

Fixing Financial Crises in the Twenty-first Century

Edited by Andrew G. Haldane

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Fixing Financial Crises in the Twenty-first Century

Financial crises have dogged the international monetary system over recent years. They have impoverished millions of people around the world, especially within developing countries. And they have called into question the very process of globalisation. Yet there remains no intellectual consensus on how best to avert such crises – much less resolve them. Policymakers stand at a crossroads.

This volume summarises and evaluates these issues, drawing on contributions by prominent international experts in the field. It considers whether the IMF may have actually fanned the flames of future crises through its lending decisions. It assesses the contribution made by private creditors in resolving past crises – and asks what mechanisms might best be used to involve private creditors in the future. It also assesses the merits of two recent competing blueprints for architectural reform – the so-called contractual and statutory approaches to crisis resolution.

These issues will shape the debate on the future of the international monetary system over the next decade and, probably, beyond. For although crises may always be with us, better public policy can surely help mitigate their future cost and incidence.

With an impressive array of internationally based contributors, this book will deserve a place on the bookshelves of economists and policy-makers in both the official and private sectors.

Andrew G. Haldane is Head of International Finance at the Bank of England.

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Preface

Financial crises are a clear and present danger to the international monetary system. They have impoverished millions of people over the past decade in emerging markets across the world. And they have called into question the very process of financial liberalisation and globalisation. Moreover, crises show no signs of abating moving into the twenty-first century – indeed, quite the contrary.

International public policy is struggling to keep pace with these developments. This is not through a lack of effort, for this has been considerable. It reflects the fact that there is no intellectual consensus on how best to avert crises, much less resolve them. Policymakers and academics stand at a crossroads – with international capital flows speeding past on either side of them.

It was against this backdrop that the Bank of England decided to host a conference in July 2002 on “The Role of the Official and Private Sectors in Resolving International Financial Crises”. This involved experts from around the world, drawn from the official sector, the private sector, emerging markets debtor countries and academe. This volume draws together in one place the main contributions from that conference.

In addition to chapter authors, many others have helped along the road. Raxita Dodia and Neil Lane at the Bank of England have done sterling work in helping pull the manuscripts together; and David Clementi and Alastair Clark helped support the project throughout. Robert Langham and Terry Clague at Routledge and Carl Gillingham at Wearset have also proved invaluable at various stages of the project. To all of those who contributed to this volume, a great many thanks.

Part I

Introduction

1 Fixing financial crises in the twenty-first century

Andrew G. Haldane

1.1 International financial crises – past, present and future

International financial crises have been with us for as long as international financial markets. On some measures, however, the incidence of international financial crises increased in the last part of the twentieth century. Caprio and Klingebiel (1996) document 112 crises in 93 developed and emerging economies since the late 1970s.

Table 1.1 lists some of the systemic financial crises to have hit emerging market economies (EMEs) since the Mexican crisis in 1994/1995; it also shows the headline loan packages announced by the International Monetary Fund (IMF) to help resolve these crises. Crises have struck all parts of the emerging market world. Unlike lightning, they have sometimes struck twice. Argentina recently suffered the first systemic international financial crisis of the twenty-first century. Doubtless, it will not be the last. History, especially recent history, suggests that financial crises may have become part and parcel of the international financial landscape.

But it is not just the incidence of financial crises that has altered in recent years. So too has their nature. And as the nature of crisis has changed, the difficulty of resolving them has also escalated. For example, consider the evolution in the role of the IMF in resolving financial crises since its inception. The IMF was put in place after the Second World War

Table 1.1 Recent systemic emerging market crises

	<i>IMF loans (SDR billion)</i>	<i>IMF loans (% quota)</i>
Mexico 1995	12.1	688
Thailand 1997	2.9	505
Indonesia 1997	8.3	557
Korea 1997	15.5	1,938
Brazil 1998	13.0	600
Turkey 1999	15.0	1,560
Argentina 2000	16.9	800
Brazil 2001	12.1	400
Turkey 2002	12.8	1,330
Brazil 2002	22.8	752

to help redress current account imbalances among its member countries. That role persisted through until the 1970s and 1980s. Up until that point, financial crises were typically rooted in an inability of member countries to finance current account deficits, themselves often the result of fiscal or monetary policy profligacy by the official sector.

The 1990s, however, saw a sea-change. Capital account liberalisation in a number of EMEs exposed them, as never before, to the vicissitudes of international capital markets. Footloose international flows of funds magnified vulnerabilities and imbalances in the capital account, as well as the current account, of the balance of payments. The crises in Mexico in 1994/1995, across South-East Asia in 1997, Russia in 1998, Brazil in 1999 and 2002, and Turkey and Argentina between 2000–2002 were all sourced in the external *capital* account. We appear to have entered an era of capital account crisis (IMF 2002).

This new strain of crisis carries important implications for policy-makers. Capital account crises appear, if anything, to be even more virulent and costly than their current account cousins (Bordo *et al.* 2001). They involve stock adjustments in balance sheet positions, rather than flow adjustments in the balance of payments. This helps account for the greater depth and severity of capital account crises. It also helps account for their virulence. For stocks of capital can reverse direction at speed, as well as in size. According to the Institute for International Finance (IIF), capital flows to EMEs reached a high-water mark of almost \$350 billion in 1996. In 2002, they stood at less than half that amount and are forecast to remain at these depressed levels for the next few years (Figure 1.1).

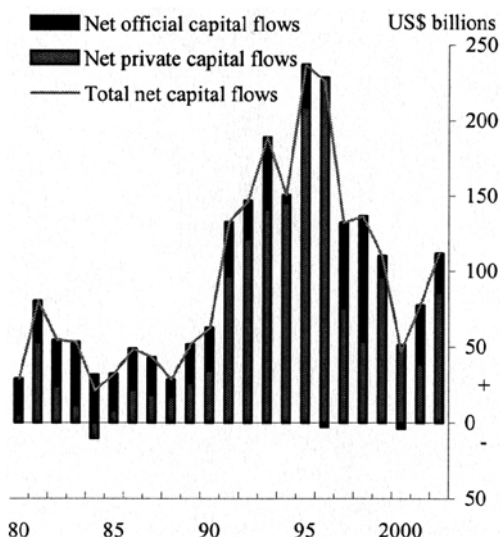


Figure 1.1 Capital flows to emerging markets (source: IMF World Economic Outlook).

