

Anticipatory Regulation for the Management of Banking Crises

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Systematic banking crisis occur regularly around the world, in developed as well developing countries, in democracies and dictatorships. These crises can devastate economies. Specific actions, however, have proven successful in mitigating the effects of crises once they occur. By having particular legal powers in place, government crisis management can be rapid and effective. This Note analyzes three recent crises in Chile, the Republic of Korea, and the United States, and identifies the actions taken by these countries which aided in resolving their respective crises. It then puts forward a set of recommendations to be implemented by all countries in advance of banking crises in order to be best prepared to effectively manage these potential catastrophes.

I. INTRODUCTION: THE SIGNIFICANCE OF BANKING CRISES AND CRISIS MANAGEMENT

Banking crises devastate economies.¹ They create economic instability and losses, and require large outlays of public funds to

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1. For example, in Indonesia, perhaps the most heavily affected nation during the Asian financial crisis of 1997, GDP declined 15.3% in 1998, unemployment reached 22%, and almost half of the population lived in poverty. The crisis also led to riots and killings. Jared Levinson, "*Fragile, Handle with Care*": *Indonesia and the Issue of Capital Controls in a Nation Facing Disintegration*, 17 *WIS. INT'L L.J.* 529, 1 (1999). Crises can have a dramatic effect on standard of living as well: "The human cost is high. In Jakarta, more beggars and prostitutes mill around the streets at night; children sleep on traffic islands. In Thailand, farmers from the poor north-east protest in Bangkok demanding debt relief. In South Korea, where the number of unemployed is forecast to reach 3m this year, some laid-off workers have killed themselves and their families; others have sent their children to orphanages." *Still Sick and Gloomy, Now Rebellious*, *ECONOMIST*, July 11, 1998, at 41.

resolve.² In the worst cases, a generation of people sees their savings obliterated and their prospects for economic advancement shattered. When a crisis looms, acting decisively to minimize its effect is crucial; however, legal and administrative barriers can prevent governments from taking the required actions.

Systemic banking crises, those that involve multiple institutions and create large-scale financial distress, occur regularly.³ Since the late 1970s, over one hundred such crises have taken place in ninety-three countries, the vast majority in developing countries.⁴ Failing to lay the groundwork to manage a crisis before it occurs precludes effective management and leads to disastrous consequences.⁵

Banking is a paradoxical industry. On one hand, individual banks are fully private, owned by a set of shareholders with equity stakes.⁶ On the other hand, banking systems are in a sense public, and are treated as such during a crisis.⁷ In a crisis, national governments intervene to uphold the network, blurring the

2. Crises have cost from less than 5% of GDP, as in the U.S. Savings and Loan ("S&L") crisis, to more than 50% of GDP, as in Indonesia and Argentina. See GERARD CAPRIO & DANIELA KLINGEBIEL, EPISODES OF SYSTEMIC AND BORDERLINE FINANCIAL CRISES 2, 7, 17 (2003).

3. See Financial Research: Financial Crises, at <http://econ.worldbank.org/programs/finance/topic/crises> (2002). Caprio and Klingebiel define systemic banking crises as "a situation of negative net worth in the banking system." THE WORLD BANK, GLOBAL ECONOMIC PROSPECTS AND THE DEVELOPING COUNTRIES: BEYOND FINANCIAL CRISIS 93 (1999).

4. CAPRIO & KLINGEBIEL, *supra* note 2, at 1–19. Of the 117 crises cataloged, eight were in high-income countries.

5. In the United States, for example, failure to intervene, or "regulatory forbearance," dramatically increased the costs of resolving the S&L crisis of the 1980s. Banks remained open for an average of three and one half years beyond reporting tangible insolvency. See James R. Barth & Robert E. Litan, *Lessons from Bank Failures in the United States*, in PREVENTING BANKING CRISES: LESSONS FROM RECENT GLOBAL BANK FAILURES 133, 161 (Gerard Caprio, Jr. et al. eds., 1998).

6. This Note focuses on countries with privately held banking systems. In some countries (e.g., India, Bangladesh, and Romania), the government owns the majority of the banking assets, but those systems are outside the scope of this Note. For further information on bank asset ownership, see JAMES R. BARTH ET AL., THE REGULATION AND SUPERVISION OF BANKS AROUND THE WORLD: A NEW DATABASE 36–37 (World Bank Working Paper, 2001).

7. See Paul Hoffman & Anthony M. Santomero, *Problem Bank Resolution: Evaluating the Options*, in INTERNATIONAL BANKING CRISES: LARGE-SCALE FAILURES, MASSIVE GOVERNMENT INTERVENTIONS 239, 241–42 (Benton E. Gup ed., 1999); JONATHAN R. MACEY ET AL., BANKING LAW AND REGULATION 56–57 (2001); CAPRIO ET AL., BANK INSOLVENCY: BAD LUCK, BAD POLICY, OR BAD BANKING? 4 (World Bank Conference on Economic Development, 1996).

barrier between public and private ownership to preserve the health of the system as a whole. Governments, for example, can nationalize portions of portfolios or even nationalize one or all banks in the country, either permanently or until the country has weathered the crisis.⁸ They must act quickly, decisively and often in the face of political controversy to restore confidence in the banking system.⁹ They must create the means to revitalize individual institutions in order for these institutions to achieve sufficient health to be re-privatized.¹⁰ Unfortunately, legal barriers often prevent rapid action.¹¹ States often lack the legislative authority to seize public control of banks or portfolios.¹² Even when the state does have such a mandate, no specific agency may have the power or means by which to act.¹³

This Note proposes that governments implement certain measures in advance to support optimal management of a crisis as one develops. These recommendations address the authority that a government must have in order to best mitigate the damage of a banking crisis. One of the keys to rapid and effective crisis intervention is the existence, prior to any crisis, of an agency with the authority and credibility to take action once a crisis appears possible. With the right agency and laws in place, bank failures can be rapidly and quietly managed before they disrupt depositor confidence and lead to contagion.¹⁴

8. Hoffman & Santomero, *supra* note 7, at 244–51; DAVID SCOTT, A PRACTICAL GUIDE TO MANAGING SYSTEMIC FINANCIAL CRISES: A REVIEW OF THE APPROACHES TAKEN IN INDONESIA, THE REPUBLIC OF KOREA, AND THAILAND 11 (World Bank Policy Research Working Paper, 2002).

9. See discussion *infra* Part III.A.1.

10. MAURICIO LARRAIN, HOW THE 1981–1983 CHILEAN BANKING CRISIS WAS HANDLED 2–3 (World Bank Working Paper, 1989); JOSE DE LUNA-MARTINEZ, MANAGEMENT AND RESOLUTION OF BANKING CRISES: LESSONS FROM THE REPUBLIC OF KOREA AND MEXICO 1–2 (World Bank Discussion Paper, 2000). For an explanation of why the government is the appropriate actor to bailout banking institutions, see GARY GORTON & LIXIN HUANG, LIQUIDITY, EFFICIENCY, AND BANK BAILOUTS 29 (Wharton Financial Institutions Center Working Paper, 2002).

11. Both Korea and Chile faced legal barriers to resolving failed institutions. See *infra* Part II.A.2–3.

12. See discussion *infra* Part III.A.3.

13. SCOTT, *supra* note 8, at 12.

14. Crises, like bank runs, can spread based on fear that banks will not have sufficient funds to pay all depositors. Once depositors of a single bank fear lack of repayment, this fear spreads to depositors at other institutions. See MACEY ET AL., *supra* note 7, at 57–58.

