

# The Challenge of Resolving Cross-Border Financial Institutions

Richard Herring†

I. Introduction .....	853
II. The Challenge of an Orderly Resolution in a National Context.....	855
III. Orderly Resolution in the International Context.....	857
IV. Why Problems in Cross-Border Resolution Should Not Have Been a Surprise.....	863
A. <i>Bankhaus Herstatt</i> .....	863
B. <i>BCCI</i> .....	864
C. <i>Barings</i> .....	866
D. <i>Long Term Capital Managment</i> .....	866
E. <i>Lehman Brothers</i> .....	867
F. <i>Fortis</i> .....	872
G. <i>Icelandic Banking System</i> .....	874
V. Concluding Comment: The Single Point of Entry .....	875

## I. Introduction

Despite more than 30 years of efforts to harmonize international financial regulatory and prudential policies, the topic of how to resolve a large, complex international bank was missing from the agenda of the Basel Committee on Banking Supervision. The financial crisis of 2008-2009 and the realization that many large, complex international financial institutions had become too-big-to-fail moved the topic of resolution<sup>1</sup> from virtual obscurity to the top of the international regulatory agenda.<sup>2</sup> The magnitude of the recent crisis has focused

---

† Jacob Safra Professor of International Banking, Professor of Finance and Co-Director of the Wharton Financial Institutions Center, the Wharton School, University of Pennsylvania.

1. “Resolution” is the process through which claims against an insolvent entity are allocated across creditors. For most firms, countries rely on some sort of bankruptcy process to resolve such claims, but a special administrative regime is often established to resolve claims against a financial institution because such an institution may lose all of its going-concern value in a lengthy bankruptcy procedure and may cause serious problems for other institutions that are linked to it in various interbank markets. Going-concern value is the value in excess of liquidation value that a firm can earn if it continues operations.

2. “Too-big-to-fail” is a catch-all for institutions that are too big to fail, too complex to fail, too opaque to fail, too interconnected to fail or too correlated to fail. Although I will use it in this general sense, it should be noted that it is misleading. Very large financial institutions, like Fidelity or PIMCO, that control hundreds of billions of dollars in assets are unlikely to be of systemic importance

attention on resolution policy for the simple reason that too-big-to-fail is too costly to continue.<sup>3</sup> Andrew Haldane<sup>4</sup> estimated that guarantees and subsidies extended by the U.S., the U.K. and the Euro area to support the financial system amounted to 25% of world GDP in November 2009<sup>5</sup> (see Figure 1). Not only are these costs large relative to global output, but also the costs to some individual countries exceeded their capacity to provide credible support. For example, Ireland's bailout of its banks transformed a banking crisis into a sovereign debt crisis.<sup>6</sup> Before the crisis, however, authorities appear to have ignored the warning signs of weaknesses in resolution procedures.

The crisis of 2008-2009 highlighted the lack of effective resolution planning. When the Group of Twenty convened during the crisis, one of its initial actions was to transform the Financial Stability Forum into the Financial Stability Board and charge it with the responsibility of improving and harmonizing international resolution regimes in order to ensure cooperative outcomes if an international financial institution should require resolution. One of the Financial Stability Board's major accomplishments has been agreement on Key Attributes of Effective Resolution Regimes.<sup>7</sup> Moreover, the FSB put in place a peer review process to monitor the progress each member country makes in adopting the key attributes. And each November, it issues a list of Global Systemically Important Banks (G-SIBs). Eight of the twenty-nine G-SIBs designated in November 2013 are headquartered in the United States.<sup>8</sup>

This article examines some of the fundamental challenges to achieving a cooperative solution in the cross-border resolution of a G-SIB and a potential way around some of these problems. The next section examines the challenges of achieving a cooperative domestic resolution of a large, complex bank within the United States. The third section shows that many of the challenges identified in the previous section are amplified in an international setting. But one challenge is qualitatively different: the world lacks any mechanism to devise and enforce agreements to harmonize resolution policies and practices

---

because of their transparency and lack of leverage. In contrast, institutions that are much smaller may be systemically important because of the critical role they play in the financial system. For example, Bank of New York Mellon, which is by no means the largest bank in the U.S., plays a key role in the tri-party RePo market, which is considered to be of systemic importance.

3. See Thomas Huertas, *Sunshine Banking* (unpublished manuscript) (May 16, 2011), [http://www.bankofengland.co.uk/research/documents/ccbs/ccbs\\_workshop2011/paper\\_huertas.pdf](http://www.bankofengland.co.uk/research/documents/ccbs/ccbs_workshop2011/paper_huertas.pdf) (suggesting that fundamentally the solution must be either to make banks fail-safe or safe to fail).

4. Andrew Haldane, Chief Economist, Bank of Eng., *Banking on the State*, Address at the 12th Annual Federal Reserve of Chicago International Banking Conference (Sept. 25, 2009).

5. Note that this was before a series of costly bailouts in the euro area, several rounds of quantitative easing across the world and the cost of the bailout of the GSEs became apparent.

6. This is an interesting reversal of the pattern in the 1980s when a string of sovereign defaults threatened the solvency of many of the largest banks in the world.

7. *Key Attributes of Effective Resolution Regimes for Financial Institutions*, FIN. STABILITY BD. (Oct. 2011), [www.financialstabilityboard.org/publications/r\\_111104cc.pdf](http://www.financialstabilityboard.org/publications/r_111104cc.pdf).

8. *2013 Update of Group of Global Systemically Important Banks (G-SIBs)*, FIN. STABILITY BD. (Nov. 11, 2013), [http://www.financialstabilityboard.org/publications/r\\_131111.pdf](http://www.financialstabilityboard.org/publications/r_131111.pdf).

across national borders. Section 4 illustrates why these problems should not have surprised regulators. It reviews some notable historical crises that illustrate the key challenges that have been described in the preceding sections. The fifth and concluding section examines a possible way around these problems, proposed jointly by the Federal Deposit Insurance Corporation and the Bank of England. This proposal is called the Single Point of Entry (SPOE), and it attempts to finesse the fundamental challenges to cooperation identified in the preceding sections.

### II. The Challenge of an Orderly Resolution in a National Context

Because of its regulatory complexity, the United States provides clear examples of many of the problems that arise in the cross-border resolution of a G-SIB. All of the American G-SIBs have not only complex global structures with many hundreds of affiliates located abroad, but also hundreds of domestic affiliates. Before the Dodd-Frank Wall Street Reform and Consumer Protection Act (DFA), a U.S. bank financial conglomerate was subject to multiple resolution procedures within the U.S., with no established approach for coordinating the actions of the multiple regulatory authorities involved. The insured bank would be subject to the FDIC's prompt corrective action<sup>9</sup> measures and, unless the systemic risk exception were invoked, the FDIC would be constrained to select the resolution method that was least costly to the deposit insurance fund.

A G-SIB headquartered in the U.S. is almost certain to be part of a holding company, which would also need to be resolved.<sup>10</sup> Since bank holding companies sometimes own 20% to 40% of the assets of the group, a lack of coordination between the bankruptcy court and the FDIC could easily lead to chaos. In addition, if the G-SIB had a securities subsidiary, the broker-dealer would be subject to Chapter 7 liquidation proceedings under the bankruptcy law and the special resolution procedures of the Securities Investor Protection Corporation, while the rest of the securities unit would be subject to resolution by the court under Chapter 11 bankruptcy proceedings. Finally, if an affiliated insurance company were insolvent, it would be unwound under the individual state insurance guarantee systems. Thus, the resolution of a large, complex bank in the United States would involve both bankruptcy procedures and administrative procedures with no obvious way to coordinate the actions by the various entities involved.

---

9. For a description of the prompt corrective action process and the systemic risk exemption see FED. DEPOSIT INS. CORP., MANUAL OF EXAMINATION POLICIES, § 2.1 <http://www.fdic.gov/regulations/safety/manual/section2-1.pdf>.

10. See the recent GAO study for some of the complexities involving bank holding companies, U.S. GOV. ACCOUNTABILITY OFFICE, BANKRUPTCY: COMPLEX FINANCIAL INSTITUTIONS AND INTERNATIONAL COORDINATION POSE CHALLENGES (2011), <http://www.gao.gov/new.items/d11707.pdf>.

Apart from the Fed and the FDIC,<sup>11</sup> none of the other regulators or judicial authorities was required to consider the systemic risk implications of its decisions. Their first and foremost obligation was to protect the customers of the failing entity within their regulatory domain. Inevitably, they would ring-fence the assets they regulated for the benefit of the customers they were charged with protecting. Only after this objective had been met would they consider releasing additional assets to the parent.

