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THE BANKRUPTCY OF BANKRUPTCY

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Introduction

A person or company is bankrupt when he, she or it cannot make all payments due on time and in full. A legal construct is bankrupt when it fails to achieve its political, social or economic objectives. The thesis of this paper is that bankruptcy as a legal device for resolving the financial condition of systemically significant financial institutions (SIFIs) and insolvent states is bankrupt. [1] The international financial crisis that started in 2007 demonstrated that there is no effective means for resolving SIFIs. As a result, an industry that adds about 8% of global GDP received something of the order of 25 % of GDP in government funds, and pushed some sovereigns such as Iceland and Ireland to be brink of insolvency.[2] The debt crisis in Greece and other vulnerable member states in the Euro-area, following on from earlier sovereign crises in emerging market and developing countries, have demonstrated that there is at present no adequate mechanism for the orderly resolution of a sovereign debtor in distress.

The absence of workable debt resolution for sovereigns and SIFIs is hardly surprising. After all, both nation states and global financial institutions are largely beyond the pale of law. Sovereigns are by definition the source of law and therefore above it, except to the extent that peremptory international law (*jus cogens*) prevails and that they agree to give precedence to treaties and international conventions or find themselves subject to a restricted interpretation of sovereign immunity in the local courts in which they transact.[3] SIFIs are so large and powerful - and the negative externalities associated with their failure so great - that the authorities are reluctant to use the meagre set of tools that they have. In addition, SIFIs are active in so many jurisdictions and they are so legally complex that they can arbitrage away almost any binding legal constraint since there is not a single regime to resolve their global operations.

The absence of effective means to deal with the debt distress of sovereigns and SIFIs and the huge costs associated with sovereign and financial crises have spawned efforts to develop orderly debt resolution mechanisms for sovereigns and SIFIs. However, these two strands have proceeded largely in isolation, even though the two types of crisis are closely bound up together. Actions by states to alleviate distress in financial institutions can cast doubt on the sustainability of the sovereign's debt (viz Ireland, Iceland), especially in cases

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[1] We are mindful that we are using the term in metaphorical sense. In the United Kingdom, bankruptcy procedures apply to individuals, not to companies, which are governed by insolvency procedures. In an increasing number of jurisdictions, financial institutions cannot be bankrupt, not because they are immune from being insolvent but because there are special resolution regimes.

[2] See Herring (2010).

[3] The doctrine of limited sovereign immunity was a product of the cold war. State owned companies in communist countries claimed immunity from prosecution and enforcement in their commercial transactions, arguing that they were instrumentalities of the state. In 1976 the United States Congress addressed this issue by passing the Foreign Sovereign Immunities Act, which restricted sovereign immunities to the public policy actions (jure imperii) of foreign states and of their instrumentalities. and that claims on them could not, because of the doctrine of sovereign immunity, be enforced.

where the size of the financial sector is large relative to the size of the economy. And doubts about the ability of states to provide additional resources can make financial institutions more fragile (viz Greece). The last concerted effort to develop a sovereign debt resolution mechanism took place following the Asian debt crisis and led to some modest changes in contract documentation, but there is at present no international effort to address this problem. By contrast efforts are currently underway to develop an effective framework for the resolution of SIFIs within the context of the G20 and the FSB.[4]

The purpose of this paper is to consider how these two largely disparate efforts can inform one another. The paper is organised in the following manner: it begins with review of the economic and social rationale for insolvency procedures. It then compares and contrasts resolution frameworks that are applied to sovereigns and SIFIs. It moves on to see what lessons can be drawn, and concludes by putting forward some modest suggestions about a way forward.

The rationale for bankruptcy procedures

Bankruptcy is a social, political and legal device to deal with broken promises. Most promises are kept. The expectation that they will be is essential for the operation of a market-based economic system. Sometimes, however, a debtor cannot perform on his contracts, and must declare himself or herself insolvent. Bankruptcy arrangements are therefore a means of addressing a time inconsistency – the one that arises when the conditions that prevail at the time the debt is due differ from the beliefs about the conditions at the time the contract was made.

While insolvency arrangements are meant to deal with time inconsistency, they create time inconsistency problems of their own. Their very existence alerts both creditors and debtors to the possibility that debt will not be repaid on time and in full. In other words, they can, if not properly designed, give rise to moral hazard. A challenge in designing bankruptcy arrangements is striking a balance between the need to ensure that contracts will be paid on time and in full and the need to produce an outcome optimal for the debtor, creditor and society at large when promises cannot be kept. If insolvency procedures fail to impose sufficient pain on the agent that defaults, they risk undermining the discipline needed for the operation of markets. In the absence of a credible threat of loss, debtors may default repeatedly. However, if insolvency procedures do not permit orderly resolution, they risk the loss of critical functions performed by the bankrupt firm or individual.

Objectives related to individual welfare

Maximise recovery value for the debtor

Arguably the overriding original motivation for bankruptcy regimes was to permit creditors to collect when debtors could not or would not pay. This explains the draconian penalties that were imposed in the past (a "pound of flesh" demanded by the Merchant of Venice and the widespread use of debtors' prisons such as the one where Charles Dickens' father was gaoled). There was a distinct element of retribution in the system, but it served to keep moral hazard at bay.

Permit the debtor to retain his "tools of his trade"

Historically debtors have enjoyed some protection under the law. The usury restrictions that were common well into the last century and are still found in some jurisdictions were

[4] At the Cannes Summit in November 2011, the G20 endorsed the FSB Key Attributes of Effective Resolution Regimes that set out the powers and tools need to make the resolution of globally active financial institutions possible. See http://www.financialstabilityboard.org/publications/r_111104cc.pdf.

intended to prevent unprincipled exploitation of the borrower. In addition, modern insolvency legislation generally allows an agent that is declared bankrupt to retain some property both for humanitarian reasons and because of the recognition that the debtor will be able to resume economically useful activity more quickly if he retains his tools of the trade.

Public good objectives

Insolvency almost always affects third parties, and some of the provisions in insolvency legislation are designed to protect them. For example, restructuring procedures (e.g., Chapter 11) combined with arrangements for debtor in possession of financing permit the firm to continue to operate. This not only may help to maintain and perhaps even augment the value of the claims of the creditors, it also permits the debtor to continue to provide jobs and provides access by customers and third parties to the goods and services produced by the firm. Third party effects are particularly great in the case of both SIFIs and States.

