a).

² Typically 75%. Some covenants provide for lowering the necessary quorum to 25% if 75% of the bondholders cannot be reached. An exception is Brady bonds, which do not include CACs even when they are subject to UK law (since these instruments, when issued, were perceived as representing a permanent exit from debt restructurings). This fact is taken into account in the empirical work reported below.

³ UK bonds governed by Deed Agreements, but not those involving fiscal agents, generally prohibit individual bondholders from initiating litigation. The power to do so is vested with the trustee, acting on the instruction of creditors holding a specified fraction, typically, at least 25% of the principal, who is required to distribute any funds recovered in proportion to the principal amount. (Thus, in principle an individual holding 25% of the bonds could instruct the trustee to initiate litigation on his or her behalf.)

⁴ Other, potentially complementary changes in institutional arrangements to facilitate restructuring, such as standing committees of creditors and debtor-creditor mediation, are considered in the appendix.

⁵ This was suggested in 1996 by the G-10 in its post-Mexico report (see Group of Ten (1996)) and echoed in a series of recent G-22 and G-7 reports and declarations. The G-7 then placed the issue on its work program for reforming the international financial system with the goal of reaching a consensus by the Cologne Summit in June of 1999. Two recent discussions of the operation of such provisions are Yanni (1999) and Drage and Mann (1999).

6.2 Objections

There are three obvious objections to this approach:

i) Experience does not unambiguously support the view that restructuring is impossible under present institutional arrangements

Evidence against the extreme view can be drawn from cases where countries have succeeded in restructuring via exchange offers. Costa Rica restructured a sovereign bond through a unilateral exchange in 1985, as did Nigeria in 1988, Guatemala in 1989, and Panama in 1993. In all these cases, some 90% of bondholders exchanged their old debt obligations for new ones. It can be questioned, however, whether these cases demonstrate the feasibility of securing significant private-sector burden sharing, since the terms of these exchanges implied little reduction of interest or principal, only a grace period, longer maturities, and unbunching of payments. Ecuador's exchange offer, currently underway at the time of writing, promises to shed further light on this question.

The success of two other recent exchange offers by Ukraine and Pakistan are also cited in this connection. But, revealingly, four of the five debt instruments subject to Ukraine's exchange offer in fact contained collective action clauses making provision for a bondholders' meeting. While no meeting was called, it can be argued that provision for this option predisposed bondholders toward accepting the exchange, in much the same manner that the power of a bankruptcy court to cram down settlement terms on holdouts encourages debtors and creditors to negotiate a bankruptcy reorganization in the shadow of the court. Similarly, Pakistan's eurobond was narrowly held, hardly traded, and in part subject to English law. Because there was provision for a bondholders meeting, and because agreement by a qualified majority of bondholders could bind the entire group, there was limited scope for maverick creditors to hold up the process in an effort to extract concessionary terms. This allowed the exchange offer to be pushed through in a matter of weeks. It is far from clear that similar success could be achieved in the absence of these contractual provisions.

ii) Including collective action clauses in all new loan agreements would not solve the problems created by the existing stock of bonds

The average term to maturity of international bonds is on the order of five years, but some outstanding bonds have as long as 20 years to run. In principle, new provisions could be added to existing loans through a voluntary exchange of old bonds for new ones. In cases where the addition of collective action clauses was perceived by investors as introducing an additional element of risk, a voluntary exchange might have to be done at a premium relative to par. (Equivalently, the interest cost of servicing the new bonds would exceed that on the retired issues.) The IFIs might then have to subsidize the exchange and/or the debt service on the new bonds. If the addition of collective action clauses was seen as making the world a significantly safer financial place by reducing the pressure for IMF bailouts and thereby reducing moral hazard, then this could be a worthwhile investment.

iii) Renegotiation-friendly provisions would make it too easy and too tempting for countries to walk away from their debts

Collective action clauses would weaken the bonding role of debt. This would create another source of moral hazard. CACs would therefore disrupt credit-market access and raise borrowing costs.

As William Rhodes of Citibank has put it:

‘Approaches by the official sector to force the insertion of bankruptcy clauses into sovereign bond issues could limit the demand for these [sic] instruments, and generally inhibit market access for those emerging market countries implementing correct reform policies.’⁶

On the other hand, provision for orderly restructurings would make emerging-market issues more attractive by minimizing acrimonious disputes, unproductive negotiations, and extended periods when no service was paid and growth was depressed by a suffocating debt overhang.⁷ In theory, the impact on spreads cuts both ways.

6.3 Impact on borrowing costs

These propositions have been tested by Eichengreen and Mody,⁸ who compare the spreads on otherwise equivalent bonds issued under US and UK law, where the latter typically contain the relevant contractual provisions but the former do not. This involves estimating the model of emerging market spreads used to analyze the impact of standstill provisions in Chapter 5 (see above) without the ‘no stay’ and ‘right3’ variables but with a measure of the applicable governing law (US, UK and other).⁹ The results do not indicate a large impact on borrowing costs.

But, this negligible overall impact disguises different effects on borrowers with different credit ratings. Collective action provisions reduce the cost of borrowing for the most credit-worthy issuers, for whom default is unthinkable except *in extremis* but who benefit from being able to avail themselves of an orderly restructuring when truly exceptional circumstances obtain. For less credit-worthy issuers, in contrast, there is evidence of higher spreads. The authors conjecture that for less credit-worthy borrowers the advantages of provisions facilitating orderly restructuring are offset by the moral hazard and additional default risk associated with the presence of renegotiation-friendly loan provisions.

These results have met with some scepticism. As Stanley Fischer¹⁰ has put it: ‘This is a more subtle outcome than the one I expected.’ One ground for this scepticism is the suspicion that only in recent quarters, following the official community’s new insistence on the need to bail in the private sector, have the markets begun to focus on the risks of collective action clauses. Eichengreen and Mody¹¹ address this concern by adding data for recent quarters. They find that their earlier results are robust to the addition of data for 1999, when the markets plausibly began to focus on the implications of these provisions in the context of the IFT’s new bail-in strategy.

⁶ Institute of International Finance (1999a), p.2.

⁷ As *The Economist* put it in a leader: ‘the prospect of an orderly renegotiation rather than a messy default might actually make some bonds more attractive’ (see *The Economist* (1999), p.21).

⁸ See Eichengreen and Mody (2000a).

