Controlling Moral Hazard in Bank Resolutions: Comparative Policies & Considerations in System Design

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INTRODUCTION

The recent history of banking and finance has seen tremendous growth in the size of banks and other financial institutions as well as in the speed and complexity of their operations. Increasing attention has been rightly focused on ensuring effective supervision, risk management, operational resiliency, and international supervisory cooperation in order to address the challenges posed by larger banks. Despite great improvements in these areas, however, the past twenty years have seen repeated financial crises across the globe often triggered or accompanied by instability in large banks.

In the past, governments have responded in a variety of ways to instability in larger banks. Those responses have included broad guarantees for depositors or all creditors, injections of public money into failing banks, direct government ownership, supervisory forbearance, or other steps to fund or facilitate mergers between the failing banks and other more healthy institutions. In some cases these responses have been successful in stemming the tide of a crisis. In other cases, they have not. Inevitably, the governments' actions have been criticized as too little, too late, too expensive, or all of these. In all of these cases, the governmental response has had a very real effect on economic vitality.[2]

These recurring problems have led to renewed international efforts to develop principles and practical ways to manage instability in large banks. Many of these efforts have been driven by the twin goals of improving the options available under national insolvency laws to respond to large insolvent banks, while moderating the moral hazard that exists when government bails out market participants or protects their shareholders, creditors, or depositors from losses.

Past responses to banking crises demonstrate that concerns over moral hazard have, and oftentimes probably must, take a back seat to the necessity of stemming the immediate crisis. Unfortunately, if the response focuses solely on stopping the crisis by preventing bank failures or by protecting bank shareholders, creditors and depositors, it can have negative consequences by shifting the burden to the public and by encouraging risky investments that can lead to a renewed cycle of instability. In many countries government pledges, policies or laws attempting to limit the protection of creditors in a crisis often do not have credibility in view of past blanket protections.[3] If the goal is limit bailouts, the challenge is how to deal effectively with the urgent need to maintain systemically significant banking operations while avoiding increased moral hazard in the financial system.

Why is "moral hazard" an important consideration in the design of a regulatory and insolvency system? Moral hazard, simply defined, is the encouragement of excessive

risk-taking and the resulting absence of market constraints on decision-making that can result when creditors and investors come to rely on protection from the losses that would otherwise occur in the market.[4] In a functioning marketplace, depositors, creditors and investors make decisions about their deposits, investments, and the conditions for granting credit based on the riskiness of the bank's business. Conversely, the incentives to make decisions based on the financial condition of the bank are reduced if governmental policies or even private mechanisms protect the bank's depositors, creditors, and investors from the risk of loss.

Deposit insurance and other forms of insurance are often cited as potentially providing disincentives to optimal decision-making. However, the design and implementation of deposit insurance and other banking policies can serve either to encourage moral hazard or to promote a more efficient market.[5] Broad bail-outs of failing banks, nationalization, and other choices that protect depositors, creditors and stockholders reduce the incentives to monitor and discipline bank management. These responses to banking crises limit or eliminate the losses that should be absorbed by shareholders and creditors from more risky banking practices and often lead to future failures to properly manage banking risks.

This paper reviews the key legal and policy measures designed to limit moral hazard in bank insolvency systems and compares and explores how existing national insolvency systems have implemented these principles.[6] While many legal systems include prohibitions or limitations on the use of public money to bailout a failing bank, many systems do not provide effective alternatives to a bailout. As a consequence, in crises policymakers often have little choice but to resort to broad public guarantees that maximize the disincentives to market discipline. Clearly, legal limitations on government assistance to open banks is not effective to control moral hazard if the only alternative to government funding or government bail-outs is a bankruptcy-style liquidation process that does not preserve the banking functions critical to the public. Indeed, if such legal limitations are paired with liquidation-focused insolvency procedures the result in a crisis is predictable: government will have no option but to intervene before insolvency procedures are started through government funding, ownership and/or operation of the bank. As a result, recent international experience teaches that shareholder and creditor discipline cannot be maintained without an effective and credible process to resolve a failing bank and to continue key banking functions.

MORAL HAZARD AND REGULATORY SYSTEMS

The potential for moral hazard in banking can be curtailed in a number of ways. The principal strategies can be grouped into (1) effective internal bank risk management and corporate governance; (2) market discipline; (3) supervision by regulatory authorities; and (4) public policies and legal rules that impose risks on creditors.[7] While this paper focuses on the last of these, all of these strategies must complement and support each other to be effective.

Deposit insurance and supervision reduce the risks of banking and, to some degree, substitute governmental oversight for market discipline. In this environment, a system with complementary features to support supervisory and market discipline is essential to avoid an inefficient allocation of risks and rewards. For example, effective supervision promotes effective risk management and corporate governance by banks. In turn, market discipline based on transparent information about the riskiness of individual banks supports effective supervision and rewards effective internal corporate governance. If the bank fails, effective legal rules to impose losses on creditors control risk-taking and foster better market discipline of other banks.[8] Even after a failure, effective corporate governance and supervision will continue to pay dividends by reducing losses and disruption. For example, the risk of large losses from fraud to depositors and the deposit insurance fund in a failure increase dramatically if the bank's corporate governance fails to successfully manage the risks of internal fraud.

It is also crucial that the different elements of a complementary deposit insurance system provide some redundant features. Prompt corrective action and deposit insurance interact to "backstop" the other. Before insolvency, prompt corrective action acts to impose increasingly stringent supervisory controls on a failing institution in an attempt to remedy the growing crisis. After a failure, enforcement of prompt corrective action will limit the exposure of the deposit insurance fund to losses by mandating action by supervisors and by requiring the closure of the failing bank before it exhausts its capital and accumulates additional losses. In theory, an exit strategy that requires closure when the bank still has positive capital should provide sufficient sale proceeds to pay depositors and other creditors. In practice, however, capital ratios are lagging indicators of the true value of the bank. In addition, the sale or liquidation value of the bank will always be less than the value of an operating business. Consequently, even if the bank is closed with positive regulatory capital it is likely that the proceeds from the sale of its assets will be less than its liabilities to depositors and creditors. As a result, a deposit insurance fund is necessary to guarantee payment to depositors.

The legal and policy measures designed to control moral hazard can be broadly divided into two phases: pre-insolvency controls on risk taking and post-insolvency controls on governmental bail-outs. A poorly designed supervisory or insolvency system, or one that lacks the resources, expertise, or will to act, can increase moral hazard by granting banks immunity from market or supervisory discipline. Both the pre-insolvency and post-insolvency policies, of course, seek to affect the actions of shareholders, creditors, depositors, and market participants while the bank continues to operate. An effective system of banking supervision supports market discipline; it does not insulate the bank from the consequences of poor judgment. If the supervisory system either cannot identify growing instability in its banks or forbears from imposing supervisory discipline it will increase the risks to the banking system.

Post-insolvency controls on moral hazard seek to enhance market discipline by exposing the participants to loss if the institution closes. These controls include prohibitions or limitations on the use of public money to "bail-out" insolvent banks, limited deposit insurance coverage, subordination of non-depositor creditors in the

distribution of the proceeds from the sale of the bank or its assets, and an effective process for closing insolvent banks. Restrictions on the use of public money, such as the "least costly" test in the United States, seek to control moral hazard by limiting the resolution authorities' ability to protect creditors from all losses in the failure. Limited deposit insurance coverage is designed to place some portion of larger depositors' funds at risk and, thereby, encourage them to monitor the riskiness of the bank, while placing limitations on the burden on the deposit insurance fund after a failure. Similarly, a system for distribution of the liquidation proceeds that prefers depositors and subordinates other types of creditors provides a greater incentive to non-deposit creditors to monitor the financial health of the bank. Requiring shareholders and many debt holders to bear the greatest proportion of losses, perhaps including their entire investment, ensures that the first losses are borne by those in the best position to require prudent operation of the business.[9] This result preserves risk in the system and an awareness of insolvency risk increases systemic efficiency.

The banking laws of most countries reveal a much more detailed and nuanced attempt to control moral hazard through pre-insolvency laws and policies compared to the laws governing post-insolvency actions by resolution authorities and government. The detailed legal, regulatory, and policy guidance provided for supervisory oversight of insured banks evinces the important role that effective supervision plays in controlling excessive risk-taking by banks. Regulatory capital standards for insured banks are one tool to promote stability and deter risky activities.

By contrast, the post-insolvency legal and policy approaches in many countries to control moral hazard rely almost exclusively on prohibitions – on payment of uninsured depositors and on government funding for a bail-out. However, in practice the responsible authorities will not enforce these prohibitions if the insolvency system does not provide a credible resolution process for systemically significant banks that can preserve critical banking functions. Many national bank insolvency laws offer only an administrative or judicial liquidation proceeding as an option. This approach does not provide an effective way to resolve a failing bank without increasing the risk of contagion to other institutions or to the economy at large. In a crisis, this often leads the government or resolution authority to opt for a bail-out.[10]

Are there solutions that allow for controls on moral hazard while providing options to government decision makers other than a government bail-out or a liquidation process? Clearly there are, and a number of countries have adopted legal standards that permit more flexible solutions. Will these options avoid a broad bail-out in a crisis? In many of those countries, this remains to be seen. It is crucial that the law and regulators do not limit their options to a Hobson's choice between a bail-out of the failing bank or a termination of banking functions and liquidation of the bank's assets. There are other options. For example, government should play a role in encouraging private solutions to large, failing banks. If no public funding is involved, a private solution that maintains key banking functions promotes the public good without the greater loss of market discipline inherent in direct government intervention. Where no private solution is possible, the insolvency process itself should offer resolution options that achieve a "soft" landing for

the financial system without bailing out shareholders and creditors. The availability of credible options for doing so can reduce the pressure for a bail-out by limiting the destabilizing consequences of insolvency proceedings and, thereby, avoid increasing moral hazard.

CONTROLLING MORAL HAZARD IN BANK RESOLUTIONS

What are the key elements of an effective bank insolvency system? A number of common components of effective insolvency systems for banks have been identified.[11] First, bank insolvency laws should have clear criteria for initiating insolvency proceedings to avoid allowing unsalvageable institutions to operate indefinitely by raising funds from depositors and acting as a drag or diversion of economic capital. Clear, mandatory criteria permit prompt and decisive action before the bank's equity is exhausted. Next, this process should be designed to reimburse depositors up to the insured maximum as soon as possible, while minimizing the cost to the deposit insurance fund. While depositor confidence in the guarantee is based on the certainty of repayment, it is equally based on the speed of repayment. A requirement to minimize the costs of the insolvency process can be an important brake on the tendency to use an insolvency process to avoid recognition of losses through some broad or blanket guarantee. In some cases, the "easy" route of a blanket guarantee to mask infrastructural inadequacies and difficult policy choices has weakened the ability of the insolvency system to return assets to more productive uses and undercut the credit culture of the financial system. A more limited deposit guarantee, combined with explicit requirements to minimize losses in the resolution, promotes a well-funded insurance system as well as limiting moral hazard. A third component is that the insolvency laws should give the resolution authority the immediate power to control, manage, marshal, and dispose of the bank's assets and liabilities once it is appointed. Many difficulties in resolving individual insolvencies, and in addressing broader instability, have been exacerbated by the inability of trustees or liquidators to take prompt action. Finally, the insolvency laws should confer adequate legal powers on the resolution authorities that are sufficient to permit flexible and decisive action to limit disruption from the failure, maximize recoveries on assets and minimize delays in providing money back to depositors. These legal powers should include independence from undue interference by other governmental bodies, the ability to terminate contracts, the power to enforce contracts, the authority to sell assets, the right to avoid fraudulent or unauthorized transfers, and broad flexibility to design resolution and asset sales structures to achieve the goals of the resolution.