Preserve critical functions

SIFIs often perform critical functions, either directly for ultimate customers or indirectly by providing services to other financial institutions.[5] A public policy objective of any applicable regime should be to preserve the continued performance of those critical functions. In the case of financial institutions, there are different approaches to maintaining critical functions and insulating them from failure. The choice of the measure will depend on the nature of the business. Certain functions may be insulated *ex ante* from other risk taking activities.[6] Alternatively, a special resolution framework could empower authorities to ensure the continued operation of the essential functions by transferring them to a newly established entity or third party, while the remaining activities of the institution are wound up.

Preserving the continuity of key funding markets is a particularly important objective. Both the 2007-2009 crisis and the current crisis in Europe illustrate how key funding markets can be impaired in a crisis, and regulation needs to be designed so that the threat to their continued depth and liquidity is minimal. The central bank may need to act as lender of last resort and in some circumstances even as substitute for financial markets, becoming a temporary financial conduit.

Promote economic efficiency.

Properly designed insolvency regimes promote efficiency in the economic system. They provide incentives to repay debt in full and on time. They foster efficiency in the price mechanism by creating credible expectations about likely outcomes when a debtor cannot or will not repay his debt. And, by providing a viable option to the socialisation of losses, they reduce the risk of distortions in pricing and competition arising from bail outs. Finally, they serve as a kind of Darwinian mechanism to ensure that weak firms are culled, allowing more dynamic ones to emerge. This triage is essential for the effective operation of a dynamic market economy.

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[5] See Hüpkes (2005) for the rationale of designing insolvency arrangements for banks so that they preserve critical functions

[6] An example for this approach is the creation of Continuous Linked Settlement (CLS) bank, which insulates the clearing and settlement function for foreign exchange contracts from failure of individual market participants. The efforts underway to expand central counterparty (CCP) clearing into OTC derivatives markets, including the credit default swap (CDS) market, and to move as much trading as possible to an organised exchange are another example.

Avoid negative externalities.

An insolvency regime should be designed so that it does not trigger contagion or otherwise lead to significant negative externalities. When authorities view the results of an insolvency process as socially unacceptable, they are more likely to opt for an ad hoc solution that relies on the use of public funds. This in turn creates greater time inconsistency and makes moral hazard worse.

Reconcile the rights of the individual and the interests of society (address collective action problems)

Individuals who insist that the original terms of a contract be honoured perform a useful social function, even when it is difficult or impossible for the debtor to do so. They ensure discipline is maintained and foster predictability in outcomes, which is critical for the operation of the market. Nonetheless, there are circumstances where the rights of the individual and the interests of society at large are at odds. Unrelenting insistence on the observance of the original terms of a contract by a small minority of creditors can obstruct a debt restructuring that will be in the interest of the majority of creditors and make new or exchanged debt sustainable. A balance needs to be struck between these two competing objectives.

Statutory restructuring procedures generally provide for majority voting. Certain regimes also provide authorities with statutory powers to subordinate the interests of individual creditors to that of the collective if this is necessary to maximize the value or minimize losses.[7]

Collective action clauses, exit consents and other contractual provisions can be used to address the problem of holdouts. Settling upon suitable super majorities for use in contractual provisions that permit the entire stock of debt to be restructured permits debt to be restructured in an orderly manner without undermining the basic premise the debt must be paid on time and in full.

Observe basic legal principles of predictability, due process, fairness

Apart from being desirable in their own right, these objectives foster the efficient operation of the financial market. The weight accorded to the different objectives determines the nature of the insolvency regime. Legal systems that provide for greater recognition of creditor rights in insolvency and stronger enforcement of these rights are creditor friendly. Those that give the debtor greater power to continue or resume operations after resolution are debtor friendly.[8] Legal systems that give precedence to the exercise or protection of the rights of the individual debtor or creditor are "individualistic" Those that give weight to third party effects and public good considerations are "communitarian".

Current resolution regimes for sovereigns

There are no agreed international rules or collective legal procedures to deal with sovereign debt distress similar in scope and nature to the insolvency regimes for individuals and corporations that exist under national laws. Efforts to create such a framework have foundered because of the unwillingness of countries to cede the prerogatives and protections that they have under the current piecemeal procedures. One of the laments often heard with

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[7] Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010 s 210(b).

[8] See Rafael La Porta, Florencio Lopez de Silanes, Andrei Shleifer, and Robert W Vishny, 'Law and Finance', Journal of Political Economy, 106/6 (December 1998), who conclude that the applicable law is of significance for many creditor rights, with common law offering stronger creditor protection than civil law, and French civil law jurisdictions offering the lowest level of protection.

respect to the current debt crisis in Europe is that there is no mechanism to secure the orderly restructuring of the debt of Greece and other sovereigns. In its absence, great efforts are made to avoid default.[9]

There is, however, a long history of sovereign debt restructurings,[10] and the procedures that have been applied have spawned a set of practices that, although imperfect, provide a means for addressing the debt distress of sovereigns. Implicit in these practices are a few common principles that guide resolution and would permit an orderly restructuring.

The nature of the practices varies, depending on the nature of the debt. When it consists primarily of official bilateral claims, Paris Club procedures are used. When it consists primarily of multilateral official claims, HIPC practices are followed. When it consists largely of private credit in the form of bonds or loans, various forms of debt exchange are used.[11] Disputes regarding sovereign debt tend to be resolved by national courts or in arbitration proceedings under bilateral investment treaties, subject to sovereign immunity. There is no collective proceeding that centralises all claims and oversees all aspects of the case.

The typical procedure for resolving debt distress of a sovereign is a negotiated debt exchange, with varying use of sticks and carrots. The principal stick is non-payment in accordance with the original terms. In other words even if the debt is restructured before an event of default, the prospect of default conditions the outcome. Other sticks consist of some form of effective subordination of existing debt through the stripping out of collateral or guarantees. The principal sweetener is collateralisation (sometimes provided by a third party) or effective priority relative to creditors who do not agree to the change.