Even though banking crises are relatively frequent, the laws and regulations addressing crises should not be excessively comprehensive for two reasons. First, no two crises are the same. They often arise from unique structural issues, such as a mismatch between the economy and the financial institutions of a country, or from a regulatory gap.¹⁵ This regulatory gap may remain because authorities are unaware of its implications, because they lack the resources to fix it, or because they have political reasons for failing to correct the gap. Second, even when structural problems are foreseeable and a comprehensive crisis prevention plan is possible, such a plan may raise the problem of moral hazard.¹⁶ If the government makes it clear when and how it will intervene, there is an incentive on the part of banks to push the limits of intervention. Banks, as well as bank creditors, will take advantage of implicit discounts offered by credit guarantees or promised institutional bailouts.¹⁷

Nevertheless, though the nature of banking crises is such that each must be handled on a largely ad hoc basis, an analysis of several recent crises demonstrates that certain limited anticipatory regulations can facilitate the rapid management of the events. The failure of governments to have such regulations in place beforehand can lead to unnecessary delays that prolong the

15. A "regulatory gap" is a legal or supervisory gap through which organizations or individuals can act contrary to the purposes of the regulation.

16. Moral hazard is particularly troublesome in banking since regulators are less able to assess the riskiness of a bank's choices than the bank itself, making loan loss provisions difficult to assess: "The issue of moral hazard exists as a regulatory problem because of asymmetric information in circumstances where government regulators are unable to observe the riskiness that a guaranteed bank assigns to its own choices." Sergio De La Cuadra & Salvador Valdés, *Myths and Facts about Financial Liberalization in Chile*, in IF TEXAS WERE CHILE: A PRIMER ON BANKING REFORM 11, 37 (Philip L. Brock ed., 1992). Moral hazard is defined as "[t]he chance that a contract will change the risk-taking behavior of one or both of the involved parties." Investopedia, at <http://www.investopedia.com/terms/m/morahazard.asp> (last visited Mar. 15, 2005).

17. In CORDELLA, TITO & EDWARD LEVY YEYATI, BANK BAILOUTS: MORAL HAZARD VS. VALUE EFFECT (IMF Working Paper, 1999), the authors suggest that while the value from an ex ante commitment to a bailout policy outweighs moral hazard when the shock triggering the bank's crisis is exogenous to the bank manager's decision (e.g. adverse macroeconomic conditions), the benefits are measurably reduced if the shock is not exogenous, which is often the case in systemic banking crises. The risk of moral hazard is particularly acute in the case of deposit insurance. For a detailed discussion of the challenge of moral hazard in designing deposit insurance, see Gillian G. Holway Garcia, *Deposit Insurance*, in PREVENTING BANK CRISES: LESSONS FROM RECENT GLOBAL BANK FAILURES 255 (Gerard Caprio, Jr. et al. eds., 1998).

crisis and make it more expensive. This Note explores the benefits of limited, targeted anticipatory regulation for the management of systemic banking crises. It examines in detail the Chilean crisis of 1981, the American Savings and Loan (“S&L”) crisis of the 1980s, and the crisis in the Republic of Korea in 1997. In doing so, this Note identifies the types of legislation that are effective if in place in advance of a crisis, distinguishing those decisions that should be made on an as needed basis.

The examples of Chile, Korea, and the United States are particularly interesting because while each had a very different form of government, all three eventually implemented similar policies when managing their respective crises. Chile’s leadership was in the hands of a military dictator¹⁸ dedicated to a free market economy.¹⁹ Korea, a parliamentary democracy, acted under the heavy influence of the International Monetary Fund (“IMF”) to develop a crisis management plan, and took certain actions in exchange for a rescue package from the IMF worth about \$57 billion.²⁰ The United States encountered a different set of political forces as a representative democracy, working through its executive and legislative branches. The similarity in key management techniques across these different regimes highlights the importance and efficiency of these techniques in resolving banking crises.

Part II presents a detailed look at the factors that led to financial crisis in the three countries. Part III analyzes how the countries managed once crisis struck and distills from these experiences which regulations should be in place prior to a crisis. Part IV discusses the risks of having these regulations in place, ultimately demonstrating that the costs of failing to prepare far outweigh the risks of putting limited powers in place.

18. In 1973, Augusto Pinochet led a coup against the democratically elected socialist government of Salvador Allende.

19. Pinochet’s economic program was directed by a group of economists closely affiliated with the University of Chicago, based on the principles of classical economy colored by the teachings of Friedrich Hayek, who advocated a greatly diminished role for the government in economic planning. For further details, see Barbara Stallings & Philip Brock, *Economic Adjustment in Chile: 1973–1990*, in *POLITICAL AND ECONOMIC INTERACTIONS IN ECONOMIC POLICY REFORM* 78, 81–83 (Robert H. Bates & Anne O. Krueger eds., 1993).

20. Doowoo Nam & Benton E. Gup, *The Economic Crisis of South Korea*, in *INTERNATIONAL BANKING CRISES: LARGE-SCALE FAILURES, MASSIVE GOVERNMENT INTERVENTIONS* 107, 119 (Benton E. Gup ed., 1999).

II. HISTORICAL BACKGROUND — THE CAUSES OF BANKING CRISES

While in many respects each banking crisis is unique, close analysis of three recent crises in Chile, the Republic of Korea, and the United States, demonstrates certain common problems. Though the countries were in different stages of economic development and each crisis had a different trigger, several commonalities existed. Within each country a rapid growth in credit and a mismatch between assets and liabilities left the banking system fragile and vulnerable, and regulatory institutions failed to recognize this vulnerability as it arose. Korea and Chile's experiences demonstrate the vulnerabilities that a high-growth developing country might have if its supervisory institutions fail to keep pace with its development and lack experience in overseeing aggressive financial sector growth. The U.S. example illustrates that developed as well as developing countries encounter difficulties such as inadequate regulations or regulatory forbearance when managing crises. While the credit booms and asset/liability mismatches differed in Chile and Korea on one hand and the United States on the other, their presence in all cases indicated regulatory weakness that hindered the ability of the appropriate agencies to manage the crises once they commenced.

A. CREDIT BOOM OR LOOSE LENDING

A credit boom is a rapid expansion in short-term credit. While a credit expansion can fuel growth, it can also induce banks to misprice the risk associated with loans that they are competing to make. Credit booms are problematic when the loans violate the laws defining reasonable lending practices for the countries concerned, particularly capital adequacy.²¹ In all three of the coun-

21. "Capital adequacy" refers to the amount of capital a bank should have in house to maintain liquidity in the event that its assets (loans) fail to perform. The ratio of capital required is calculated on the basis of credit, market, and operational risks. Standards are set by the Basel Committee on Banking Supervision. While the Basel Committee does not have any binding supranational supervisory authority, its membership consists of the central banking authority of Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom, and the United States; and these nations and the countries to which they lend adhere to its principles.

tries analyzed, high levels of nonperforming loans and inadequate capital characterized their crises, though the causes of these poor portfolios differed between Chile and Korea versus the United States. An expansion in short-term credit to the private sector accompanied the economic booms in Chile and Korea.²² In both Chile and Korea, a reduction of government interference and/or ownership prior to their respective crises increased borrowing as more firms sought loans that banks could give more freely.²³ Poor monitoring of loan portfolios by the banks themselves and secondarily by regulatory institutions created a high risk that many loans would eventually be written off.²⁴ In the United States, deregulation of thrift institutions allowed them to expand into new, high-risk lending areas in which they had little experience, while lax supervision by the banks themselves and the designated regulatory institution allowed many of these new loans to be of poor quality.²⁵

1. *Chile's Credit Boom*

In Chile, credit flowed to newly formed conglomerates. The state development corporation, La Corporación de Fomento de la Producción ("CORFO"), privatized firms under state control, including nineteen banks.²⁶ The privatization process led to high

See A New Capital Adequacy Framework, at <http://www.bis.org/publ/bcbs50.htm> (last updated June 1999).

22. THE WORLD BANK, *supra* note 3, at 64. In 1982, Chile's credit to the private sector as a percent of GDP reached 84%; in Korea in 1996, it reached 75%.