These elements for an effective insolvency system must be adjusted to conform to the existing financial, legal, institutional, and cultural conditions of the individual country. It would be the height of hubris, and folly, to suggest that the laws of one country should be rigidly applied in all other countries. While hopefully reflecting consistent and effective principles, laws must be adapted to respond to changed conditions or even the best legal rules will become ineffective. Moreover, even if the laws of one country could ever be said to have created a harmonious system of effective and complementary rules, those laws are inherently a product of that country's

conditions. If those legal rules are inserted into another structural, financial and economic environment, it is very unlikely that the rules would continue to be effective.

This is not to undercut the importance of recommended principles and laws. However, in applying those principles it is essential that they be implemented in a way that achieves the desired results in that country's environment.[12] For example, the virtually immediate access to insured deposits available following insured bank or thrift failures in the United States is only possible within a context of specific laws, effective supervision, reliable asset valuation, standard accounting procedures, and other related conditions.

An effective bank insolvency system also requires an effective legal and institutional infrastructure. The ability of any nation to provide greater certainty, efficiency, and fairness in an insolvency depends upon the environment provided by its laws, culture, markets, the availability of trained professionals (such as bankers, supervisors, lawyers, accountants, and others), governmental competence, and economic depth. For example, a functioning insolvency system must have well-designed insolvency laws, but it also must have laws that provide a basis for commercial activity, grant creditor and debtor rights, and otherwise promote predictable commercial outcomes. In some countries, the internationally-recommended features for a bank resolution system cannot operate as intended because other laws preclude a prompt resolution and resumption of banking operations. Examples include non-insolvency laws that inhibit the transfer and sale of financial assets without the permission of borrowers or local practices that deviate from standardized accounting controls. While the legal principles for the flexible resolution of banks must be adapted to the conditions and infrastructure in a specific country, many countries should take a hard look at their non-insolvency laws and policies and, if necessary, make changes if they desire an effective banking resolution process.

The ability of the insolvency process to minimize losses to creditors and the deposit insurance fund, as well as return financial assets to productive use in the economy, depends on a number of factors. The maturity of market mechanisms in a country will determine whether certain asset sales techniques, such as auctions, bulk sales, securitization or others, can be effective. The depth of the financial system in a country may determine whether a sufficient pool of potential buyers exists to use some efficient techniques. The effectiveness of asset disposition strategies also will be affected by the reliability and transparency of prices and financial data, which themselves are dependent on the legal infrastructure and the presence of a trained cadre of financial and legal professionals. Many countries, however, do not have either the market or legal framework to permit efficient asset sales or, even more critically if the bank is systemically significant, to permit transfers of key banking functions.[13] In some countries there simply is no interbank market for banking assets. This does not mean, however, that an effective insolvency system cannot be adapted for those countries. It may require both a creative approach to the problem – such as fostering an interbank market by improving and standardizing documentation and credit analysis through education for bankers and enhanced supervisory oversight – or development of alternative processes to achieve the

same result. The international best practices reflect the hard-won experience that the more a nation adopts these practices, the more likely that it will be successful in providing certainty, efficiency, and equitable bank resolutions.[14]

CONTROLLING MORAL HAZARD IN PRACTICE: COMPARATIVE BANK RESOLUTION APPROACHES

Within an environment of compatible and supporting laws, policies, and infrastructure, the critical measures for controlling moral hazard in systemically significant bank resolutions must allow investments and business to bear the normal risks of failure and loss while limiting the risk of economic damage to the broader economy. Balancing the need to continue essential banking functions with the goal of minimizing moral hazard requires an integrated process that is realistic, credible, and applied by the authorities. Adoption of the following key elements for an effective bank insolvency system will help achieve this difficult balance. Countries around the world have incorporated these elements into their bank resolution systems in a number of ways. The following sections of this paper compare different national approaches to these elements and seek to explore issues that remain to be resolved in their implementation.

Clear and Mandatory Criteria for Initiating Insolvency Proceedings

One of the chief sources of moral hazard in banking has been supervisors' refusal to close clearly insolvent banks. Governments have avoided closure through nationalization, continued funding by the lender of last resort, government financial support or open bank assistance, and government purchases of non-performing assets at inflated values. In systemic crises, these options may be unavoidable. However, international experience confirms that government intervention must mean more than public funding. Open bank assistance must impose losses on shareholders, aggressively restructure the bank's operations to restore viability, closely monitor future operations, and define a realistic way to repay any public contribution. Otherwise, open bank assistance may avoid the bank failure, and resulting disruption, but it will also often lead to greater losses by encouraging lax lending and business practices and by propping up insolvent or unproductive businesses without addressing the causes of their losses.[15]

For these reasons, it is crucial that a properly designed bank supervisory and insolvency system include clear criteria for initiating insolvency proceedings. The criteria should be mandatory to require supervisory action as capital or other indicia of institutional soundness erode. In effect, mandatory action requirements create the supervisory discipline that augments market discipline. As previously discussed, experience teaches that mandatory intervention should be triggered before capital is exhausted if further losses are to be avoided. If it is clear that the bank is not improving, this suggests that earlier action is more likely to limit losses to the insurance fund or public fisc.[16]

These criteria inevitably must include some flexibility to allow the supervisors to make judgments about whether the institution can be rehabilitated. For example, there needs to be some flexibility to allow salvageable institutions to survive. This flexibility

also must have limits (such as the U.S. time limitations) or the criteria could become meaningless in a crisis. The danger is that the formal clear and mandatory criteria can be illusory if the triggers are based too much on subjective supervisory assessments. The value of clear criteria presupposes, of course, an effective supervisory system that can uncover growing banking problems early. If the supervisors wish to avoid the failure, and their flexibility is not statutorily limited, the subjective nature of the assessments can allow extended forbearance.

What do these considerations say about the use of mandatory triggers as an aid to authorities' ability to maintain key banking functions? While there is always the concern that early intervention may lead to an unnecessary closing and to unnecessary disruption, most triggers applied by supervisors to date do not close banks that would otherwise be able to return to viability on their own. If anything, most triggers may apply too late. At a minimum, mandatory triggers that apply before capital is exhausted should allow authorities to intervene while the bank's normal operations continue and can be maintained in order to limit disruption to the financial system.

The most explicit and most used basis for closing U.S. banks and thrifts is the capital-based grounds under "prompt corrective action" (PCA). Adopted in 1991 as part of the Federal Deposit Insurance Corporation Improvement Act (FDICIA), PCA prescribes mandatory measures for undercapitalized institutions.[17] As an institution's capital declines additional supervisory controls may be imposed in an effort to stem the erosion of its capital position. However, once an institution's tangible capital is equal to or less than 2 percent of total assets, it is defined as "critically undercapitalized." Once the institution is defined as "critically undercapitalized, a conservator or receiver must be appointed within 90 days unless the institution can improve its capital ratio or the period is extended. The appropriate federal regulatory authority can grant up to two 90-day extensions of the PCA period if it determines that those extensions would better protect the insurance fund from long-term losses. Mexico has now adopted an 8% capital trigger to require the bank to agree to a capital restoration plan and a 4% capital trigger for resolution or liquidation.

Unfortunately, until recently the law in many countries has not included a clear trigger for intervention or insolvency proceedings. Many countries now are developing capital-based systems to allow earlier intervention than had occurred under more discretionary supervisory standards. While differing trigger points are subject to debate, a definite trigger mechanism allows intervention before capital is completely exhausted and limits opportunities for unproductive forbearance. If properly designed, such a triggering mechanism provides resolution authorities with a better opportunity to fashion a resolution transaction that will allow the continuation of critical banking functions.[18]

Prohibitions or Limitations on the Use of Public Money

Many national laws limit the use of public money in the resolution or liquidation of insolvent banks. However, in the past many nations have avoided these limitations by avoiding any decision that the bank is insolvent and must be liquidated. While a statutory or policy obligation to minimize the costs of the insolvency process can be an important

brake on the tendency to bailout creditors or shareholders or to avoid the recognition of losses, it is effective only if the authorities are willing to apply the formal insolvency process to banks. In some cases, the "easy" route of a blanket guarantee to mask infrastructural inadequacies and difficult policy choices has weakened the ability of the insolvency system to return assets to more productive uses and has undercut the credit culture of the financial system.[19]

Recent experience in banking crises in a number countries have led to a number of new restrictions on broad government guarantees to banks and a greater emphasis on limited depositor coverage and on limiting the overall exposure of the deposit insurance funds. Nonetheless, while broad limitations on public or deposit insurance fund expenditures have been adopted in a number of countries, many of those laws also include considerable flexibility for support of failing banks. In banking systems with only a few banks – all of which could be considered systemically significant – this may simply reflect necessity. However, it creates a risk that old practices of never allowing bank failures will continue – particularly if the insolvency process favors an open bank solution or fails to provide realistic closed bank solutions.

Under Norwegian law and the charter of the private Norwegian Bank's Guarantee Fund, the deposit insurance fund may grant support to member institutions through guarantees, liquidity funding, stock purchases, or loss coverage for creditors. The only limitations are that the Fund must retain sufficient assets to meet its ongoing guarantee obligations and its aggregate obligations cannot exceed twice its minimum capital. Under these liberal restrictions, it may be expected that the Norwegian response to a future crisis may be similar to its response to the last crisis – in which government guarantee funds became the majority owner of most of the banking system.[20]

Other deposit insurance systems have adopted somewhat more restrictive limitations, but recent resolutions continue to rely on public and deposit insurance fund financing and not on the insolvency system. The private Italian Fondo Interbancario di Tutela dei Depositi or Interbank Deposit Protection Fund can be used to support a member under an open bank assistance process called special administration if there are reasonable prospects for the bank's recovery and the cost to the Fund is less than it would be in a liquidation. The Fund's monies also can be used to assist in the transfer of assets and liabilities from a bank if the cost is less than a payout to depositors. However, this limitation in the governing charter of the private Fund does not limit assistance directly from the Bank of Italy or the government. The 1996 rescue of Banco di Napoli demonstrated continuation of reliance on open bank assistance from the Fund and the government instead of the bank resolution system introduced under Italy's 1993 Banking Law.