The common elements in the procedures used to deal with sovereign debt are

- They recognize that the debt cannot be repaid in full and on time according to the original terms of the contract, but they do not entail the extremes of repudiation or complete forgiveness of all of the debt. In other words, they seek to make debt and debt service sustainable.
- They require some form of adjustment by the debtor, while permitting the debtor to continue operations, albeit on a reduced scale. In other words they do not lead to liquidation but permit continued operation.
- They involve some loss for the creditor relative to a situation where the original terms would be observed.
- They provide for "super senior status", i.e., priority claim in any subsequent insolvency for investors that provide post-resolution funding

They deal with the question of equity and the allocation of losses across and within creditor classes through a wide range of contractual and conventional practices including (i) collective action provisions (qualified majority voting; exit consents) in bonds that seek to ensure that similarly situated creditors are treated similarly; in other words they seek to ensure that a small minority of hold outs will not scupper a restructuring that is acceptable to the vast majority; (ii) negative pledge clauses; (iii) pari passu clauses, (iv) comparability provisions in Paris Club deals and (v) the convention of according preference to the multilateral lenders such as the IMF in analogy with the priority given to debtor in possession financing in other

[9] Efforts by the IMF to create a sovereign debt resolution mechanism in the wake of the Asian debt crisis came to naught in part because of the unwillingness of creditor countries to cede power and in part because of serious conflicts of interest imbedded in the proposal. The IMF was supposed to serve as an arbiter, yet it was or could be a creditor to the sovereign.

[10] See Stuzenegger and Zettelmeyer

[11]

words they mimic the outcome of a judicial proceeding that would ensure that similarly situated creditors are treated similarly.

However, the procedures that are commonly applied do have shortcomings. In common with SIFI resolution procedures, they do not directly deal, or deal in only a limited way, with the issue of contagion. A second shortcoming is that they do not provide an adequate means to ensure that the behaviour and structures that spawned the original crisis will be altered in a manner that cures the underlying problem. These are discussed below.

Current resolution regimes for "too big to fail" institutions

Just as in the case of sovereigns, there is no effective mechanism to resolve institutions that are variously termed "too big to fail (TBTF)", "large and complex financial institutions" (LCFI) or "systemically significant financial institutions" (SIFI). The absence of such a mechanism has made it necessary to use massive amounts of taxpayers' money to bail out individual institutions and introduce severe distortions in the operation of the market economy. The procedures commonly followed to resolve the debt distress of a SIFI differed in some important respects from those applied to sovereigns. There is no negotiated restructuring.

Typically a SIFI resolution involved some form of quasi-nationalisation or "assisted" merger. The initial action must be very rapid because the value of a financial institution funding itself with short-term liabilities can evaporate over night whereas the process of resolving a sovereign debt crisis is often protracted. Although the initial action is rapid in the case of a SIFI, the terms and conditions may be re-negotiated, sometimes radically as they were in the case of Bear Sterns. Quasi-nationalisation helps deal with contagion as long as the scale of the problem is manageable. If it is of such a magnitude that the extension of a state guarantee threatens the sustainability of the country's debt, it cannot do so. Ireland's experience illustrates this challenge. Resolution procedures that rely on the use of public funds create an extreme asymmetry with respect to the gains and losses faced by the firm and its management. Moreover, to preserve the functions performed by the distressed financial institution, it is generally permitted to continue operating those parts of the business that are viable in much the same way that it did before the event.

Current practice of assisted mergers makes matters worse in the long run. It increases the size of already large financial institutions and increases concentration in the financial industry. In other words, in addressing the TBTF problem in the short run, it makes it worse in the long run.

Because current procedures are inadequate, the international community is searching for alternatives. Drawing on earlier work by the Basel Committee (2010) and the IMF (2009 and 2010), the FSB (2011) elaborated a set of Key Attributes of Effective Resolution Regimes for Financial Institutions (the 'Key Attributes').[12] An objective and key function of effective resolution regimes according to the FSB standard is to "make feasible the resolution of financial institutions without severe systemic disruption and without exposing taxpayers to loss, while protecting vital economic functions". Achieving these objectives requires a resolution regime with several key attributes that are set out in the new FSB standard. More specifically, they require jurisdictions to have designated resolution authorities with a broad range of powers to intervene and resolve a financial institution that is no longer viable,

[12] This is of course not the first effort by the international community to address these issues. The G-22 (Willard Group) reports contain a set of principles for resolution [give reference] G-10 examined the legal underpinnings of work out arrangements (Group of Ten, 2002) and the joint working group of the BSBC, FSF and G-10 considered how to wind down large and complex institutions [give reference]

including through transfers of business and creditor financed recapitalisations ("bail-in" within resolution) and other resolution options that allocate losses to shareholders and unsecured and uninsured creditors in a manner that respects the hierarchy of claims.

The Key Attributes specify additional requirements for institutions that are systemic at the global level (G-SIFIs). For every G-SIFI there should be a recovery and resolution plan (RRPs) that should set out recovery measures that the institution could implement and, where that is not possible, to resolve the financial institution. These plans should be regularly reviewed and updated and informed resolvability assessments to identify and remove obstacles to effective resolution that arise from a firm's structure, organisation or business practices and inform the recovery and resolution planning process. There should be a Crisis Management Groups for each G-SIFI bringing together home and key host authorities underpinned by institution-specific cross-border cooperation agreements and mandates in law for cooperation, information exchange and coordination across borders.

This constitutes an important step forward on a long and arduous road. It is likely to reduce the need for public money once all of the FSB's recommendations are fully implemented. It is yet to be seen whether it will fully address the time inconsistency problem or completely correct the distortions in incentives.

Common and idiosyncratic problems for sovereign and SIFI resolution regimes

Although ways have emerged to resolve the debt problems of both sovereigns and SIFIs, they are not perfect. Some of the problems are common to the two regimes; others are confined to one or the other. Many of them have their origin in the fact that there is no common cross-border collective procedure for either sovereigns or for SIFIs. Two most serious problems common to the two regimes are contagion and time inconsistency

Contagion

Contagion occurs for a number of reasons. Some are related to the restructuring procedures; others to the condition of the debtor and still others to behaviour of creditors. The three are of course related. If for example the procedures to deal with close-out netting are inadequate, a restructuring could cause contagion because of actions by the creditors. Similarly, a long and protracted process of resolution could cause liquidity problems that made creditors much more reluctant to roll over credits to other, similarly situated debtors. Contagion can also occur because of the belief that restructuring is no longer taboo.

A crisis can spread if a bail out of the financial system by a government leads to the recognition that there are not sufficient funds available to support financial institutions on a similar scale in the future. Mergers of weak banks with strong institutions lead to greater concentration and to institutions that are still bigger and still more expensive to bail out. More money is needed to save them at a time when governments have less capacity to borrow – owing in part to previous rescues. The Irish case illustrates that this is not just idle speculation. The creation of an effective framework for the resolution of SIFIs should reduce contagion through this channel.