23. See discussion *infra* Part II.A.1–2.

24. "[T]he liberalization of domestic financial systems and external capital accounts that took place in the late 1980's and in the 1990's occurred without an adequate strengthening of prudential regulation and supervision . . ." THE WORLD BANK, *supra* note 3, at 62–63. "Although Chile advanced substantially in liberalizing and increasing the efficiency of its banking system, it did not streamline its banking capabilities and prudential regulation at the same pace. In spite of the liberalization and increased competition, supervision continued to focus on reviewing compliance with accounting rules and related regulations, but did not concentrate on the overall risks affecting the operation of each bank. These risks became greater and more competitive in a deregulated environment." LARRAIN, *supra* note 10, at 10.

25. Ronald R. Glancz, *Thrift Industry Restructured: An Overview of FIRREA*, 36 FED. B. NEWS & J. 472 (1989).

26. Stallings & Brock, *supra* note 19, at 103–04 & tbl.3.7. The socialist government of Salvador Allende had brought many firms under state control. The Pinochet government returned these firms to their prior owners.

corporate leverage.²⁷ Privatizations rapidly delivered the previously state-controlled firms into the control of a few conglomerates, or *grupos*, which owned both banks and other kinds of firms.²⁸ Conglomerates could essentially lend to themselves from their own banks to purchase other subsidiaries.²⁹ Due to the ready availability of credit and de facto waiver of ownership limits, large conglomerates formed under the ownership of a few enterprising businessmen.³⁰ These conglomerates purchased newly privatized businesses largely on credit obtained not only from the

27. Corporate leverage is corporate debt. Large-scale privatization from 1974 to 1981 led to the creation of large conglomerates whose behavior resembled the crony capitalism of East Asia. Crony capitalism in both East Asia and in Chile was characterized by close relationships between banks and corporations, in which banks continue to lend to companies with the understanding that the government would bail out firms, and therefore banks, should the need arise. "High levels of corporate debt must be buffered by long-term financial relations between firms and banks, with the government standing ready to support both firms and banks in the event of shocks that affect swathes of the economy all at once (such as sharp rises in interest rates, or sharp falls in demand)." Robert Wade & Frank Veneroso, *The Resources Lie Within*, THE ECONOMIST, Nov. 7, 1998, at 19.

Despite the Pinochet government's commitment to deregulation, Stallings & Brock, *supra* note 19, at 103, the behavior of the *grupos* (corporate conglomerates), particularly high levels of self-lending, resembled the behavior of the *chaebols* (corporate conglomerates) in Korea, where there had been a history of government intervention. FELIPE B. LARRAIN & RAUL M. LABAN, FROM THE MILITARY TO DEMOCRACY: TWO DECADES OF CHILEAN ECONOMIC POLICIES 2 (Harvard Institute for International Development, Development Discussion Paper No. 612, 1997); Stallings & Brock, *supra* note 19, at 104 tbl.3.7.

28. Even relatively small business groups were able to acquire banks due to below-market terms, requiring "a 20% down payment, plus quarterly installments over the next two years at CPI variation plus 8% annual interest." De La Cuadra & Valdés, *supra* note 16, at 83, 441. While shares of the banks were sold in small blocks with limits of 3% ownership for an individual and 5% for a firm, "[w]ays were quickly found to get around these limits, and various economic groups gained control of the banks. According to one source, the government was completely aware of what was happening and made no effort to avoid it." Stallings & Brock, *supra* note 19, at 104–05. Many of these sales were financed through government credit and subsidies. Rolf J. Lüders, *Massive Divestiture and Privatization: Lessons from Chile*, CONTEMP. POL. ISSUES, Oct. 1991, at 11.

29. "The policy of privatizing banks before industries allowed relatively small business groups to acquire banks. The business groups were thus given access to the public's deposits, which were lent to the group itself and used to buy the industrial firms privatized by the government between 1976 and 1978." De La Cuadra & Valdés, *supra* note 16, at 83, 441 n.32. While no explicit deposit insurance existed until after the crisis in 1981, LARRAIN, *supra* note 10, at 15, the government's bailout of several medium and large financial institutions in 1977 left the public with the impression that deposits would in fact be guaranteed, at least in medium-sized and larger institutions, De La Cuadra & Valdés, *supra* note 16, at 55. Banks themselves counted on a government bailout based on this history. Guillermo Ramirez & Francisco Rosende, *Responding to Collapse: Chilean Banking Legislation*, in IF TEXAS WERE CHILE: A PRIMER ON BANKING REFORM 193, 197 (Philip L. Brock ed., 1992).

30. Stallings & Brock, *supra* note 19, at 105.

government and their own banks,³¹ but also from foreign creditors looking to “acquire new firms or to finance the operations of ongoing concerns.”³²

Restructuring of the newly privatized firms turned out to be much more expensive than the *grupos* had anticipated, leading to years of large losses.³³ The *grupos* accessed the credit market to cover these losses, putting pressure on Chilean interest rates.³⁴ An implicit government guarantee on deposits created depositor indifference to the financial health of banking institutions.³⁵ No appropriate supervisory framework was in place, however, leaving no mechanism to punish banks for excessive lending to *grupos*.³⁶ When the crisis hit, many of these conglomerates fell into insolvency, resulting in a major government bailout of banks. The costs of this bailout to the public sector was 42% of GDP from 1982 to 1985.³⁷

2. Korea's Credit Boom

In Korea, bank credit grew by 34% over the period between the end of 1994 and the end of 1996.³⁸ While the government eventually imposed limits on lending between connected entities and credit exposure to a single entity,³⁹ preventing banks from increasing lending to domestic conglomerates,⁴⁰ these conglomerates, or *chaebols*, were able to receive additional leverage from alternative institutions such as merchant banks, insurance companies, and investment trusts.⁴¹ While commercial banks were owned mostly by small shareholders — no single shareholder was allowed to hold more than 4% of the equity of a bank — most of the thirty merchant banks were owned by the *chaebols* them-

31. SEBASTIAN EDWARDS, *CRISIS AND REFORM IN LATIN AMERICA: FROM DESPAIR TO HOPE* 187 (1995).

32. *Id.*

33. *Id.*

34. *Id.*

35. *See supra* note 17.

36. LARRAIN, *supra* note 10, at 10.

37. CAPRIO & KLINGEBIEL, *supra* note 2, at 8.

38. DE LUNA-MARTINEZ, *supra* note 10, at 4.

39. TOMAS J.T. BALIÑO & ANGEL UBIDE, *THE KOREAN FINANCIAL CRISIS OF 1997 — A STRATEGY OF FINANCIAL SECTOR REFORM* 13 (IMF Working Paper, 1999).

40. *Id.*

41. DE LUNA-MARTINEZ, *supra* note 10, at 4.

selves.⁴² A history of heavy government involvement in directing lending to *chaebols* as a strategy for development compounded this leverage problem.⁴³ This directed lending created a legacy of loose supervision over *chaebol* lending in the financial sector.⁴⁴

Banks in turn were equally dependent on these conglomerates as their largest customers.⁴⁵ The legacy of government-directed lending created an implicit assumption of government guarantees behind loans to the *chaebols*.⁴⁶ Banks, therefore, did not fully undertake the risk management and control that would have been appropriate absent these guarantees.⁴⁷ In addition to the moral hazard stemming from an expectation that the *chaebols* were “too big to fail” (creating a presumption of a government bailout in the event of a failure), banks were further weakened by bad loans inherited from the years of policy lending.⁴⁸ Finally, banks turned increasingly to foreign creditors, often borrowing at short maturities, to supply capital to the *chaebols*.⁴⁹ As the con-

42. BALIÑO & UBIDE, *supra* note 39, at 7, 10.

43. In a deliberate strategy to diversify its economic base and increase exports, the Korean government selected certain firms to dominate chosen industries (controlled by government license) and provided highly subsidized credit via the banking sector. Nam & Gup, *supra* note 20, at 112. Korea had a history of heavy government involvement in key economic sectors. The government developed an export-led growth strategy, led by particular protected industries, subsidized through favorable interest rates. *Id.* at 112–13; *see also* BALIÑO & UBIDE, *supra* note 39, at 11–12 (“During the 1960s and 1970s, Korea embarked on an outward-oriented industrialization strategy spear-headed by large industrial firms (*chaebols*) which were fostered by government policies. The financial system played a central role in this strategy by intermediating Korea’s substantial household savings to finance investment and expansion by export-oriented firms.”). While interest rates were gradually liberalized through the 1990s, the *chaebols* continued to rely heavily on bank loans. BALIÑO & UBIDE, *supra* note 39, at 13.