This fragmentation of regulatory oversight and resolution responsibilities is exacerbated by the tendency to conceal unfavorable information as long as possible. This is true within a firm when a risk-taker may try to defer reporting bad news in the hope that losses can be recouped and need not be reported. In fact, this kind of behavior is a key challenge for the corporate governance of risk within the institution. The same is often true between the firm and its primary regulator. The firm may hope that it can offset the loss and may fear that it will lose its discretion to deal with the problem or even that key managers may be fired once the primary regulator is involved.

Similar incentives may motivate the primary regulator. The primary regulator may be reluctant to share bad news with other regulators in the hope that it can take remedial action so that no public intervention is necessary. It may fear that if another regulator is informed, the latter will take preemptive action that will limit the primary regulator's flexibility in dealing with the problem. In addition, the primary regulator is keenly aware of the ever-present danger of a run by uninsured depositors or other short-term creditors if the unfavorable information is leaked to the public. The market may force the primary regulator to intervene aggressively when it would prefer to delay in the hope that the institution's problems might be self-correcting. Several unfortunate examples have surfaced in the U.S. in which, for example, the Office of the Comptroller of the Currency has denied access to a troubled bank by the FDIC. Even within one country unfavorable information does not flow freely among institutions overseeing different parts of the same institution.

Many other challenges in resolving a large, complex global bank are apparent within the United States. Corporate structures are very complex, usually including affiliates that span two or (often many) more domestic regulatory domains. Lines of business are usually managed in an integrated fashion without much attention to the legal entities that may be involved. And, in the event of financial distress, it is essential to coordinate the actions among various regulatory authorities and courts that may have differing objectives, obligations and powers. Although central bankers universally adopt the doctrine of constructive ambiguity to deter moral hazard, market participants tend to make inferences from what the authorities actually do rather than what they say. Thus a policy of constructive ambiguity is doomed to fail unless

---

11. The least cost constraint notwithstanding.

market participants believe that policy responses will be random. Since it seems unlikely that the regulators will be throwing dice to determine when to provide a bailout, market participants will make assumptions about what the authorities are likely to do based on what they have done in the past. If policymakers take actions that are inconsistent with these expectations, the spillover effects are likely to be much larger because many market participants are likely to withdraw from taking risky positions until they are sure that they understand the new rules of the game. Many market participants expressed surprise that Lehman Brothers was sent to bankruptcy court since Bear Stearns, a much smaller, less complicated bank had been bailed out. The immediate bailout of AIG two days after the bankruptcy of Lehman Brothers served to heighten uncertainty about the resolution regime and increased market pressures on several other weak financial institutions around the world. Without a reliable, predictable resolution regime, governments face an uncomfortable trade-off between preserving stability in the short term through a bailout and enhancing stability in the long run by providing incentives for the market to discipline risky behavior. Creditors will lack incentives to monitor and discipline a risky institution unless at least some losses are allocated to uninsured, unsecured creditors. Political pressures (and the fact that the long run is irrelevant unless the system can survive the short run) have led to unprecedented government interventions not only in the U.S., but also in several other countries. The lack of appropriate resolution tools has too often resulted in hastily arranged bailouts negotiated over chaotic, sleepless weekends.

Nonetheless, it should be possible to design a coherent resolution regime to deal with a purely domestic financial collapse because the domestic affiliates of a U.S.-based G-SIB are subject to U.S. law and new laws that could be enacted by Congress.<sup>12</sup> The U.S. judicial system can resolve disputes and enforce its decisions, and federal administrative authorities can assume extraordinary powers. Conflicts in regulatory objectives and powers among specialist regulators and between state and federal regulators can be resolved. The U.S. has the capacity to devise and implement a coherent domestic resolution regime, although, before the Dodd-Frank Act, it lacked the will to do so.

### III. Orderly Resolution in the International Context

Of course, the effective resolution of a G-SIB requires an effective domestic resolution regime in the home country. But this is a necessary, not a sufficient condition. Any G-SIB worth worrying about has hundreds of affiliates abroad that are often tightly integrated with operations in the U.S. in complex and opaque ways. All of the potential problems noted in the previous

---

12. Congress, despite its normal mode of operation, does still seem to be capable of taking quick action in an emergency.

section also present obstacles to an international resolution, but to a much greater degree. The resolution authorities must face an even greater amount of corporate, legal and regulatory complexity and it is essential to coordinate the actions of an even broader range of authorities with even greater differences in objectives, obligations and powers than can be found within the U.S. But the crucial difference is that the global economy lacks any political or judicial authority to resolve conflicts. This makes it much more likely that a domestic insolvency proceeding may result in a much greater loss of going-concern value and a much greater risk of financial disruptions that might flow across national borders.

When countries believe that their national interests are in jeopardy, their first instinct will be to ring-fence any assets of the failing institution that they can grab. The possibility that one or more national authorities may ring-fence the part of the business that they can control makes a cross-border resolution qualitatively different than a domestic resolution.<sup>13</sup>

With no mechanism to force authorities in different sovereign nations to cooperate, enormous emphasis has been placed on various mechanisms to facilitate voluntary cooperation. These vary from Memoranda of Understanding, to the formation of Regulatory Colleges for specific G-SIBs, to, more recently, the formation of Crisis Management Groups for each G-SIB. Whether these mechanisms can be effective in the heat of a crisis remains an open question. For these agreements to work, the authorities must be willing to share information freely on a timely basis.

But all of the inhibitions regarding the sharing of unfavorable information that were noted in the domestic context are magnified when they involve cross-border transfers of information. In addition, the primary regulator may fear that some of its foreign counterparts will have a legal obligation to take an action that will force it to make an aggressive intervention that it would prefer to delay. Of course, the concern about setting off a run is even greater because the more broadly information is shared, the more likely it is to be leaked, if only by accident. Moreover, the foreign regulator may be subject to a stricter disclosure regime than the primary regulator. Consequently, the right people are unlikely to have the right information at the right time to take appropriate action.

Cross-border cooperation is also made difficult by some fundamental differences across countries. For example, countries may differ philosophically over how to deal with a weak bank. At one extreme, a country may believe that banks should be subjected to market discipline and bankruptcy procedures like any other kind of firm. Such countries emphasize transparency, attestations regarding solvency from senior executives and board members and personal liability for directors as the main bulwark against financial instability. New

---

13. While specialist regulators may attempt to ring-fence in the United States, federal authorities can, in principle, compel cooperation among specialist regulators.

Zealand, for example, prefers to rely on market discipline to control excessive risk-taking by banks and, if necessary, to resolve banks through the courts. At the other end of the spectrum, several countries have a tradition of heavy reliance on official intervention and support to sustain a weak bank. Market discipline tends to be weaker in these countries, because creditors worry less about sustaining a loss. This kind of approach may be found in the actions (if not the rhetoric) of some Continental European countries. These differences in views about the appropriate way to deal with a weak bank can impede cooperation in a crisis.

Countries also differ with regard to the goals of the resolution process even more than within the United States where the main tension is between specialist regulators, who seek to protect the clients of the part of the firm they regulate, and the Federal Reserve and FDIC, which take a systemic view. Should the resolution process attempt to protect the domestic banking industry from foreign competitors? Should it seek to protect the domestic deposit insurance fund? Is it obliged to protect domestic creditors? Does it have a responsibility to preserve domestic financial stability? Should it minimize the fiscal costs to domestic taxpayers? Must it take into account the maintenance of local employment? Is the resolution authority responsible for minimizing the spillover costs in all countries in which the G-SIB conducts business? Only the last of these objectives is implausible. All of the others may be found, at least implicitly, in the behavior of national resolution authorities and the laws defining their responsibilities.

More fundamentally, will the resolution authority be charged with the preservation of going-concern value? And, if it has the power to impose a stay on creditors, how will the application of that stay be reconciled with the objective of maximizing the value of the estate for creditors? The problem is exacerbated by the fact that some firms may require aggressive, dynamic trading to preserve asset values, and they will require liquidity support as well as the ability to retain some key employees while the final disposition of the firm is determined. Not all bankruptcy regimes, however, aim to preserve going-concern value. These differences in the objectives of the resolution process obviously complicate achievement of a coordinated, cross-border resolution.

Countries also differ with regard to what should trigger a resolution. Most countries recognize that if a bank cannot make payments when due, it should be resolved. Although this is, strictly speaking, a liquidity standard, most insolvencies are exposed by the reluctance of creditors to roll-over their claims or to provide new funds to an institution. Of course, covert central bank lending may disguise this problem for a considerable period of time.