It should also reduce the contagion that occurs because of the belief that default is no longer taboo. An orderly default does nothing more than regularise an irregular situation. Markets re-price debt continuously and the prospect of less than full recovery is priced into debt that is traded. The application of restructuring procedures should therefore provide little new information that would affect the price. The demonstrated ability to deal with a sovereign default in an orderly manner that permits the continued performance of critical functions, treats similarly situated creditors equitably and deals effectively with third party interests may help reduce contagion by re-assuring creditors that there is in fact a viable mechanism to restructure sovereign debts in an orderly manner. However, it does not deal with the contagion that results from the reassessment by the market of the sustainability of the debt of other similarly situated sovereigns. Nor does it deal with the contagion resulting from a

sudden reduction of risk appetite. Creating viable frameworks for dealing with SIFI and sovereign debt will help reduce contagion, but it cannot on its own eliminate it. Complementary actions are needed in other areas. Here the guiding principles should be to reduce or eliminate discontinuities in markets, clusters of exposures or herd like behaviour.

Credit default swaps are a case in point. In themselves they are a useful instrument for managing risk. They permit a buyer of protection to insure himself against a contingency and spread risk if the sellers of protection are not linked to the purchaser or exposed to the same type of risks as the purchaser. If, however, master agreements all contain the same event of default provision, a significant discontinuity can emerge. Standardisation of contracts helps make for homogeneity and ease of trading the secondary market, but there is no reason for all CDSs to have identical triggers. Systemic risk regulators need to pay attention to whether such practices create a vulnerability to the system. Triggers could be set in terms of a sliding scale of discounts in the secondary market, not in terms of a somewhat theological concept of “event of default”. Since prices in secondary markets are easily observable, such a practice would reduce or eliminate the need for judgement by the ISDA Determinations Committee, which is in any case riddled with conflicts of interest since it is composed of the representatives of institutions that are active in the CDS market and stand to lose or gain when the committee makes a determination.

There is a large body of opinion that says that a default by Greece on its government debt would trigger contagion. Prima facie it is difficult to understand why an orderly restructuring of Greek debt that permitted one member of a currency union to convert an unsustainable debt burden into a sustainable one should trigger contagion to other members of the currency union. After all, the total fiscal debt of the currency area would decline and the prospect that fiscal resources of other members would have to be used in increasing amounts to sustain the payment by Greece of its current debt would decline. To be sure, the debt restructuring would need to be designed so that the losses to systemically important financial institutions holding Greek debt are manageable. But this is part and parcel of an orderly debt restructuring. All successful sovereign debt restructurings contain such features. Orderly debt restructurings, such as offerings under the Brady plan, involve some form of guarantee that serve to ensure that the side-effects are manageable. In short an orderly debt restructuring must be designed to address the risk of contagion.

Time consistency and incentives

In the case of the current insolvency frameworks for both sovereign and SIFI resolution there are severe time consistency and incentive problems. For sovereigns, the problem is how to ensure governments act in a manner that future crises do not arise after they have received financing. For SIFIs, the problem is that authorities may be reluctant to use their resolution tools out of concern about adverse systemic consequences of their actions. Another time inconsistency arises when authorities are reluctant to impose a radical restructuring once the institution is recapitalised or otherwise salvaged. This leads to significant distortions in the pricing of risk and makes future crisis more likely. [13]

In a statutory resolution procedure, a resolution authority or an appointed receiver or administrator often assumes responsibility for the institution’s management. In contrast, the affairs of insolvent states cannot be taken over and managed by a receiver or trustee. The proxy solution is IMF or other official sector conditionality.

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[13] For a discussion of the distortions arising from difficulty of pricing the government guarantee. See Santiago Carbó-Valverde Edward J Kane Francisco Rodríguez Fernández. A practical illustration of the existence of such a guarantee can be found in the practice of the rating agencies of taking into account the likelihood of a government bailout.

The current arrangements do not address these time consistency issues adequately. While debt contracts do contain covenants, and some sovereign debtors do issue debt instruments that permit a degree of recovery (GDP linked bonds), the purpose of most covenants is not to change the behaviour of the debtor. It is rather to secure the interests of the creditor, for example vis-à-vis other creditors through negative pledge and pari passu clauses. Of course most sovereign restructurings involve a commitment to change policies to ensure that the debtor will be able to meet the terms of the reprofiled debt, and most of these programmes are monitored by a "neutral" third party, most commonly the IMF.

As helpful as these are, they face some inherent challenges. One is the inability of the current government to credibly commit future governments to maintain the policies. A second is that there is a trade-off between effectiveness and impartiality in the process of securing adherence to the adjustment policies. Conditionality is effective if the debtor is dependent on the renewal of short-term financing. If this is to work, the amount of such financing should not be notional. However, if the amounts of multilateral finance become large, the creditor becomes "parti pris" and is no longer able to provide balanced judgements and to serve as an impartial arbiter or a trusted adviser. He is no longer above the fray.

Public good considerations

Resolution affects third parties in the case of both SIFIs and states. SIFIs perform, or may perform, critical functions, either directly for ultimate customers or indirectly by providing services to other financial institutions. States provide essential public services. The frameworks for the orderly resolution of both SIFIs and sovereigns need to take account of these third party affects. They should be designed so that debt restructuring is not seen as cataclysmic event rather that one of a continuum of measures to deal with a debt problem.

In case of both states and SIFIs, a full wind down and liquidation is not feasible. In the case of states, such a process is not even available.[14] The emphasis must therefore be on a resolution that avoids the non-linearities and socially sub-optimal outcomes associated with a liquidation and preserves the critical functions. In the case of a state, it should rehabilitate the state's public finances out of which the debt is to be paid and promote the necessary economic reforms. In the case of a SIFI, it must ensure that the critical function of the failed institution will continue to be performed, irrespective of whether or not the institution providing it is broken up, wound down or restructured. It must avoid a disorderly rush for the exit and destructive fire sales caused by the termination and liquidation of large volumes of financial contracts.

Hierarchies and priorities

A feature common to all insolvency regimes is the use of hierarchies of claimants that determine the allocation of the estate. Frequently, absolute priorities are applied so that all claimants in a particular class are made whole before any of those in the next category can benefit. This provides for equality among members of the same class, but introduces disparities among creditors in different classes and discontinuities that hamper the operation of the market. Much of the debt contracting that takes place under private law is shaped by what would happen if a firm is wound down under a public law insolvency procedures that treats different classes of creditor differently. The taking of collateral, the recognition of set off and netting, the incorporation of negative pledge and sharing clauses into contracts and the use of various insurance and indemnification arrangements are all aimed at securing at better place in the pecking order in the event of insolvency. The final outcome in a work out

[14] Chapter 9 of the US Insolvency Code for municipalities applies a procedure to a political subdivision of a state. It has some similarities to the procedures used for corporations. Chapter 9 does not permit the liquidation of the municipality and the sale of its assets, because to do so would violate state sovereignty and imperil the delivery of local public services.

is therefore a result of an interplay between public law provisions, private law contracting and decisions by the administrator or the courts about the validity of the arrangements. In normal corporate insolvency, this interplay is shaped by competition between debtors and creditors and competition amongst different classes of creditors. Public policy considerations play a minor role. However, in the case of SIFIs and sovereigns, the externalities are so great that public policy should govern the extent and the way re-contracting affects insolvency outcomes.