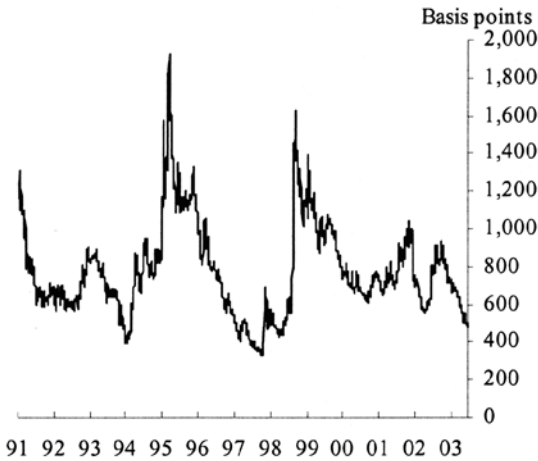


Figure 1.2 EMBI and EMBI global spread composite^a (source: JP Morgan Chase & Co.).

Note

^a a EMBI index until 30 December 1997, EMBI global from then until present.

This volatility in the quantity of capital flowing to EMEs is also mirrored in its cost. Figure 1.2 plots the average cost of borrowing by EMEs, measured as a spread over “safe” United States Treasury bond yields. The volatility in this cost of capital is striking. For example, the Russian crisis in August 1998 caused the spread to rise by a factor of three, from around 500–600 basis points to over 1,600 basis points.

1.2 Resolving international financial crises – past, present and future

Explaining crises, *ex post*, is one matter. Devising policy plans to resolve these crises, *ex ante*, is quite another. Since the Mexican crisis, considerable policy effort has been put into the handling of international financial crises. This effort is often described under the ambitious umbrella heading of “Redesigning the International Financial Architecture”. Some would see the initiatives currently on the table as somewhat less ambitious – more akin to plumbing and bricklaying than to architectural design (King 1999). But however described, the substantive public policy question is how we deal with crises that are more frequent, faster and more costly than in the past – that is, twenty-first-century capital account crises.

Broadly speaking, the official sector has pursued a two-pronged approach. A series of initiatives have been embarked on in an attempt to head-off crises before they strike – so-called “crisis prevention” measures. These are many and various (see, for example, Eichengreen 2002; Roubini and Setser 2003). But if one lesson has been learned above all others from

recent crises it is that macro-*prudential* fault-lines are just as likely to cause a financial earthquake as macro-*economic* ones.

Recent crises have been rooted in the excessive accumulation of short-term debt, fragile banking systems, over-exposed corporate sectors and unstable sovereign debt dynamics, just as much as monetary and fiscal policy mishaps. If financial liberalisation continues apace, we would expect this pattern to increase with time. In other words, financial imbalances may take on an increasingly prominent role in instigating and propagating financial crises.

In response, a large number of so-called standards and codes have been drawn up, setting out best practices in various fields of macro-economic and macro-prudential policy. These include efforts to improve the transparency of macro-economic (monetary and fiscal) policies. But, just as importantly, they include efforts to improve countries' macro-prudential policies – for example, efforts to ensure best practices in the financial regulatory and supervisory fields (for banks, insurance companies and securities houses); and measures to improve data, accounting and corporate governance (see Clark and Drage 2000).

The IMF, working alongside other international agencies, has been in the vanguard in assessing countries' compliance with these best practice codes and standards. Specifically, the IMF's Reports on the Observance of Standards and Codes (ROSCs) and the Joint IMF/World Bank Financial Sector Assessment Programmes (FSAPs) aim to provide a health check on countries' macro-economic and macro-prudential vulnerability. By the end of 2002, 343 ROSCs had been produced for 89 countries and 45 countries had completed FSAPs. Another 25 are in progress and a further 27 scheduled. Though there is further to go, progress has been tangible.

The fruits of this labour have been difficult to detect in the data. In a way that is inevitable, for we have no clean counterfactual telling us how crisis-prone countries would have been had they not undergone these health checks. Moreover, it is fanciful to think that crisis-detection could ever be so accurate as to remove entirely the potential for crisis. Indeed, to do so would probably be undesirable, as it would signal an over-zealous approach to international financial regulation. Nevertheless, there are some tentative indications that these attempts at greater transparency, and the accompanying acknowledgement of macro-vulnerabilities, may be beginning to pay dividends.

One straw in the wind comes from looking at the degree of dispersion in emerging market borrowing costs (Figure 1.3). These spreads were tightly compressed in the run-up to the Asian and Russian crises in 1997–1998. Currently, however, there appears to be a much greater degree of risk differentiation by the financial markets. Crisis prevention initiatives may have played some part in this encouraging development. Increasingly, too, it appears that rating agencies and other private sector bodies may be factoring crisis prevention initiatives, such as standards and codes, into their pricing decisions.

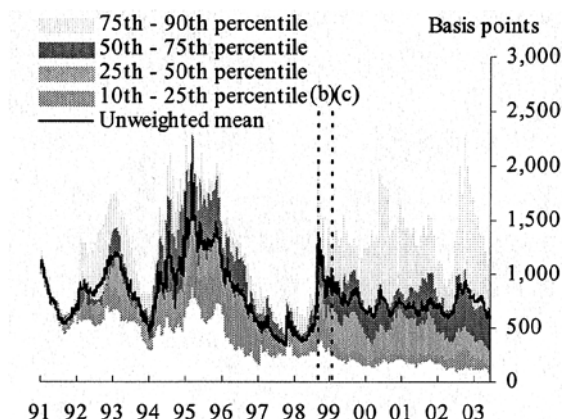


Figure 1.3 EME sovereign US\$ bond spreads: distribution over time^a
(sources: JP Morgan Chase & Co. and Bank calculations).

Notes

a Unweighted cross-country distribution across components of the EMBI global index.

b Russian crisis – 17/8/98.

c Brazilian devaluation – 13/1/99.

The other strand of architecture initiatives has focused not on crisis prevention, but on “crisis resolution” – that is, mitigating the costs of crisis after they have struck. As with crisis prevention, there have been intense efforts by the official sector to make progress on this front, especially over recent years. And, as on the prevention side, these initiatives have been many and varied. Unlike on the crisis prevention side, however, progress has been rather less tangible. Why is this?