Japan's system for resolving failing banks has adopted more stringent cost controls modeled on the American system. It remains to be seen whether these controls will be applied in any significant bank failure. Perhaps more significantly, Japanese law continues to include a number of features, discussed below, that offer many alternatives to avoid closure. Japanese law now requires that financial assistance from the Deposit

Insurance Corporation of Japan cannot exceed the cost to pay all of the insured depositors up to the guaranteed maximum (admittedly at the rather generous level of either ¥ 10 million for time and similar deposits or *unlimited coverage* for most checking deposits used in payments) unless the Prime Minister determines there is a serious threat to financial stability.[21] However, the unlimited coverage provided to checking accounts used for payments transactions makes this a very flexible standard.

The United States has taken a different approach. The FDI Act simply requires that the FDIC adopt the resolution strategy that is "least costly" to the deposit insurance funds "of all possible methods."[22] U.S. law also prohibits using the insurance funds in a fashion that benefits shareholders. While these requirements clearly limit the flexibility accorded to the FDIC, they serve as controls on expenditure of deposit insurance funds and delays in recognition of losses on non-performing assets. This requirement also prevents reliance on blanket guarantees or other resolutions that protect uninsured depositors or other creditors. Prior to 1991, the U.S. used a less stringent control on losses which required only that the resolution method be "less costly" than a liquidation and direct payment of insured depositor claims. The "least costly" requirement reflects the U.S. policy choice to control costs and protect the viability of the pre-funded deposit insurance funds.

The U.S. system also includes a provision permitting an exception to the "least costly" requirement only if the "least costly" resolution "would have serious adverse effects on economic conditions or financial stability" and an alternative resolution "would avoid or mitigate such adverse effects." The determination that the "least costly" resolution would have such consequences must be made by the Secretary of the Treasury, in consultation with the President, upon the recommendation of two-thirds votes of the FDIC Board of Directors and the Board of Governors of the Federal Reserve System. This is commonly referred to as a systemic risk determination.[23] Open bank assistance is possible only if a systemic risk exception is approved. Even if a systemic risk exception were approved for a bridge bank resolution this only means that the FDIC can adopt a resolution strategy and protect uninsured depositors and creditors beyond the minimum necessary for the least costly resolution, but it does not eliminate the imperative of minimizing losses to the FDIC. These limitations have required the FDIC to focus its bank resolution efforts on bridge banks and other transactions for failed banks that seek to quickly pass insured deposits to open insured banks along with the more valuable assets from the failed institution. In effect, the United States has adopted a policy that seeks to protect the deposit insurance fund from losses by severely restricting exceptions to the least cost test. However, this policy and those restrictions have yet to be tested in a broad banking crisis.

The existence of statutory cost controls is not enough. How those cost controls are interpreted by supervisors, deposit insurers, or the courts can make a significant difference in their effect on bank resolutions. Past experience or public policy choices will affect how all of these actors interpret new cost controls. A closer look at how limitations on state support for failing banks have been interpreted in the European Union demonstrates an approach different from the policy choices made in the United States.

The 1957 Treaty of Rome that established the European Community included general limitations on state aid to businesses in order to restrict state-funded distortions of competition and to promote the common market. However, the Treaty of Rome also included broad exceptions for state aid "to remedy a serious disturbance in the economy of a Member State" or in "exceptional circumstances." State bailouts of failing businesses were common features of the economic policies of some member states. The difficult issues surrounding when such actions were appropriate and when they were proscribed were addressed in a series of Guidelines first adopted by the European Commission in 1994. In general, the Guidelines laid down methods to measure when a business was "in difficulty," what constituted "rescue and restructuring aid," and what types of conditions must be imposed to make the competition distorting features of such aid "compatible with the common market."[24] Even under the limitations in the Treaty and the succeeding versions of the Guidelines, the EU has approved substantial state aid to troubled banks. For example, EU decisions have approved substantial aid by Italy to rescue Banco di Napoli in 1999 and by France to bailout Credit Lyonnais in 1998 – at the time, the Credit Lyonnais assistance was the largest single instance of state aid in EU history.

The issues under the Treaty, Guidelines, and European Commission decisions are whether the assistance is classified as "state aid" and, if so, whether the state aid is compatible with the common market. Almost by definition, funding or guarantees to businesses in financial difficulty will be considered "state aid" because no private investor would or could provide the assistance. For this reason, such public funding to troubled businesses must be referred to the European Commission in advance. The second component of the analysis, whether the state aid is still compatible with the common market, focuses on whether the aid distorted competition – which is almost presumed if the state provided the aid to avoid the failure of a bank.[25] In bank bailout cases, the Commission may still allow the aid if the plan for restructuring includes sufficient features to limit distortion to the competitive market. This requires the Commission to weigh the features designed to enhance competition in an often immense bailout package against the effect those features will have in the market. The Guidelines and Commission decisions focus on how specific elements of the restructuring package prevent the rescued bank from gaining a competitive advantage – such as the required sale of branches, peripheral businesses, and subsidiaries, other downsizing, shareholder contributions, and limitation of the state funding to the minimum necessary for the rescue and restructuring. In general, the Commission is looking for conditions that require full implementation of a detailed plan based on realistic assumptions that will restore the bank to viability, while restructuring the bank to limit its market presence and ability to undercut competitors.[26] The Guidelines and decisions emphasize that aid should be provided only once.

In its 1999 decision approving the state aid provided to the insolvent Banco di Napoli, the Commission applied this balancing approach. Initially, the Commission focused on whether the restructuring plan was a realistic effort to return to bank to viability or simply a government crutch. Assessing the bank's weaknesses and Italy's corrective steps, the Commission concluded that the plan included a careful analysis of

the causes of the bank's distress and practical elements designed to address those weaknesses. In order to limit the competitive advantages of the Italian capital support, the Commission required substantial contributions by the bank's shareholders and examined whether the state aid was limited to the minimum necessary. A central concern of the Commission was whether the restructuring plan balanced the anti-competitive state aid with features to enhance competition. The Commission concluded that the bank's sale of branches, a subsidiary, and other assets and its retrenching of operations significantly offset the state aid. As a result, the Commission approved the Italian bailout of Banco di Napoli as compatible with the common market. Despite the general nature of the standards involved in the Guidelines, the Commission has rejected state aid to bailout banks in some cases. A 2001 decision rejected Italian tax relief for banks as incompatible with the common market and ordered Italy to recover the illegal aid. In 2004, the Commission ordered German Landesbanken, or regional state banks, to repay € 4.3 billion in illegal state aid, and accrued interest, provided to boost capital during the early 1990s.[27]

The Treaty of Rome, the Guidelines, and the bank and non-bank decisions of the European Commission on the propriety of state aid to bailout a failing enterprise all reflect the difficult public policy and political decisions that must be made when a major business is on the verge of collapse. Unlike the U.S., the EU has opted for a case-by-case approach that recognizes that public bailouts of large failing businesses have been national policy in some countries, while trying to temper their most egregious effects on normal market mechanisms. Certainly, the EU approach reflects a more benign view of public intervention in the markets. While the savings and loan bailout in the United States initially often protected depositors and many creditors, it rarely resulted in a bailout of the shareholders of the failed institutions. In contrast, state aid under the European Commission decisions is still an open bank rescue through public funds that often allows shareholders to retain their control over the bank. The succeeding versions of the EU Guidelines do represent a strengthening of constraints on public bailouts by, for example, requiring increasingly meaningful contributions from shareholders. Commission decisions, even under prior versions of the Guidelines, also show an increasing focus on real compensatory measures being taken to prevent distortions of the market.[28] The EU state aid Guidelines and decisions incorporate a very detailed process for EU and national governmental oversight of the business and market role of the assisted bank. In effect, the EU approach is a policy choice that public bailouts are inevitable and can be managed through governmental "fine tuning" in a way that limits moral hazard and maintains or restores a competitive, but regulated, market.

As these examples show, a simple prohibition on public bailouts is not sufficient. A simple prohibition would force authorities to seek an exception from the constraints of "least cost" on a frequent basis during a financial crisis unless the resolution authority has the power and creativity to develop flexible resolution strategies that offer the ability to maintain systemically important banking functions. The necessary legal exceptions to a ban on a bailout and the continuing international use of open bank solutions demonstrate both that credible closed bank solutions that maintain essential banking functions and properly designed open bank solutions must be available options. The important task is to

ensure that all options contain reasonable limitations on the scope of any public funding and require shareholders and others dealing with the bank to bear the first losses.

Limited Deposit Insurance Coverage

The process should be designed to reimburse depositors up to the insured maximum as soon as possible, while minimizing the cost to the deposit insurance fund. While depositor confidence in the guarantee is based on the certainty of repayment, it is equally based on the speed of repayment. Unless depositors are confident that their funds will be available quickly, the risk of deposit runs on even solvent banks remains.[29]

The ability to provide insured depositors with prompt access to their money continues to be a difficult challenge for many, if not most, deposit insurers. A recent World Bank report presenting country survey data demonstrated that the average time until insured depositors received their money was 9.6 **months** across both developed and developing countries.[30] The European Union directive on deposit insurance simply instructs member countries to pay insured depositors "within three months" of the date when the responsible authorities determine the bank cannot fulfill its obligations.[31] Depositors facing such lengthy delays will be more likely to withdraw their funds at the first hint of difficulties and when a bank is on the brink of failure place pressure on government for a bailout or other resolution that maintains full protection for insured depositors. Such delayed payment to depositors impairs stability in a crisis and leaves a government with few options other than broader guarantees or bailouts for individual banks. In my view, this far outweighs any moral hazard implicit in immediate, rather than delayed, payment of the insured deposit.

A limited deposit insurance guarantee, combined with explicit requirements to minimize losses in the resolution, promotes a well-funded insurance system as well as limiting the moral hazard that can be engendered in a deposit insurance system. A well-funded insurance system also provides the ready cash for quicker payment of insured deposits. Insolvencies and an equitable sharing of losses are valuable reminders that business, even banking, has risks and that creditors as well as supervisors must monitor the riskiness of the banks with which they do business. By contrast, depositor discipline is almost impossible with an open bank solution.