In the case of states, there is no mandatory hierarchy of creditors because there is no overarching framework. For states, there is an informal ladder of priorities based on consensus, notably that the payments to the main multilateral creditors (IMF, World Bank) must be kept current and that ordinary trade, domestic and similar creditors should be paid. Hence, banks, bondholders and bilateral official creditors tend to rank lower in practice. SIFIs are subject to national laws that set out a statutory hierarchy of claims. However, the large number of jurisdictions relevant for the workout of a SIFI means that the applicable law and forum will determine which hierarchy applies and whether and how contractual agreements will alter the hierarchy.[15]

Stays and asset grabs

In corporate insolvency law, a general stay is designed to provide for breathing space in order to achieve an orderly restructuring. It should avoid the piecemeal seizure of the assets by creditors in the interests of creditor equality and an orderly resolution. In reorganisation proceedings, there is invariably also a freeze on liquidation petitions since the aim is a rescue, not a liquidation. Most proceedings also stay payments and transfers by the debtor. The Uncitral Model law on Cross-border insolvency, which has been adopted by key jurisdictions such as the US and the UK, and other similar arrangements such as the EU insolvency regulation provide for the cross border recognition of proceedings in corporate insolvency. This gives the stay a cross-border reach.

In the case of the threatened insolvency of sovereigns and SIFIs, there is no collective proceeding applying to the totality of the debtor. In the case of the sovereign this is because of the absence of a framework for resolution that provides for a stay on action by creditors. Distressed debt funds, variously termed rogue creditors, vulture funds or bottom fishers, make use to this fact to pursue their claims on sovereigns even when a vast majority of other creditors have agreed to a restructuring.

In the absence of a mechanism to impose a stay on litigation, the first imperative when an insolvency looms for any claimant, or alter ego of the claimant such as the government of his jurisdiction, is to “grab assets”. This is because of the absence of clarity about the outcome of a workout and uncertainty about the ability to enforce a judgement.

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[15] A good illustration is an English case related to the Lehman bankruptcy proceeding illustrates how these differences can play out in a bankruptcy case. One London-based Lehman subsidiary, Lehman Brothers International Europe, had issued a series of notes under Saphir Finance Public Limited Company (Saphir), a special purpose legal entity. Saphir was also counterparty to a series of swap agreements. Another Lehman subsidiary, Lehman Brothers Special Financing (LBSF), was the other counterparty for the series of notes in question. Normally, the contracts were written to give the swap counterparty, LBSF, priority to the collateral over the noteholder, Perpetual. However, a special clause in the contracts, sometimes called a flip clause, specified that if LBSF, the swap counterparty, defaulted, the priorities would flip so that Perpetual, the noteholder, would have rights to the collateral ahead of LBSF. Following LBSF’s bankruptcy filing in October 2008, the English courts ruled that the flip clause was valid and in effect. However, the U.S. Bankruptcy Court ruled that the flip clause was unenforceable because it violated U.S. bankruptcy law. On 27 July 2011 the English Supreme Court in its judgment in Belmont Park Investments PTY Limited v BNY Corporate Trustee Services Limited and Lehman Brothers Special Financing Inc ("LBSF") upheld the enforceability of the flip" clause.

In the case of SIFIs, creditors will be likely to seek to terminate contracts, seize assets and initiate local insolvency proceedings in the many jurisdictions where the institution has operations or assets. Local authorities may also take action. They may even be required under local laws to take action to ring fence or otherwise protect local creditors of a firm headquartered in a foreign jurisdiction. Such action prioritises local creditors' recoveries and frustrates resolution measures aimed at maintaining continuity of cross-border operations and supporting broader financial stability goals (such as an orderly and timely transfer of branch business and critical economic functions to a new entity). For SIFIs active in multiple jurisdictions there is nothing analogous to the recognition procedures set out under the UNCITRAL Model Law on Cross-Border Insolvency. In its Report on Cross-border Bank Resolution , the Basel Committee noted that one of the challenges in resolving a financial institution is the fact that the major constituent entities of a financial group are likely to be subject to separate proceedings in different jurisdictions with different resolution objectives, policies and priorities.[16]

The UNCITRAL Model Law was designed for corporate bankruptcies which are administered by judicial authorities. By contrast, a resolution of a financial institution is typically administered by supervisory or resolution authorities. A mechanism for cross-border resolutions that emulates the UNCITRAL Model Law approach would require resolution authorities to have "recognition authority" that matches their respective resolution powers. Unless resolution authorities are given the explicit mandate and powers to cooperate and take action in support of an agreed group resolution scheme and to bar individual creditor actions that would interfere with attempts to achieve a coordinated value-preserving resolution of the institution as a whole, there are little prospects for overcoming the value-destroying fragmented nature of resolution proceedings for financial institutions.

Difficulty of enforcement

Since both SIFIs and sovereigns are beyond the pale of a single legal system, it is difficult to enforce claims even if they are awarded. The reasons why differ in the case of SIFIs and sovereigns, but in both cases, the difficulty complicates resolution. In the case of SIFIs, it arises because of the rapid erosion of value that occurs when an institution borrows short and lends long. Yet their global nature and legal complexity provides opportunities for forum shopping and means litigation can drag on for years. By that time, there may be nothing to recover even if the resolution authority finds in favour of the creditor.

The difficulty of enforcement in the case of sovereigns arises from ambiguity about the extent and nature of their immunities. Prior to the last quarter of the last century sovereigns enjoyed almost complete immunity from legal action. In the intervening decades many jurisdictions restricted sovereign immunities either by statute or by case law so that commercial acts no longer benefited from such protection. Moreover, most relevant credit contracts, notably bond issues and syndicated bank credits, contain comprehensive waivers of immunity from judgement and enforcement. Such contracts are often governed by a foreign law, are in a foreign currency and are payable abroad. As a result, these claims are not alterable by unilateral action of the debtor state. Courts abroad often do not recognize actions by the debtor state to dilute the validity of a creditor claim, in particular where the credit contract is governed by an external governing law so that a local decree of the debtor state cannot alter that law, or it may be because the claim is located abroad and is therefore outside the legislative territorial competence of the debtor state (the US the act of state doctrine), or as a matter of public policy, states may not be permitted to interfere with these foreign-held claims, regardless of location or governing law.