Other countries rely on book value net worth, recognizing that an institution must be resolved when its net worth becomes negative.<sup>14</sup> How well this works depends on the accounting standards that are employed, how rigorously they are enforced and to what extent the resolution authority's decision can be challenged. The book value of assets often lags the economic value of assets, particularly when market values decline. This is especially true when external auditors and the regulatory authorities are lax in requiring provisions and loan loss reserves. Moreover, if the resolution authority is subject to second-guessing by some other entity, it will generally wait until book value net worth is negative beyond any reasonable doubt. This has the perverse consequence that when resolution is finally triggered, it will be necessary to allocate much larger losses. Some countries rely on the book value of equity relative to total (or risk-weighted) assets. When the ratio falls below a specified level, the authorities must intervene to resolve the institution. This measure suffers from many of the same defects as the book value net worth standard, except that if the ratios are set sufficiently high, intervention is more likely to take place before the institution has racked up massive losses. Moreover, use of a higher ratio to trigger resolution helps compensate for the fact that the value of assets is likely to be overstated in times of stress. Because of uncertainty over the true economic value of assets, it is much more realistic to think about an insolvency range rather than a point of insolvency. Ideally intervention should occur before the debt overhang problem begins to distort decision-making by the bank.

Other countries appear to give the resolution authority much greater discretion over when to intervene. The trigger may simply be that the authorities perceive a threat to the interests of depositors. Clearly these different triggers for intervention may lead to interventions at different times.<sup>15</sup> Some countries may be required to intervene considerably sooner than others. This presents yet another coordination challenge.

If a court procedure is to be employed rather than an administrative process, the differences in view about which country should be the insolvency jurisdiction become important. Should it be the jurisdiction in which the bank is chartered? The seat of management? The principal place of business? The location of the largest concentration of assets? Or the location of the largest concentration of creditors? A case could be made for any of these criteria. Unfortunately, some institutions are organized in such a way that each of these criteria may lead to a different answer. The choice of insolvency jurisdiction will have critical importance because it will determine which entity can initiate the resolution process. The chartering/supervisory authority? Creditors? The

---

14. Because national accounting standards have not yet converged, even if the authorities agreed on some sort of book value measure of insolvency, differences would remain.

15. The examples of Herstatt and Lehman Brothers described below demonstrate some of the difficulties that occur when countries intervene at different times in an uncoordinated manner.



bank itself? It may also provide different answers to the critical question of how the integrated business is mapped into the legal entities and regulatory domains that must be taken through a resolution process. Which authority can allocate assets to legal entities? Which authority allocates legal entities to resolution authorities or bankruptcy courts?

The choice of the insolvency jurisdiction also implies differences in legal procedures such as the right of set-off and permissible carve-outs.<sup>16</sup> Under what conditions will counterparties be permitted to close-out, net and liquidate collateral before bankruptcy proceedings? If collateral is liquid, this permits counterparties to settle other transactions that may have been linked to positions with the failed bank, but if the collateral is illiquid, close-out netting may exacerbate downward pressure on asset prices that will transmit losses to other institutions. Although International Swaps and Derivatives Association (ISDA) has achieved considerable success in harmonizing national laws regarding these transactions to shield them from being tied up in bankruptcy proceedings, some differences remain. Moreover, this has enabled a substantial number of counterparties to have a super-priority that permits them to leapfrog over other creditors in the bankruptcy queue. It also diminishes the incentives for these counterparties, who are some of the best-informed market participants, to monitor and discipline risk-taking.

The choice of insolvency jurisdiction may determine whether stays will be imposed and if so, for how long. This is closely related to close-out netting which will take place if positions are categorized as “qualified financial contracts,” which will be exempt from any stays that may be imposed in the bankruptcy process.

The choice of insolvency jurisdiction may also have implications for the treatment of foreign creditors. Do national customers of all classes have priority over those abroad? Among classes of creditors, do all domestic depositors have priority over foreign depositors? Will branches or agencies be treated as separate legal entities? Will the authority with oversight of the separate legal entity seek to marshal assets worldwide for the benefit of local creditors? Can resolution proceedings be trumped by criminal charges?

Different insolvency jurisdictions may also be associated with differences in powers and obligations of the resolution entity. Is the resolution entity constrained to implement a resolution that is least costly to domestic depositors? Must the resolution authority give priority to domestic depositors? Does the resolution authority have the power to impose haircuts on creditors? Can the resolution authority provide liquidity until the ultimate disposition of

---

16. For further discussion of insolvency coordination in an international context with a discussion of netting, carve-outs and set-offs see Contact Grp. on the Legal and Inst'l Underpinnings of the Int'l Fin. Sys., *Insolvency Arrangements and Contract Enforceability*, BANK OF INT'L SETTLEMENTS 30-35 (2002), <http://www.bis.org/publ/gten06.pdf>, especially pages .

the failed group is determined? Does the resolution authority have the ability (and resources) to provide a capital injection?

Although international treaties must maintain the polite fiction that all nations are equal, this is clearly not true. Countries differ with regard to their regulatory and supervisory resources – both in terms of human capital (the number and quality of employees) and financial resources. They also differ with regard to the quality of their financial infrastructures. A country that has high-quality external audits, well-informed institutional creditors and investors, a financial press that adopts a watchdog role and the ability to enforce regulatory decisions can be a much more effective regulatory partner than a country that lacks a strong financial infrastructure.

Asymmetries regarding exposure to the troubled G-SIB may also influence incentives to take action. If the foreign subsidiary is economically significant to the parent firm, the parent is much more likely to support it and the home country authorities are more likely to provide support to the parent, if necessary. On the other hand, if the foreign subsidiary is of minor importance to the parent, but is systemically important in the host country, the host country is more likely to take action. Problems may arise, however, when supervisory responsibilities, fiscal responsibilities and accountability to the electorate are misaligned. The home country authorities may lack incentives and the host country may lack the power and resources to resolve the faltering entity.

Finally, unless resolution policy is implemented with great precision, before a G-SIB exhausts its net worth, losses must be allocated. The allocation of losses presents an additional challenge to achieving a cooperative resolution because nations find it very difficult to agree on how to allocate losses. Agreement is difficult *ex ante* because countries are understandably reluctant to make an open-ended fiscal commitment. Moreover, they fear that by agreeing to share in losses they may exacerbate moral hazard with regard to their foreign counterparts. The authorities that have primary supervisory and regulatory power may be less diligent in controlling the risk-taking of the G-SIB they oversee if they can be sure that the costs of failure will be shared with foreigners. As difficult as it is to agree on loss-sharing *ex ante*, however, it is even more difficult *ex post*. *Ex post*, countries are likely to disagree over the cause of the losses and the standards for allocating losses, and may have a statutory obligation to favor national interests.

To sum up, the inability to impose an effective resolution regime at a global level places enormous pressure on national resolution authorities to cooperate. But this cooperation is inherently difficult to achieve because of inhibitions on sharing information in a timely manner, differences in objectives, rules resolution policies, and bankruptcy procedures, and asymmetries in the capabilities, powers and incentives among national resolution authorities. All of these tensions could be reduced, if not eliminated, by early intervention that eliminates the necessity of allocating losses. But that outcome would require a

remarkable degree of harmonization of resolution objectives, powers<sup>17</sup> and procedures that we have not yet achieved.

#### IV. Why Problems in Cross-Border Resolution Should Not Have Been a Surprise

The neglect of these cross-border resolution challenges before the Great Recession is surprising because most of the problems that plagued the authorities in the Great Recession could have been anticipated from earlier banking crises.<sup>18</sup> These lessons include the reluctance of the national authorities to share unfavorable information about a bank, the danger of uncoordinated and conflicting actions by the authorities, the sensitivity of markets to unanticipated behavior by the authorities, the challenge of resolving an institution with substantial international corporate complexity, the disruptive impact of applying bankruptcy procedures to institutions that had been actively engaged in trading, the profound differences in resolution procedures and bankruptcy laws, and the ambiguous benefits of close-out netting for qualified financial contracts (QFCs).

Unfortunately, we have scant evidence that much was learned from these earlier experiences. No major advances were made in national resolution policies or in the coordination of resolution policies across countries. Indeed, as financial activity became more concentrated in fewer, increasingly leveraged, larger and more complex institutions,<sup>19</sup> the financial system became more vulnerable to the problems exposed in earlier crises. Only in the aftermath of the recent crisis have major financial centers begun to reform their resolution procedures.

This review of problems in cross-border resolution will begin in the 1970s to emphasize that these challenges are not new. We will proceed chronologically, starting with Herstatt and concluding with some of the notable cross-border resolutions in the recent crisis.