In recent years many countries have begun to replace previously unlimited depositor guarantees – which in some countries were explicit and in others implicit – with explicit limited depositor protection. At the outset of the Nordic banking crisis of the 1990s, for example, Finland, Sweden, and Norway all essentially provided unlimited depositor protection and, as the crisis wound down, all adopted limited deposit guarantees.[32] Following the Nordic banking crises of the 1990s, all three countries abolished their general government guarantees for deposits and replaced them with limited bank-funded deposit insurance systems. Mexico also adopted a new deposit insurance system in 1999 through the Institute for the Protection of Bank Savings known by its Spanish initials as IPAB), which replaced the prior unlimited coverage with a gradually implemented limited guarantee. Similarly, Korea adopted a limited deposit guarantee as a reform after the banking crisis of the late 1990s. Japan has gradually

reduced the unlimited depositor guarantees that existed under the 'non-failure' policies in effect until the late 1990s and the explicit full depositor guarantee declared in 1995. However, even today the Deposit Insurance Corporation of Japan provides unlimited coverage for ordinary non-interest bearing checking accounts.[33]

One of the most significant difficulties faced in transitioning to a limited depositor guarantee is the reservoir of uncertainty and even distrust that the public may harbor if prior banking crises have been mishandled, if blanket guarantees have been frequently used in crises, or if the deposit insurer has been unable to quickly provide cash after prior bank failures. Only gradual experience with an effective deposit protection process will build up public trust and eliminate the possibility of unfounded depositor runs. An example of responses to this transition is the experience of Korea. In January 2001, Korea replaced its blanket guarantee with a limited guarantee. Although the system remained stable, there was a significant movement of deposits from weaker to sounder banks. While this development was of concern to the bankers, it reflected a more risk-weighted allocation of deposits and strengthened market discipline.[34] Japan also has made a very gradual transition to more limited coverage out of a concern over the reaction of depositors to the prospect of losses.

Another element in the deposit insurance system that can help control moral hazard is a system that prefers uninsured depositors in the distribution of the proceeds from the sale of the failed bank's assets, while subordinating shareholders to all other claimants. A depositor preference scheme that ensures that losses are borne most heavily by shareholders followed by general creditors increases the incentives on the owners and business creditors of the bank to monitor the riskiness of its operations. Under most systems, once the deposit insurer pays insured depositors it is subrogated to their claims for payment from the proceeds of the bank's sold assets. As a result, a system of depositor preference also helps replenish the deposit insurance fund by providing it with the first proceeds from bank assets along with uninsured depositors.

Flexible Resolution Powers and Strategies

There is a growing recognition that an efficient process to resolve failing banks is essential if other legal and policy efforts to control moral hazard are to be effective. A bank resolution process that imposes losses on shareholders while giving depositors prompt access to their money up to the legally guaranteed limit and preserving critical banking functions will reduce the pressures that often push authorities to grant broad bailouts of insolvent banks.[35] If the laws do not authorize prompt, decisive action to reorganize or continue key banking functions of a systemically significant bank, the inevitable response will be to skirt any prohibitions on injections of public funds and keep the tottering bank in operation. Moral hazard can, and should, be controlled by limiting the use of public funds while providing the responsible authorities with the legal tools to maintain key banking operations through a sale of operations to another bank or a government operation of a temporary bridge bank.

Within a well-designed insolvency system, the laws should give the insolvency authority clear legal power to take flexible and decisive action to maximize recoveries on

assets and minimize delays in providing money back to depositors. Simply propping up the failing bank through government funding or guarantees is a band-aid, not a solution. While decisive action can be taken either through an open bank resolution process or a closed bank insolvency process, history demonstrates that open bank processes are more costly, often more difficult to initiate and terminate, enhance the risk of a long-term government bailout, and frequently increase moral hazard. If an open bank solution is the primary bank resolution technique it is more likely that shareholders will retain their investment interests and even control and that insured depositors will have unlimited protection. The use of a bridge bank or other temporary institution to continue critical banking functions through a closed bank insolvency process allows termination of shareholder and management control as well as the restructuring of operations to focus on profitable businesses and impose losses on appropriate parties. Not only does this insolvency-based process often provide responsible authorities with greater freedom of action, but it also facilitates assignment of losses first to those most responsible for the collapse – shareholders and their management. In addition, limited deposit insurance protection can be more effectively implemented in a closed bank process.

The resolution of a systemically significant bank requires a focus on continuation of those banking operations that are critical to the functioning of the financial system. As Eva Hupkes and others have emphasized, it is one or more banking functions fulfilled by this institution that are of public interest, not the bank itself. As a result, an optimal resolution process will maintain those functions, while limiting the moral hazard created by government intervention by terminating shareholder and management control, imposing the first losses on shareholders, and assessing losses against other creditors and uninsured depositors, where possible. If the process achieves these goals it will retain substantial market discipline. Unfortunately, it is often not as simple as separating key functions from other parts of the banking business. Many of the systemically critical banking functions are inextricably linked to the overall banking business. As with any other balancing of important, but potentially conflicting, public policy goals the challenge is to maximize the benefits of each without sacrificing one completely for the other. By virtue of the interconnected operations of the bank, it may be necessary to provide broader coverage to depositors and even some types of general or partially secured creditors, such as derivatives counterparties, in order to preserve stability. While this is not the optimal approach to control moral hazard it may be a necessary trade-off for continued functioning of critical settlement and payment processes. Nonetheless, even in this situation the potential for moral hazard will be reduced through an insolvency-based process compared to most programs of assistance for open banks. To reach the necessary balance in an open bank resolution it will be necessary, at a minimum, to grant to the authorities powers to write down shareholder interests, aggressively restructure the business, and impose a reliable process for repayment of any public investment.

One way to strike the necessary balance is through a closed bank process that allows a receiver to continue to operate the banking business subject to clear cost controls. This can be done through the quick sale of the banking franchise to another private bank, temporary operation of critical functions through the receivership, or creation of a temporary government-controlled bank often called a bridge bank.

However, an FDIC survey of deposit insurers in 2000 shows that few countries authorize creation of bridge banks or similar types of structures designed to permit continuation of an insolvent bank's banking functions and even fewer have ever used similar authority. A 2004 survey of deposit insurers by the International Association of Deposit Insurers similarly indicated that only slightly more than a quarter of the responding countries (9 of 34) had the authorization to implement a resolution using a bridge bank.[36] Both surveys revealed that the most widely used authority was a simple pay-off of depositors – which does not allow for continuation of the failed bank's processes. About half of the respondents had used authority to provide open bank financial assistance to stave off a potential failure. Other studies also show that most countries experiencing banking crises have used government grants, recapitalizations, and other types of public funding to avoid resolving failing banks. These responses reveal that, with limited options, many authorities avoid shutting down the bank and implementing their traditional liquidation procedures by keeping the bank open through government assistance. As a consequence, the pretence that bail-outs will not be granted or even that only limited deposit insurance protection will be provided is cast away during a crisis.[37]

The laws in many countries do not authorize a rapid resolution by the banking authorities using bank insolvency proceedings. The requirement of judicial authorization or judicial oversight often makes quick and decisive action that will allow the continuation of key banking functions more difficult. In many countries, general insolvency laws apply to banks and, while those laws often have special provisions applicable to banks, they seldom give broad discretion to regulators to fashion the most effective resolution process.[38]

This may be gradually changing. In recent years, some national laws have given the banking authorities greater flexibility to continue the bank's operations within special insolvency proceedings for banks and, thereby, avoid the resort to broad guarantees or full-scale government bailouts. Other national laws have added the power to use a bridge bank or similar type of government-operated bank as a part of the insolvency process. It remains to be seen, however, whether national authorities will have sufficient confidence in these insolvency processes to use them to deal with a large bank collapse. Absent practical contingency planning and testing of these procedures, it is likely that national authorities will continue to opt for open bank solutions to large bank collapses. Even here there are encouraging signs – many of the recent open bank solutions have required significant restructuring of operations, new management, and dilution of shareholder stakes. However, open bank solutions still pose substantial moral hazard risks, as illustrated below, since shareholders inevitably remain participants in the enterprise and often extract significant concessions.

The following sections of this paper describe and compare recent laws in the United States, Italy, Japan and Mexico along with a procedure under consideration in Sweden.

United States. Under U.S. law, the FDIC as deposit insurer is delegated broad authority to operate or liquidate the business, sell the assets and resolve the liabilities of a failed insured bank immediately after its appointment as receiver or conservator. This authority enables the FDIC to immediately sell many of the assets of a failing institution to an open bank or to an FDIC-created bridge bank – and, in effect, maintain critical banking functions. An essential element in the successful continuation of banking functions in this insolvency process is the availability of detailed information about the failing institution, its operations, assets, and liabilities as long ***before*** the failure as possible.

Another way that the FDIC can continue those banking functions, and maximize recoveries, is the creation of a 'bridge bank.' A bridge bank is a new national bank controlled by the FDIC. The bridge bank has all of the powers and attributes of a national bank, subject to some limitations, and may last for two years with three one-year extensions possible.[39] In many cases, a bridge bank resolution for a larger bank is the only practical solution since an immediate sale of assets is unlikely and the business of larger institutions typically involves more complex banking operations, such as payments processing, capital markets, and securitization transactions, which will lose any franchise value if they are temporarily halted or sold piecemeal.

In the past, the use of a bridge bank structure permitted the FDIC to take control of a large or multi-bank structure and stabilize the situation. The bridge bank assisted the FDIC in "buying time" to allow a more thorough assessment of the bank's condition, assets, and liabilities, evaluation of alternatives for final resolution, and more effective marketing. The additional time permitted by the bridge bank structure also allowed for due diligence by all interested parties. Since the bridge bank continued "normal" banking functions, these activities do not impair depositor relations. Historical examples of bridge banks include transactions in which multiple affiliated banks were merged into a single bridge bank. During 1988 and 1989, the separate RepublicBank (40 banks), MBank, Texas (20 banks), and Texas American Banks (24 banks) bridge banks combined assets from multiple banks into a single institution and, ultimately, sold the bridges as single institutions. In contrast, the 20 separate banks in the First City Bancorporation of Texas, Inc. structure were placed in 20 separate bridge banks. This permitted smaller institutions to bid on the acquisition of the individual banks. In the resolution of CrossLand Savings, the pass-through receivership/conservatorship structure was used to achieve the same purposes as a bridge bank.[40] In that case, the closed-institution conservatorship allowed the FDIC to shrink the operations of the complex $7.3 billion savings bank and focus it on more efficient operation of its core banking business.

The bridge bank structure also has been an important tool to promote deposit stability. Public disclosure of serious financial problems at a large bank can cause deposit runs that drain liquidity and, if not stemmed, can cause the closing of the bank. After a bridge bank is established, the FDIC can lend directly to the bridge bank and, if consistent with established cost controls, provide assurance to insured depositors that their money is safe. Without the bridge bank structure, it is likely that there would be additional and rapid loss of franchise value.

It is important to recognize that some governmental or deposit insurer guarantee of claims resulting from ongoing operations probably will be required to gain public and business acceptance both for an open bank solution and for a bridge bank. The insolvency authority must have the ability to provide such guarantees in order to insure that key operations can continue. If restructuring is effective, this contingent liability can be limited as future, streamlined, and more profitable operations likely will fund current expenses. However, if restructuring is ineffective, if the bank's losses stemmed from the systemically significant operations, or if it is based on broader economic problems, this liability could continue to grow.[41]

The practical hurdles to quickly resuming critical banking operations while controlling for moral hazard are many and complex. While these challenges are difficult when intervening in any bank, those difficulties increase exponentially for large, complex banks with systemically significant operations. A few examples of these difficulties are illustrative. First, continued operations of any significant part of the banking business – such as securities trading or clearance and settlement – will require the active participation of the failed bank's employees. This cannot be assumed, but it can be facilitated if the resolution authorities come prepared with assurances to the bank's employees about temporary salaries and benefits. Pre-planning of the steps to gain employee cooperation and, if necessary, contractor assistance is essential.