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[16] See CBRG Report and Recommendations, Lehman Brothers case study.

While the doctrine of restricted sovereign immunity has permitted creditors to bring cases to court and to win judgements, this has not necessarily meant they can enforce their claims. A sovereign's principal asset is the discounted present value of its future tax receipts. Such revenue streams are domestic and not subject to attachment. States have legislative sovereignty over assets held by them and claims owed by them and governed by their own law or payable in local currency or otherwise located within their own territory. They can therefore impose a moratorium or use exchange controls to frustrate payment. Moreover, assets held abroad and used for non-commercial purposes are immune from attachment. Governments in creditor countries have also enacted legislation to protect their own payment systems from disruption resulting from attempts to attach payments made by sovereign debtors.[17] In short, even if a creditor of obtains a judgement against a sovereign, he faces the dilemma of the Merchant of Venice – he has a claim he cannot enforce.[18]

Complexity

Complexity makes any debt restructuring difficult, but it is particularly virulent in the case of SIFIs. They typically comprise hundreds or thousands of separate legal entities incorporated under the laws of multiple jurisdictions (Herring and Carmassi 2010). Sovereign debtors do not have anything like the legal complexity of SIFIs or the diversity of creditors typical of corporations, at least so far as restructurings are concerned.[19] Most sovereign debt is unsecured so that the legal procedures for exercising claims on collateral do not come into question. In the case of the sovereign the question is more of the willingness to pay, not whether the state is technically insolvent The categories of debts to be restructured in the sovereign context are smaller than in corporate insolvency and confined primarily to official lenders, bondholders and commercial banks, plus distressed debt investors.

In the case of a SIFI failure, each legal entity is treated separately even if it is not able to operate as a stand alone company. Courts have been reluctant to pierce the corporate veil unless there is extreme comingling or other exceptional factors justifying consolidation in insolvency. The result is that only the assets of each group member can be used to pay its creditors and its creditors alone. Its assets are not available to creditors of another company within the same group. The ability to shield assets in this way gives SIFIs a degree of legal protection not unlike the protections enjoyed by sovereigns that arise from their immunities and the difficulty of attaching their assets.

The Lehman case illustrates the effect of such complexity. Lehman consisted of more than 2900 legal entities. It has nearly a million derivatives contracts. Most of the contracts had at least two Lehman affiliates as parties to the contract. In order to resolve any one of them, it is necessary not only to determine the validity of the claim of the counterparty on Lehman, it is necessary to determine both the validity and value of the claim on each of the affiliates in the group and also the validity and value of the claims of each Lehman affiliate on each other. This is difficult enough in itself, but it is made still more difficult by the doubts about the ability to exercise claims over Lehman assets held in custody by Lehman affiliates. In some cases

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[17] Belgium changed legislation to safeguard the integrity of Euroclear following an attempt by a creditor to attach payments made through it by a delinquent sovereign. See [ ]

[18] In the Merchant of Venice, the judge finds in favour of the Merchant. He is entitled to his pound of flesh, but can, on pain of death, enforce his claim only if he does not shed a drop of blood.

[19] States are not as complex as SIFIs, but they do have separate administrative sub-divisions, provinces, regions and municipalities. They commonly own their central banks and other separate state entities. These separate legal entities are insulated by the veil of incorporation. For example, central bank reserves are insulated from creditor execution in cases where only the state is liable to the creditor.

the assets held in custody were rehypothecated so that even if the complex web to countervailing claims could be untangled, it might not be possible to obtain the collateral underlying them.

Legal complexity arises for a number of reasons, including taxation, regulatory and legal provisions and a history of repeated mergers and takeovers. Group structures and intragroup relationships are also designed to serve a number of corporate objectives, such as providing ratings management, risk management and operational management which can be directed from the group's corporate centre. Although these structures may have advantages for the group, they tend to increase complexity and create contagion by making the viability of one company within the group dependent on others in the same group. Complexity is extremely pernicious from the perspective of resolution. Yet, it will be difficult to deal with because of the strong incentive to minimize taxes and arbitrage regulation, coupled with the well established legal doctrine of respecting legal personality. Still this should not deter efforts to make legal form follow economic function. The most ambitious proposal comes from Cumming and Eisenbeis (2011) who propose that each financial institution conduct business from a single legal entity. The requirements for recovery and resolution plans resolvability assessments of all globally systemically important financial institution will focus attention on whether the legal structures are a serious obstacle to SIFI resolution, but there is yet strong reluctance to require a radical simplification of group structures.

Potential solutions

Since the origins of the challenges for sovereign and SIFI resolution are the same – the fact that both are beyond the pale of standard legal resolution procedures grounded in national legislation – the basic nature of the solution must be the same. This is the development of a framework for resolution that extracts the best features of national resolution regimes and applies them to SIFIs and sovereigns in a way that addresses their specific features. The frameworks will have common elements, but the nature of the challenges facing sovereigns and SIFIs are sufficiently different that the frameworks will need to be distinct.

There are essentially two ways to develop international frameworks for resolution of entities that are beyond the pale of national law. One is to negotiate and ratify an international treaty. The second is to rely on incentives for cooperation combined with soft law techniques that establish common principles and practices that would guide resolution. The first is neat, but difficult. The second is realistic but slow and piecemeal. On balance the second is more likely to produce viable arrangements. States are unlikely to relinquish sovereignty over such basic matters as how their tax receipts are used. Even if a treaty were agreed, issues of enforcement would persist.