##### A. *Bankhaus Herstatt*

The 1974 failure of Bankhaus Herstatt demonstrated the reluctance of authorities to share unfavorable information about banks. The Bundesbank and the German Federal Banking Authority closed Herstatt at the end of the business day in Germany, which was the middle of the clearing day in New

---

17. Which would require that some countries modify laws that prohibit them from intervening in a solvent institution.

18. Richard Herring, *International Financial Conglomerates: Implications for National Insolvency Regimes*, in *MARKET DISCIPLINE AND BANKING: THEORY AND EVIDENCE* 99-129 (George Kaufman ed., 2003).

19. Greater leverage amplified the impact of losses, complexity made institutions more difficult to supervise and increased size extends the potential impact of the failure of the institution on the real economy.

York, where the dollar leg of Herstatt's foreign exchange transactions was being settled. This action was apparently taken without informing other regulators outside Germany. The timing of the closure was a surprise because generally regulators had tried to close institutions over a weekend so that normal clearing and settlement processes would not be disrupted. The unanticipated behavior of the German authorities caused disproportionately large spillovers. Interbank markets were disrupted because banks became wary that they might be trapped in a Herstatt-like loss. Spreads in the Eurodollar market widened to unprecedented levels and left some banks rationed out of the market altogether. The action by the German regulatory authorities also demonstrated that the discretion of the authority to choose when a bank will be closed can have a major impact on the allocation of losses. The creditors of Herstatt would have been worse off if the German authorities had waited until the end of clearing in New York.<sup>20</sup>

Herstatt also made clear that the impact of the failure of even a small bank can be amplified if it interrupts an important clearing and settlement process. In this case, the dollar/deutsche mark market, at the time the largest foreign exchange market in the world, came to a virtual halt for more than a month until the authorities and the New York Clearing House could restore confidence. Finally, the Herstatt case demonstrated the difficulties of applying judicial procedures to a bank. Judicial proceedings tend to move at a glacial pace – the Herstatt case took more than thirty-five years to settle – while markets move virtually at the speed of light. If Herstatt had any going-concern value, it was surely lost in the abrupt closure, which aborted foreign exchange transactions, and in the lengthy judicial proceedings that followed.

### *B. BCCI*

In 1991, the Bank of Credit and Commerce International (BCCI) demonstrated the enormous difficulties that regulatory authorities face in dealing with complex corporate structures, particularly when many subsidiaries have been established to evade regulatory oversight and considerable activity takes place in lightly regulated tax havens. BCCI was organized so that the country in which it was chartered differed from the country of its principal place of business, which in turn differed from the country in which the principal managers resided, and the countries in which the greatest concentration of assets and the greatest concentration of creditors could be found.<sup>21</sup> It strategically exploited the asymmetries in national regulatory

---

20. This point was echoed by other nations regarding the timing of the Lehman Brothers bankruptcy petition by the U.S. authorities.

21. Richard Herring, *BCCI & Barings: Bank Resolutions Complicated by Fraud and Global Corporate Structure*, in *SYSTEMIC FINANCIAL CRISES: RESOLVING LARGE BANK INSOLVENCIES* 321-345 (Doug Evanoff and George Kaufman eds., 2005).

resources and incentives. BCCI obtained its banking charter in Luxembourg, but chose to do no banking business in Luxembourg.

Luxembourg not only lacked the resources to monitor a complex, secretive global bank, but it also lacked incentives to do so since BCCI was careful not to do banking business in Luxembourg. BCCI did, however, make use of Luxembourg's secrecy laws to prevent other regulatory authorities from getting an overall view of the bank.<sup>22</sup>

BCCI also revealed the profound differences in resolution and bankruptcy policy and procedures across major financial centers. These included differences in: the objectives of the resolution process, which entity initiates the process, the treatment of foreign creditors, carve-outs, choice of laws to apply, choice of the insolvency jurisdiction as well as procedural details such as the right of set-off. In the U.S., set-offs are confined to claims on and liabilities to the failing institution that are in the same currency and appear on the books of the same legal entity. British law allowed for much broader scope, permitting set-offs without limits regarding currency, branch or the country in which a branch is located. Luxembourg had a much more restrictive approach, however. Set-offs could be permitted at judicial discretion only after a liquidation order had been issued.

More fundamentally, BCCI highlighted the significant differences between countries that follow a universal principle in bankruptcy in which all the assets are gathered in the insolvency jurisdiction and then distributed to creditors in order of priority without regard to the location or nationality of the claimant<sup>23</sup>, and countries (most notably the U.S.) that follow a territorial principle in which all domestic residents must be fully paid before assets can be handed over to the central insolvency jurisdiction. Indeed, the New York State regulatory authorities treated the New York branch of BCCI as if it were a separate entity and tried to collect its assets worldwide to ensure the creditors of the New York branch would be paid off before any assets would be handed over to the primary bankruptcy jurisdiction in Luxembourg.

The U.S. also disrupted bankruptcy proceedings by prosecuting criminal charges against BCCI under the Racketeer Influenced and Corrupt Organizations Act. While foreign authorities resented this unilateral action, the application of criminal investigative powers substantially increased the total amount of assets that could ultimately be distributed to creditors.

---

22. Indeed, it tried to escape scrutiny by any outside entity even to the extent of hiring two different accounting firms to audit different parts of the bank so that neither firm had a view of all of the activities of the bank.

23. Notwithstanding their professed adherence to the universal approach, a number of countries ring-fenced the assets they could control.

*C. Barings*

In 1996, Barings revealed difficulties in achieving cooperation among functional regulators in Britain and between home and host country supervisory authorities. This stemmed from misalignments among regulatory objectives, resources and incentives.

The collapse of Barings also highlighted that bank failures could jeopardize securities markets. The collapse of Barings imposed large losses on exchanges in Singapore and Osaka that led some members of those exchanges to threaten to give up their memberships rather than share in the losses. The potential disintegration of several exchanges was halted only by the rapid intervention of the government of Singapore.

Perhaps most importantly, the collapse of Barings revealed the problems in submitting a bank engaged in active trading to bankruptcy procedures. When Barings entered administration, an automatic stay was placed on all of its liabilities. This had immediate, unintended consequences. Counterparties of Barings could not hedge effectively because they were uncertain of the amount or the timing of their ultimate distribution from the liquidation or sale of Barings. It also made clear that the value of a bankrupt entity could deteriorate rapidly if its trading positions could not be actively managed. Indeed, the volume of trading decreased sharply in markets in which Barings had been an active participant until it was sold to ING for one pound at the end of the week.

Partly as a consequence of the problems revealed in the Barings failure, ISDA<sup>24</sup> succeeded in having its model close-out netting laws adopted more widely. This meant that counterparties that had adequate collateral could, in effect, close out and net their positions with the defaulting party and jump the bankruptcy queue. The policy was widely adopted in the belief that it would help sustain the liquidity of derivatives markets by protecting adequately collateralized counterparties from the uncertainties exposed in the Barings administration.

*D. Long Term Capital Management*

In 1998, Long Term Capital Management (LTCM) revealed the darker side of close-out netting. LTCM made a strong case to regulators (and its creditors) that, if it failed to meet margin calls and demands for additional collateral, its assets would be seized and sold by its counterparties. Since market conditions were already strained in the wake of the Russian default and LTCM's counterparties held considerable illiquid collateral, the prospect of close-out netting raised the specter of selling illiquid assets into already thin

---

24. For additional information about ISDA and the importance of close-out netting laws see David Mengle, *The Importance of Close-Out Netting*, INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION (2010), <http://www.isda.org/researchnotes/pdf/Netting-ISDAResearchNotes-2010.pdf>.

markets, causing prices to fall sharply. Thus the fire-sale losses of seized collateral might have caused failures at other institutions that held similar positions, the flight to quality would disrupt other, unrelated markets, and counterparties that had not demanded sufficient collateral might themselves be in jeopardy of failure. Given the opacity of trading positions, the lines of contagion were likely to be both direct – because of actual exposure to LTCM – and indirect – because of suspected exposure to LTCM or the holding of positions suspected to be like those of LTCM. The hospitality of the New York Fed and the enlightened self-interest of the major creditors led to what amounted to a prepackaged bankruptcy that eased market conditions. Nonetheless, what turned out to be a close brush with financial disaster should have been seen as a clear warning of the potential dangers in close-out netting. ISDA was, however, able to increase the number of countries that adopted its model laws and the range of assets over which close-out netting could be applied. Indeed, the widespread adoption of the ISDA model laws is probably the most successful international harmonization achievement over the last two decades.