44. Nam & Gup, *supra* note 20, at 112, 116.

45. BALIÑO & UBIDE, *supra* note 39, at 16.

46. Nam & Gup, *supra* note 20, at 116 (“Both *chaebols* and banks were considered too big to fail.”).

47. “Reflecting the history of directed lending, banks did not insist, or receive, full financial information from *chaebols*. In addition, basic accounting, auditing, and disclosure practices were significantly below international best practice.” BALIÑO & UBIDE, *supra* note 39, at 16.

48. *See* BALIÑO & UBIDE, *supra* note 39, at 11–12.

49. THE WORLD BANK, *supra* note 3, at 60–61. More specifically,

The chief external source of vulnerability arose not from major macroeconomic imbalances but from a rapid buildup from the late 1980s onward of risky forms of leverage on the balance sheets of financial institutions and nonfinancial corporations, in particular short-term foreign currency debt in excess of foreign currency resources available on short notice. . . . The large [interest] rate differentials created incentives for unhedged foreign currency borrowing, especially at short maturities, which carried the lowest rates.

glomerates experienced a growth boom in the mid-1990s, weak regulatory supervision allowed increasingly risky loans with an inadequate capital base.⁵⁰

3. *The U.S. Credit Boom*

While Chile and Korea's credit booms took place during a time of transition from heavy government involvement to much greater private sector control, the growth in S&L lending in the United States developed during a much less dramatic period of deregulation.⁵¹ S&Ls, established during the Depression as part of New Deal legislation,⁵² existed to provide lending and liquidity to the housing market as part of a public policy to encourage home ownership.⁵³ This same Act established the Federal Home Loan Bank System, which provided liquidity and low-cost financing for S&Ls.⁵⁴ This agency regulated and chartered federal S&Ls as well as provided insurance through its Federal Savings and Loan Insurance Corporation ("FSLIC") subsidiary.⁵⁵ The thrift industry had been limited to mortgage lending since its inception.⁵⁶ In the early 1980s, however, Congress passed two laws, the Depository Institutions Deregulation and Monetary Control Act of 1980 and the Garn-St. Germain Act of 1982, that allowed thrifts to offer a greater variety of both saving and lending prod-

Id.

50. *See supra* note 22.

51. S&Ls are the most common form of thrifts, institutions are organized primarily as a depository for consumer savings. Thrifts were able to expand their product range away from traditional functions into commercial and government lending due to deregulation during the 1980s. This deregulation also led to widespread abuse by S&Ls, which used government insured deposits to engage in speculative investments, in particular real estate lending, leading to the S&L crisis when the real estate market declined. *See* JOHN DOWNES & JORDAN ELLIOT GOODMAN, *DICTIONARY OF FINANCE AND INVESTMENT TERMS* 604 (4th ed. 1995).

52. The Federal Home Loan Bank Act of 1932, 47 Stat. 725.

53. The legislation creating S&Ls also created the Home Loan Bank system, the Home Owners' Loan Corporation, and the Home Owners' Loan Act. Finally, the federal and qualified state S&Ls were insured by the Federal Savings and Loan Insurance Corporation, part of the Federal Home Loan Bank Board. For further information, see Carl Felsenfeld, *The Savings and Loan Crisis*, 59 *FORDHAM L. REV.* S7, S8-9 (1991).

54. Federal Deposit Insurance Corporation ("FDIC"), *An Examination of the Banking Crises of the 1980s and Early 1990s* 170, available at <http://www.fdic.gov/bank/historical/history/vol1.html> (last visited February 8, 2005).

55. *Id.* Note the contrast to the commercial banking system, for which the insurer (the FDIC) is an independent agency. *Id.*

56. Home Owners' Loan Act, 12 U.S.C. § 1464 (1933).

ucts.⁵⁷ These changes were intended to allow banks to “grow out” of their problems by expanding into new lending areas.⁵⁸ Policy-makers hoped that by expanding outside the mortgage area, S&Ls could invest in higher return areas and regain profitability. Non-mortgage lending from S&Ls did expand,⁵⁹ but this expansion merely allowed the crisis to grow to an even more costly level due to poor decisions about where to invest: “S&Ls invested in everything from casinos to fast food franchises, ski resorts, and windmill farms. . . . [However] high-risk development loans and the resultant mortgages on the same properties were the most likely the principle cause of thrift failures after 1982.”⁶⁰

B. MISMATCH OF ASSETS AND LIABILITIES

Mismatches between assets and liabilities, like credit booms, indicate regulatory weakness. These mismatches, whether on the basis of maturity periods, currency, or some other characteristic, leave banks vulnerable to insolvency. For example, if a bank's liabilities are short-term, but its assets are long-term, the bank may be insufficiently liquid to pay off depositor demands. Where a mismatch between the currency basis of assets and liabilities exists, a change in exchange rates leading to a devaluation in assets in comparison to liabilities can render banks unable to service their liabilities. The banking crises in Chile, Korea, and the United States illustrate the role that such mismatches play in widespread bank insolvency. High short-term foreign debt played a significant role in the crises of Chile and Korea. Meanwhile, a mismatch in the maturity period of assets and liabilities was central to the U.S. Savings and Loan crisis.

1. *Chile and Korea: High Short-Term Foreign Debt*

Both Chile and Korea struggled with high short-term foreign debt during their respective crises. The fixed exchange rate sys-

57. Glancz, *supra* note 25.

58. *Id.*

59. The percent of S&L assets consisting of mortgage lending dropped from 78% in 1981 to 56% in 1986, while the total S&L assets increased from \$640 billion in 1981 to \$1162 billion in 1986. FDIC, *supra* note 54, at 168, 179.

60. *Id.* at 180.

tem implemented in Chile in 1979 exacerbated the problem of excess lending to conglomerates discussed above.⁶¹ Because of these fixed rates, many of the loans used by conglomerates during privatization were dollar-denominated in order to take advantage of the relatively lower dollar interest rates and exchange rate guarantee through unhedged borrowing.⁶² This high short-term dollar-denominated leverage left Chile vulnerable to changes in interest rates.⁶³

By 1981, Chile had accumulated foreign debt close to \$16 billion, almost 60% of which was contracted at variable rates tied primarily to the London Interbank Offered Rate (“LIBOR”).⁶⁴ Short-term debt over foreign reserves — a measure used by the World Bank and IMF to determine the ability of a country to meet its current obligations from its own liquid resources — was close to 100%, with a short-term debt of \$3 billion and foreign reserves of \$ 3.1 billion.⁶⁵

Korea faced a similar situation. While exchange rates were not fixed, banks relied increasingly on foreign borrowing to fund loans to *chaebols*.⁶⁶ The majority of these foreign loans had short-term maturities, creating mismatches in bank balance sheets.⁶⁷ Short-term debt over foreign reserves rose to well over 100% by mid-1997.⁶⁸ The reliance on short-term debt stemmed largely from a regulatory anomaly. Banking regulations favored domestic banks over foreign direct investment or disintermediation, i.e., direct borrowing by corporations.⁶⁹ At the same time, “[r]estrictions against short-term foreign borrowing by financial institutions were relaxed, while limits on long-term borrowing and foreign participation in domestic equity and bond markets were

61. Stallings & Brock, *supra* note 19, at 96; *see also* discussion *supra* Part II.A.

62. LARRAIN, *supra* note 10, at 5, 9. Dollar-denominated debt is debt that is issued in dollars.

63. The devaluation of the currency after the crisis resulted in a substantially higher real cost to banks to service dollar-denominated loans.