There are numerous soft law options that could be given momentum through international processes of cooperation such as the G20 and the FSB. The private/public effort to develop collective action clauses is an example of how standard documentation can be changed to address the problem of disruptive litigation by a small minority of disaffected creditors whose actions threaten to disrupt the resolution process.[20] A similar private/public initiative could be undertaken to effort could be used with respect to master agreements for derivatives contracts. Current dispute settlement arrangements could be developed to deal with sovereign debt distress. Since debt arises as a result of investment, it would be natural to extend the ICSID [ ] procedures to sovereign debt disputes. Some steps have been taken in this direction in that disputes between Argentina and private investors have been submitted to arbitration. It is also possible to think of WTO dispute settlement procedures being applied to sovereign debt disputes because unlike most other arrangements there is an effective

[20] See G10 [give reference and link]

enforcement mechanism. However, these procedures are meant to deal with interstate disputes and the Paris Club procedures already provide an effective means to restructure bilateral official debt. It is not clear how WTO procedures would be used for resolve disputes among official debtors and private creditors unless the creditors' states became the alter egos of the creditors. Similarly, implementation of the FSB recommendations for effective resolution regimes would imply that national resolution authorities adhere to the same principles and have the same powers. Comity has proved an effective means to secure consistent treatment of those subject to the laws of several jurisdictions as long as these jurisdiction adhere to common principles and approaches.

However, to be effective, the use of soft law to create effective frameworks for the resolution would need to be accompanied by significant changes in the structure and operation of banks and the nature of sovereign borrowing.

The development of frameworks for resolution through soft law requires broad agreement on objectives and principles, a continuous close cooperation among authorities that establishes confidence that the agreed principles will be upheld in a crisis as well as significant political momentum. The crisis created such momentum with respect to SIFIs, and let to the G20/FSB efforts to ensure that no institution is too big to fail. However, there has been no equivalent effort in the area of sovereign debt resolution, though the developments in Europe had now made this a priority. The last effort to make progress in the development of a resolution framework for sovereigns occurred after the Asian crisis. It petered out both because of the episodic nature of sovereign debt crises and because the effort was driven by different agendas, one of which was to develop a mechanism that would have ceded sovereignty to a supranational institution the other was to use soft law.

It would now be time to initiate a new process for developing a framework for sovereign debt resolution. Since sovereign and SIFI debt distress are closely interlinked both by the fact that one exacerbates the other and by the fact that common challenges arise in developing a framework, the efforts should inform each other. The most natural process would be to have them occur under a G20 umbrella. This is well underway for SIFIs. It should be initiated for sovereigns.

Principles and practices for sovereign and SIFI resolution

The slow and gradual effort to develop procedures to resolve debt distress of sovereigns and SIFIs has led over time to a somewhat amorphous set of principles and practices that govern transnational resolution frameworks. They are the outcome of a process of international cooperation that is shaped by three basic realities:

The first is that individuals, institutions and states pursue their own interests. The fact that individuals do so is a basic tenet of economics. By contrast states are often viewed as devices to remedy some of the shortcomings of the operation of the pursuit of narrow self-interest by individuals, either by acting to internalize externalities or by restricting or offsetting the consequences of the pursuit of self interest. However, in the realm of international cooperation states pursue their own national interests. This may or may not correspond with the promotion of global welfare.

Secondly, there is a steep contour in the influence of different parties on the outcome of an international agreement. All are not equal, and it is not helpful to think of the process of developing international agreement in terms of the operation of a market since the basic presumption of atomistic agents is not met. This leads to the third reality. Agreement will not be reached unless no major party is any worse off as a result. This is essentially saying that agreement can be achieved if it is Pareto improving without side payments. Keeping these realities in mind is helpful in developing principles and practices for resolution of transnational entities

Principles

Work on the development of frameworks for sovereigns and SIFIs should build on the very considerable efforts that have gone on before. Principles for resolution exist implicitly in national insolvency frameworks, though there are significant differences across countries in the weight they are given and on whether the resulting regimes are debtor or creditor friendly. However, the systemic nature of SIFIs and sovereign crisis means that greater weight will need to be given to public interest issues – despite the pursuit of self interest embedded in the process of international cooperation.

The following is a list of some principles and practices that merit consideration in any transnational resolution framework. While it is essential to take into account specific circumstances in applying them, they should have enough generality to apply to

Make systems and structures incentive-compatible and consistent with resolution

A final imperative for making resolution effective is to address the incentive incompatibilities that arise when there is an alternative to acting. Resolution systems will not be used if there is a soft option in the form of hard government money. For SIFIs this means that the asymmetries in incentives that arise from the socialisation of losses and the privatisation of gains must be eliminated. Attention has been diverted from important but difficult reforms by the focus on capital. Capital serves two functions. It provides a buffer and it changes in incentives of shareholders. But the changes in incentives are minimal. Shareholders in widely held companies treat shares as investments, not as ownership claims that permit them to influence the business strategy. For this reason radical changes may be needed in the structure of the companies, corporate governance and the liability of management, and even in the extent to which liability is limited through incorporation. Up until the last quarter of the last century, investment banking was conduct out of partnerships, where liability was unlimited. This was the last vestige of a model of banking that aligned incentives and control and which was almost universal until its gradual replacement by limited liability and the separation of ownership and control.[21]

For states, it may mean some voluntary waiving of sovereignty for example by issuing debt under the laws of other jurisdictions. It could also involve recognizing that serial restructurings help address need for changes in conditionality as circumstances change.

Adopt procedures that are impartial and fair

Stated so baldly, this principle appears so self evident and bland as to be meaningless. In practice, it would mean that the framework should cover all “large” exposures, irrespective of nature of creditor – secured and unsecured, public and private, domestic and foreign, creditors and equity holders, workers with wage claims, governments with tax claims. In some cases ways will need to be found to represent classes of claimants, for example through the formation of creditor committees.

Any carve outs or priorities would need to be justified on public interest grounds. It also means that the framework should contain a mechanism such as the Paris Club’s comparability of treatment provision that assures comparable treatment across classes of creditors as well as within the class. It should contain conditionality provisions to deal with time consistency problem, which has an important intertemporal fairness dimension. Fairness also gives the arrangements legitimacy.

In practice the principle implies that similarly situated creditors will be treated equitably and that differences in the treatment across classes will be justifiable. However, secured creditors

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[21] See Haldane (2011) for a useful discussion of changes in control rights over banks and how they have shaped incentives.

and preferred creditors, for instance, those who provide post resolution funding are treated differently from unsecured creditors. Secured creditors may have rights to collateral that is not shared with unsecured creditors. Recognition and enforcement of these differing rights within the context of the insolvency regime create certainty in the market, thereby facilitating the extension of credit. As a general rule, the hierarchy of claims established should be maintained in resolution.

Promote predictability

Promoting predictability is an important component of ensuring that resolution frameworks are fair. For the procedures to be fair they need to be well-articulated in advance since the absence of arbitrariness is an element in fairness.