In the recent crisis, many of these difficulties were echoed and several more problems were exposed. Three cross-border failures during the recent crisis will illustrate the points: Lehman Brothers, Fortis, and the Icelandic banks. In each case, resolution was, out of necessity, improvised. In some cases, the improvisation succeeded in limiting spillovers — but at substantial cost to taxpayers. In other cases, the resolution process protected domestic interests without regard to spillover effects in the rest of the world.<sup>25</sup>

### *E. Lehman Brothers*

Before Lehman Brothers 2008 collapse, it was the fourth largest investment bank in the U.S. It was more than twice as large — and twice as complex — as Bear Stearns, which had agreed to a subsidized, shot-gun merger with JPMorgan Chase in March of 2008 after it became unable to meet calls for additional collateral. The Lehman Brothers Group consisted of 7,000 legal entities in fifty countries, and many of these entities were subject to national regulation by host countries as well as supervision by the U.S. Securities and Exchange Commission.<sup>26</sup>

---

25. The remainder of this section draws heavily from Chapter 3 of Stijn Claessens, Richard Herring and Dirk Schoenmaker, *A Safer World Financial System: Improving the Resolution of Systemic Institutions*, in GENEVA REPORT ON THE WORLD ECONOMY 12 (2010).

26. This is an unusually clear example of the law of unintended consequences. The EU threatened to force the large American investment banks to form holding companies in Europe if they did not submit to consolidated supervision by a competent authority. Although it had no prior experience, the SEC somehow convinced the EU that it was a competent supervisory authority and the five largest investment banks became voluntary Consolidated Entities subject to Basel II capital rules. When they measured their required capital under Basel II, the five CSEs discovered that they had

In 2006, Lehman had made a deliberate decision to embark on an aggressive growth strategy and to take on greater risk by substantially increasing its leverage and making concentrated bets on commercial real estate, leveraged lending, and private-equity-like investments. These undertakings were far riskier than many of its traditional lines of business because instead of simply brokering transactions, the firm would be holding substantial amounts of risk on its balance sheet. And these risks were financed largely by short-term repurchase agreements often totaling hundreds of billions of dollars per day. In the words of one Lehman employee, they had shifted from the “moving business” to the “storage business.”<sup>27</sup> Lehman had, in essence, taken on the risk profile of a commercial bank without the benefit of the bank safety net. When the sub-prime crisis erupted, Lehman’s management saw it as an opportunity to double-down on their bets, and they consistently violated their declared risk appetite and risk limits to position themselves for a market rebound.<sup>28</sup>

In 2008, just after the demise of Bear Stearns, Lehman announced its first loss since going public in 1994, but the firm was able to raise \$6 billion in new capital. Secretary of the Treasury Paulson, in a private communication to the CEO of Lehman, warned that this was not enough and that if Lehman were to announce a loss in the third quarter without having a buyer or a definitive survival plan in place, its existence was in jeopardy.<sup>29</sup> However, the Treasury Department did nothing to prepare for such an eventuality by seeking statutory power to intervene.

Lehman Brothers did not succeed in finding a merger partner or in developing a survival plan. Instead, it resorted to window dressing its monthly and quarterly reports by arbitraging accounting requirements<sup>30</sup>, and it overstated its liquidity by including “comfort deposits” that it held with its clearing banks in order to continue clearing operations with them.<sup>31</sup>

Over the weekend of September 12-14, 2008, U.S. authorities met with CEOs of leading financial institutions from around the world to try to broker a merger for Lehman, or at least raise a fund to subsidize a merger for the troubled firm (as had been done for Long Term Capital Management in 1998). At one point on Sunday afternoon, federal officials believed they had struck a deal with Barclays Capital Management, which would be subsidized by many

---

considerable excess regulatory capital and quickly doubled their leverage, which was surely not what the EU intended.

27. ANTON VALUKAS, 1 REPORT OF ANTON R. VALUKAS, EXAMINER, TO THE UNITED STATES BANKRUPTCY COURT SOUTHERN DISTRICT OF NEW YORK IN RE *LEHMAN BROTHERS HOLDINGS INC, ET AL DEBTORS* 44 (2010).

28. Lehman exceeded its risk limits by margins of 70% with regard to commercial real estate and 100% with regard to leveraged loans. *Id.* at 50.

29. *Id.* at 5.

30. *Id.* gives a full account of the so-called “repo 105” transactions that could be reported as sales rather than borrowings.

31. By September 12, 2008, two days after it reported \$41 billion in its liquidity pool, it actually contained less than \$2 billion of readily monetizable assets. *Id.* at 10.



of Barclays' competitors, but the U.K. Financial Services Authority refused to waive the shareholder approval rights required in the U.K. Thus with no buyer and, the authorities claimed, no way to find a merger partner<sup>32</sup>, the Chairman of the SEC strongly suggested that Lehman's board file for bankruptcy before the opening of markets in Asia, when it would be unable to meet its cash obligations. On September 15, 2009, at 1:45 a.m. Lehman Brothers Holding Inc. (LBHI) filed for protection under Chapter 11 of the Bankruptcy Code, becoming the largest bankruptcy in U.S. history.<sup>33</sup>

In many respects, it is astonishing that so many market participants expressed surprise when Lehman failed. But much of the surprise had to do with a realization that U.S. policy had changed and that the U.S. authorities would let a sizable financial intermediary go under. Many market participants had believed that if the authorities had managed to find \$29 billion to arrange a merger for Bear Stearns, they would also be willing and able to advance at least \$60 billion to save Lehman. It is clear that the market was not surprised that Lehman was insolvent and had been so at several times during the summer. The administrators of the Lehman bankruptcy in the U.S. have estimated that at least \$75 billion had been wasted because of the complete lack of any preparation for bankruptcy.<sup>34</sup>

The action that the U.S. authorities took could be interpreted as implying that the collapse of Lehman was not systemically important. But the intensive negotiations they arranged over the weekend suggest otherwise. Moreover, they claimed to have simply lacked the statutory authority to do anything else.

While the U.S. authorities refused to support LBHI, the parent company, they did support Lehman Brothers Inc. (LBI), the U.S. broker-dealer subsidiary, for another five days until it could enter Securities Investor Protection Act trusteeship on September 19, when its prime brokerage activities, asset management business and a substantial portion of its clients' assets and obligations were sold to Barclays Capital Inc. and others. This removed one of the chief systemic concerns in the U.S. The other principal concern, Lehman's leading role in the opaque OTC derivatives market, turned out to be transient. Most derivatives were promptly closed-out and netted under ISDA Swap Agreements. Although counterparties were not necessarily happy with the prices they received, there were no knock-on effects attributable to the unwinding of the derivatives book.

---

32. The authorities claimed that they lacked legal authority to make a direct investment in Lehman and that Lehman's assets were insufficient to support a loan large enough to prevent collapse.

33. For an alternative scenario, based on the assumption that FDIC would have had the powers that it ultimately received under Title II of the Dodd-Frank Act, see Christine E. Blair, Rose M. Kushmeider, Jack Reidhill, and F. Angus Tarpley II, *The Orderly Liquidation of Lehman Brothers Holdings Inc. under the Dodd-Frank Act*, 5 FDIC Quarterly no. 2, 2011 at 31., [http://www.fdic.gov/bank/analytical/quarterly/2011\\_vol5\\_2/lehman.pdf](http://www.fdic.gov/bank/analytical/quarterly/2011_vol5_2/lehman.pdf).

34. Ann Cairns, *Breaking the Insolvency Mould*, 6 INT. C. R. 115 (2009), <http://www.chaseambria.com/site/journal/article.php?id=384>

The only *domestic* impact that could be labeled systemic was due to a “moral hazard” play by the managers of the \$62 billion Reserve Primary Fund, a wholesale money market fund that “broke the buck” because of its outsized holdings of Lehman’s commercial paper, which yielded a return substantially higher than its rating would warrant. News that the oldest money market mutual fund had seen the net asset value of its shares fall below a dollar started a run on other money market mutual funds, which led to dumping corporate commercial paper on the market to meet the demand for withdrawals.

The collapse of prices in the secondary market caused the primary market for commercial paper to shut down. Commercial paper is the primary mode of finance for much of corporate America and so the Treasury hastily provided insurance for money market mutual funds. (And to maintain parity, the Emergency Economic Stabilization Act temporarily increased the deposit insurance ceiling from \$100,000 to \$250,000). The Fed also intervened to support the commercial paper market directly.