The short answer is – economics. Surveying the debate so far, there appear to be some fundamental analytical differences in people’s preferred approach to tackling crises. These analytical differences are the motivating force behind, and the common thread running through, the remainder of this book. Overlaying these analytical differences are of course the usual panoply of other factors – politics (national and international), vested interests, institutional inertia, etc. But the focus of the remaining chapters is on the economics of the crisis resolution debate, retrospectively and prospectively. The chapters aim to track the evolution of the debate up to the present day, highlighting the key economic themes, issues and initiatives. And they attempt to provide a glimpse into where we might be headed next on the international financial architecture project.

We begin, however, with an overarching chapter by Sir Edward George (former Governor of the Bank of England) assessing progress so far on both the crisis prevention and crisis resolution strands of the debate. It surveys the landscape of recent architecture initiatives and so sets the scene for the detailed synopses of particular themes and issues that follow.

1.3 Why involve the private sector?

The IMF has played a pivotal role in the resolution of capital account crises. Recent IMF loan packages have ranged anywhere between \$3 billion and \$30 billion. The average size of IMF loans to all countries has risen from around \$200 million during the 1980s, to over \$2 billion entering the twenty-first century (Figure 1.4). By any historical metric, such as nominal GDP, the scale of IMF financing has dwarfed that in the past. And at the same time as the average size of loans has risen, the number of countries receiving them has fallen (Figure 1.5).

Large-scale official sector lending in response to financial crises has, of course, a long and distinguished intellectual pedigree, at least domestically. Bagehot (1873) first described the principles that should underpin such “last-resort” lending by a central bank to a domestic financial institution. These included that such lending should occur freely – indeed, in potentially unlimited amounts – against good collateral and at a penalty rate. Some have argued that there is a direct read-across to the management of international financial crises. Fischer (1999), in particular, proposes that the IMF could be turned into an international lender of last resort, furnishing an elastic supply of hard currency to countries in crisis. Indeed, based on past experience, it could be argued that the IMF has already played such a role, at least to some degree.

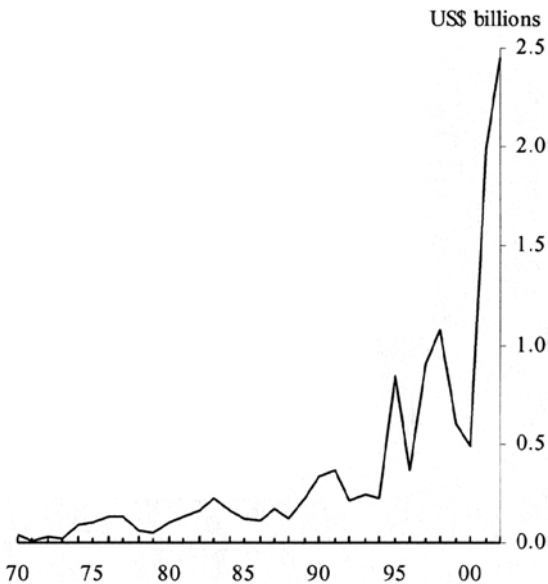


Figure 1.4 Average IMF loans^a (sources: Gai and Taylor 2003 and IMF).

Note

^a Average annual purchase from GRA (General Resources Account, excluding reserve tranche purchases) of those IMF member countries making a purchase in a given year.

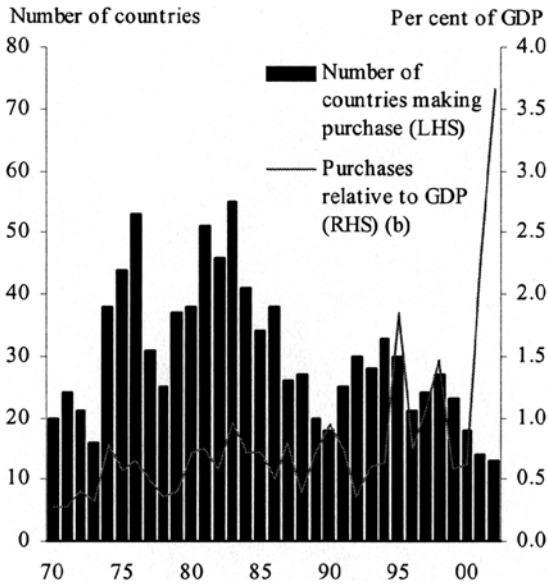


Figure 1.5 Number and size of IMF loans^a (source: Gai and Taylor 2003, IMF and IMF World Economic Outlook).

Notes

a Purchase from GRA (excluding tranche purchases). Sample is those member countries for which purchase and GDP data are available.

b Sum of purchases of IMF member countries making a purchase in given year relative to their total GDP.

This approach has come up against stiff opposition. One obvious constraint is a practical one: could IMF resources keep pace with the mounting scale of international capital flows? Even a cursory glance at the numbers suggests that IMF resources have not, and most probably could not, do so. Between 1970 and 1996, IMF quotas rose by a factor of less than two in real terms. Over the same period, world trade volumes rose by a factor of over four and real private capital flows by a factor of over eight. Capital flows have outpaced the growth in IMF resources by a factor of four to one.

Put another way, the current usable resources of the IMF are less than \$0.2 trillion. That compares with a stock of emerging market debt well in excess of \$2 trillion. If we were to add in domestic capital flight, the stock of assets that might potentially flee EMEs could easily be double that amount. So however the cake is cut, it seems most unlikely that the IMF could ever be resourced on such a scale that it could serve as a credible, and potentially unlimited, last-resort lender.

But there are also behavioural grounds for questioning the logic of last-resort lending. One role of public policy is to guard against distortions to risk-taking incentives – so-called moral hazard. Liquidity intervention in

financial crises may potentially fall foul of that critique. Specifically, it may encourage excessive risk-taking, either on the part of the debtor (“debtor moral hazard”) and/or private creditors (“creditor moral hazard”). In assessing the efficacy of public policy intervention, these moral hazard costs need to be weighed against the benefits of liquidity provision.