64. *See* LARRAIN & LABAN, *supra* note 27, at 4. LIBOR is the rate at which banks charge each other for large loans. It is often used as the basis for large Eurodollar loans to less creditworthy borrowers (for example, a loan at one percent over LIBOR). *See* DOWNES & GOODMAN, *supra* note 51, at 310.

65. INTERNATIONAL MONETARY FUND, INTERNATIONAL FINANCIAL STATISTICS (1998).

66. *See supra* note 49 and accompanying text.

67. *See* THE WORLD BANK, *supra* note 3, at 60, 64.

68. *Id.* at 61.

69. BALIÑO & UBIDE, *supra* note 39, at 22.

retained, encouraging the development of large maturity mismatches in banks' balance sheets.⁷⁰ Banks used short-term foreign borrowing for long-term loans to Korean companies, leaving the banks extremely vulnerable to changes in the exchange rate.⁷¹

2. *The U.S. S&L Crisis: Maturity Mismatch*

Federal S&Ls were limited to making home loans. In theory under dual banking⁷² states could provide some latitude to S&Ls in terms of allowable lines of business. However, because the FSLIC insured both state and federal institutions and thereby had the power to approve their operations, state S&Ls were effectively limited to home lending as well.⁷³ While legislative changes eventually allowed S&Ls to expand into other areas of lending,⁷⁴ this expansion did not change the underlying mismatch in the core product base of assets and liabilities. Mortgages, the sole asset of S&Ls, were primarily fixed-rate and long-term.⁷⁵ Furthermore, until the passage of the Depository Institutions Deregulation and Monetary Control Act of 1980, S&Ls were limited in the amount of interest they could charge for mortgages, largely because of public policy concerns about limiting the cost of mortgages for homeowners.⁷⁶ The source of funds for these loans, consumer deposits, was subject to variable interest rates. S&Ls were forced to pay market rates in order to retain deposits, or depositors would simply move their accounts to other institu-

70. *Id.* at 22. By the end of 1997, short-term assets covered only 55% of short-term liabilities in commercial banks, and 25% in merchant banks. *Id.*

71. A devaluation of the local currency, as took place in 1997 in Korea and in 1981 in Chile, would increase the cost in local currency of serving foreign debt.

72. "Dual banking" refers to joint state and federal chartering and management of banks in the United States.

73. Felsenfeld, *supra* note 53, at S10.

74. See discussion *supra* Part II.A.3.

75. Glancz, *supra* note 25. At the time of the S&L crisis, mortgage rates were limited by usury laws at the state level, in many cases to no more than 8%. See Cathy Lesser Mansfield, *The Road to Subprime "HEL" Was Paved with Congressional Good Intentions: Usury Deregulation and the Subprime Home Equity Market*, 51 S.C. L. REV. 473 (2000). Usury laws are essentially state laws and vary by state. MACEY ET AL., *supra* note 7, at 157.

76. Though Congress had discussed lifting the interest rate ceiling from the time of the historically high interest rates in the early 1970s, no legislation was enacted due to policy concerns. For further information, see FDIC, *supra* note 54, at 217.

tions.⁷⁷ Once interest rates hit their record highs in the early 1980s, the cost of funds vastly outstripped the income earned from mortgages, and the S&Ls became largely unprofitable.⁷⁸

C. THE CRISIS TRIGGER

In Chile and Korea, given the underlying weak structure of the banking systems — portfolio concentration, increasing numbers of bad loans, mismatch of maturities on balance sheets, and foreign exchange exposure — a trigger such as regional contagion was sufficient to instigate a full-scale crisis. In the United States, the magnitude of thrift institution losses, triggered by historically high interest rates and exacerbated by the maturities mismatch, eventually forced these institutions into insolvency.

Chile and Korea had similar economic conditions in the years leading up to their respective crises. Both countries had economic booms supported by rapid deregulation.⁷⁹ Both experienced credit booms, highly leveraged firms, high domestic interest rates, and large, unhedged capital inflows taking advantage of an interest rate differential.⁸⁰ In both cases, these problems mushroomed due to a weak regulatory and supervisory framework in the financial sector. While both countries had undergone a period of extensive deregulation in the financial sector⁸¹ and integration into the world economy, neither country had institutional and regulatory development which kept pace with this fi-

77. *Id.* Several commentators attribute the crisis to the availability of federal deposit insurance. They argue that the presence of insurance created moral hazard on the part of banks to gamble with depositor funds, as depositors would ultimately be compensated, while attracting these funds by paying high interest rates. See, e.g., Richard J. Herring, *Banking Disasters: Causes and Preventative Measures, Lessons Derived from the United States Experience*, in PREVENTING BANK CRISES: LESSONS FROM RECENT GLOBAL BANK FAILURES 209, 225 (Gerard Caprio, Jr. et. al. eds., 1998); Glancz, *supra* note 25. But see Barth & Litan, *supra* note 5, at 145.

78. S&L industry income sank from \$781 million in 1980 (already low when spread over 3993 existing institutions) to negative \$4.6 billion in 1981. FDIC, *supra* note 54, at 168.

79. See *supra* Part II.

80. VITTORIO CORBO & STANLEY FISCHER, *Lessons from the Chilean Stabilization and Recovery*, in THE CHILEAN ECONOMY: POLICY LESSONS AND CHALLENGES 29, 32 (Barry Bosworth et al. eds., 1994); Karen B. Kaufman, *The Chilean Model: Then and Now* 5 (Harvard Business School Case No. N9-700-045, 1999); THE WORLD BANK, *supra* note 3, at 59–64.

81. For detail on the Chilean deregulation process, see EDWARDS, *supra* note 31, at 186. For detail on the Korean situation, see Nam & Gup, *supra* note 20, at 110–11.

nancial liberalization.⁸² Like the Chilean and Korean economies, the U.S. S&Ls had credit booms and asset/liability mismatches. Despite the existence of fully formed regulatory institutions, however, S&Ls were also riddled with fraud and mismanagement. "Simple incompetence by inexperienced operators mixed with fraud resulted in badly conceived loans and investments, loans to officers and directors, sweetheart loans to affiliated businesses, cooking the books, bribery and outright embezzlement."⁸³ The Congressional banking committee estimated that fraud occurred in 70% of failed S&Ls.⁸⁴ The underlying disintegration of the financial systems as described above left all three countries vulnerable to the trigger which led to the crisis. Once the crises were underway, however, all three countries, at various speeds, converged on certain similar actions which would have ameliorated the crises more effectively had they been devised beforehand rather than devised through trial and error during a time of crisis.

III. MANAGING THE CRISES

Excessive lending, poorly structured balance sheets due to mismatched assets and liabilities, and mismanagement can lead to crisis and also must be resolved in order to end a crisis. A detailed examination of the situations in Chile, Korea, and the United States reveals certain actions required for effective management of a banking crisis. As the experiences in these countries demonstrate, however, knowing what to do and having the power to do it are two very different issues. Without the legal authority to act, governments will either fail to act, losing precious time during which confidence could have been restored, or they will act extra-judicially, potentially creating dangerous precedent.