Still many observers interpreted this as a successful application of bankruptcy rules to a large, complex financial institution.<sup>35</sup> Apart from the unanticipated spillover to the wholesale money market and knock-on effect on the commercial paper market, the U.S. had shown that the economy could function perfectly well without Lehman Brothers.

This relatively orderly outcome in the U.S. was in stark contrast to the chaos created abroad. The immediacy of the impact was in large part due to the highly integrated structure of the Lehman Group. Like many other global financial firms, Lehman managed substantially all of its cash resources centrally at the holding company. Since LBHI declared bankruptcy before cash could be swept out again to the subsidiaries, these subsidiaries found themselves suddenly illiquid and unable to continue operation. Bankruptcy proceedings were initiated in numerous jurisdictions around the world.<sup>36</sup> Because London was Lehman’s largest center of activity outside the U.S., many of the problems showed up most vividly there.

The London subsidiaries, including Lehman Brothers International Europe, its largest broker/dealer in Europe, filed for bankruptcy and turned to PriceWaterhouseCoopers (PwC) for administration. Because there is no provision under British law for debtor in possession financing, the administrators had to struggle to find money to maintain even the most basic services such as the employee cafeteria.

---

35. See Kenneth Ayotte and David Skeel, Jr., *Bankruptcy or Bailouts?* 35 J. CORP. L. 469 (2010).

36. Some Lehman Brothers entities did not file for bankruptcy, however. For example, the Lehman Brothers bankruptcy estate operates a bank, today known as Aurora Bank FSB, which employs 1,700 people servicing over \$100 billion in mortgages. See Kimberly Summe, *Lessons Learned from the Lehman Bankruptcy*, Chapter 5, in *ENDING GOVERNMENT BAILOUTS AS WE KNOW THEM 65* (Kenneth E. Scott, George P. Shultz, and John B. Taylor eds., 2010).

PwC was confronted with 43,000 trades that were still “live” and would need to be negotiated separately with each of the counterparties. The integration of the group was such that a trade performed by one affiliate could be booked in another, without the client necessarily being aware that the location of the asset had shifted. Record-keeping fell into disarray when LBHI filed for bankruptcy. At the time of filing, Lehman maintained a patchwork of over 2,600 software systems applications, many of which were outdated or arcane. These systems were highly interdependent, but difficult to decipher and not well documented. Moreover, most systems covering trading, valuation, financial accounting and other activities had been transferred to Barclays in the sale, and Barclays had integrated its own proprietary and confidential data into some of the systems.<sup>37</sup> Thus many non-U.S. affiliates experienced enormous difficulties even in determining what their balance sheets were and who owed what to whom.

Although arrangements were ultimately negotiated with Barclays for access to some essential information, it was almost impossible to salvage much going-concern value out of the rest of the group (with the exception of the sale of the foreign equity business to Nomura by PwC). In London, where much of the prime brokerage business had shifted, it was permissible to mingle client funds with the firm’s own funds, so several hedge funds suddenly became illiquid.

The fragmented data system impeded the salvaging of going-concern value from the remainder of the Lehman Group because different parts of a line of business were lodged in different subsidiaries in various parts of the world. So the administrators had no way of reintegrating their lines of business even if those business lines had been viable.

Significant value was destroyed by the lack of cooperation in the unwinding of the Lehman Group, a process that may continue for a decade. The systemic impact of the bankruptcy of Lehman Brothers is difficult to sort out because it occurred amid a number of different shocks to the system. For example, Lehman collapsed just after Fannie Mae and Freddie Mac entered conservatorship, protecting all creditors and counterparties, but causing losses to both common and preferred shareholders. And just two days later the same authorities that sent Lehman to the bankruptcy courts bailed out AIG. The Dow Jones Industrial Average fell 150 points the day Lehman declared bankruptcy, but a considerable part of this may have been due to the apparent change in the rules of regulatory intervention. The explanations offered by Federal officials regarding why they protected creditors and counterparties of Bear Stearns but not those of Lehman Brothers were neither consistent nor convincing. The run on money market funds and, subsequently, the collapse of the commercial

---

37. In addition, the technology supporting the prime brokerage business was inadvertently sold to Nomura in the U.K., rather than Barclays, which acquired that U.S. business.

paper market were a direct result of the collapse of the value of Lehman commercial paper.

In many ways, the Lehman bankruptcy was unnecessarily disruptive. The firm was badly supervised and regulated, and benefited from widespread expectations (that turned out to be false) that its creditors and counterparties would be protected if worse came to worst. The U.S. acted unilaterally, providing liquidity for an orderly resolution for the U.S. broker/dealer arm of Lehman through a merger with Barclays Capital, but providing no cooperation to other countries unwinding the Lehman subsidiaries in forty-nine other countries, including, most notably, the major operations in the U.K.

#### *F. Fortis*

Fortis<sup>38</sup> was likely to fail eventually from the weight of its own problems, but its end was undoubtedly hastened by the collapse of the wholesale interbank market after the bankruptcy of Lehman Brothers. Fortis was a financial conglomerate incorporated in Belgium, listed on both Euronext Amsterdam and Euronext Brussels, with substantial banking and insurance activities in Belgium, the Netherlands and Luxembourg (the Benelux countries). In May 2007, Fortis joined with the Royal Bank of Scotland and Santander in a complex transaction to acquire ABN-AMRO for €71 billion. After outbidding Barclays Bank in this takeover battle, the trio planned to divide ABN-AMRO's activities among them. Fortis was to acquire the domestic Dutch business of ABN-AMRO as well as its private banking and asset management operations for a price of €24 billion, at a time when the market capitalization of Fortis was around €40 billion.

The deal, together with a €13 billion equity issue, was approved by Fortis' shareholders in August 2007. But the market perception of the financial strength of Fortis was weakened when it disclosed a €40 billion CDO/RMBS portfolio based on U.S. mortgages. Thus overleveraged and with a weak balance sheet, difficulties began to surface at Fortis by June 2008. At that time, Fortis announced a new equity issue and cancelled its dividend payment. Both steps violated earlier promises, and this led to a sharp drop in the Fortis share price. Liquidity became a serious concern and intensified uncertainty in the market about whether Fortis would be able to execute its planned acquisition of part of ABN-AMRO.

Fortis was systemically important in three countries — Belgium, the Netherlands, and Luxembourg — because of its large presence in each country as well as its role as a clearing member at several exchanges. The Benelux

---

38. Mathias Dewatripont and Jean-Charles Rochet, *The Treatment of Distressed Banks*, in *MACROECONOMIC STABILITY AND FINANCIAL REGULATION: KEY ISSUES FOR THE G20* 149-164 (Mathias Dewatripont, Xavier Freixas and Richard Portes eds., 2009); *BASEL COMM. ON BANKING SUPERVISION, REPORT AND RECOMMENDATIONS OF THE CROSS-BORDER RESOLUTION GROUP* (2010). See also FRANCIS VAN DE WOESTYNE AND ARIANE VAN CALOEN, *FORTIS, DEXIA ... LE SÉISME* (2009).

countries have had a long history of cooperation in monetary affairs and so the preconditions for a cooperative resolution process were as strong as in any other three countries one could name.

The coordinating supervisor was the Belgian Banking, Finance and Insurance Commission (CBFA), which remained lead supervisor of Fortis, despite the importance of the Dutch activities after the acquisition of ABN-AMRO. Fortis' weakness proved fatal after the Lehman failure and subsequent disorder in interbank markets. By September 24, 2008, interbank lending to Fortis had collapsed and significant deposit withdrawals were starting to take place. The crisis was managed by each of the three nations, acting separately most of the time. When Fortis was initially recapitalized, the Belgian, Dutch and Luxembourg governments provided capital injections of €4.7, €4.0 and €2.5 billion to Belgium's Fortis Bank, Fortis Bank Netherlands, and Fortis Bank Luxembourg respectively — but not to the Fortis Group as a whole. The capital injections more or less reflected asymmetries in the exposure to loss among the three countries. However, this agreement failed to calm the markets, obliging the National Bank of Belgium, as the home country's central bank, to keep providing massive Emergency Liquidity Assistance to Fortis in the next days.

In the second round of negotiations, the Dutch government sought to regain control of the Dutch business of Fortis as well as its ABN-AMRO business for a combined total of €16.8 billion. In addition, the Dutch government took over the €50 billion funding of Fortis Bank Netherlands from Fortis Bank Belgium. While the Dutch government essentially nationalized the Dutch parts of Fortis, the solvent Belgian/Luxembourger banking parts were sold (75% stake) to BNP Paribas. In December 2008, the Brussels Court suspended the sale to BNP Paribas and decided the sales to the Dutch government and the Belgian government, and the subsequent sale to BNP Paribas, had to be submitted for shareholder approval in order for these sales to be valid under Belgian law. Although this final intervention stabilized the Dutch and Belgian banking systems, the evident difficulties the Benelux countries had in achieving a cooperative solution increased uncertainty about large cross-border banks in Europe and raised the cost of the rescue operation.