⁹ Eichengreen and Mody treat the governing law as endogenous, since it is plausibly a choice variable under the control of the issuer. That is, the actual value is replaced with the value predicted by a first stage regression of the governing law on a vector of issue, issuer and country characteristics. I follow this same procedure below.

¹⁰ See Fischer (1999) p.10.

¹¹ See Eichengreen and Mody (2000b).

Table 6.1 Spreads, governing laws and sovereign interactions (selectivity corrected, where dependent variable is launch spread)

<i>Variable</i>	<i>Credit rating < 50</i>	<i>Credit rating > 50</i>
Log amount	-0.05 (-2.15)	-0.10 (-2.60)
Maturity	.004 (1.57)	0.001 (0.25)
Private placement	0.07 (2.73)	0.10 (1.70)
Log of 10 year US treasury rate	-0.43 (-2.98)	-0.29 (-0.99)
Log (10 year - 1 year) treasury rate	-0.04 (-1.68)	-0.03 (-0.60)
Credit rating residual	-0.03 (-10.94)	-0.08 (-16.04)
Debt/GNP	1.63 (12.83)	1.05 (5.28)
Debt re-scheduled in previous year	0.10 (2.66)	
GDP growth	-6.58 (-3.62)	-37.92 (-7.02)
Standard deviation of export growth	1.73 (9.14)	4.02 (5.66)
Short term to total debt	0.66 (3.58)	0.98 (2.27)
Reserves/short-term debt	-0.05 (-3.90)	0.09 (2.79)
Ratio of domestic credit to GDP	-0.19 (-7.53)	-0.17 (-4.60)
<i>Dummy for:</i>		
Public	0.001 (0.03)	-0.13 (-2.09)
Supranational	-0.77(-5.87)	
Latin America	0.051(1.16)	-0.72 (-4.85)
Japanese Yen issue	-0.12(-1.12)	-0.12 (-0.53)
Euro issue	0.07(2.86)	-0.26 (-0.80)
Other currencies' issue	-0.27(-3.36)	-0.17 (-1.04)
Fixed rate issue	0.56 (8.62)	0.07 (0.47)
Manufacturing sector	0.01 (0.24)	0.25 (2.42)
Financial services sector	-0.23 (-5.69)	0.11 (1.23)
Other services	0.05 (0.81)	0.33 (2.67)
Government entities	0.10(1.62)	-0.19 (-0.92)
Governing law UK	0.50 (3.51)	-1.01 (-3.38)
Governing law other	0.28 (1.26)	-0.59 (-1.36)
Sovereign borrowers	-0.08 (-0.86)	0.58 (1.64)
Sovereign borrowers * UK governing law	-0.19 (-1.48)	-0.38 (-0.82)
Sovereign borrowers * Oth governing law	-0.37 (-3.26)	-0.81 (-2.54)
Constant	5.58 (15.88)	7.23 (10.62)
Lambda	-0.51 (-21.70)	-0.54 (-10.85)
Number of bonds	1467	839
Log of likelihood	-2645.87	-1497.58

Notes: t-statistics in parentheses. The selectivity correction is implemented for estimating the spreads equation jointly with a probit for the issue decision (using maximum likelihood). In addition, the governing law dummies are treated as endogenous: actual values are replaced by fitted values obtained by estimating a first-stage probit for choice of governing law. For details on the procedure and the probit, see Eichengreen and Mody (2000a).

Another ground on which scepticism has been voiced is that the aforementioned results are based on emerging-market bonds of all sorts: corporate, municipal and sovereign. While the benefits of collective action clauses are arguably greatest for sovereign borrowers, who do not enjoy the shelter of the bankruptcy court, so too may be the costs, insofar as sovereigns will be most subject to moral hazard due to greater ease of restructuring. In Table 6.1 (see above) I therefore look for differences in how the markets price these clauses for sovereign (as opposed to private and other public) borrowers. Since there are a relatively small number of sovereign borrowers, rather than running separate regressions for sovereigns, I simply interact the coefficients on the governing laws with a dummy variable for sovereigns.¹² The interaction terms will tell us whether there are significantly different effects for sovereigns and other borrowers.

From the bottom of Table 6.1 it is evident that any such differences are slight. None of the interaction terms enters with a coefficient that differs significantly from zero, while the UK governing law dummy continues to enter positively for borrowers with low credit ratings and negatively for borrowers with high credit ratings. It would appear that the market's pricing of these provisions is no different for sovereigns than for other borrowers.

6.4 Implications

These results do not support the dire consequences suggested by some commentators of including collective action clauses in international debt securities. Moreover, the differential effects identified above suggest that these clauses should become more attractive as emerging markets improve their credit worthiness.¹³

But if collective action clauses are so attractive, then why haven't they been adopted more widely? The fact of the matter is that they *have* been widely adopted: 46% of all international bonds issued between 1990 and 2000 were subject to UK law.¹⁴ The same was true of 45% of sovereign issues and 31% of all emerging market issues. But, to put the point the other way, more than half of all international bonds and more than two-thirds of all emerging market issues – where collective action clauses are needed the most – do not include these provisions.

This fact does not obviously justify official intervention to encourage their more widespread use. Official intervention is justified only if the markets, left to their own devices, do not utilize the instrument to the socially optimal extent. In other words, the case for intervention must rest on the existence of an externality.¹⁵ For those seeking to reduce the moral hazard caused by IMF bailouts, the argument runs as

¹² There are 402 observations for sovereigns with credit ratings below 50 and 40 observations for sovereigns with credit ratings above 50. Eichengreen and Mody (2000b) provide a more elaborate analysis, including separate regressions for sovereigns alone, which allows the other determinants of spreads to vary by sovereign – non-sovereign status, without overturning any of the following results.

¹³ As Eichengreen and Mody (2000a) put it, if the goal of reforming the international financial architecture is to strengthen market discipline by encouraging investors to reward more credit-worthy borrowers and penalize less credit-worthy ones, then the more widespread adoption of collective action clauses, which would reduce borrowing costs for the more credit worthy while raising them for their less credit-worthy counterparts, would seem to be a step in the right direction.

¹⁴ See Dixon and Wall (2000), p. 146. 5% were governed by Luxembourg law, which also provides for the relevant collective action provisions.