Second, the initial resolution process for the bank must be completed virtually overnight. A large bank that occupies an important role in the payments infrastructure cannot be closed for any extended period if payments processing is to continue and the disruption of transactions throughout the financial system is to be avoided. Settlement for payments transactions must be completed within brief time windows or the transactions must be returned to the preceding banks in the chain of transactions. If the failed bank cannot timely process those transactions and returns are required, this could lead to cascading settlement interruptions and resulting liquidity pressures on other banks. In addition, if the failed bank fails to reopen quickly and resume processing the resulting accumulating flood of return items will overwhelm the banks' processing capabilities. These pressures are only increased by the around-the-clock nature of modern payments and settlements. Consequently, the bank or a succeeding bridge bank cannot be closed for any extended period if it is to retain its role in the payments process or its franchise value.

Third, if depositor protection is to be limited to the legally guaranteed amount plus some conservatively estimated "advance dividend," a quick determination of the amount of deposit insurance due to each depositor is necessary. The first hurdle is making an accurate determination of the deposit insurance coverage available to each depositor within the time available. If the national deposit insurance rules are complex or the bank's deposit records do not provide the key information needed under those rules or the bank's systems are technically inadequate this will be a daunting task. Advance dividends to limit the disruption of payments processing are a necessity if a large bank – even if it is not systemically significant – is to continue critical business operations. In

effect, an advance dividend simply makes funds over the insured amount immediately available to depositors based on an assessment of the actual, realizable value of the bank's assets. This requires immediate and accurate estimates of resolution losses and the ability to fund the corresponding advance dividend quickly. This can be difficult within the available time. If asset valuations are uncertain or if the bank's asset records are unreliable, this estimation process can be wildly uncertain.[42] The impact on settlement processes from overdrawn accounts and return items means that the time available for doing so is very limited.[43]

Fourth, banking operations that may be systemically significant are often inextricably linked with other banking operations and cannot be easily detached from the overall banking franchise. For example, certain clearing and settlement functions for financial markets are often dependent on credit facilities and depository account operations of the primary banking business. While it may be possible to detach those clearing and settlement functions, the related credit and depository operations either must be transferred wholesale to a temporary or bridge bank or replacements for those operations found to service clearing and settlement requirements. If all related banking operations are transferred wholesale to the bridge bank these operations may create additional potential losses that will be borne by the creditors or the public. The complications of this process are increased where a vital part of the systemically significant function is performed in another corporate entity outside the control of the banking authorities – such as in an affiliate of the bank's holding company or in a domestic or foreign third party.

The complications of this process are real enough. However, they can be addressed if the legal infrastructure provides sufficient flexibility and authority to the responsible authorities and if those authorities work closely with banks and other regulators to prepare and test contingency plans that address these issues. The crucial point is that a bailout or some longer term open bank solution is not a panacea. While never closing the bank may make continuation of operations easier, an effective open bank solution requires restructuring of operations, close oversight, valuation of assets to support write downs of shareholder and other claims, and determination of appropriate capital or other mechanisms to require repayment of any governmental funding. As noted below, open bank solutions pose other problems as well.

Italy. A European example of these trade-offs is presented by Italian law and recent Italian experience. The Italian Banking Law of 1993 includes both an open bank "special administration" procedure and an insolvency process that authorizes liquidators to continue the business operations of the failed bank. The insolvency process is a blended system that gives primary responsibility to the Bank of Italy while preserving a role for the judiciary.[44] For example, while compulsory liquidation proceedings may be initiated by the Minister of the Treasury, liquidation also may be started by court order on application of creditors or public prosecutors or on its own initiative, after consultation with the Bank of Italy. Courts in liquidation proceedings play an important role under the Italian system in reviewing proposed payments to creditors and hearing any objections by creditors.[45] Bank liquidation proceedings also remain subject to certain portions of the

general bankruptcy law that facilitate the liquidation of the bank's assets and payments to creditors. Nonetheless, the Bank of Italy retains the predominant role in approving sales of assets or the business of the bank, continuation of operations, and necessary financing for future banking operations.

Under the insolvency provisions of the 1993 Banking Law, the liquidator can continue normal banking operations and sell any assets or business operations with the approval of an oversight committee and the authorization of the Bank of Italy.[46] This power could be used to ensure that systemically significant banking operations continue despite the bank's collapse. The law also allows the liquidators to borrow funds and offer the bank's assets as collateral. Of course, additional funding will probably be needed. As noted previously, the Fondo Interbancario di Tutela dei Depositi or Interbank Deposit Protection Fund, which is a private consortium of banks, may support a failing bank in special administration or administrative liquidation proceedings. The only limitations are that there must be reasonable prospects for the bank's recovery and the cost to the Fund is less than it would be in a liquidation. The Bank of Italy also can make low-interest loans to allow the Fund to meet its obligations.[47]

The more likely process under Italian law for resolving a large bank is an open bank assistance process called "special administration." Under special administration, administrators appointed by the Minister of the Treasury, acting on the recommendation of the Bank of Italy, may continue the open institution's operations with the oversight of the Bank of Italy.[48] Special administration is limited to one year with a possible six month extension. Once a bank is placed into special administration, the administrator has immediate authority to take all actions that the bank's former managers and board of directors could take, conduct the bank's business, and take other actions in the interests of the bank's depositors. In exceptional cases, the special administrator can suspend payment of the bank's liabilities for up to one month with a possible two month extension.[49] Similar processes for provisional public administration exist under the laws of Canada, France, Norway, Portugal, and Spain.[50]

In practice, the Italian insolvency laws have not been applied to larger banks. In the 1996 case of the Banco di Napoli – a large Italian bank active in the EU and in the United States – Italian authorities did not rely on the new insolvency procedures. The Italian parliament adopted special emergency decrees to authorize a bailout with conditions for the bank. Before its collapse, the recently privatized bank had pursued a rapid expansion while remaining burdened by outmoded credit policies and high staffing expenses. Under the emergency procedures, the Italian Treasury became the primary shareholder by injecting capital funds and, thereby, diluting the interests of prior shareholders – who, however, retained this diluted equity interest and proportionate voting rights. Other funding was provided through advances from the Treasury and Bank of Italy and government tax concessions. The emergency decree also set up a special asset management entity called Società di Gestione di Attività S.p.A. to liquidate bad assets. As noted above, Italian authorities took a number of steps to moderate the effect of the bailout on the regional banking market, such as sales of certain subsidiaries, branches and other assets designed to limit any advantages accruing to the bank. Even

those steps included elements to protect creditors – the voluntary liquidation of a principal bank subsidiary, Isveimer, was partially funded by the Bank of Italy to protect the subsidiary's creditors from any losses. Throughout this process, Banco di Napoli was not placed into formal "special administration."[51]

Other banks have been placed into special administration, but these tended to be smaller banks with less likelihood of creating broader instability in the system. An example of the application of the legal process is the resolution of Sicilcassa, which was placed into special administration in 1996. When its shareholders failed to identify a feasible recovery plan, the bank was placed into liquidation and sold to Banco di Sicilia in a transaction assisted by the Interbank Deposit Protection Fund and the Bank of Italy. This transaction was similar to purchase and assumption transactions used in the United States.[52]

As this summary reveals, Italian authorities have used the flexible approach authorized in the Banking Law for some banks, but have thus far relied on more traditional public intervention for more systemically significant banks. In effect, the only Italian procedure that can be effective for larger banks is open bank special administration since no authority exists for an American-style bridge bank through the insolvency process. As illustrated by other countries' experience, open bank assistance creates its own set of problems. For example, the Italian special administration process does not appear to have any controlling principle to limit public expenditures. The governing rules of the private Interbank Deposit Protection Fund do contain limitations on funding. The Fund itself has limited resources since it is funded through contributions assessed as needed from the industry and has a limited permanent fund.[53] As a result, public funding is a necessity in larger resolutions. While public expenditures are limited, to a degree, by the restrictions on "state aid" imposed by the European Commission, the Commission's Banco di Napoli decision demonstrates the considerable scope for such aid within the EU. A second common difficulty with special administration in controlling moral hazard is there is no specific process for imposing losses on shareholders. Concessions by shareholders are critical if the process is not to become a complete bailout. Past experience with open bank administration proceedings demonstrates that the process of negotiating concessions by shareholders can be difficult and time-consuming – which can delay or complicate essential restructuring steps. Under EU law and many other national corporate laws, it may be difficult to implement an open bank or provisional administration process that impairs shareholder interests without extensive negotiations since shareholders normally retain control over management and the capital structure of the bank absent a formal insolvency process. A bridge bank process holds this additional advantage over open bank solutions.[54] A related issue is that the restructuring of liabilities is more difficult with an open bank process since the bank will continue to operate as the original bank and, absent special powers for the administrator to terminate unneeded contracts, remains burdened with those obligations. Even when such special contract termination powers exist and are used, it will be more difficult to enter into new contracts at reasonable rates after other contracting parties have incurred losses. As in any process that requires flexible reactions to actual events contingency planning and simulations of how the procedures will be put into actual practice are vital.