Shareholder approval was obtained for the BNP-Paribas deal, after renegotiating the sale. The decision of the Brussels Court was later overturned by the Belgium Court of Appeals, which decided that no shareholder approval was needed. This episode demonstrated the problem that supervisors face if they do not have effective resolution powers overriding shareholders' rights before insolvency. If the authorities cannot intervene before a bank is clearly insolvent, they will be unable to prevent losses. Once losses have been incurred, cooperation will be even more difficult.

*G. Icelandic Banking System*

The Icelandic banking system<sup>39</sup> experienced a deep financial crisis when its three major banks all collapsed in the same week in October 2008. After the Icelandic banking system was deregulated and privatized in the 1990s and early 2000s, banking had quickly become one of the largest sectors of the economy and ultimately grew to an asset size about ten times that of the Icelandic economy. Banking supervision was unable to monitor and curb risks taken by the booming banking sector.

Two factors made the Icelandic banking system more fragile than its counterparts abroad. First, unlike many other nations with an outsized banking system, such as Switzerland, the Netherlands, and the United Kingdom, the institutional experience of running a modern banking system in Iceland spanned less than a decade, not centuries. Second, the banks had invested significant portions of their funds in their own shares and in each other's shares. These cross-shareholdings did not provide a buffer against loss, but instead became a central channel of contagion.

Iceland provides a clear example of the problems in assuming that all nations are equal with regard to bank regulation and supervision. As a member of the European Economic Area (EEA), Iceland had essentially the same banking regulations as other EEA/EU countries, but its ability and incentives to enforce the rules fell short of the standards in other countries.

During the boom years, Icelandic banks relied on the wholesale markets to fund themselves, but when wholesale markets began to dry up they tried to attract internet savings accounts by offering high rates, especially in the U.K. Landsbanki, one of the three Icelandic banks, offered its Icesave accounts through local branches in the U.K. Because these offices were branches rather than subsidiaries, they were primarily regulated, supervised and insured in Iceland following the European Second Banking Directive. Icesave deposits in the U.K. grew to over £4 billion. Under the EU's Second Banking Directive, the host country supervisors lacked the power to supervise the solvency of these branches.

The three Icelandic banks were clearly systemic in their home country, but not so in the host countries. As concerns about the Icelandic banks increased in September 2008, the Icelandic government purchased a seventy-five percent stake for €600 million in Glitnir Bank, the smallest of the country's three large banks. But the partial nationalization of Glitnir shook confidence in the Icelandic banking system and the Icelandic state. The government and the banks had repeatedly claimed that all of the three main banks were liquid and solvent. The failure of Glitnir undermined confidence in the other two banks

---

39. Basel Committee on Banking Supervision *supra* note 38; Jon Danielsson and Gylfi Zoega, COLLAPSE OF A COUNTRY (2nd edition, 2009); Special Investigation, *Report of the Althingi Special Investigation Commission*, Althingi, Iceland (2010).

and in the government's ability to assess the condition of its banks. The immediate effect was to cause credit lines to be withdrawn from the two remaining banks. There was also a run on Landsbanki's Icesave branch in the U.K. Under the Second Banking Directive, the U.K. lacked the authority to intervene even though the home country, Iceland, had failed to inform or cooperate with the U.K. authorities. Constrained by the Second Banking Directive from directly intervening in the branch, the U.K. authorities made innovative use of a clause in their antiterrorist laws that enabled them to freeze the assets of Landsbanki branches. This highly unusual application of the antiterrorist laws highlighted one of the key problems inherent in assuming that all supervisory authorities are equal, when in fact, they are not.

In response to the crisis, the Icelandic government had prepared emergency legislation granting it widespread powers to maintain the domestic operations of the banks. This legislation, which was passed by the Icelandic Parliament on October 6, 2008, created "new banks" from the ruins of the old ones to hold domestic deposits and loans. But the foreign operations, including the foreign branches, were left behind and put into administration. This violated the EU Deposit Insurance Directive, which requires equal treatment of domestic and foreign depositors. But during the crisis, Iceland chose to protect all domestic depositors and not those abroad.<sup>40</sup> This example provides a caution against the host country relying on understandings, agreements or, in this case, a treaty to control the parent government's behavior during a crisis and may reinforce the tendency of many countries to ring-fence first and negotiate later.

Despite the numerous Memoranda of Understanding pledging to share information before the collapse of an institution, the primary supervisor failed to do so in all the preceding cases. This undoubtedly reflects the reluctance to share bad news noted above. But without sufficient cooperation among the relevant regulatory authorities to share bad news, the scope for a harmonized approach to cross-border resolution is severely limited.

## V. Concluding Comment: The Single Point of Entry

This article has reviewed the many reasons that it is unlikely that countries will ever voluntarily harmonize their resolution procedures. These include the fundamental problem of information sharing, the presence of multiple regulatory authorities with differing resolution procedures and objectives, the organizational and corporate complexity of G-SIBs and asymmetries across countries with regard to regulatory and supervisory resources and incentives to take action in any particular case. All of these challenges are heightened by the

---

40. This is an example of an asymmetry that complicates cross-border cooperation. Iceland lacked both the incentive and the resources to cooperate. The U.K. had reason to intervene, but lacked the authority. More generally this problem arises when most of a country's banks are foreign-owned, such as in much of Eastern Europe. In these cases the foreign banks are systemic in the host country, but the host country subsidiary is unlikely to be of systemic importance in the home country.

reality that if sovereign countries fear that their residents will not be treated equitably in a cross-border resolution, they can ring-fence the assets of a resident branch or subsidiary in an attempt to protect local interests.

While efforts by the FSB to promote the adoption of the Key Attributes are showing progress in some major economies, they do not address the most difficult problem of how to allocate losses if necessary. While it is certainly preferable to strengthen supervision and resolution procedures so that G-SIBs are resolved before they become insolvent and generate losses that must be allocated, we have little evidence that the authorities have the ability or will to do so. Instead, despite the growing network of international agreements, many countries are likely to ring-fence the part of a G-SIB in their jurisdictions unless they can be assured that the interests of their residents will be protected in a resolution conducted by the G-SIB's home country.

The inability to rule out ring-fencing has profound consequences. G-SIBs would be unwise to manage their capital or liquidity on an integrated basis under the assumption that funds can be shifted from a surplus entity to a deficit entity in times of stress. Unfortunately, it is precisely in times of stress that the ability to move resources across borders is most important. But if capital and liquidity must be managed on a legal entity basis, G-SIBs will require substantially more capital and liquidity to support their operations. Thus G-SIBs have a major stake in achieving cooperative resolutions.

If ring-fencing cannot be ruled out, the very foundations of international regulation and supervision must be reconsidered. The basic principle that underlies the Basel Concordat on Supervision and the Basel Accords on capital adequacy is that banks should be evaluated on a consolidated basis. But if funds cannot be shifted across borders in times of stress, monitoring banks on a consolidated basis may be entirely misleading.

Since the preceding sections have argued that differences in resolution policy are unlikely to be harmonized effectively, it is essential to finesse the existing legal, geographical and regulatory complexity of G-SIBs to find a way to preserve the going-concern value of a failing G-SIB without public subsidy and without damaging spillovers that would jeopardize international financial stability.

The Bank of England and the Federal Deposit Insurance Corporation have jointly proposed a resolution strategy, called the Single Point of Entry (SPE), which attempts to finesse many of these challenges.<sup>41</sup> It is a "top-down" strategy that involves a single resolution authority applying its powers to the

---

41. For the latest statement of the strategy *see*, Resolution of Systemically Important Financial Institutions: The Single Point of Entry Strategy, FED. DEPOSIT INS. CORP. (2013), [http://fdic.gov/news/board/2013-12-10\\_notice\\_dis-b\\_fr.pdf](http://fdic.gov/news/board/2013-12-10_notice_dis-b_fr.pdf). For the original joint proposal see Fed. Deposit Ins. Corp. and the Bank of Eng., *Resolving Globally Active, Systemically Important, Financial Institutions* FED. DEPOSIT INS. CORP. (December 10, 2012) <http://www.fdic.gov/about/srac/2012/gsifi.pdf>.



parent holding company of a banking group. The strategy would apply a single receivership at the top-tier holding company.