Part 2 of the book considers such a cost–benefit evaluation. Michael Mussa (Institute for International Economics and formerly Chief Economist at the IMF) critically examines the empirical and conceptual evidence on the degree of moral hazard potentially induced by large-scale IMF loans. Mussa argues that much of the focus on international moral hazard may be misplaced, as the distorting effects of IMF loans are likely to be quantitatively unimportant provided the IMF acts in accordance with its Articles of Agreement. Why? Because the IMF offers loans to countries rather than grants. Moreover, historically at least, these loans have almost always been repaid in full. So the subsidy to countries and their creditors implied by IMF intervention is unlikely to be large enough quantitatively to have adversely affected debtor and creditor risk choices. Certainly, such a potential pecuniary gain is likely to be dwarfed by the pecuniary losses the debtor and its creditors face as a result of crisis.

William Cline (Institute for International Economics and formerly Chief Economist at the IIF) reaches a similar conclusion from a slightly different direction. If official lending is constrained, then the burden of adjustment following a crisis must instead be borne by private creditors – there will be so-called private sector involvement (PSI) in crisis resolution. Some degree of PSI, Cline argues, is of course desirable. Private investors should bear the consequences of their risk choices. But the watchword of official sector PSI policy should be “voluntary”. Involuntary attempts to inflict losses on private creditors carry large deadweight costs for the debtor, in the form of insolvent banking systems, a slow return of private capital, etc. These costs dwarf the costs of IMF-induced moral hazard. So, based on a cost–benefit calculus, Cline argues, the IMF should always err on the side of official sector lending when resolving crises, rather than impose solutions on private sector creditors.

This view of the competing arguments is by no means unchallenged. First, as Mussa describes in his chapter, recent years may have seen the emergence of a new type of moral hazard – what he calls “geopolitical” moral hazard. The official sector may seek to bail-out countries for strategic rather than economic reasons, using the IMF as a conduit. Mussa believes this risk to be a real one, which has risen over recent years.

Second, some of the empirical evidence on moral hazard reaches a less sanguine view on its potential importance (see, for example, Haldane and Taylor 2003). International bail-outs have, on occasions in the past, depressed borrowing spreads (Dell’Arricia *et al.* 2002). They have also helped deliver excess returns to international creditors, over and above that which can be explained by reductions in the likelihood of crisis (Haldane and Scheibe 2003). And as the international safety-net has

expanded, there is some evidence that debtor countries may have become less vigilant in addressing incipient vulnerabilities (Gai and Taylor 2003). All of these stylised facts are consistent with a degree of moral hazard having been induced by large-scale IMF lending. So, empirically at least, the jury remains out on the moral hazard question.

Third, as John Murray (Bank of Canada) describes in his commentary on Mussa, the case for restraint in official sector lending policies does not stand or fall on moral hazard. The case can equally be made on uncertainty grounds. Unpredictability about the lending response of the official sector may inhibit accurate risk-pricing by the private sector and may stymie policy risk-management by debtor countries. Against this backdrop, Murray makes the case for stricter limits on access to official financing. Access limits would serve as self-denying ordinance for the official sector, curbing the potential for discretion in official sector lending policy to disrupt the international financial system (Haldane and Kruger 2001; Council on Foreign Relations 1999).

The international community has recently taken to heart this desire for greater discipline in official lending policies. In April 2002, the Group of Seven (G7) countries committed themselves to strengthening IMF access policy. And in September 2002, the IMF's Executive Board agreed new criteria and procedures to accompany any decision to grant access to IMF resources above normal lending limits (of 100 per cent of a country's quota annually and 300 per cent of quota cumulatively).

These are steps along the road to establishing a framework of "constrained discretion" in the resolution of financial crises. Too often in the past, exceptional lending has become the rule – what Sir Edward George calls "damaging confusion" as distinct from "constructive ambiguity". The newly agreed IMF access framework ought, at the margin, to help ensure restraint and consistency in the IMF's lending practices, while at the same time allowing the IMF flexibility to deal with genuinely exceptional events. Ultimately, however, the proof of this particular pudding will be in the eating, when the new access framework is put to work in live cases.

1.4 How to involve the private sector?

If official sector lending is one side of the crisis resolution coin, then private sector involvement (PSI) is the other. PSI can come in a variety of shapes and forms: catalytic reflows of private sector finance – as in Mexico in 1994/1995; voluntary agreements to rollover interbank credit lines – as in Korea in 1997 and Brazil in 1999; market-based bond exchanges – as in Pakistan and Ukraine in 1999, Ecuador in 2000 and Uruguay in 2003; and comprehensive restructuring of external debts, perhaps accompanied by exchange controls – as in Russia in 1998 and Argentina in 2002/2003.

In 2000, the G7 developed countries set out a set of principles and tools describing how future crises would be resolved. This became known as the "Prague framework". The framework defined the circumstances under

which different types of crisis resolution tool might be brought into play. It distinguished three types of crisis. First, temporary payments problems that could be resolved through some combination of official monies and its accompanying catalytic impact on private capital flows. Second, more serious, but still temporary, payments problems whose resolution may involve more radical tools – for example, bond exchanges and voluntary rollover agreements with creditors. And third, permanent disruptions to payments capacity whose resolution called for a comprehensive writing-down of debts. Cline’s chapter provides a taxonomy of these various PSI concepts and an empirical quantification of them in past cases. This evidence addresses the positive question – what form has PSI taken in past crises?

A second, and more difficult, normative question is – what form *should* PSI take in dealing with crises? Part 3 of the book addresses that normative question. Analytically at least, it is useful to consider separately crises of two types: liquidity crises and solvency crises.¹ Liquidity crises are typically rooted in co-ordination failures among short-term creditors. One example of this phenomena is a “country run” – the failure of short-term creditors to rollover loans to an otherwise solvent country (Chang and Velasco 1999). These failures may result in the premature liquidation by creditors of otherwise viable projects – premature because, had creditors not chosen to foreclose, the project would have succeeded. So, like bank runs, these phenomena can be value-destroying.

Solvency crises, by contrast, occur when a country is unable to meet its payments, irrespective of the actions of short-term creditors. So resolving solvency crises calls for the writing-down of (short- and long-term) debt in net present-value terms. Securing such a write-down is, however, rarely straightforward in a sovereign context. Unlike for companies or banks, there is no over-arching framework, or set of principles, for reorganising the financial affairs of an over-indebted sovereign. As a consequence, sovereign solvency crises can also give rise to potential co-ordination problems among creditors, with attendant welfare costs.