The complications inherent in this process become even more difficult to resolve if the bank operates across borders and is subject to multiple national laws.[55]

Sweden. Other European countries have considered similar open bank or special administration processes. Following the banking crisis of the 1990s, the Nordic countries implemented a number of reforms to provide the tools necessary to respond to any future crisis. A committee of the Swedish Riksdag, or parliament, proposed the creation of a new "Crisis Management Authority" (CMA) with the responsibility of managing banks placed into a pre-insolvency public administration or open bank assistance.[56] The proposal would create a separate process for government operation of open banks outside the existing Swedish corporate reorganization or bankruptcy laws. Thus far, the proposal has not been adopted although both the Ministry of Finance and the Riksbank support the recommended approach.[57]

Under the proposal the CMA would be a permanent entity separate from the central bank and the deposit insurer with broad powers to recommend placing a bank into public administration or bankruptcy, operate the business of banks placed into public administration, issue government guarantees for post-intervention debts (with the approval of the government), suspend certain payments, and determine when to release a bank from public administration (generally limited to no more than two years).[58] Since one of the chief goals of the proposal is to limit the need for the blanket guarantees used by the Swedish Riksbank during the Nordic crisis, the CMA's power to issue public guarantees is limited solely to post-intervention obligations. This approach allows the Riksbank to continue its role as emergency lender of last resort, while the CMA gains control over the failing bank. Since the lender of last resort should be lending to illiquid, but still solvent, banks, the CMA has the role of assessing whether additional lending is appropriate while potentially replacing the Riksbank's loans with interbank funding guaranteed by the government. This approach is clearly designed for banks that can be salvaged – otherwise both Riksbank credit and government guarantees of interbank loans are inappropriate.[59]

The Swedish proposal has significant advantages over many existing laws because provides a clear process for the authorities to respond to instability in a large bank within a very concentrated banking system. It also provides significant enhancements to market discipline – claims by pre-existing creditors of the bank are not guaranteed by the CMA. The CMA's guarantee authority is limited to post-intervention claims. A practical question, however, is whether this is workable – pre-existing creditors may provide critical services or goods and may refuse to continue to do business unless pre-existing debts are paid. The proposal has other limitations. The CMA's authority to restructure a bank under public administration is assisted and restricted by the CMA's role within the existing corporate laws – it takes over management, but not ownership. As a result, the CMA cannot impair shareholder interests and cannot directly impose first losses on shareholders. This limits the ability to prevent shareholders from benefiting from the government takeover. Current EU rulings make this difficult in any event. During the Nordic banking crisis, Norway adopted a different approach – the authorities wrote down the equity capital of the banks relying on public support to reflect prior

losses.[60] Recognizing this limitation of the Swedish proposal, the Riksdag committee has recommended that the CMA have authority to request a judicial reduction of shareholder interests as part of court proceedings to initiate the process.[61] Finally, while the public administration provision would be a supplement to existing Swedish law on bank resolutions, the proposal would benefit from the addition of more flexible powers to continue critical bank functions in a closed bank environment. The more effective controls over banking operations and the clear ability to impose losses on shareholders in insolvency proceedings strongly recommend a bridge bank or similar process as an alternative to open bank solutions as a means of achieving stability while controlling moral hazard.

Japan. Another example of the uneasy transition to measures designed to improve the authorities' flexibility is the gradual shift in bank resolution policies in Japan. During the 1990s, Japan relied on a "convoy" system that effectively propped up all failing banks. More recently, Japan has sought to move towards more limited government bailouts of depositors, shareholders, and creditors along with extensive bank restructuring. As has been well-documented, the rapid growth in asset prices during the late 1980s led to a crash in asset prices in the 1990s and a tremendous growth in non-performing loans on banks' balance sheets.[62] The pre-crisis "convoy" system meant that the Bank of Japan was expected to prevent the failure of Japanese banks, while the banks were expected to serve as financial intermediaries to channel high Japanese savings into the rebuilding of Japan after World War II and, later, into developing Japan's exports economy.[63]

As the crisis spread to housing loan corporations, and urban credit cooperatives, Japan amended its financial safety net laws in 1996 to remove the limit of ¥10 million on the amount of deposit pay-offs and to create a Resolution and Collection Bank to become the assuming bank for the credit cooperatives and to purchase non-performing loans from failing financial institutions. However, the crisis soon spread to the largest Japanese banks and non-bank financial firms.[64] With the crisis continuing unabated, the government received legislative approval to provide several waves of funding to address the financial crisis. Public funding did not solve the problems. Significant progress in stemming the crisis occurred only with strengthened supervision, restructuring of bad loans with the assistance of the public Resolution and Reconstruction Corporation, and some consolidation of the industry. The massive level of public funding, and the full protection of all depositors and creditors, led to growing moral hazard in the Japanese banking system.

In an effort to address these problems, a new Japanese Deposit Insurance Law was adopted in 2001 as part of a new bank resolution process. This process is based on several laws – the normal bankruptcy process under the Civil Rehabilitation Law, the financial assistance powers of the Deposit Insurance Corporation of Japan (DICJ) under the Deposit Insurance Law, and the special bankruptcy provisions of the Law on Special Rehabilitation Proceedings. While the process includes important roles for the courts – in ruling on payment of contested deposits and how new funding from the DICJ is used – the process principally is managed by the Financial Services Agency and the DICJ.[65]

Under the new process, there are two methods to resolve failing banks. One method is the liquidation of the bank and the direct payment of covered depositors. The other method allows for the continuation of the bank's business through a financially assisted sale of its operations to another bank or through a DICJ-owned bridge bank under the guidance of a financial administrator appointed by Japan's Financial Services Agency.

When a bank is insolvent or appears likely to be unable to make payments, the FSA can appoint a financial administrator who is authorized to conduct banking operations and sell assets. One of the grounds for appointment is when a merger is unavailable and cessation of the bank's operations would impair the flow of funds and the convenience of the public in the region or sector in which the bank operates. The DICJ itself can be appointed as the financial administrator. The FSA also has the option of arranging an assisted merger or the purchase of assets and assumption of liabilities of the failed bank by other banks.

The Deposit Insurance Law provides another option – creation of a temporary bridge bank. A bridge bank is a subsidiary of the DICJ and serves to continue the banking operations of a failed bank – including deposit services, lending, and payments processing – until the assets or the bank's operations can be sold to another institution. Bridge banks have full authority to continue the failed bank's businesses, settlement processes, lending, and depository services. Japanese bridge banks are limited to two years with a possible one year extension.

Japanese deposit insurance coverage remains generous. While the types of deposits provided with full protection have gradually been decreased since 1996, ordinary checking account deposits – those used for "payment and settlement services" – will continue to receive unlimited coverage. Other deposits are covered up to ¥10 million.[66] In a bank resolution, any uninsured portion of a deposit and other creditor claims receive pro rata payment based on the value of the failed bank's assets.

Funding for these resolution processes is typically provided by the DICJ through grants, guarantees, capital injections, loans, purchases of assets and loss coverage for the protection of depositors to finance mergers or other measures. A subsidiary of the DICJ – the Resolution and Collection Corporation – may participate in the bank resolution by purchasing, collecting, and writing off non-performing loans from a failing bank. Depositors will be protected up to the coverage limit. The DICJ can provide financial assistance to the bridge bank and to banks purchasing assets and assuming the bridge bank's operations in a variety of ways including capital assistance, grants, loans, and loss sharing – limited to no more than the cost of a payout except in "extremely serious" financial crises.

More severe financial crises can be addressed through special procedures, modeled on the U.S. "systemic risk exception," that are not limited by the cost of a payout. If the Prime Minister determines that an "extremely serious" threat exists to the

maintenance of financial stability in Japan or in a region, he or she can authorize "exceptional measures" that are not limited by the Japanese "lesser cost" standard. In such cases, the DICJ can provide capital injections, financial assistance exceeding the payout costs, or nationalization of the failing bank. Temporary nationalization may be used only if there is a "very serious threat" to financial stability. As in the U.S., the funds for such additional expenditures are provided by special assessments against insured institutions or, if the industry cannot provide sufficient funds, by direct public funding.

Under the new Japanese scheme, financial administration, an assisted merger or purchase of assets, and a bridge bank are all designed to maintain key banking functions while controlling moral hazard by limiting expenditures to the level that would have been required for a payout to insured depositors.[67] This cost limitation is similar to the "lesser cost" standard used in the United States before the "least cost" requirement was imposed in 1991. Even under this standard, normal clearing operations should function and provide continuity for banking operations since the full amount of deposits used for payments and settlement services are covered by the DICJ. Japanese authorities also have indicated that foreign counterparties to Japanese banks will be protected from loss. Based on recent history, it remains to be seen whether the Japanese authorities will hold firm even to this "lesser cost" standard in significant bank failures.

Mexico. Mexico, along with some other nations in the Western Hemisphere, is revising its process for bank resolutions to provide the bank supervisors and the deposit insurer, Instituto para la Proteccion al Ahorro Bancario (IPAB), with a larger role in the resolution process and greater flexibility. Unlike its predecessor, Fobaproa, IPAB since its creation in 1999 has had the ability to engage in true supervision of the banking system, rather than simply serving as a monitoring body. In the past, the Mexican system for bank resolutions had been focused on open bank solutions. In implementing open bank assistance solutions, the IPAB had authority to takeover an insolvent bank, eliminate or dilute shareholder interests, restructure its operations, provide new capital, and sell it to private investors. This process had the advantage of imposing losses on shareholders, but it lacked a system of cost controls. However, once a bank's license to operate was revoked it had to be placed into standard judicial bankruptcy proceedings for liquidation. Without a viable alternative, this legal structure meant that open bank assistance was the only real option for a failing bank if the goal was to retain any banking operations.

In April 2006, Mexico enacted new legislation to implement a bank resolution process coordinated with the "early corrective action" process adopted in 2004. As in the United States, the Mexican early or prompt corrective action process imposes a series of increasingly stringent controls on a failing bank as its capital level deteriorates. The new legislation combines an innovative approach to open bank oversight with enhanced powers to use purchase and assumption and bridge bank transactions. Under the new legislation, IPAB is authorized to require a capital restoration plan from a bank once its capital reaches 8%. A condition of the capital restoration plan is that the bank must transfer of 75% of its equity into a trust for the benefit of IPAB as security to compel compliance with the plan. Under the capital restoration plan, the bank's board and

shareholders remain in control of the bank. If the bank complies with the plan and returns to health, this pledge is released. However, if it fails to comply, IPAB can impose losses on shareholders based on identified losses, become the full owner of the bank, and implement a resolution that is less costly than a payout. It can then implement a purchase and assumption or bridge bank resolution in order to maintain the bank's operations so long the cost of the process does not exceed the cost of a payout to insured depositors. IPAB can also implement bank resolution proceedings when the capital of a failing bank falls to 4%. In order to prevent nationalization through this process, the new law requires termination of any bridge bank after one year. The new bank resolution process also includes elements designed to enhance the exchange of information between supervisors and IPAB – because IPAB is granted the right to download information from the bank after capital falls below 8%. However, work remains to be done to develop and adopt a more effective way to liquidate nonviable banks and their assets, which remains subject to the corporate bankruptcy process. IPAB hopes to introduce legislation to create a separate liquidation process for banks in the near future.

The law also contains a process designed for systemic crises that, while leading to broader bailouts, imposes some level of cost controls. A systemic crisis is defined as one that affects the stability or solvency of the financial system or threatens the payment system. Under this process, a committee composed of the central bank, IPAB, the Ministry of Finance, and the bank supervisor is required to define pro rata losses for uninsured claims at a level that does not impair the stability of the bank's creditors and does not prejudice the operation of the payment system. In such cases, additional funding beyond that required for a payout of insured depositors is authorized to prevent contagion effects. The implementation of this process will depend heavily on the policies adopted for making the difficult analyses necessary about the haircut appropriate to prevent systemic risks. Certainly, during a crisis, this "control" may prove illusory because of the negative consequences of imposing pro rata losses that are too aggressive. The new tools provided to IPAB and Mexico's regulators carry with them the challenge to adopt new approaches that achieve both a reduction in moral hazard as well as avenues to continue critical banking functions for systemically significant banks.