Despite the differences in approach among the three countries, the same specific types of legislation were necessary for recovery. Analysis of the impetus for the initial intervention, the methods

82. Kaufman, *supra* note 80, at 4–5.

83. Felsenfeld, *supra* note 53, at S34.

84. *Id.* at S28 (citing *Questions and Answers on "The Thrift Industry Crisis of the 1980s: What Went Wrong?"* in *The Future of the Thrift Industry*, Proc. of the 14th Ann. Conf., Fed. Home Loan Bank of San Francisco 61, 63 (1988)).

by which the governments chose to intervene and the regulation created to support their actions reveals the necessary legislation. Prior to the crisis, the supervisory authorities in each country lacked either the will (as in the cases of Chile and the United States) or the authority (as in the case of Korea) to undertake the necessary aggressive measures.⁸⁵ In the wake of their respective crises, all three countries created or revitalized an agency with the mandate to intervene, as necessary, either to recapitalize institutions or to force liquidation and protect depositors by transferring accounts to viable institutions.⁸⁶ In addition, in Chile and the United States, enforcement of criminal penalties created further incentives for management to cooperate in good faith to maintain the health of the institutions under their control.⁸⁷ These ingredients contributed to the successful recovery the countries enjoyed.⁸⁸

Two broad lessons thus emerge from manner in which Chile, Korea, and the United States managed their respective crises. First, *prior* to a crisis, a specific agency or organization must have the responsibility to intervene in the event of a bank failure and to determine when to take aggressive action in the event of a more widespread crisis. Second, this agency or organization must possess the authority and financial resources to stop activities which in its judgment endanger the health of the bank and depositor accounts. Moreover, bank managers and directors must believe that this agency will indeed act and must face credible penalties should they put their banks at risk of failure through gross mismanagement or fraud.

85. See *infra* Part III.B.1.a.

86. See *infra* Part III.B.1.a.

87. See *infra* Part III.B.1.c.

88. In the years subsequent to its crisis, Chile experienced real GDP growth of about 7% per annum. ECONOMIST INTELLIGENCE UNIT, COUNTRY PROFILE: CHILE (1996–1997); ECONOMIST INTELLIGENCE UNIT, COUNTRY PROFILE: CHILE (1997–1998); ECONOMIST INTELLIGENCE UNIT, COUNTRY PROFILE: CHILE (1998–1999). In Korea the, “[g]ross domestic product grew a higher-than-expected 9.8% in the second quarter of 1999, compared with a contraction of 7.2% a year earlier, the Bank of Korea said.” Michael Schuman, *GDP Rises 9.8% in South Korea, Topping Estimates*, WALL ST. J., Aug. 20, 1999, at A9.

A. DESIGNATING A RESPONSIBLE AGENCY

As the Chilean and U.S. examples make clear, the reluctance of the government to acknowledge the existence of banking crises often prolongs and exacerbates them. Lack of political resolve is a challenge confronted by all governments at the start of a banking crisis, because no regime wants to admit to having a bank crisis on its watch. Furthermore, the declaration of a crisis can precipitate one, creating panic, runs, and a liquidity crisis that did not exist prior to the declaration.⁸⁹ This lack of political resolve can be mitigated by the existence, prior to a crisis, of a strong, independent agency that monitors banks and is effectively empowered to intervene without waiting for additional grants of power. Unlike the central government, lack of political resolve would not hinder this agency.

Failure to have such an agency in place before a crisis hits results in costly inertia and delay, as evidenced by the crises in Chile, Korea, and the United States. In all three countries, initial intervention came not from an agency designated to oversee the failed banking institutions but from the central governments.⁹⁰ These governments eventually assumed authority to intervene, demonstrated to financial institutions a willingness to intervene, and mustered the resources to do so. It was not until after this initial intervention, at various stages in their respective crises, that Chile, Korea, and the United States passed legislation placing the supervisory resources and authority into a new or revitalized organization to deal with the aftermath of their crises as well as any future crises that may arise. The delay in crisis management, however, allowed the crises in all three countries to grow and spread, increasing the cost of their eventual resolution.

89. A rational depositor, having been informed of a possibility of broad-based insolvency, would withdraw her funds from the financial system. "Perhaps the most disturbing feature of a bank run is its odd juxtaposition of mass irrationality with individual rationality. A bank run serves no one's best interest. . . . Nevertheless, once a bank run begins, every depositor has an individual self-interest in joining the run. Depositors at the front of the line will get paid in full while depositors at the end of the line are likely to suffer losses." MACEY ET AL., *supra* note 7, at 58.

90. See *infra* Part III.A.2-3.

1. *The Problem of Denial*

In Chile, Korea, and the United States, each government's first instinct was to ignore the problem and hope it would go away. For instance, in Chile, as crisis loomed in 1981 and 1982, banks were allowed to hide rather than reflect losses.⁹¹ Mechanisms for hiding, or at least deferring, losses included reflecting loans that were 90 days rather than 30 days past due, exceptions to the maximum debt to equity ratio, and extra time to build up provisions to cover potential loan losses.⁹² These sorts of delays resulted in added expense and again highlight the need for the supervisory agency to have the ability to intervene quickly. By the time the government has the resolve to face the crisis, the problems might be quite severe. In the United States, the government was also slow to recognize the extent of the S&L crisis. "Reluctant to deal with a very hot political potato, the Congress, the Bank Board, and the Reagan Administration, continually understated the magnitude of the S&L crisis, thereby delaying its resolution and adding to the cost of resolving the problem."⁹³

2. *Designating the Agency*

Chile and the United States both had designated regulatory institutions to oversee the sectors in which their respective crises took place, while Korea did not. Clearly, given their failure to execute an expeditious intervention, the regulatory bodies in Chile and the United States had an insufficient mandate. Chile's supervisory agency, the Superintendency of Banks and Financial Institutions ("SBIF"), had existed since 1975 to monitor banks and prevent excessive risk-taking.⁹⁴ Nonetheless, it failed to act when signs of the crisis first emerged.

91. Bank management defers losses in the hopes of recovering the banks' position before they must officially declare insolvency. "[B]ank management is faced with conflicting motivations. On the one hand, adverse operational results in the bank make prompt action necessary to minimize the cost of adjustment. On the other, there is a strong tendency to defer adjustment as long as possible to try to reverse the unfavorable results and preserve the status of the bank president or director." Ramirez & Rosende, *supra* note 29, at 207.

92. LARRAIN, *supra* note 10, at 15.

93. Glancz, *supra* note 25.

94. BANKWATCH, BANKING SYSTEM REPORT: CHILE 2 (1998).

In the United States, while the majority of S&Ls were insolvent in the early 1980s, it was not until 1989 that regulatory forbearance gave way to intervention. Several hundred institutions either reported insolvency or were known by regulators to be insolvent from 1982 to 1986. Nonetheless, industry assets were allowed to continue to grow as banks made riskier and riskier investments in the hopes of saving themselves.⁹⁵ In the early 1980s, about two-thirds of federally insured institutions were insolvent; however, the funds of FSLIC would have been inadequate to pay off depositors of these institutions, and supervisory authorities were reluctant to admit the magnitude of the crisis.⁹⁶ By the late 1980s, the crisis was too large to ignore, and in 1989, the Bush Administration created the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (“FIRREA”).⁹⁷

Having a pre-designated agency was not sufficient in Chile or in the United States to ensure appropriate crisis intervention. Both countries fundamentally restructured these institutions during their banking crises, imbuing the agencies with greater power and independence. Korea created a single “super agency” during its crisis.

3. *Ensuring Sufficient Power and Independence*

Designating the supervisory body is step one in crisis management; step two is making sure that this agency has sufficient power and independence to act effectively when crisis strikes. Regardless of the structure, the agency must be able to act independently of the executive branch in order not to be hindered by the executive’s lack of political resolve.⁹⁸ Without independent action, the monitoring body will be subject to the same sort of delay and denial to which the executive branch is prone.⁹⁹ In the wake of their crises, all three countries imbued the agencies chosen to oversee the banking sector with far greater power and independence. In Korea, the new laws passed in 1997 increased the independence of the Bank of Korea, placed supervisory authority

95. Barth & Litan, *supra* note 5, at 147–48.

96. Herring, *supra* note 77, at 222–23.

97. Pub. L. No. 101–73, 1989 HR 1278, 103 Stat. 83 (1989).

98. *See infra* Part III.A.4.