In practice, this neat separation between liquidity and solvency crises is rarely so precise. The distinction is murky even when applied to a non-sovereign entity, such as a company or a bank. But in a sovereign context the difference is even harder to judge. A sovereign cannot be liquidated, unlike a company; its management cannot be changed, unlike for a company; and its revenue stream, and hence solvency, is largely in its own hands as a result of its policy choices, unlike for a company. So rather than a hard and fast liquidity/solvency distinction, it may make more sense to think of a spectrum of possible crisis situations facing a sovereign, ranging from insolvency at one end to illiquidity at the other. In these situations, the official sector needs a plurality of tools for dealing with crises at different points along the spectrum.

The chapters by Nouriel Roubini (New York University) and by Andrew Haldane, Simon Hayes, Adrian Penalver, Victoria Saporta (all

Bank of England) and Hyun Song Shin (London School of Economics) – hereafter HHPSS – take the solvency/liquidity nexus as their starting point. For liquidity crises, both chapters identify a disjunction between academic theory and policy practice. For example, the analytics of liquidity crises point towards a bipolar view. The best policy response to a liquidity crisis is either a full “bail-out” of the country by the IMF – in effect, the IMF serving as international lender of last resort; or it is a full “bail-in” of private sector creditors – the imposition of a temporary payments suspension or standstill on creditors, with no official money.

Each of these corner solutions can, subject to certain assumptions, be shown to be the most efficient means of dealing with a temporary payments problem in a country. Partial bail-outs or partial bail-ins, by contrast, are incapable of offering the necessary assurances to creditors to resolve liquidity crises. Indeed, partial bail-outs/ins might be counter-productive to crisis dynamics for just this reason (Zettelmeyer 2000).

That is the theory. The contrast with policy practice could hardly, however, be more stark. For example, revealed preference seems to suggest that 100 per cent bail-ins and 100 per cent bail-outs have not been viewed by the official sector as equally efficient substitutes when dealing with liquidity crises. In practice, the resolution of some cases has had similarities with a 100 per cent bail-out approach – for example, Mexico in 1994/1995, some of the South-East Asian crisis countries in 1997 and Turkey, Brazil and Uruguay in 2002. But few, if any, have involved the polar-opposite solution – a temporary cessation of payments without any accompanying official money.

Roubini and HHPSS consider this conundrum. Part of the explanation may lie in fears about the adverse side effects of payments suspensions on capital markets. If investors perceive a greater risk of them being locked into a country, they may be faster in running for the door as risks escalate. This “rush to the exits” in anticipation of a standstill could itself bring forward the likelihood of liquidity crisis, rather than lessen it (Lipworth and Nystedt 2001). Investors might also respond by constraining the flow and/or raising the cost of capital to EMEs. The IMF, in particular, have used these arguments as justification for using quantitative restrictions on capital flows only as a last resort measure (IMF 2002).

Yet these arguments may tell only part of the story. As HPSS discuss, there may be countervailing forces at work in capital markets. Standstills are intended to stabilise expectations by preventing the drain of liquidity that might otherwise damage a country’s longer-term prospects. They guard against Peter being paid ahead of Paul purely because his claim falls due first, so helping preserve inter-creditor equity. This is likely to be beneficial for creditors in general, and for longer-term creditors in particular. Anticipating these better prospects, longer-term investors are, in turn, likely to act as a stabilising force. Adverse side effects on capital prices, flows and maturities may be offset by the neutralising impact of these long-term investors.

Only greater experience with payments suspensions will tell us what their precise impact on capital market dynamics might be. As long as IMF resources remain finite and falling in relation to private capital flows, however, then orderly payments suspensions may see greater use in the future than they have so far in the past. And, perhaps, the spillover effects from them will be more benign than some have feared. The limited degree of financial spillover from the Argentine payments suspension in 2001 may signal a new dawn.

A second area of difference between academic theory and policy experience is that many recent liquidity-type crises have been resolved using intermediate rather than corner solutions. Partial bail-outs and accompanying partial bail-ins of private creditors have become the norm. The crises in Korea in 1997, Brazil and Pakistan in 1999, Ukraine and Ecuador in 2000 and Turkey in 2001 all involved some judicious mix of official financing and partial PSI. These solutions seemed to “work” in practice. Why not in theory?

Perhaps, as with much of the recent literature on the international architecture, crisis experience is running ahead of academic theory. Three generations of models of crisis have been developed over the last 30 years. In each case, a new generation of theory emerged in response to crisis, rather than in anticipation of it. Most recently, work by Morris and Shin (2003) and Corsetti *et al.* (2003) shows that partial bail-out solutions are capable of bridging financing gaps and resolving crises. Specifically, official money can “catalyse” policy adjustment action by the debtor and may, as a result, induce private creditors to roll-over loans.

But as Morris and Shin discuss, the window of opportunity for such catalytic effects is a narrow one. Too much official money and policy incentives are blunted, not sharpened. Not enough official money and these incentives are unaffected. So calibrating just the right amount of official money to catalyse capital flows is fraught with problems. Past crisis experience would seem to bear out that message. In few recent cases have the anticipated catalytic effects been forthcoming (Cotarelli and Gianninni 2002). For that reason, the catalytic finance doctrine has of late been held up to critical scrutiny.

What is perhaps most striking from all of this evidence, however, is the relative lack of guidance that theory has been able to provide on appropriate tools for handling liquidity-type crises. The corner solutions are perceived as impractical. But the middle ground may be equally fragile. Against that backdrop, the somewhat inconsistent public policy approach adopted when dealing with past crises of this type is perhaps not so surprising. This is clearly an area where further refinement of academic and policy apparatus is of paramount importance. It is a missing foundation of the international financial architecture.

In many respects, the debate over the resolution of *solvency* crises has been more animated, and has made more progress, over the past few years. That debate has been given momentum by crisis experience in

Russia in 1998 and, most recently, Argentina in 2002. In both cases, the sovereign defaulted on (some or all of) its debts to the private sector, with catastrophic implications for real and financial activity in the countries concerned. Both countries experienced a sharp contraction in GDP and a banking crisis, the after-effects of which are still being felt.

The resolution of solvency crises is, almost by definition, likely to involve the sovereign defaulting on some or all of its payments to creditors and a writing-down in the value of those debts in net present-value terms. Both such actions give rise to potential co-ordination problems both among creditors, and between the debtor and its creditors collectively. For example, a sovereign in default may face the risk of litigation by creditors, who seek to attach the sovereign's assets to cover the face value of their obligations. Or a small majority of creditors may vote against ("holdout" from) a restructuring deal, thereby disrupting progress on resolving a debt problem. Alternatively still, there may be deadlock between the debtor and some or all of its creditors in agreeing a suitable haircut for the debt.