Avoid discontinuities

Designing resolution frameworks so that they consist of a continuum of measures helps to promote predictability and fairness. It also helps markets to function. A resolution framework should therefore permit the gradual scaling up of measures. It should start with to early and radical strategic re-orientation or policy adjustment by the board or the government. This should take place prior to debt restructuring. Moreover, entry into a resolution should not create discontinuities and for example permit transactions essential for the maintenance of the value of a traded it should allow for continuity under an administrator or receiver in the case of SIFI resolution or under a Fund adjustment programme in the case of SIFIs.

Preserve critical functions.

The principle that critical functions should be preserved is closely allied to the principle of the maximization of the value of assets from the perspective of the wider community. It stresses the need to take into account externalities. It helps in the triage needed to make public finances sustainable It may involve the creation of utilities, or changes in the structure of companies to permit their orderly dismemberment. It can involve changes in the operations of key funding markets to maintain their liquidity, depth and continuity. It could permit the central bank to serve as market maker of last resort in these markets.

Maximise value of assets

Value maximisation should take place, but the value of the assets should not be maximised from the perspective of the direct stakeholders of the firm but from a perspective that takes into account both their interests and the interests of the wider community. In other words externalities should be taken into account.

Avoid contagion

The principle that the frameworks for resolving transnational debt distress should avoid contagion illustrates their limitations. Reforming bankruptcy arrangements so that there is a continuum of measures rather than a single last resort measure to deal with default would reduce the contagion that arises from seeing default as a cataclysmic event. However, it would not eliminate the contagion that arises from shifts in risk appetite or from the financial or other economic links of the distressed debtor with other entities.

Balance individual rights with the need to serve the public interest

The original purpose of most national insolvency legislation is to reconcile the interests of different classes of individuals – debtors and creditors – while taking into account some wider considerations. Insolvency arrangements must maintain the discipline that ensures debtors make payments in full and on time. In other words, they should deal with moral hazard. At the same time, holdouts should not be able to obstruct a resolution that will make debt sustainable, preserve critical functions and satisfy the vast majority of stakeholders. In the case of both SIFIs and sovereigns, the third party effects are so great that the balance

between protecting individual rights and serving the public interest inescapably tilts toward the latter.

Let broad public policy considerations determine priorities

Priority in bankruptcy should not be the outcome of competition among different stakeholders seeking to maximise their individual interests but should take into account externalities and third party effects. Giving funding provided in a resolution or restructuring a super senior status aids resolution. There should be a presumption in favour of it, but if preferred creditors come to hold a large proportion of claims, the only way to make the debt sustainable may involve including them in future restructurings.

Practices

A wide spectrum of practices can be used to implement these principles. They include:

- Restrictions on financial instruments with clauses that augment contagion or discontinuities, such as the use of a standardised single event of default in CDS contracts, walk-away clauses, automatic close-out upon entry into resolution (despite observance of underlying contractual obligations);
- Establishment in law of early intervention triggers and strict timelines for actions and implementation of resolution measures;
- Ex ante measures that promote resolvability and increase predictability of loss allocation in resolution, including recovery and resolution plans combined with changes to operations or alteration of the form of companies that enhances resolvability, use of “bail-inable” debt and mandatory bail-in requirements;
- Adoption of common priority rankings, so there is less competition across jurisdictions, including provision of seniority for “debtor in possession funding” by extending “preferred creditor status” to any entity providing such financing.

Conclusions

The serial SIFI and sovereign debt crises underscore the importance of developing effective frameworks for the resolution of transnational entities that are beyond the pale of national law. If such a framework had existed, the problems that Greece faces could have been addressed earlier and more decisively, and the contagion to other members of the Euro area could have been contained. Creating such a framework must be a high priority of the international community.

Such frameworks are best developed using soft law. They need to be given political momentum by a process of international cooperation such as the G20. Efforts are underway to develop such a framework for SIFIs. A similar endeavour for sovereigns is well worth the effort. The two efforts can and should inform on another because the challenges are similar. The two greatest challenges are preventing contagion and changing the structures and behaviour that give rise to debt distress in SIFIs and sovereigns.

A soft law approach must be evolutionary and each framework will need to be tailored to the specific challenges of SIFI and sovereign restructuring. Nonetheless certain common principles should apply. First public good considerations should bulk large in designing insolvency arrangements for sovereigns and SIFIs. The externalities are just too great. Secondly since resolution takes many forms and can take place in many stages of distress, there should be a continuum of measures. Markets detest discontinuities, just as nature abhors a vacuum. Finally bankruptcy should be designed to shape incentives and to change the behaviour that leads to insolvency. Private sector "bail-ins" are no better than public sector "bail outs" if they do not fundamentally change behaviour. Progress will be slow, but the stakes are high. It pays to persist.

References

Claessens, S. R. Herring, J. D. Schoenmaker, 2010, ”A Safer World Financial System: Improving the Resolution of Systemic Institutions”, Geneva Reports, Centre for Economic Policy Research, July.

Cumming, C. and R. Eisenbeis, 2010, “Resolving Troubled Systemically Important Cross-Border Financial Institutions: Is a New Corporate Organizational Form Required?” in R. Herring (ed.), *Issues in Resolving Systemically Important Financial Institutions*, Wharton Financial Institutions Center.

Financial Stability Board, 2011, Key Attributes of Effective Resolution Regimes, October.

Group of Ten Contact Group, 2002, Report of the Contact Group on the Legal and Institutional Underpinnings of the International Financial System, Insolvency Arrangements and Contract Enforceability, September.

Haldane, A. 2011 “Control Rights (and Wrongs)” Wincott Annual Memorial Lecture, Westminster, London, Bank of England Speeches

Herring, R. and J. Carmassi, 2010, “The Corporate Structure of International Financial Conglomerates: Complexity and Its Implications for Safety and Soundness,” in *The Oxford Handbook of Banking*, edited by A. Berger. P. Molyneux and J. Wilson, Oxford University Press.

Hüpkes, E. 2005. “Too Big to Save —Towards a Functional Approach to Resolving Crises in Global Financial Institutions” in D. Evanoff and G. Kaufman (eds.), *Systemic Financial Crisis: Resolving Large Bank Insolvencies,* Singapore: World Scientific Publishing.

La Porta, Rafael, Florencio Lopez de Silanes, Andrei Shleifer, and Robert W Vishny, “Law and Finance”, *Journal of Political Economy*, 106/6 (December 1998),

Sturzenegger, F and J Zettelmeyer, *Debt Defaults and Lessons from a Decade of Crisis*, MIT Press, Cambridge, Massachusetts

UNCITRAL, 1997, “Model Law on Cross-border Insolvency” Vienna.