¹⁵ Alternatively, it has been argued that asymmetric information leading to adverse selection prevents the adoption of collective action clauses and therefore justifies official action to mandate their universal use. If the markets are incapable of distinguishing good and bad credit risks, then a higher interest-rate premium on debt securities containing these provisions will render them attractive only to the bad risks. And insofar as the markets are aware of this fact, there may be no interest rate that clears the market. The evidence on pricing behaviour reported above suggests, however, that the markets have sufficient information on

follows. When borrowers and lenders choose the appropriate governing law for an individual issue, they have no reason to take into account the implications of that decision for systematic stability. Absent the more widespread use of collective action provisions, the IMF has no alternative but to run to the rescue of a crisis country, and this pattern of behaviour creates moral hazard which undermines market discipline and the stability of the international system. This is the crux of the argument for substituting collective action clauses for IMF bailouts and for an international subsidy to encourage the more widespread adoption of CACs by emerging markets.

A related rationale for intervention is that the market is stuck in a sub-optimal path-dependent equilibrium where it relies disproportionately on bond covenants with voting prohibitions. Roe¹⁶ has argued that the absence of majority voting rules in bonds governed by US law is an historical anachronism.¹⁷ It has lived beyond its time because such provisions and practices tend to get locked in. Lock-in will occur, as Roe explains, if the provisions of bond covenants come to be regarded as social conventions from which some market participants are reluctant to depart unless others do likewise.¹⁸ Under these circumstances, official intervention is needed to displace the markets from this suboptimal equilibrium.

Either way, the implication is that the official community should lead by example, as the British and Canadian governments have done, and that it should subsidize the issue of bonds featuring CACs, perhaps by having the IMF express a readiness to provide emergency assistance on more attractive terms to countries prepared to adopt the measure. This last idea is no mere hypothetical: in reviewing how countries might pre-qualify for access to the Fund's newly established Contingent Credit Line, the Executive Board considered the inclusion of collective action clauses in its bond issues as one of several measures to be considered. The argument here is that while this is a step in the right direction, more needs to be done.

country credit worthiness to discriminate good and bad risks and price collective action clauses accordingly. That half of all international debt securities and a third of emerging market issues contain these provisions is hard to reconcile with the strong adverse-selection view.

¹⁶ See Roe (1996).

¹⁷ William O. Douglas championed the measure in the wake of the debt defaults of the early 1930s as a way of protecting small investors from victimization by securities houses.

¹⁸ On social conventions as network effects giving rise to lock in, see David (1993).

7 Recommendations

The desire to limit reliance on large-scale financial rescues informs much of the literature on how to strengthen the international financial architecture. IMF ‘bailouts,’ as they are characterized by their critics, create moral hazard and weaken the market discipline that discourages excessive risk taking. The principals in this debate may disagree about the pervasiveness of moral hazard and about how profoundly investor and government behaviour is affected, but there is no question that those in a position to influence policy take this danger very seriously.

One approach to this problem is to assume it away – to assume that IMF policy can simply be changed to prohibit rescues of countries with lax policies, or that the conditions attached to IMF loans can be changed to somehow require private investors match any official contribution. The first approach has been taken in various independent analyses of IMF policy (by the International Financial Institution Advisory Commission and to an extent by the Council on Foreign Relations Task Force), the second by the IMF itself in its ad hoc efforts to bail in the private sector. Unfortunately, wishful thinking cannot solve problems. Those who propose to prohibit IMF lending to certain countries or to limit its amount and duration assume that the Fund can stand aside when a crisis erupts in a country with problematic policies. The reality is that the costs of inaction – a severe economic contraction, an extended interruption to capital-market access, and a lengthy and difficult restructuring – have repeatedly been shown to be too painful for the official community to bear. Consequently, a commitment to stand aside will not be credible. These facts also imply that simple changes in the interest rates the IMF charges on its loans, as suggested by the G-7 in the summer of 2000, will not suffice to induce countries to shun IMF financial assistance in favour of other solutions to their problems.

The notion that IMF disbursements should be conditioned on case-specific commitments by private investors to agree to a restructuring, to contribute new money, or to roll over maturing claims is similarly unrealistic. Often the holders of debt securities cannot even be identified in the relevant time frame, much less compelled to solve their collective action problem. More fundamentally, a commitment by the IMF to stand aside if investors refuse to participate would not be credible for the reasons sketched in the previous paragraph. In the end, the Fund will be forced to back down and disburse, as it has done repeatedly despite ex ante commitments to the contrary (in cases like those of Romania and Ukraine). Thus, while wishful thinking can wish away the bailout problem – it can assume away the sources of moral hazard – institutional reforms that speak to the underlying dilemmas are needed if the international policy community is to succeed in developing new approaches to resolving financial crises.

What kind of reforms should receive priority depends on the predominant cause of financial crises. If crises are mainly caused by investor panic, then a payments standstill imposed or endorsed by the IMF could shelter countries from destructive creditor grab races until lenders collect their wits and calm returns to the markets. Making provision for an IMF imposed or endorsed standstill would thus provide an alternative to large-scale financial rescues for countries experiencing panic-induced liquidity crises.

If, on the other hand, crises reflect inconsistent policies and disappointing economic performance, then the debts of the crisis country will have to be restructured. In this case initiatives to facilitate orderly restructuring should be the priority. The obvious initiative along these lines is the addition of collective action clauses to loan agreements to make agreement between the debtor and his creditors easier to reach. There may also be a case for an IMF imposed or sanctioned standstill, but only if there is reason to think that the country to which it is applied will satisfy the conditionality the Fund attaches to its support, make good-faith efforts to adjust, and resume debt service on reasonable terms. These are demanding prerequisites, and they are likely to be met in only a subset of the relevant cases.

What concrete steps must be taken to open up these new avenues for containing and resolving financial crises and to thereby reduce the moral hazard created by the absence of alternatives to financial rescues? In the case of collective action clauses, all that is required are incentives for the more widespread adoption of contractual provisions that are already in the market. If the problem is that investors have arrived at a privately efficient solution that is not also socially efficient because loan contracts omitting these provisions create a negative externality (they apply irresistible pressure for the international community to rush to the rescue, creating moral hazard), then incentives for countries to make additional use of these provisions (such as preferential interest rates on IMF loans, enhanced access to IMF facilities, or additional assistance from the World Bank) would close the gap. The IMF has taken a first step in this direction by citing the use of CACs as one factor that it will consider when it decides whether countries qualify to draw on its Contingent Credit Line; it now needs to move further in this direction. If, on the other hand, the problem is one where the market has locked into a suboptimal equilibrium where borrowers are reluctant to use collective action clauses because other borrowers have failed to do so, then there is a case for countries possessing the capacity to do so to lead by example, as the UK and Canada have done. Again, the argument would be that more needs to be done along these lines.