CONCLUSION

The history of recent bank failures around the world shows that by itself a simple prohibition on public funding or a limitation to least, lesser or liquidation costs does not work. For cost controls to be effective regulatory authorities must have real alternatives to a bailout or liquidation. This requires balancing cost limitations or bans on public bailouts with a flexible system of bank resolution that allows continuation of key banking functions despite the collapse of the bank. Faced with concerns about systemic risks, many countries have focused on open bank solutions as most likely to achieve stability through public management and financing of the failing bank. This approach can work, but it must include stringent controls on the temptation to fund, but not aggressively manage and restructure, the bank. The danger is that open bank solutions tend to become longer term public bailouts that do not sufficiently impose losses on shareholders and fail

to fully restructure the banking business. As a result, open bank solutions often increase losses to the public and exacerbate moral hazard.

The resolution methods allowed by U.S., Italian, Japanese, and Mexican laws, as well as the proposed Swedish legislation, provide many of the features necessary to facilitate continuation of critical banking functions while imposing losses, at a minimum, on shareholders. One of the most significant issues under many of these laws is whether the available open bank resolution methods can be adapted to maintain a minimal level of market discipline. In some systems, open bank resolutions may not be able to impose losses on shareholders. Other open bank resolution processes, such as that recently adopted in Mexico, provide a mechanism for a regulatory takeover of ownership and dilution of equity interests to cover losses. If the authorities can avoid the temptation to provide long-term funding for the open bank and push aggressively to transfer its operations to private banks, this concept does provide continuity along with controls on moral hazard. One lesson from past banking crises is that the minimum controls on moral hazard require a process – whether open bank or closed bank – that maintains banking functions while imposing losses on shareholders.

An effective open bank resolution scheme does not eliminate the need for an effective bank insolvency process. As illustrated above, there are significant advantages to application of an insolvency process that both permits continuation of critical banking functions while imposing losses on shareholders and, where possible, creditors. Some systemically significant banks cannot be rehabilitated or, at least, cannot be rehabilitated commensurate with the risk posed to the public fisc. The important public policy for systemically significant banks is to define what functions are, in fact, critical to the financial system and how to maintain those functions. It is not always necessary to continue the functioning of the whole banking enterprise. In the final analysis, an efficient crisis management system that makes it possible to ensure that bank shareholders will lose their stakes whenever a bank relies on public funding can help prevent crises by reducing moral hazard problems.

Recent trends for the adoption of legal structures that allow more flexible bank resolutions are encouraging. The next critical question is whether flexibility will be tied to strong cost controls to limit bailouts. If it is not, then the developing flexibility will only lead to continuation of the historic patterns of government bailouts of large, failing banks. To avoid this result, the preconditions for effective bank resolutions must be in place if the process is to be successful. Just as any legal principles for the flexible resolution of banks must be adapted to the conditions and infrastructure in a specific country, the non-insolvency laws and policies in that country must be reviewed and, if necessary, adapted to support an effective banking resolution process. The next step is the development of credible policies and plans that will allow the new process to be implemented. Those policies and plans should be reviewed by regulators and the industry to measure whether they provide a realistic approach. Then the contingency plans should be tested through simulations to explore gaps and fine tune the approach. Only when the practical details are addressed in the proposed plan can the regulators and industry have

confidence. This will always remain a work in progress, but it is one that is vital to financial security.

The creation and implementation of an effective system to resolve failing banks does not have fixed rules. The appropriate approach depends on the circumstances prevailing in each particular country and its past experience. Different legal systems may embody civil or common law approaches or combinations of each, may reflect a preference for stability or market discipline, creditor or employee rights, or even prefer the assignment of blame over economic efficiency. These policy choices have consequences for how effective the bank resolution process will be in assuring continuity and controlling moral hazard. If the goals are to soften the impact of a major bank failure while still controlling the temptation to bailout the bank there are basic principles that have proven the test of time and experience. The implementation of these principles, and the willingness to take on the hard work of preparing to use them, ultimately depends on the importance assigned to those goals. If the goals are not sufficiently important to the regulators and those they represent, then the necessary tradeoffs will seem insurmountable. If the goals are sufficiently important, the obstacles can be overcome.

Endnotes:

[1] Mr. Krimminger is Senior Policy Advisor to the Director of the Federal Deposit Insurance Corporation's Division of Resolutions and Receiverships. The views expressed in this paper are solely those of the author and do not necessarily represent the policies or views of the FDIC. © 2006 Michael Krimminger.

[2] See Staffan Viotti, "Dealing with Banking Crises – Proposal for a New Regulatory Framework," Sveriges Riksbank Economic Review, No. 3 (2000); Pablo Graf, "Policy Responses to the Banking Crisis in Mexico," at 173 in Bank of International Settlements, Bank Restructuring in Practice, BIS Policy Paper No. 6 (Aug. 1999); John Hawkins & Phillip Turner, "Bank Restructuring in Practice: an Overview," in Bank of International Settlements, Bank Restructuring in Practice, BIS Policy Paper No. 6 (Aug. 1999); Anthony Santomero & Paul Hoffman, "Problem Bank Resolution: Evaluating the Options" at 17-29, Working Paper 98-05-B, Wharton Financial Institutions Center (1998).

[3] See Gary H. Stern & Ron J. Feldman, Too Big to Fail: The Hazards of Bank Bailouts (2004); David G. Mayes, "An Approach to Bank Insolvency in Transition and Emerging Economies" at 13-18, Bank of Finland Discussion Paper 4-2004..

[4] See G-10 Contact Group on the Legal and Institutional Underpinnings of the International Financial System, "Insolvency Arrangements & Contract Enforceability" at 8 (Sept. 2002); William R. White, "Are Changes in Financial Structure Extending Safety Nets?" BIS Working Paper No. 145 (2004).

[5] See generally World Bank, "Principles and Guidelines for Effective Insolvency and Creditor Rights Systems," at Annex I (April 2001); Reint Gropp and Jukka M. Vesala, "Deposit Insurance, Moral Hazard and Market Monitoring" ECB Working Paper No. 302 (February 2004); Erlend Nier and Ursel Baumann, "Market Discipline, Disclosure and Moral Hazard in Banking" EFA 2003 Annual Conference Paper No. 664 (October 29, 2002); Patrick Honohan and Daniela Klingebiel, "Controlling The Fiscal Costs Of Banking Crises," World Bank Policy Research Working Paper No. 2441 (September 2000); Edward S. Prescott, "A Primer on Moral-Hazard Models," Federal Reserve Bank of Richmond Economic Quarterly, Vol. 85/1 (Winter 1999); Hawkins & Turner, "Bank Restructuring in Practice."

[6] My focus here is on those constraints that affect how individual institutions are resolved. Although similar issues are presented where the authorities must respond to system-wide crises, there is no doubt that such crises create additional challenges. For example, system-wide crises may impair public confidence in all banks and require public guarantees to all banking system depositors and creditor irrespective of the individual bank's condition.

[7] See Financial Stability Forum, "Guidance for Developing Effective Deposit Insurance Systems," Discussion Paper "Options for Addressing Moral Hazard" (Sept. 2001)

[8] See White, "Are Changes in Financial Structure Extending Safety Nets?" at 21-24; Thorvald Moe, Jon Solheim & Bent Vale, editors, "The Norwegian Banking Crisis," Norges Bank Occasional Paper No. 33 (2004); Charles Enoch, Gillian Garcia, & V. Sundararajan, "Recapitalizing Banks with Public Funds: Selected Issues," IMF (1999); FDIC, Managing the Crisis: The FDIC and RTC Experience 1980-1994 (August 1998).

[9] See David Mayes, "The Role of the Safety Net in Resolving Large Financial Institutions," paper initially prepared for Federal Reserve Bank of Chicago Conference on "Systemic Financial Crises: Resolving Large Bank Insolvencies," Sept. 30 – Oct. 1, 2004.

[10] See Apanard Angkinand & Clas Wihlborg, "Bank Insolvency Procedures as Foundation for Market Discipline" at 6-8, paper prepared for Federal Reserve Bank of Chicago conference on Cross-Border Banking: Regulatory Challenges, Oct. 6-7, 2005; Viotti, "Dealing with Banking Crises" at 52-53 (discussing the unsuitability of the Swedish general insolvency law for handling bank failures).

[11] See G-10 Contact Group, "Insolvency Arrangements"; Global Bank Insolvency Initiative, "Legal, Institutional, and Regulatory Framework to Deal with Insolvent Banks"; Financial Stability Forum, "Guidance for Developing Effective Deposit Insurance Systems" at 8-11; IMF Legal Dept., "Orderly & Effective Insolvency Procedures" (1999).

[12] See Aristobulo de Juan, "Does Bank Insolvency Matter? And What to Do About It?" in P. Collier (eds.) Financial Systems & Development in Africa, EDI Seminar Series, The World Bank (1991).

[13] See Eva Hupkes, "Protect Functions, Not Institutions," The Financial Regulator, Vol. 9, No. 3 at 46-49 (Dec. 2004); see also Sukarela Batunanggar, "Indonesia's Banking Crisis Resolution: Lessons and the Way Forward" at 9, paper presented at the Banking Crisis Resolution Conference, Bank of England (Dec.

9, 2002).

[14] See, e.g. G-10 Contact Group, "Insolvency Arrangements" at Appendix A; Global Bank Insolvency Initiative, "Legal, Institutional, and Regulatory Framework to Deal with Insolvent Banks"; Financial Stability Forum, "Guidance for Developing Effective Deposit Insurance Systems" at 12; Subhrendu Chatterji, "Bank Restructuring and Recapitalization: the Key Issues" at 3, Financial Sector Chapter of the U.K. Department for International Development's Guide for Economists (Jan. 1999).

[15] See Batunanggar, "Indonesia's Banking Crisis Resolution" at 30; Hawkins & Turner, "Bank Restructuring in Practice" at 36-43; Santomero & Hoffman, "Problem Bank Resolution" at 17-29.

[16] See White, "Are Changes in Financial Structure Extending Safety Nets?" at 23-4; Hawkins & Turner, "Bank Restructuring in Practice" at 61-64.

[17] FDICIA required federal regulators to establish 5 capital levels ranging from "well-capitalized" to "critically undercapitalized." These levels serve as the basis for PCA and, as the capital level declines, the regulators can impose increasingly stringent controls on the institution. Those controls may include limits on deposit taking and other business restrictions. 12 U.S.C. § 1831o(b)(1).

[18] See Rosalind L. Bennett, "Failure Resolution and Asset Liquidation: Results of an International Survey of Deposit Insurers" at 6, FDIC Banking Review, Vol. 14, No. 1 (Fall 2001); David Mayes, "An Overview of the Issues," Eva H.G. Hupkes, "Bank Insolvency in Switzerland," and Christos Hadjiemmanuil, "Bank Resolution Policy and the Organization of Bank Insolvency Proceedings: Critical Dilemmas" in Who Pays for Bank Insolvency, ed. by David G. Mayes and Aarno Liuksila at 33-35, 251-52, and 279, respectively (2004).