Various initiatives have been tabled for resolving some of these problems. But the two which have perhaps attracted the most practical interest are collective action clauses (CACs) in bond contracts, and the Sovereign Debt Restructuring Mechanism (SDRM), first proposed by Anne Krueger of the IMF in 2001 (Krueger 2001). These two initiatives have been dubbed, respectively, the contractual and the statutory approaches to debt restructuring. Parts 4 and 5 of this book consider in turn each of these proposals.

1.5 Contractual approaches to debt restructuring

Accompanying the rise in the scale of borrowing by EMEs over the last 30 years has been an equally striking shift in the composition of these flows. Bond issuance by EMEs has taken off. Since 1980 it has risen at an annual average rate of around 25 per cent (Figure 1.6). At end-2000, the stock of emerging market bonds stood at \$500 billion, which is roughly on a par with the stock of medium and long-term emerging market syndicated loans.

There are many potential benefits of international bonds as an instrument over, say, syndicated loans – for example, the greater dispersion of credit risk around the international financial system and the presence of a deep and liquid secondary market. The successful experience with the Brady plan at the end of the 1980s, when defaulted developing country loans to banks were exchanged for securities (Brady bonds) in a number of EMEs, is ample evidence of these benefits.

But this dispersion of risk around the system also carries some potential costs in the event that international bonds need to be restructured – that is, in solvency crises. Some of these costs are administrative – for example, the inconvenience of calling and holding meetings of diffuse creditor groups. Others are more substantive – for example, achieving consensus on proposals to restructure the debt among creditors with potentially

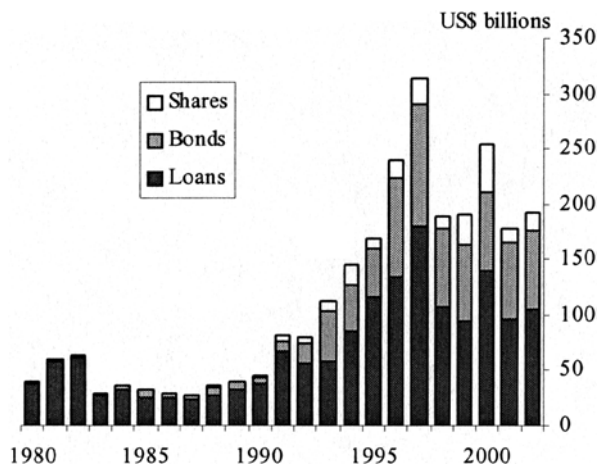


Figure 1.6 Gross issuance by emerging markets.

disparate preferences. Either way, these problems are not unique to sovereigns nor to emerging market countries. The same problems have beset companies issuing bonds for many years.

The chapter by Lee Buchheit (Cleary, Gottlieb, Steen and Hamilton) and Mitu Gulati (Georgetown University) explores this sovereign/corporate analogy, by considering the debate at the end of the nineteenth century over optimal corporate restructuring mechanisms in the UK and the USA. In a corporate context, the UK went down the contractual route by including within corporate bonds CACs which facilitated restructuring – for example, clauses which allowed a qualified majority of creditors to change the financial terms of the bonds (see Dixon and Wall 2000). The USA, on the other hand, pursued a statutory course, which ultimately resulted in Chapter 11 bankruptcy procedures for companies. Indeed, in the USA, the Trust Indenture Act of 1939 explicitly forbade companies from issuing bonds containing CACs.

Those corporate conventions in US and UK law have carried across to sovereign bond issuance right up to the present day. Specifically, bonds issued under UK law have tended to include CACs, whereas equivalent bonds issued under US law have not. Among EMEs, bonds issued under English law have accounted for between one-third and a half of total issuance over recent years (Dixon and Wall 2000). That suggests a sizeable chunk of international EME bonds are unlikely to contain CACs.

It is this stylised fact that explains the drive by the official sector over recent years to encourage the wider use of CACs in international sovereign bonds – the subject of Part 4 of the book. An initial proposal on the inclusion of CACs in bonds was made in Eichengreen and Portes (1995), whose findings were given official sector backing in the Rey Report (1996) by the Group of Ten (G10) industrialised countries. Up until recently,

however, there has been relatively little evidence of official sector exhortations to include CACs having had much impact on issuing behaviour.

One of the reasons for this may have been concerns among EME issuers about the increased cost of borrowing with bonds which included CACs. For example, it has been argued that the inclusion of CACs may, at the margin, make debtors more willing to default on their debts. Private creditors would demand a higher cost of borrowing in equilibrium if they perceived this to be a risk. Against this, CACs should boost recovery values in the event of default, by facilitating orderly restructuring. This would tend to lower borrowing costs. Which of these competing effects dominates is an empirical question. Significantly, existing empirical evidence does not point towards a significant risk premium in bonds issued with CACs, compared with those without. This is certainly the case for low-risk borrowers (Eichengreen and Mody 2000), but also potentially for higher-risk borrowers as well (Becker *et al.* 2001).

Over the past couple of years, the degree of official sector impetus behind CACs has intensified, with the US Treasury (Taylor 2002) and the G7 (2002) both prominent supporters. Indeed, a working group of the G10 was convened during 2002 to devise model CACs, which might form an industry standard. At around the same time, a group of seven private sector organisations began devising their own model clauses.² Subsequent to this, a number of EMEs have issued international bonds under New York law that have included CACs. The bond issued by Mexico in February 2003, which included CACs modelled on the G10 clauses, resolved the first-mover problem. And since then, countries including Brazil, Uruguay, South Africa and Korea have followed suit. So on the CACs front, we have gone from ideas to words (draft clauses) and, most recently (and encouragingly), from words to actions. Unlike in other areas of the crisis resolution debate, progress has been speedy.