In the case of standstills, what steps are required depends on whether disruptive lawsuits are a serious danger. If they are, then a standstill with the capacity to shelter countries against this threat will require amending or reinterpreting Article VIII.2(b) of the IMF's Articles of Agreement, modifying national contract law to give the new article legal force in the courts of the creditor countries, and/or requiring all cross-border financial contracts to include, *ex ante*, a provision recognizing the authority of the Fund to declare a standstill. Such radical changes seem unlikely in the prevailing political climate, to put it mildly. Moreover, while collective action clauses have the desirable property of increasing the role of market forces and reducing the role of the IMF, proposals for an internationally-imposed standstill have the opposite effect.

If one is inclined to dismiss the risk of lawsuits, then shelter against disruptive legal action is unnecessary, and the case for IMF support for a country's standstill rests on attenuating any reputational damage. The IMF could simply endorse the crisis country's declaration of a standstill through a statement of opinion by the Executive Board and by lending despite the existence of sovereign arrears. Proceeding in this manner would not require a change in the status quo. The Executive Board already possesses the ability to express its opinion and is not reluctant to do so. It has already taken a decision to lend into sovereign arrears under appropriate circumstances.

Either way, the case for a standstill does not lead one to plump for radical changes in the international financial architecture. If lawsuits are a problem, then the changes needed to make standstills workable are unattainable. It would be more sensible to pursue other approaches. And if legal action is not a problem, then IMF support for a country's standstill requires only a clear understanding of the circumstances in which the institution's endorsement and lending into sovereign arrears are appropriate and, more demandingly, confidence that any conditionality attached to these measures will be met.

As always, reforms should be prioritized. Doing so means making a judgement about the predominant cause of crises and pursuing the reform best suited to addressing the consequences.¹ It means pursuing reforms that are in the feasible set. My own judgement is that the majority of crises reflect problems with fundamentals, not simply investor panic. It is that reforms which increase reliance on market forces and limit reliance on the IMF are steps in the right direction and are more likely to meet with political support. These judgements point to the conclusion that collective action clauses and not internationally-sanctioned standstills should be the priority for those seeking to strengthen the international financial architecture.

¹ It also follows that priority should be attached to reforms of the international financial architecture best designed to address the predominant causes of crises. But, to repeat what was said in the introduction, this report is concerned with options for crisis management; the equally if not more important topic of crisis prevention is taken up elsewhere.

Appendix: Other Initiatives

The official community has contemplated a variety of additional options for changing the way it responds to crises.¹ In this appendix I consider three: UDROPs, standing committees of creditors, and mediation services. UDROPs, like standstills, are designed to address the creditor panic problem, while the other two ideas are alternatives (or perhaps supplements) to collective action clauses – that is, they are designed to address debt crises arising from problems with fundamentals.

A.1 UDROPs²

Willem Buiter and Anne Sibert³ have proposed adding a ‘universal debt-rollover option with penalty’ (UDROP) to all foreign-currency-denominated loans and credits as a way of dealing with the panic problem. It would give the borrower the option of extending a maturing debt for a specified period (say, three months). Buiter and Sibert argue that the regulatory authorities should mandate the inclusion of this option in all debt instruments in order to solve the adverse selection problem.⁴ Its precise terms could however be negotiated between the debtors and creditors.⁵

To prevent the borrower from exercising the option under orderly market conditions, the authors propose requiring a debtor invoking the option to compensate the lender at a penalty rate. The option could be

¹ To repeat what was said in the introduction, I do not cover crisis-prevention measures, including attempts to construct early-warning systems, encourage data dissemination, strengthen prudential regulation, adopt appropriate macroeconomic policies, and promulgate international financial standards. This is not because I consider them unimportant but simply because they are not the focus of the present analysis. My view of these issues is found in Eichengreen (1999a).

² This discussion is taken from Eichengreen (1999b).

³ See Buiter and Sibert (1999).

⁴ If the option was voluntary, only borrowers with a high likelihood of having to invoke it would be prepared to pay the penalty rate and the higher cost of contracting loans that include this contingency. This could explain why such options, even if their adoption would be efficiency enhancing, have not been developed by the markets. Raising the penalty rate would not solve this problem, since with a higher penalty rate the option would be attractive only to a subset of still riskier borrowers. Indeed, if adverse selection was sufficiently severe, no interest rate might compensate the lender for his risk, in which case no rollover options would be observed. In principle, safe borrowers should be able to signal their type by putting up additional collateral as a condition of the loan. (Low-risk borrowers should be more willing than high-risk borrowers to put up collateral, since there is a lower probability that their collateral will be called.) This is a specific application of the general proposition that collateral can be used to attenuate adverse selection. The problem, noted above in the context of commercial credit lines, is that many emerging market borrowers do not have attractive collateral to offer, either because exchange market problems prevent domestic assets from being converted into foreign currency at reasonable rates when collateral is called or because their legal systems make collateral difficult to attach.

⁵ In particular, nothing would prevent the borrower and lender from stripping the rollover option from the loan and trading it independently. The fact that bondholders already purchase credit derivatives to insure their portfolios against existing possibilities that debt service and principal repayment might be interrupted suggests that they might well respond in this way to the introduction of UDROPs. Of course, a borrower repurchasing his own UDROP would then acquire another (in this case, contingent) foreign liability, which he would have to cover by issuing yet another UDROP. It is not clear that an active secondary market would develop in the presence of this additional constraint.

invoked only once. Hence, a borrower who was insolvent would not be sheltered from the need to restructure his debts at the end of the rollover period.