99. *See infra* Part III.A.4.

in the independent Financial Supervisory Commission (“FSC”), and created the Korea Deposit Insurance Corporation (“KDIC”) as an independent agency.¹⁰⁰ In Chile, the SBIF reported to the ministry of finance rather than to the president, though the president did appoint the superintendent.¹⁰¹ Similarly, in the United States after the S&L crisis, the FDIC gained exclusive control over deposit insurance for all banking institutions, primary responsibility for the disposition of failed institutions, and independent enforcement authority in the event of regulatory violations.¹⁰²

In Chile, the SBIF clearly failed in its mission in the years between its inception and the advent of the crisis.¹⁰³ Regulation in the wake of the crisis substantially increased its power, however, and it developed a reputation as the region’s most effective bank regulator.¹⁰⁴ The 1986 legislation changed the SBIF from a rather anemic institution into one which was “respected and feared.”¹⁰⁵ In particular, it gave the SBIF¹⁰⁶ broad authority to adopt emergency measures, allowing the superintendent to take any measures to correct bank “irregularities” and to protect the interests of depositors and other creditors “of public interest.”¹⁰⁷ The SBIF could intervene to induce the re-capitalization of a bank when necessary.¹⁰⁸ The SBIF also garnered the power to force liquidation if an institution is insolvent, with the prior approval of the Central Bank¹⁰⁹ and the power to transfer accounts

100. BALIÑO & UBIDE, *supra* note 39, at 31.

101. BANKWATCH, *supra* note 94, at 2.

102. *See* Glancz, *supra* note 25.

103. More specifically,

Before liberalization, the main functions of the bank regulators were to enforce the interest rate and credit controls dictated by the monetary authority. Their role was confined to seeing that requirements were fulfilled; paying attention to the quality of the banks’ assets was not required. There was as a result virtually no capacity to control risks assumed by banks.

De La Cuarda & Valdez, *supra* note 16, at 25–26.

104. BANKWATCH, *supra* note 94, at 2.

105. Interview with Felipe Larrain, Economist, Harvard Institute of International Development, in Cambridge, Mass. (March 31, 1999).

106. For further explanation of the legislation, see Ramirez & Rosende, *supra* note 29, at 200–201.

107. General Law of Banks of Chile, at <http://www.sbif.cl/sbifweb/servlet/LeyNorma?indice=3.4&idContenido=1102> (last modified Apr. 14, 2004).

108. *Id.*

109. *Id.*

from an institution in forced liquidation to a more viable institution.¹¹⁰

The Korean government created the FSC in 1997 to assume responsibility for crisis resolution.¹¹¹ Multiple agencies became involved with banking regulation and management. The FSC also oversaw the creation of the Financial Supervisory Service, the agency that would integrate all aspects of financial supervision.¹¹² Korea acted to strengthen its deposit insurance system, submitting legislation in December 1997 which granted the relevant agencies such as the KDIC the right to issue bonds sufficient to meet the 100% deposit guarantee.¹¹³ At the outset of the crisis in Korea, the KDIC had neither the authority to put banks in liquidation and immediately begin paying depositors, nor the authority to transfer deposits from sick to healthy institutions. This lack of authority created unnecessary delays.¹¹⁴

In February 1998, the Korean government assumed control over the banks under its supervision and removed their management teams.¹¹⁵ To facilitate this management change, new amendments to legislation that allowed the supervisory body to write down the equity of the owners prior to takeover to absorb the existing losses were passed.¹¹⁶ Finally, in February of 1998, legislation was submitted that would give the supervisory body the clear legal authority to close insolvent financial institutions.¹¹⁷

While the KDIC insured deposits and the Bank of Korea provided emergency liquidity, the Korean Asset Management Corporation ("KAMCO") purchased non-performing loans to restructure banks' balance sheets.¹¹⁸ Its purchases, however, were limited to only three types of institutions: banks that had absorbed weaker banks, banks that were the result of a merger between two weak

110. *Id.*

111. BALIÑO & UBIDE, *supra* note 39, at 31.

112. SCOTT, *supra* note 8, at 18.

113. KOREA'S ECONOMIC REFORM MEASURES UNDER THE IMF PROGRAM 216 (Chan-Hyun Sohn & Junsok Yang eds., 1998) [hereinafter "KOREA'S ECONOMIC REFORM MEASURES"].

114. SCOTT, *supra* note 8, at 18.

115. KOREA'S ECONOMIC REFORM MEASURES, *supra* note 113, at 216.

116. *Id.*

117. *Id.*

118. DE LUNA-MARTINEZ, *supra* note 10, at 20-21.

banks, and banks that were the result of a merger between a weak and a strong bank.¹¹⁹ As of September 1998, KAMCO purchased these loans at 45% of the loan's face value for secured loans and 3% for unsecured loans,¹²⁰ assuming both the initial loss and any potential future gain. In 1998, KAMCO restructured into a "bad bank,"¹²¹ similar to the Resolution Trust Company in the United States created to resolve failed thrifts during the S&L crisis, in order to strengthen its ability to manage and dispose of the assets it had purchased.¹²²

Also in February 1998, Korea enacted a financial reform bill to strengthen bank supervision. This bill clarified the role of the Bank of Korea (the central bank), consolidated and strengthened bank supervision, and required corporations to file consolidated balance sheets, all of which made the actual debt that conglomerates were carrying more transparent.¹²³

In the United States, FIRREA abolished existing ineffective regulatory and insurance bodies for thrifts.¹²⁴ The FDIC, an independent agency, obtained deposit insurance responsibility, the authority to dispose of failed institutions, and the ability to take action against safety and soundness violations in any insured institution, replacing the discredited FHLBB and FSLIC.¹²⁵ The FDIC examiners had greater experience and better pay than their counterparts at the FHLBB.¹²⁶ Credit supervision went to the Federal Housing Finance Board, which created the Office of Thrift Supervision ("OTS") to regulate federally insured S&Ls.¹²⁷ Under FIRREA, if the OTS judged an institution to be unsound, the Director of the OTS could appoint, *ex parte* and without no-

119. *Id.* at 19.

120. *Id.* at 20.

121. A "bad bank," known as a "bridge bank" in the United States, acquires the nonperforming loans of troubled institutions to strengthen those institutions' balance sheets. In addition, these banks perform such functions as workout programs for nonperforming loans and more efficient asset disposal. BALIÑO & UBIDE, *supra* note 39, at 39. In the United States, bridge banks are authorized under 12 U.S.C. § 1821(n) as temporary repositories of the business of a failed institution during the period in which the FDIC is resolving the institution. MACEY ET AL., *supra* note 7, at 744.

122. BALIÑO & UBIDE, *supra* note 39, at 39.

123. KOREA'S ECONOMIC REFORM MEASURES, *supra* note 113, at 216.

124. Glancz, *supra* note 25.

125. *Id.*; FDIC, *supra* note 54, at 172.

126. FDIC, *supra* note 54, at 171, 177

127. *Id.*

tice, a conservator to take over the institution's operations.¹²⁸ FIRREA also created the Resolution Trust Company ("RTC"), which would work out institutions by merging or liquidating thrifts placed into receivership or conservatorship from 1989 to 1992.¹²⁹ The RTC sold the assets of about 750 failed S&Ls and paid depositors of these institutions.¹³⁰

4. *Why an Independent Agency May not be Sufficient*

Empowering a specific agency to intervene, as Chile and Korea did, and providing them with the legal tools to implement the intervention, can be critical to overcoming political barriers to action. Agency empowerment alone, however, may not be sufficient, as the U.S. experience demonstrates. While FSLIC had the power to intervene, it lacked the political will to do so.¹³¹ As interest rates declined in the early 1980s from what had been their highest level in decades, it was reasonable to hope that a drop in interest rates would save the S&L industry, and regulators pinned their inaction on this hope.¹³² Nonetheless, regulatory standards exist for these difficult situations, and history has shown that early intervention would have been a far less costly alternative to a delayed bailout.¹³³

In addition to lacking political will, an untested agency may lack credibility with the sector it is meant to regulate. In countries in which regulatory agencies have been historically lax, the threat of intervention during a time of crisis is not very credible and therefore unlikely to deter harmful or risky behavior on the part of banks. In both Chile and Korea, the critical agencies gained stature during their respective crises as a result of their actions as well as the new legislation.¹³⁴

128. William W. Mahood, *Due Process Considerations in the Federal Takeover of Savings and Loan Associations: The Case for a Hybrid Manner of Review*, 40 U. KAN. L. REV. 1065, 1065 (1991).