A common theme from the chapters by Buchheit and Gulati and by Kenneth Kletzer (University of California) is that, used creatively, CAC provisions can replicate most, if not all, of the features of formal bankruptcy arrangements. For example, stays on creditor litigation, super-priority of new financing for the debtor during a workout and the cram-down of creditors through majority action provisions can all be replicated with contractual apparatus. As Kletzer's chapter demonstrates, the last of these provisions is particularly useful, as it neuters the incentives of creditors to hold-out from a restructuring agreement. This rent-seeking behaviour is amplified with the unanimity provisions typically contained in bond contracts issued under US law.

One technical difference that does exist between CACs and, say, statutory apparatus is the capacity to aggregate across instruments of different types. For example, CACs are typically included on a bond-by-bond basis, so allowing a vote on restructuring to occur on a bond-by-bond basis. In principle, it may be preferable to have majority voting provisions which aggregate across all instruments. Indeed, the Uruguayan bond exchange

in June 2003 contained clauses which allowed for some degree of aggregation across the exchanged instruments. But the number of instruments was in that case relatively small – three.

To take a countercase, in Argentina there are around 150 different types of bond, issued across eight different legal jurisdictions, with perhaps approaching 400,000 end-investors. In these situations, there is a tangible risk of a restructuring deal being held hostage to the outcome of a vote by any one group of bondholders. This has been termed the “aggregation problem”. It has been used by some to support the case for the statutory approach, under which all claims would be aggregated and homogenised for voting purposes.

The chapters by Buchheit and Gulati and by Kletzer suggest that this aggregation problem may be surmountable even with existing contractual tools. Buchheit and Gulati point towards the role that could be played by class action procedures in aggregating claims. These procedures already operate in US courts and have, in practice, been able to achieve a high degree of creditor homogenisation. Significantly, such class action procedures have recently been used by German and Italian retail investors during Argentina’s debt deliberations.

Using a theoretical model, Kletzer demonstrates that the self-interested actions of multiple bondholders can resolve the aggregation problem without the need for third-party intervention. Specifically, it will typically be optimal for multiple bondholders to appoint a private trustee to act collectively on their behalf in the event of a restructuring. No supranational agency is required to resolve aggregation problems. A similar refrain has been heard from private sector creditors (IIF 2002). Again, there is evidence from the Argentine work-out of creditors being able to successfully co-ordinate their actions around a set of appointed trustees.

Taking these chapters together, a strong case could be made for persisting with the contractual approach to debt restructuring, not least given the success on implementation so far. This echoes the message from Roubini’s chapter, which argues that many of the differences between CACs and the SDRM may be more apparent than real. That complementarity has also been recognised by the official sector. Through 2002, they proposed that work on the contractual and statutory approaches should proceed in parallel, as part of a twin-track process (G7 2002). But why bother with a statutory approach at all if CACs can do as good a job? Part 5 of the book addresses that question.

1.6 Statutory approaches to debt restructuring

Sovereign bankruptcy proposals have a long intellectual history, stretching back to Adam Smith (Rogoff and Zettelmeyer 2002). But relatively little practical progress has been made in formalising bankruptcy procedures for countries over this period, despite periodic calls for action. The last two years have probably seen more practical progress on this front than the

preceding two centuries. A concrete proposal was tabled by the IMF in 2001 – the SDRM. Since then, there have been several incarnations of the SDRM proposal. The first vintage suggested placing the IMF centre-stage in many of the mechanism's key decisions (Krueger 2001). A second vintage placed most of the key decisions in the hands of creditors and the debtor instead (Krueger 2002).

Each of these proposals met with widespread criticism, however, in particular from the private sector (see, for example, IIF 2002). These criticisms are manifold. But, at root, the private sector fear that the balance of bargaining power between a sovereign debtor and its creditors is already skewed heavily in the direction of the debtor. Sovereigns are, after all, sovereign. So any further tilting of the scales, which further diluted creditor rights, would risk a collapse of private capital flows to EMEs (Shleifer 2003). Perhaps with this fear in mind, few EME issuers have so far been attracted by the SDRM proposal either.

Despite this criticism, the official sector tasked the IMF to come up with a concrete proposal for the SDRM for consideration at the time of the IMF–World Bank spring meetings in April 2003. The tabled proposal did not, however, gather the support of the requisite 85 per cent of the IMF's Executive Board necessary to amend the IMF's Articles of Agreement to put in place the SDRM. So the formal proposal has been held in abeyance since then, while other (contractual and voluntary) avenues have been pursued.

It is nonetheless worth assessing the merits of an SDRM (or SDRM-like) proposal from first-principles. All good ideas have their day – and the SDRM debate has, if nothing else, whet the appetite of international monetary reformers. The historical evolution of corporate bankruptcy law is also illuminating. This was introduced in many countries in the face of stiff opposition by creditors and/or corporates and only after decades of messy corporate workout experience. No one these days seriously questions the desirability of corporate insolvency procedures in principle, though they may disagree on the details of a particular insolvency regime in practice.

One reason why bankruptcy procedures have, with time, come to be accepted by creditors and debtors is that they are perceived as having helped guard against important externalities of various kinds. By definition, such externalities cannot be resolved by the self-interested actions of atomistic agents. A supranational agency and accompanying legal infrastructure is required. As Willem Buiter (European Bank for Reconstruction and Development) quips in Chapter 14: "The state or its supranational counterpart has no effective substitutes, be it the invisible hand or the inaudible negotiator."

The chapters by Jonathan Eaton (New York University) and by Marcus Miller and Sayantan Ghosal (University of Warwick) identify several externalities that might justify the creation of such a supranational agency. For example, if underpinned by international statute, it may have greater

powers of enforcement of decisions over creditors and debtors; it might better be able to mitigate debtor incentives to default capriciously (debtor moral hazard); it might have the capacity to correct the effects of socially inefficient private contracts; and it may have superior information to – or more objective incentives than – private creditors and the debtor in helping secure an efficient and expeditious workout.

In practice, enforcement of decisions over sovereigns is always likely to be far more problematic than in a corporate context. Nevertheless, there may be ways an international court could boost the value of the (pecuniary or reputational) collateral backing international lending, thereby supporting capital flows. For example, Eaton proposes that sovereigns could be asked to place some of the proceeds of any loan in an escrow account, which could be remitted back to creditors in the event of default. Bankruptcy courts could help encourage countries to put in place structural policy measures, over and above what they otherwise would have done. And a supranational agency may also be able to reinforce reputational incentives – for example, by blowing the whistle on sovereigns who default strategically, either through announcements or by refusing to lend to them. As Miller and Ghosal discuss, these actions would mitigate the risk of debtor moral hazard and would help exert some degree of leverage or enforcement over otherwise sovereign decision-making.