The obvious danger is that this measure will have the perverse effect of precipitating additional crises. To echo a theme of the main body of this report, the immediacy of the threat would appear to hinge on the kind of crises that countries are likely to encounter. If most crises are pure liquidity crises, then UDROPs are appropriate for ameliorating their effects. In a pure liquidity crisis, by definition, the debtor has no trouble in making his or her debt-service payments in full so long as investor confidence is maintained. But if investors withdraw their funds in a panic, the debtor's liquidity may be impaired, leaving him no alternative to declaring a costly suspension of payments. Since there is no problem with fundamentals, in the case of a pure liquidity crisis it can be assumed that investor confidence will return after a short period. But if the debtor has been forced to suspend payments in the meantime, the costs of that action are not recoverable once confidence returns. The analogy is with a fundamentally solvent bank that suffers a run by its depositors and is forced to close its doors, thereby incurring a loss of reputational capital.

Just as it may be in the collective interest of depositors to sit tight but in their individual interest to queue up at the till when they see a line being formed, given the bank's rule of first-come-first-served, it can be in the collective interest of a country's creditors to roll over their maturing claims but in their individual interest to rush for the exits if they see other creditors doing likewise, since the limited availability of foreign reserves similarly creates a sequential service constraint. In the domestic bank-run context, deposit insurance and, historically, temporary suspensions of the convertibility of deposits into currency are designed to alter these incentives. Deposit insurance minimizes the incentive for depositors to run. Temporary suspensions of convertibility allowed banks to avoid having to close down as a result of depositor runs and therefore having to incur the associated costs. UDROPs would mimic this function in the international setting. They would give the debtor a breathing space of, say, three months, a period of time assumed to be sufficient for the restoration of investor confidence and the resumption of business as usual. They would obviate the need for a costly default.

If the main cause of crises is creditor panic, then UDROPs (like deposit insurance in the scenario where the main threat to banking stability is depositor panic) would reduce crisis incidence. This is because the cost to a foreign creditor of being last through the exit is less in the presence of UDROPs than in their absence (in the case where the only source of instability is panic). When a debtor experiences a crisis and invokes the rollover option, a creditor holding a security featuring a UDROP continues to earn interest but at the penalty rate. At the end of the rollover, confidence having been restored (by assumption), interest payments continue (now at the normal rate) and maturing claims are rolled over voluntarily or paid off smoothly. But without UDROPs, a debtor experiencing a creditor run will be forced to suspend payments; there will follow a possibly extended period of costly negotiation and litigation and avoidable output losses, as a result of which the borrower's debt-servicing capacity may be impaired and the creditors may suffer irrecoverable losses. UDROPs avert these dangers. Because the losses to creditors who are late to exit are plausibly lower with UDROPs than without, the likelihood of crises due to pure panic is less.

Crises reflecting fundamental problems with economic policy and performance are another matter. Here the costs to creditors who are late to exit are likely to be larger in the presence of UDROPs than in their absence. In the same way that deposit insurance and regulatory forbearance give banks whose balance sheets are impaired the opportunity to roll the dice and gamble for redemption, UDROPs give debtors with problems with fundamentals the opportunity to continue for an additional few months with the same old policies, dissipating additional foreign reserves to finance current account deficits (in the case of governments) and incurring additional losses (in the case of commercial banks and corporations). Resources useful for servicing debts having been further depleted, creditors who fail to get out suffer even

larger losses on average with UDROPs than without them. This suggests that UDROPs may complicate the maintenance of confidence and heighten crisis risk for countries with weak fundamentals.⁶

Note the contrast with the proposal for IMF-endorsed standstills in Chapter 5 (see above). There it was argued that there could be a case for standstill protection for a country with structural problems and a need to adjust so long as the Fund could effectively condition its endorsement on the government's adoption of the needed policy reforms. A UDROP, unlike IMF endorsement of a standstill, could be triggered unilaterally by the borrower. Thus, the danger that it would be invoked in a circumstance where the borrower wished to put off adjusting, and hence that anticipation of its activation would precipitate additional crises in a world where crises are rooted in fundamentals, seems very real.

This has led to suggestions that the power to activate the option could be delegated to the IMF. The Fund would activate the UDROP only if the country was suffering from a pure investor panic or if it had demonstrated a credible commitment to adjust. This would reduce the incentive to be first through the door and hence the risk of precipitating additional crises. This raises all the same issues as the idea of an officially-sanctioned standstill. Does the Fund have the capacity to distinguish these cases? Can its conditionality be effective? Since it will have its own loans to the country, can it solve the potential conflict of interest created by the fact that it is a priority creditor?

A.2 Creditor committees

Restructuring negotiations are most difficult and protracted when information is least complete. The more asymmetric the information environment, the more likely are debtors and creditors to fight an extended war of attrition.⁷ In principle, the solution to this problem is better communication between the two sides. One conceivable mechanism is creditor committees. Thus, Summers⁸ has urged the official sector 'to stand ready to facilitate coordination among debtors and creditors, including through creditor committees, where these are appropriate.'

Summers' statement does not specify whether a standing committee is required or ad hoc committees could be constituted after the fact. The rationale for a standing committee is that a committee cannot be constituted until the creditors first have been identified, which is time consuming when the process starts from scratch. The debtor, for his part, must also identify who speaks for the creditors. The existence of a standing committee would answer these questions in advance. A standing committee with a reputation to

⁶ Those who argue that investors tend to be slow to react to impending problems before responding violently late in the day (Willett 2000) may be inclined to applaud anything that gives investors an incentive to be quicker on their feet. If there is no question that a country is headed for the wall, anything that encourages investors to scramble out sooner rather than later may be desirable insofar as it forces the government to apply the brakes. On the other hand, countries that are making one last effort to correct their problems before investors pull the plug will have less time to complete the task. UDROPs which roll over debts for three months would give a country an additional three months to push through the requisite reforms, but this is scant comfort if their presence accelerates the timing of investors' scramble for the exits by more than three months. It is interesting to speculate what the effect would have been had Brazil's maturing foreign debts in 1998 contained UDROPs. Would foreign banks and other creditors have moved even earlier to cut their lines, precipitating a full-blown crisis at the height of the Russian Concussion? Would an earlier crisis have increased or reduced the likelihood of the Brazilian Congress and States accepting the necessary reforms?

⁷ Where the preferences and capacities of all parties are common information, agreement should be immediate. This is a basic premise of bankruptcy theory: in a world of complete information and absent transactions costs, there is no need for a bankruptcy code or bankruptcy court, since debtors and creditors will be able to instantaneously adjust their contracts to any unanticipated contingencies.