[19] See George Kaufman and Steven Seelig, "Post-Resolution Treatment of Depositors at Failed Banks: Implications for the Severity of Banking Crises, Systemic Risk, and Too-Big-To-Fail" at 16-18, IMF Working Paper (June 2001).

[20] See Hans Petter Wilse, "Management of the Banking Crisis and State Ownership of Commercial Banks" in Moe, Solheim & Vale, editors, "The Norwegian Banking Crisis" 179, 199-203; Glenn Hoggarth & Jack Reidhill, "Resolution of Banking Crises: A Review," Financial Stability Review 109, 117 (Dec. 2003).

[21] See Statutes of the Norwegian Banks' Guarantee Fund, Sections 17-19, adopted at the Fund's 2004 general meeting pursuant to Act of June 25, 2004 on Amendments to the Guarantee Schemes Act; Fondo Interbancario di Tutela dei Depositi, Statutes and By-Laws, Article 27-29; Japanese Deposit Insurance Law, Art. 102.

[22] 12 U.S.C. § 1823(c)(4).

[23] 12 U.S.C. § 1823(c)(4)(G).

[24] Treaty Establishing the European Community, Article 87(3)(b); see Community Guidelines on State Aid for Rescuing and Restructuring Firms in Difficulty, OJ 2004/C 244/02 (2004); Community Guidelines on State Aid for Rescuing and Restructuring Firms in Difficulty, OJ 1999/C 288/02 (1999); Eva Hupkes, The Legal Aspects of Bank Insolvency: A Comparative Analysis of Western Europe, the United States, and Canada 96-98 (2000).

[25] See 1999 Community Guidelines on State Aid; Commission Decision 99/288/EC giving conditional approval to the aid granted by Italy to Banco di Napoli of July 29, 1998 at L 116/48.

[26] See 2004 Community Guidelines on State Aid; 1999 Community Guidelines on State Aid at 6-8.

[27] See Commission Decision on Banco di Napoli at L 116/49 – 54; Commission Decision 2002/581/EC of 11 December 2001, on the tax measures for banks and banking foundations implemented by Italy.

[28] Compare 2004 Community Guidelines on State Aid with 1999 Community Guidelines on State Aid; see Commission Decision of Feb. 18, 2004 on restructuring aid implemented by Germany for Bankgesellschaft Berlin AG, OJ 2005/345/EC at L116/40 – 51.

[29] See Kaufman & Seelig, "Post-Resolution Treatment of Depositors" at 7.

[30] See Asli Demirguc-Kunt, Baybars Karacaovali, & Luc Laeven, "Deposit Insurance Around the World: A Comprehensive Database" at 43-44 (June 2005); see also Bennett, "Failure Resolution and Asset Liquidation."

[31] Directive 94/19/EC on deposit-guarantee schemes, Article 10, OJ 1994/L 135 (1994); see Kaufman & Seelig, "Post-Resolution Treatment of Depositors" at 11.

[32] See Viotti, "Dealing with Banking Crises"; Hawkins & Turner, "Bank Restructuring in Practice" at 50.

[33] See DICJ, "Outline of the System and Q&A" at 4-5, www.dic.go.jp; Mamiko Yokai-Arai, "The Japanese Experience of a Single Regulator and Deposit Insurance," paper presented at the Third Annual IADI Conference, Brunnen, Switzerland, Oct. 24, 2004.

[34] See Korea Deposit Insurance Corporation, "Overcoming Crisis and the Role of Deposit Insurance: Achievements and Challenges Ahead for Korea" (2004).

[35] See Thorsten Beck & Luc Laeven, "Resolution of Failed Banks by Deposit Insurers: Cross-Country Evidence," World Bank Working Paper 3920 (2006); Angkinand & Wihlborg, "Bank Insolvency Procedures as Foundation for Market Discipline" at 17-20 (paper provides limited quantitative support for this thesis); Basel Committee on Banking Supervision, "Bank Failures in Mature Economies" at 41, Working Paper No. 13 (2004); Kaufman & Seelig, "Post-Resolution Treatment of Depositors."

[36] See IADI, "General Guidance for the Resolution of Bank Failures: Consultation Draft" at 18 (August 2005); Bennett, "Failure Resolution and Asset Liquidation" at 15-6.

[37] See Angkinand & Wihlborg, "Bank Insolvency Procedures as Foundation for Market Discipline" at 17-20; IADI, "General Guidance for the Resolution of Bank Failures: Consultation Draft" at 23 (16 of 34 responding countries were authorized to use OBA); Bennett, "Failure Resolution and Asset Liquidation" at 13; Hawkins & Turner, "Bank Restructuring in Practice" at 51.

[38] See Angkinand & Wihlborg, "Bank Insolvency Procedures as Foundation for Market Discipline" at 9-11; Erwin Nierop & Mikael Stenstrom, "Cross-Border Aspects of Insolvency Proceedings for Credit Institutions – A Legal Perspective" at 23, paper delivered at the International Seminar on Legal & Regulatory Aspects of Financial Stability, Basel, Switzerland, Jan. 21-23, 2002; David Mayes & Jukka Vesala, "On the Problems of Home Country Control" at 18-19, Bank of Finland, Studies in Economics and Finance 20/98 (1998).

[39] 12 U.S.C. § 1821(n).

[40] See FDIC, Managing the Crisis at 171-91. The FDIC lacks statutory authority to create a bridge bank for thrift institutions. A closed-institution conservatorship structure, as used in CrossLand, functions like a bridge bank. See 12 U.S.C. § 1821(n).

[41] See Mayes, "The Role of the Safety Net" at 4-6; FDIC, Managing the Crisis at 567-593 & 707-729.

[42] See James Marino and Lynn Shibut, "Resolution Strategies for Large U.S. Commercial Banks," paper presented at the Research Workshop Crisis Resolution Conference at the Bank of England, December 9, 2002; see also Eva Hupkes, "Too Big to Save – Towards a Functional Approach to Resolving Crises in Global Financial Institutions" at 8, paper presented for the Federal Reserve Bank of Chicago Conference on Systemic Financial Crises: Resolving Large Bank Insolvencies," Sept. 30 – Oct. 1, 2004.

[43] See more complete discussion of "write-down" approaches in David Mayes & Aarno Liuksila, eds., Who Pays for Bank Insolvency? (2004) and Mayes, "The Role of the Safety Net" at 12-15.

[44] Italian Legislative Decree 385, Sept. 1, 1993 ("Italian Banking Law"), as subsequently amended, Art. 70(7).

[45] Italian Banking Law, Art. 87-89.

[46] Italian Banking Law, Art. 83 & 90.

[47] Fondo Interbancario di Tutela dei Depositi, Statutes and By-Laws, Article 27-29; see Demirguc-Kunt, Karacaovali, & Laeven at 68.

[48] Italian Banking Law, Art. 70 & 76.

[49] Italian Banking Law, Art. 71-75.

[50] See Hupkes, The Legal Aspects of Bank Insolvency at 58-61.

[51] See Commission Decision 99/288/EC giving conditional approval to the aid granted by Italy to Banco di Napoli of July 29, 1998 at L 116/37-43; Antonio Fazio, Governor of the Bank of Italy, "The Restructuring of the Banking System in the Last Ten Years: Problems and Prospects," Testimony before the Italian Senate and Chamber of Deputies, Oct. 2, 2002.

[52] See Bank of Italy, *Economic Bulletin* at 93, No. 35, Nov. 2002; Bank of Italy, "Abridged Report for the Year 1997" at 223-24 (1998).

[53] See Fondo Interbancario di Tutela dei Depositi, Statutes and By-Laws, Article 21-25. This is consistent with the funding process in most countries with explicit deposit insurance. See Demirguc-Kunt, Karacaovali, & Laeven at 9.

[54] See Hupkes, The Legal Aspects of Bank Insolvency at 61-63; FDIC, Managing the Crisis, "Open Bank Assistance" at 151-169. However, in some countries elimination of shareholder control even through the bank insolvency process can be complicated by concepts of shareholder rights if banks are subject to

closure before capital is completely exhausted.

[55] See Michael Krimminger, "Banking in a Changing World: Issues & Questions in the Resolution of Cross-Border Banks" and authorities cited, paper prepared for Federal Reserve Bank of Chicago conference on Cross-Border Banking: Regulatory Challenges, Oct. 6-7, 2005

[56] See Viotti, "Dealing with Banking Crises" at 56-62 (the volume of the Economic Review also includes summaries of the Riksdag committee reports recommending the new provisions).

[57] Email to author from Goran Lind, Advisor to the Executive Board, Riksbank, April 18, 2006.

[58] See Basel Committee on Banking Supervision, "Bank Failures in Mature Economies" at 40; Summaries of the Banking Law Committee's Main and Final Reports at 88, Sveriges Riksbank Economic Review, No. 3 (2000)

[59] See Viotti, "Dealing with Banking Crises" at 58-59.

[60] See Hupkes, "Bank Insolvency Resolution in Switzerland" and Hadjiemmanuil, "Bank Resolution Policy and the Organization of Bank Insolvency Proceedings: Critical Dilemmas" in Mayes & Liuksila, eds., Who Pays for Bank Insolvency? at 262-64 and 302, respectively; Kristin Gulbransen, "A Norwegian perspective on banking crisis resolution," presentation at Norges Bank Conference on Banking Crisis Resolution - Theory and Policy, Oslo, June 16, 2005.

[61] See Summaries of the Banking Law Committee's Main and Final Reports at 82, Sveriges Riksbank Economic Review, No. 3 (2000).

[62] See Speech by Toshihiko Fukui, Prospects for the Future of Japan's Economy, at Kisaragi-kai, Tokyo, Japan, July 23, 2003, available at www.bis.org.

[63] See Hiroshi Nakaso, "The Financial Crisis in Japan in the 1990s: How the Bank of Japan Responded and Lessons Learnt," Bank for International Settlements, BIS Paper No. 6 (Oct. 2001).

[64] See Nakaso at 10-11.

[65] See DICJ, "Outline of the System and Q&A" at Q2, www.dic.go.jp; Toshiyuki Furai & Kyoko Gohara, "Financial Insolvency Law in Japan," DICJ, paper delivered at European Central Bank's Insolvency Symposium, Sept. 30-Oct. 1, 2003.

[66] Ordinary deposits for "payment and settlement services" are defined as non-interest bearing demand deposits used for clearing and settlement of transactions. See DICJ, "Outline of the System and Q&A" at Q2, www.dic.go.jp; Japan Deposit Insurance Law, Sections 59-69 (2001); Furai & Gohara, "Financial Insolvency Law in Japan."

[67] See Japan Deposit Insurance Law, Sections 90-101 (2001); DICJ, "Outline of the System and Q&A" at Q51-55, www.dic.go.jp.