The Orderly Liquidation Authority set out in the Dodd-Frank Act assigns to the FDIC the responsibility for resolving systemically important financial institutions when bankruptcy<sup>42</sup> would have serious adverse effects on financial stability *in the United States*. The SPE is a strategy to fulfill this responsibility while at the same time protecting taxpayers from loss. The SPE ensures the continuity of all critical services performed by the operating subsidiaries, thus reducing the risk of contagion and cross-border complications. In effect, regulatory authorities abroad will be assured that operating subsidiaries in their jurisdictions will be unaffected by the resolution taking place at the top-level holding company in the hope that they will not intervene while financial and operational restructuring take place.

The costs of resolution are intended to fall on shareholders of the top-level holding company and, to the extent necessary, its unsecured creditors. The failed holding company would be left behind and placed in receivership. But all of its assets, including shares in its subsidiaries, would be transferred to a newly formed Bridge Financial Holding Company (FHC), under the temporary control of the FDIC. This would keep the subsidiaries out of insolvency proceedings. The shareholders of the failed holding company would absorb first losses up to the point at which the value of the holding company shares would be eliminated. Additional losses would fall on holding company creditors according to the priority order of their claims. The remaining portion of their claims would be converted to equity in the new bridge FHC. These creditors would become the new owners of the bridge FHC and the management deemed responsible for the failure of the BHC would be replaced. The claims of the failed holding company on its subsidiaries would be converted to equity and transferred to the bridge FHC. This financial restructuring would be accompanied by an operational restructuring focused especially on parts of the business that were the source of weakness. These measures may include shrinking the business, breaking it into smaller entities and/or liquidating and closing some operations.

The SPE is an ingenious proposal but it has been met with some skepticism. First, some doubt whether the regulatory authorities will require BHCs to issue enough unsecured debt and equity to ensure that enough resources are available to absorb losses and recapitalize the bridge FHC. The record of the authorities with regard to establishing and enforcing sufficiently high capital adequacy requirements does not inspire much confidence.

---

42. The Dodd-Frank Act emphasizes that bankruptcy is the preferred option for all bank holding companies. The requirement to prepare Living Wills is intended to press institutions to simplify their operations and organizational structures so that they will be easier to resolve in bankruptcy. If an institution fails to develop a credible resolution plan under bankruptcy over a specified period, the FDIC and the Fed are authorized to compel simplification, including divestitures.

Second, some critics fear that the process would simply transfer too-big-to-fail status from the holding company to the major operating subsidiaries with negligible impact on systemic risk. Counterparty discipline on the operating subsidiaries would diminish to the extent counterparties and creditors feel protected by the resolution process. The source of the “bailout” in this case, however, would be the shareholders and creditors of the failed BHC, not the taxpayer. Moreover, the FDIC has asserted that serious operational restructuring must take place when an institution enters restructuring under Title II of the Dodd-Frank Act. Since an institution would undergo a Title II resolution because it was judged to be too complex or too interrelated to be taken through bankruptcy procedures, the FDIC insists that the institutions that emerge from the process must be easy to resolve under bankruptcy. Thus the institution (or institutions) that emerge from the process will differ markedly from the institution that entered.

One challenge the bridge FHC must face immediately is how to fund its operations. The authorities hope that the newly formed bridge FHC will have sufficient credibility in wholesale markets to be able to fund itself, but during the Great Recession it was evident that borrowers had difficulty in obtaining funding even on a collateralized basis. Thus debtor in possession financing may be impossible to arrange in the short run. The Dodd-Frank Act has provided for this contingency by enabling the FDIC to draw on an Orderly Liquidation Facility provided by the Treasury. Some argue that this could result in a taxpayer bailout in disguise. But the authors of the Dodd-Frank Act tried to ensure this would not be the outcome. First, any loans made will have first priority over all unsecured creditors. Second, the amount that can be lent is limited to ninety percent of the fair value of the bridge FHC’s assets. Third, the Secretary of the Treasury and the Chairman of the FDIC must agree to a specific plan and schedule for full repayment. Fourth, if the assets of the bridge FHC nonetheless prove inadequate to fully repay the loan, the FDIC is authorized to “claw back” amounts from creditors to the extent they received payments greater than the amounts they would have received if the group had been liquidated. Finally, if the claw-back payments are not sufficient to repay the loan, the FDIC is required to impose a risk-based assessment on BHCs with \$50 billion or more in assets. The Dodd-Frank Act attempts to make certain that taxpayers will never be tapped to cover losses at the failed BHC.

Foreign critics note that the Dodd-Frank Act authorizes an FDIC resolution only if *American* financial stability is threatened. This leaves unanswered the question of what would happen if the American financial system were not in jeopardy, but the failure would cause massive disruptions abroad. The experience of foreign regulators in the wake of the Lehman bankruptcy has caused them to be concerned about this scenario. More fundamentally, they complain that a number of American policies are inconsistent with fair and equal treatment of all creditors in the event of an insolvency. They cite America’s depositor preference law (which gives the

claims of all American depositors priority over the claims of any foreign depositor), the ability to apply the Single Entity Approach to U. S. branches of foreign institutions (as in the case of BCCI), and the imposition of intermediate holding companies on large foreign banks operating in the United States (which will require them to adhere to U.S. prudential regulations that are more stringent than home country regulations).

Others worry about whether the policy will work if the cause of the insolvency is massive losses at a foreign subsidiary that exhaust the loss absorption capacity of the holding company. Official descriptions of the SPE stop just short of guaranteeing that all operating facilities will continue. The FDIC cannot promise to prop up all operating subsidiaries regardless of their viability because this would be a direct violation of the no bailout policy. But this introduces a troubling ambiguity. If regulators and creditors of a foreign subsidiary are not confident that the entity will continue its operations, regulators may have an incentive to ring-fence and creditors will run, thus undermining the effectiveness of the SPE.

Another concern arises because the foreign subsidiary may have negotiated a broad range of swaps and derivatives contracts in which the counterparty has the right to close-out and net all of its position with the subsidiary in the event of a change in control or if a member of the group goes bankrupt. The Dodd-Frank Act prohibits such close-outs in America so long as the failed entity's derivative contracts are transferred to a solvent third party, such as the bridge financial holding company, within 24 hours of the appointment of a receiver under Title II.<sup>43</sup> The FDIC has strengthened this provision by precluding a cross-default termination when a counterparty's affiliate is a failed financial institution that has been placed in receivership under Title II of the Dodd-Frank Act. While these measures protect subsidiaries in the U.S. from disorderly close-outs in response to the bankruptcy of the holding company, the FDIC lacks the authority to extend the same protection to subsidiaries located abroad. For that reason the American, British, German and Swiss regulatory authorities wrote a public letter to the International Swap Dealers Association asking that such contracts be modified to include a provision for a short-term suspension of early termination rights based on the commencement of an insolvency or resolution procedure.<sup>44</sup>

Finally, even if the SPOE works as planned, it is unlikely to be able to deal with more than one or two insolvencies at the same time. If the shock to the financial system undermines the solvency of a larger number of institutions, a more massive intervention would be required.

---

43. Dodd-Frank Act Section 210(c)(10)(B)

44. Letter from The Fed. Deposit Ins. Co. and the Bank of Eng., to Stephen O'Connor, Chairman, Int'l Swaps and Derivatives Assoc., 2013, <http://www.fdic.gov/news/news/press/2013/pr13099a.pdf>.

Despite these concerns, the SPE remains the only plausible proposal to finesse the existing legal, organizational, geographical and regulatory complexities that inhibit progress toward a harmonized international resolution regime. If it works, the SPOE may preserve most of the going-concern value of a failing G-SIB without public subsidy and with minimal spillovers to other institutions that would jeopardize the stability of the financial system.

## Resolving Cross-Border Financial Institutions

Figure 1  
 Government Intervention to Support the Banking System Equivalent to 25% of  
 World GDP

(\$ Trillions)	UK	US	Euro
<b>Central Bank</b>			
- "Money creation"	0.32	3.76	0.98
- Collateral swaps	0.30	0.20	0.00
<b>Government</b>			
- Guarantees	0.64	2.08	>1.68
- Insurance	0.33	3.74	0.00
- Capital	0.12	0.70	0.31
<b>Total (% GDP)</b>	<b>74%</b>	<b>73%</b>	<b>18%</b>

Source: Bank of England *Financial Stability Report*, June 2009. Figures for UK updated to November 4th 2009.

Notes: (1) Exchange rates used: FSR Euro / US dollar exchange rate of 0.710. Sterling / US dollar exchange rate of 0.613.

(2) Money creation includes both monetary and financial stability operations.

From Haldane (2009)