⁸ See Summers (1999), p.5.

protect is likely to treat sensitive information confidentially, which will in turn encourage the debtor to divulge it, helping to remove information asymmetries. Finally, the existence of a standing committee on which various classes of creditors sit would create peer pressure for agreement and facilitate the extension of side payments.⁹

A problem with a standing committee is that the population of interested creditors will be different in different cases. A committee constituted to deal with, say, Russia, would be ill suited for dealing with Ecuador. The Corporation of Foreign Bondholders, the standing bondholders organization in nineteenth century Britain, addressed this problem by creating a permanent governing council to deal with general policy but constituting ad hoc creditor committees for specific negotiations.

Experience with corporate debt workouts has been invoked to suggest that creditor committees can be constituted when the time comes.¹⁰ In practice, however, the situation for corporate bonds is different. Most corporate bonds are issued in the United States through an indenture trustee. This entity is responsible for acting as a communications centre to coordinate the bondholders. The trustee is the bondholders' representative in negotiations with the debtor and the court. Not only must he communicate with the bondholders, but he must follow the instructions given by the majority. However, the Trust Indenture Act of 1939 exempts securities issued by foreign governments, their subdivisions and municipalities. Sovereign bonds, in contrast, are typically issued through a fiscal agent rather than an indenture trustee. The fiscal agent has a much more limited role. In particular, his responsibilities do not extend to acting as a communications centre or attempting to coordinate the bondholders.

The idea of creditor committees has been championed by Rory Macmillan, who has suggested resurrecting the Foreign Bondholders Protective Council to represent and coordinate the holders of government bonds issued under New York law and submitting to New York courts, and the Corporation of Foreign Bondholders to represent and coordinate holders of government bonds issued under English law.¹¹ With the vast majority of bonds being subject to either New York or English law and courts, Macmillan argues, two committees would go a long way toward creating the necessary infrastructure. If difficulties arose with the debts of a particular country and negotiations had to be convened, these committees, working separately or jointly, would then be in a position to appoint a subcommittee to undertake the task.¹²

⁹ The difficulties created by the absence of these committees are apparent in several recent crises. In Korea, the problem in the last week of 1997 was to get the banks to roll over their maturing short-term loans, to accept a delay in interest payments, and to agree to the principle of converting those short-term credits into long-term loans. The Korean government and the banks reached that agreement by the skin of their teeth. Only with the help of Bill Rhodes' Rolodex were the relevant bankers located and pulled from their Christmas dinners. An argument can be made that a committee infrastructure would have eased this process. Russia's experience in August 1998 following its suspension of payments similarly illustrates the confusion that can arise when there exists no committee of creditors. First the Russian authorities met with a small group of Russian and foreign banks to discuss the formation of a creditor committee. Next it was decided that the committee would be formed only after the authorities had somehow managed to draw up a full list of creditors. Finally there were disagreements over the composition of the creditors' club, with hedge funds complaining that they had been denied a seat at the bargaining table.

¹⁰ The Institute of International Finance (1996) cites the case of AeroMexico as an example of how swiftly negotiations can be concluded in the absence of a bondholders' committee.

¹¹ See Macmillan (1995) as well as Eichengreen and Portes (1995).

¹² The investor community fears that standing committees would make it too easy for debtors to initiate restructuring negotiations and too tempting for them to suspend debt payments. It is better, in the self-interested view of the creditors, for there to be no one at the other end of the line to pick up the phone. But for those seeking to create a viable alternative to large-scale bailouts of crisis countries and for whom the difficulties of debtor-creditor negotiations render moratoria and restructuring unacceptably difficult and painful, standing committees are desirable precisely because they make it easier for debtors to initiate negotiations. Their formation could help to create an alternative to ever-more-costly bailouts and disastrous Russian-style defaults, neither of which is acceptable.

It is important to be clear on what these committees can and cannot achieve. By creating a vehicle for exchanging information and a venue for negotiations, they can ease the process of restructuring defaulted debts, which is essential to create a viable alternative to ever-bigger bailouts. That process will remain difficult – as it must to prevent borrowers from walking away from their debts – but not as difficult as now. What the creation of committees cannot do, except under unusual circumstances, is get the creditors to exercise collective forbearance and roll over their maturing credits as a way of averting default (as somewhat unrealistically suggested by Radelet and Sachs¹³). The main role of creditor committees will be to facilitate restructuring after the fact. This last point is important: these committees would only offer non-binding recommendations to the bondholders, who would then have the right to accept or reject them. They would play much the same role as bank advisory committees in the debt crisis of the 1980s.

The creation of standing committees would require moral suasion by G-7 governments, central banks, and the IMF to overcome the markets' reluctance. There would be nothing unprecedented about their involvement. The Corporation of Foreign Bondholders received a parliamentary charter and other forms of official support. Its US counterpart, the Foreign Bondholders Protective Council, was formed with the encouragement and support of the US State Department.¹⁴

A.3 Mediation

Another idea, advanced by Eichengreen and Portes,¹⁵ is to employ independent mediation services. While the mediator would not negotiate on behalf of either the creditors or the debtor, by ensuring that the process was equitable his presence would encourage the principals to reveal their preferences, opportunity costs, and other salient information. Mediation has been shown to expedite the resolution of conflicts in related contexts, such as labour disputes. Analogous arguments can be made for debt workouts. This approach has been productively employed in selected workouts of corporate debts in emerging markets, as with the Jakarta Initiative Task Force which has provided mediation and facilitation services in the context of the Jakarta Initiative.

An international convention along these lines could define the methods by which mediators were selected and lay out their mandate. These principles could be determined by the same body that governed the standing committee of bondholders, as was the case in Britain in the late nineteenth century, or by a body fully independent of it in order to minimize the danger that the mediator's impartiality could come under a cloud.

¹³ See Radelet and Sachs 1998.

¹⁴ Some have suggested that such a committee, possibly with rotating membership, should be brought into some kind of formal relationship with the IMF and other official bodies. But, this could create more problems than it solved. For one thing, since membership on the committee would be selective, some in the markets might feel that other participants were getting preferential treatment from the IMF. And insofar as the problem of information asymmetries arises in negotiations between the lenders and the borrowers, it is with the debtor that the creditors' representatives most urgently need to interact. In instances where the IMF was negotiating the extension of financial assistance while the debtors and creditors were at the same time attempting to restructure outstanding debts, there might be occasion for exceptional discussions among the three parties, but it is not obvious why regular meetings between the creditor committee and the official sector would be essential. And to the extent that there is a need for the Fund and the financial community to exchange information in a time of crisis, this can be done more simply, by asking the central bank or national treasury in each of the creditor countries to identify a representative of their financial community.