There may also be an informational role for a supranational agency to play. Most of the debate so far – certainly, in the context of the SDRM – has focused on potential co-ordination failures among creditors. Less attention has been paid to co-ordination failures that might arise between the debtor and creditors collectively. This may provide a further rationale for supranational intervention.

Information asymmetries between debtors and creditors may prevent an efficient bargaining solution being reached (Haldane *et al.* 2003). If a central agency can resolve these informational frictions, it can help achieve an efficient bargaining solution – that is, fewer stand-offs between creditors and the debtor and shorter delays in reaching agreement (see, for example, Haldane *et al.* 2003). The decade-long workout of the Latin American debt crisis in the 1980s, and the lengthy ongoing renegotiation of Argentina's debt, suggests that the scope for such stand-offs is considerable.

At present there is little, if any, quantitative evidence on the importance of these various creditor/debtor externalities in practice. Once established, this evidence would need to be weighed alongside the practical costs of putting in place a supranational bankruptcy procedure. And, of course, political-economy factors are likely to be at least as important as economic motives when devising an international bankruptcy court. For example, who would serve as judge (and jury and executioner)? The IMF, a debtor-club, is generally felt to be poorly placed to serve that role. But if not the IMF, then who? The governance of a supranational body would need careful consideration given its potential distributional impact on debtors and creditors. That is an important task for future research.

1.7 The road ahead

Strengthening the international financial architecture is destined to proceed at glacial pace – perhaps, if we are lucky, with the occasional lurches forward as initiatives serve as a beacon for renewed action. Progress over the last few years has followed precisely this pattern. But where does this leave us for the future? The final chapters in Part 6 of the book present the views of four experts on this question: Matthew Fisher (IMF); Lorenzo Bini Smaghi (Italian Treasury); Richard Clarida (formerly of the US Treasury); and Mervyn King (Governor of the Bank of England).

There is near-consensus on the need for restraint in the availability of official resources to help resolve capital account crises. The idea of an international lender of last resort is one which attracted some support, especially towards the end of the twentieth century. But its day appears to have come and gone. Discipline has become the watchword of official lending policy. A strengthened framework for IMF access policy was agreed by the IMF's members during 2002. The new framework raises the bar for countries wishing to obtain exceptional access to IMF resources, by requiring a higher burden of proof and putting procedural safeguards in place.

How will this new policy be applied in practice? Only time will tell. Without the backstop of limits on official finance, however, it is hard to see how much progress can be made on other architecture initiatives. The balm of official finance will always be too attractive an option for debtors to pursue other, more difficult, options voluntarily. Lending limits serve as an incentive mechanism for the debtor to put in place prompt corrective action, be it macroeconomic policy adjustment, debt exchanges or comprehensive debt restructuring. In short, access limits are a *sine qua non* of a robust and disciplined international financial architecture.

Progress towards agreeing and, ultimately, including CACs in sovereign bonds has been considerable over the past few years. That is good news. CACs help in sovereign debt crises where much of the debt is in the form of international bonds which needs restructuring or rescheduling. Plainly, however, that is only a subset of the crisis cases we have seen over recent years and can expect to see in the future. For example, arguably, CACs would have been of little use in resolving the East Asian crises, nor in Turkey and Brazil in 1999. CACs are no panacea. They are one instrument (among many) to be used for one particular type of crisis (among many). So where are the remaining gaps?

What the existing crisis resolution process perhaps lacks, above all else, is an overarching superstructure; if only for that reason, the “architecture” metaphor is a good one. By “superstructure” we mean a set of rules or principles that guide the actions and expectations of the various players in the crisis game – the official sector, private creditors and the debtor. Without those presumptions, the crisis resolution process is doomed to remain ad hoc and uncertain. Debt workouts will remain a free-for-all, with attendant costs for all.

The SDRM is one model for such a superstructure. The underpinning for the process is, in this case, provided by international statute. But at least as important as the underpinning is the substance of the SDRM proposal – an articulation of the processes that would govern sovereign debt workouts, including decisions on the scope of the debt and the voting and verification of claims. In effect, the SDRM provides a cookbook for sovereign debt restructuring. There are other recipes for organising a workout, some potentially better, some worse. But no recipe at all – retaining the status quo – seems like an unsavoury prospect.

Given that the SDRM has for the present time been mothballed, what alternative superstructures exist? Over recent months, the idea of a Code of Good Conduct for sovereign debt workouts has begun to attract some attention, both within official sector circles (for example, Sir Edward George's chapter and Banque de France 2003), and within the private sector (IIF 2003). The rationale for such a code is that it could help provide stronger presumptions about the expected behaviour of different parties in the event of a payments problem; it would set out a "roadmap" of best practices.

Such a code would have a voluntary, rather than statutory, underpinning. That would be both its biggest advantage and its biggest disadvantage. Advantageous because it would, at least in principle, be easier to reach agreement among debtors, creditors and the official sector on what, *ex ante*, constituted good faith and best practices during a workout. Disadvantageous because it would be easier for debtors, creditors and the official sector to circumvent the code, *ex post*, in the event of a crisis.

With time, of course, even a voluntary code might usefully condition expectations and behaviour if it were seen to have teeth. Indeed, these teeth could be sharpened with various carrots and sticks. For example, it could be decided that a debtor would need to be complying with the code's good faith principles to be eligible for official financing from the IMF. In terms of next steps, these will involve, first, drawing up the code, balancing the competing interests of debtors, creditors and the official sector; and, second, putting in place incentives to ensure compliance with the code.

One of the attractions of the code idea, alongside its practicality, is that it could be designed to cover a wider range of payments problems than, say, the SDRM. The latter is designed exclusively for the case of comprehensive restructuring of sovereign debt – the third case identified in the Prague framework. A code could also be designed to serve a useful role in the event of less severe payments problems – the first two cases identified in the Prague framework. For example, it could help in the initiation of an early dialogue between the debtor and its creditors as payments problems mount. More generally, a code could be thought of as a portmanteau set of principles, embracing many potential crisis situations (liquidity crises, solvency crises) and many potential crisis resolution instruments (CACs, standstills, debt exchanges, etc.). Viewed as such, it could become a central plank of the international architecture.