¹⁵ See Eichengreen and Portes (1995).

Since it is already possible for the principals to agree to the appointment of a mediator, why they do not do so should trouble proponents of the idea. Perhaps mediation is not really valuable after all. Another answer would invoke the difficulty of identifying a professional whose neutrality is clear to both sides. A solution could be for both sides to recommend candidates, subject to previously-agreed principles, while agreeing that the IMF would select the members of the panel on the basis of those lists.¹⁶

¹⁶ Another issue is who would underwrite the operating expenses of the mediator. One possibility is the IFIs, which have a stake in efficient debt restructuring and crisis resolution.

References

- Bikhchandani, Sushil and Sunil Sharma (2000) 'Herd Behavior in Financial Markets: A Review', *IMF Working Paper* No. WP/00/48 (March).
- Buchheit, Lee (2000) 'Sovereign Debtors and their Bondholders', in Allan H. Meltzer (ed.), *International Financial Institution Advisory Commission Expert Papers*, Washington, DC, International Financial Advisory Commission, pp. 1-14.
- Buiter, Willem H. (1987) 'Borrowing to Defend the Exchange Rate and the Timing and Magnitude of Speculative Attacks', *Journal of International Economics* 23, pp. 221-239.
- Buiter, Willem H. and Anne C. Sibert (1999) 'UDROP: A Small Contribution to the New International Financial Architecture', *International Finance* 2, pp. 227-248.
- Calvo, Guillermo (1991) 'The Perils of Sterilization', *IMF Staff Papers* 38, pp. 921-926.
- Chang, Roberto and Andres Velasco (1999) 'Liquidity Crises in Emerging Markets: Theory and Policy', *NBER Working Paper* No. 7272 (July).
- Cohen, Daniel (1993) 'Low Investment and Large LDC Debt in the 1980s', *American Economic Review* 83, pp. 437-449.
- Council on Foreign Relations (1999) *Strengthening Prosperity in a Global Financial System*, New York, Council on Foreign Relations.
- Dallara, Charles (1999) 'Letter to the Chairman of the Interim Committee', 16 September, <http://www.iif.com>.
- David, Paul (1993) 'Why Are Institutions the "Carriers of History"?' unpublished manuscript, Stanford University.
- De Long, J. Bradford (2000) 'Where Did All the Financial Crises Go?' unpublished manuscript, University of California, Berkeley.
- Dellas, Harris and Alan Stockman (1993) 'Self-Fulfilling Expectations, Speculative Attack, and Capital Controls', *Journal of Money, Credit and Banking* 25, pp. 721-730.
- Diamond, Douglas and Philip Dybvig (1983) 'Bank Runs, Deposit Insurance, and Liquidity', *Journal of Political Economy* 91, pp. 401-419.

Dixon, Liz and David Wall (2000) 'Collective Action Problems and Collective Action Clauses', *Financial Stability Review* (June), pp. 142-151.

Drage, J. and F. Mann (1999) 'Improving the Stability of the International Financial Sector', *Financial Stability Review* (June), pp. 40-77.

Economist (1999) 'Sovereign Policy', *Economist Magazine*, 13 February, p. 21.

Eichengreen, Barry (1999a) *Toward a New International Financial Architecture: A Practical Post-Asia Agenda*, Washington, DC, Institute for International Economics.

Eichengreen, Barry (1999b) 'Is Greater Private Sector Burden Sharing Impossible?' in Peter Kenen and Alexander Swoboda (ed.), *The Future of the International Monetary and Financial System*, Washington, DC, IMF (forthcoming).

Eichengreen, Barry and Ricardo Hausmann (2000) 'Exchange Rates and Financial Fragility', in Federal Reserve Bank of Kansas City, *New Challenges for Monetary Policy*, Kansas City, Federal Reserve Bank of Kansas City, pp. 329-368.

Eichengreen, Barry and Ashoka Mody (2000a) 'Would Collective Action Clauses Raise Borrowing Costs?' *NBER Working Paper* No. 7458 (January).

Eichengreen, Barry and Ashoka Mody (2000b) 'Would Collective Action Clauses Raise Borrowing Costs? An Update and Extension', *World Bank Working Paper* No. 2363 (June).

Eichengreen, Barry and Richard Portes (1995) *Crisis? What Crisis? Orderly Workouts for Sovereign Debtors*, London, CEPR.

Eichengreen, Barry and Christof Ruehl (2000) 'The Bail In Problem: Systematic Goals, Ad Hoc Means', *CEPR Discussion Paper* No. 7653 (April).

Eichengreen, Barry and Charles Wyplosz (1993) 'The Unstable EMS', *Brookings Papers on Economic Activity* 1, pp. 51-124.

Feldstein, Martin (1999) 'A Self-Help Guide for Emerging Market Economies', *Foreign Affairs* 78, pp. 93-103.

Fischer, Stanley (1999) 'Learning the Lessons of Financial Crises: The Roles of the Public and Private Sectors', Speech to the Emerging Market Traders' Association Annual Meeting, New York (December 9), <http://www.imf.org/external/np/speeches/1999/120999.HTM>.

Flood, Robert and Olivier Jeanne (2000) 'An Interest Rate Defence of a Fixed Exchange Rate?' *CEPR Discussion Paper* No. 2507 (July).

Furman, Jason and Joseph Stiglitz (1998) 'Economic Crises: Evidence and Insights from East Asia', *Brookings Papers on Economic Activity* 2, pp. 1-135.

Goldstein, Morris, Graciela Kaminsky and Carmen Reinhart (2000) *Assessing Financial Vulnerability: An Early Warning System for Emerging Economies*, Washington, DC, Institute for International Economics.

Greenspan, Alan (1999) 'Remarks by Chairman of the Board of Governors of the Federal Reserve System before the World Bank Conference on Recent Trends in Reserve Management', Washington, DC (29 April).

Group of Seven (1999) 'Strengthening the International Financial Architecture', Washington, DC, Group of Seven.

Group of Seven (2000) 'Strengthening the International Financial Architecture: Progress to Date', *Treasury News* LS-758 (July 8), Washington, DC, US Department of Treasury, Office of Public Affairs.

Group of Ten (1996) 'Resolving Sovereign Liquidity Crises', London, Group of Ten.

Group of Twenty Two (1998a) *Report of the Working Group on Transparency and Accountability*, Washington, DC, Group of Twenty Two.

Group of Twenty Two (1998b) *Report of the Working Group on Strengthening Financial Systems*, Washington, DC, Group of Twenty Two.

Group of Twenty Two (1998c) *Report of the Working Group on International Financial Crises*, Washington, DC, Group of Twenty Two.

Guidotti, Pablo (1999) 'Currency Reserves and Debt', Speech to the 'World Bank Conference on Recent Trends in Reserve Management', Washington, DC, 29 April.

Guidotti, Pablo and Manmohan Kumar (1991) 'Domestic Public Debt of Externally Indebted Economies', *Occasional Paper* No. 80, Washington, DC, International Monetary Fund (March).

Hahn, Joon-Ho and Frederic Mishkin (2000) 'Causes of the Korean Financial Crisis: Lessons for Policy', *NBER Working Paper* No. 7483 (January).

Institute of International Finance (1996) *Resolving Sovereign Financial Crises*, Washington, DC, Institute of International Finance.

Institute of International Finance (1999a) 'Global Private Finance Leaders Stress the Importance of Voluntary Approaches to Crisis Resolution in Emerging Markets', 24 June, <http://www.iif.com/PressRel/1999pr9.html>.

Institute of International Finance (1999b) 'Summary Report on the Work of the IIF Steering Committee on Emerging Markets Finance', Washington, DC, Institute of International Finance.

International Financial Institution Advisory Commission (2000), *Report*, Washington, DC, International Financial Institution Advisory Commission.

International Monetary Fund (1999a) *Involving the Private Sector in Forestalling and Resolving Financial Crises*, Washington DC, IMF or <http://www.imf.org/external/pubs/ft/series/01/privsecp.pdf>.

International Monetary Fund (1999b) 'Press Conference of Mr. Boorman on "Involving the Private Sector in Forestalling and Resolving Financial Crises"', 15 April, <http://www.imf.org/external/newsa.htm>.

Jeanne, Olivier and Charles Wyplosz (1999) 'The International Lender of Last Resort: How Large is Large Enough?' unpublished manuscript, IMF and Graduate Institute of International Studies.

Jeanne, Olivier and Jeromin Zettelmeyer (2000) 'International Bailouts, Domestic Supervision, and Moral Hazard', unpublished manuscript, IMF (February).

Kletzer, Kenneth (2000) 'The Effectiveness of Self-Protection Policies for Safeguarding Emerging Market Economies from Crises', *ZEI Working Paper* No. B8, University of Bonn, Center for European Integration Studies (February).

Krugman, Paul (1998) 'Saving Asia: It's Time to Get Radical', *Fortune* 138, pp. 74-80.

Krugman, Paul (1999) 'Balance Sheets, the Transfer Problem, and Financial Crises', unpublished manuscript, MIT.

Kumar, Manmohan, Paul Masson and Marcus Miller (2000) 'Global Financial Crises: Institutions and Incentives', *IMF Working Paper* No. WP/00/105 (July).

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Schleifer, and Robert Vishny (1998), 'Law and Finance', *Journal of Political Economy* 106, pp.1133-1155.

Macmillan, Rory (1995) 'New Lease on Life for Bondholder Councils', *Financial Times*, 15 August, p. 11.

Mann, F.A. (1992) *The Legal Aspect of Money*, Oxford, Oxford University Press.

Martin, Paul (1998) 'Remarks by the Honorable Paul Martin, Minister of Finance, to the Commonwealth Business Forum', 29 September, <http://www.fin.gc.ca/news98/98-093e.html>.

Martin, Paul (1999) 'The International Financial Architecture: The Rule of Law', 12 July, http://www.fin.gc.ca/news99/99-063_2e.html.

Miller, Marcus and Joseph Stiglitz (1999) 'Bankruptcy Protection Against Macroeconomic Shocks: The Case for a "Super Chapter 11"', unpublished manuscript, the World Bank.

Miller, Marcus and Lei Zhang (2000) 'Sovereign Liquidity Crisis: The Strategic Case for Payments Standstill', *Economic Journal* 110, pp. 309-334.

Obstfeld, Maurice (1996) 'Models of Currency Crises with Self-Fulfilling Features', *European Economic Review* 40, pp. 1037-1047.

Ozkan, F. Gulcin and Alan Sutherland (1998) 'A Currency Crisis Model with an Optimizing Policymaker', *Journal of International Economics* 44, pp. 339-364.

Radalet, Steven and Jeffrey Sachs (1998) 'The Onset of the East Asian Financial Crisis', forthcoming in Paul Krugman (ed.), *Currency Crises*, Chicago, University of Chicago Press.

Roe, Mark J. (1996) 'Chaos and Evolution in Law and Economics', *Harvard Law Review* 109, pp. 641-668.

Sachs, Jeffrey (1994) 'Do We Need an International Lender of Last Resort?' unpublished manuscript, Harvard University.

Summers, Lawrence (1996) 'Introduction', in Peter B. Kenen (ed.), *From Halifax to Lyons: What Has Been Done About Crisis Management? Essays in International Finance* No. 200, International Finance Section, Department of Economics, Princeton University (October), pp. 1-6.

Summers, Lawrence (1999) 'The Right Kind of IMF for a Stable Global Financial System', text as prepared for delivery to the London School of Business, 13 December, <http://www.ustreas.gov/press/releases/ps294.htm>.

UNCTAD (1998), *Trade and Development Report*, New York and Geneva, UNCTAD.

Willett, Thomas D. (2000) 'International Financial Markets as Sources of Crises or Discipline: The Two Much, Too Late Hypothesis', *Essays in International Finance* No. 218, International Finance Section, Department of Economics, Princeton University (May).

Williamson, John (1992) 'International Monetary Reform and Prospects for Economic Development', in J. J. Teunissen (ed.), *Fragile Finance: Rethinking the International Monetary System*, The Hague, FONDAD, pp. 86-100.

Yanni, A. (1999) 'Resolution of Sovereign Financial Crisis – Evolution of the Private Sector Restructuring Process', *Financial Stability Review* (June), pp. 78-84.