129. Glancz, *supra* note 25.

130. Timothy Curry & Lynn Shibus, *The Cost of the Savings and Loan Crisis: Truth and Consequences*, FDIC BANKING REV. (2000), at 26, available at http://www.fdic.gov/bank/analytical/banking/2000dec/brv13n2_2.pdf (last visited Feb. 13, 2005).

131. *See supra* Part III.A.1.

132. Herring, *supra* note 77, at 222–23.

133. *Id.* at 224–25.

134. *See supra* Part III.A.3.

While the financial sectors respect these agencies today, none has been challenged by a subsequent crisis, so it is difficult to know if their past strong performance creates a future disincentive for bank regulatory violations. Some lessons may be drawn from Chile's recent experience, however. During the Asian financial crisis that so significantly affected Korea, Chile's banking system remained healthy, despite a drop in foreign investment of more than 40% in the first half of 1998 and a drop in copper exports, its key product.¹³⁵ How much of this banking system strength during this difficult period could be attributed to a strong regulatory agency cannot be measured, but certainly the agency's increased credibility and authority had some positive effect.

B. FORMALIZING AUTHORITY THROUGH LEGISLATION

The authority needed by the agency selected to manage crises can be authorized through a specific set of laws. Legislation detailing the overall management of a crisis is unwise, as discussed earlier, because of the unpredictability of crises (and therefore the unlikelihood that the crisis would conform to the legislation) and the moral hazard arising when the events that trigger intervention are specified.¹³⁶ Certain legislation, however, will aid agencies in the rapid, effective, cost-minimizing management of crises. This legislation should be targeted at the major issues that governments must invariably address in a banking crisis. These issues are (1) the liquidity crisis and concurrent confidence problems and (2) the restructuring of nonviable or potentially nonviable institutions to stop losses from continuing and to resolve failures.

1. *Legislation to be Adopted*

To address crisis issues most effectively, legislation should be in place that allows the agency to address the problems of depositor protection and bank restructuring. The independent supervisory agency must have the power to intervene when an institu-

135. Lucy Conger, *Is Chile's Model Up to the Job?*, INSTITUTIONAL INVESTOR, Sept. 1998, at 95.

136. *See supra* Part I.

tion is not viable to minimize losses and protect depositors. In particular, the regulator or agency must stop the activities of the bank if necessary to preserve capital, move accounts from unviable institutions to viable ones, and impose civil and criminal penalties for violations of bank regulatory laws.

a. Stopping Activities of Banks if Necessary to Preserve Capital

Legislation should include provisions that, if necessary to preserve capital, stop the activities of banks. Once a systemic crisis is underway, it will spread to new institutions (the so-called “contagion effect”) and prompt more bank failures.¹³⁷ The regulatory agency must, therefore, be alert to other troubled institutions and be prepared to intervene once failure seems probable.¹³⁸ When approaching bankruptcy, banks may be inclined to “gamble” with their remaining capital on increasingly risky loans, in the faint hope of avoiding failure.¹³⁹ In Chile and Korea, conglomerates continued to essentially self-lend regardless of the asset quality.¹⁴⁰ Intervention could have stopped this lending and preserved the banks’ remaining capital. The supervisor therefore must have the authority to halt bank activity. It may be that all activities of the bank must be terminated, though depositors’ accounts should be protected.¹⁴¹

In the case of Chile, the government eventually intervened directly in nonviable banks, assuming management and liquidating the institutions.¹⁴² Depositors were compensated while the banks’ shareholders and the government shared the losses. Shareholders absorbed the loss of whatever equity remained.¹⁴³ The government attempted to rehabilitate the remaining trou-

137. See *supra* note 14.

138. As noted *infra* Part III.A.3, this agency can either monitor institutions themselves or can work closely with a supervisory agency to be alert to failure. In Chile, the SBIF serves both functions. In Korea, the FSC supervises banks, while the KDIC manages deposit insurance and bank failures.

139. De La Cuadra & Valdés, *supra* note 16, at 36–39.

140. In Chile, self-lending continued to rise until 1982, a year after the crisis commenced. *Id.* at 94. Korea’s lending continued to grow despite low returns on assets, indicating poor investment quality. See THE WORLD BANK, *supra* note 3, at 64–66.

141. See discussion *infra* Part III.B.1.b.

142. Stallings and Brock, *supra* note 19, at 107.

143. LARRAIN, *supra* note 10, at 12.

bled institutions through a combination of debt relief (including favorable exchange rates for foreign currency-denominated debt), the purchase of risky loans by the Central Bank with a repurchase obligation on the part of the banks, and the recapitalization and subsequent sale to small investors of the intervened banks.¹⁴⁴ The government again offered full, explicit deposit guarantees.¹⁴⁵

Like Chile, Korea had a relatively aggressive intervention program.¹⁴⁶ While Chile began by addressing the problem of failed institutions, Korea enacted an unlimited deposit guarantee for banks and other financial institutions.¹⁴⁷ These guarantees were followed by a macroeconomic stabilization program developed in conjunction with the IMF.¹⁴⁸ Due to deposit guarantees, Korea avoided depositor panics and contagion, and was therefore able to restructure in phases, starting with merchant banks and moving on to commercial banks.¹⁴⁹

In the United States, by contrast, regulatory forbearance won out over aggressive action. The United States recognized the growing crisis but hoped that a shift in interest rates would return the S&Ls to profitability.¹⁵⁰ While many institutions were clearly insolvent under standard capital requirements, the supervisory institution, the Federal Home Loan Bank Board, lowered capital requirements rather than forcing these institutions into insolvency proceedings.¹⁵¹ Had the regulators closed down the institutions that were failing, the S&L system would have been destroyed.¹⁵² Nonetheless, this early invention would ultimately have been less expensive than the ultimate cost to the taxpayers

144. *Id.* at 15.

145. *Id.*

146. DE LUNA-MARTINEZ, *supra* note 10, at 36.

147. The government put these guarantees in place in November 1997. BALIÑO & UBIDE, *supra* note 39, at 62.

148. Korea Letter of Intent and Memorandum of Understanding to the IMF, December 3, 1997, available at <http://www.imf.org/external/np/loi/120397.htm> (last visited on Jan. 9, 2005).

149. BALIÑO & UBIDE, *supra* note 39, at 62 (“Despite the inevitable turmoil of successive waves of bank closures, the public maintained confidence in the Korean banking system. Contrary to experiences in other countries, there were no massive flights of depositors triggered by the closures. The blanket deposit guarantee succeeded in reassuring depositors”).

150. See *supra* note 132 and accompanying text.

151. Herring, *supra* note 77, at 221–24; Barth & Litan, *supra* note 5, at 161–64.

152. Cf. Barth & Litan, *supra* note 5, at 161.

caused by failure to intervene early. Ultimately, 25% of S&Ls failed,¹⁵³ or more than 1400 institutions, at a cost of \$180 billion to the United States taxpayer.¹⁵⁴

b. Moving Accounts from Nonviable Institutions to Viable Ones

The supervisor must have the authority to move accounts from nonviable institutions to viable ones in order to preserve depositors' access to their funds and to avert panic. The power to intervene to stop losses can be linked to a deposit insurance scheme that requires banks to allow the supervisory authority to control accounts when necessary in exchange for insurance eligibility. This power must be used carefully. It is critical to structure interventions in such a way as not to exacerbate uncertainty. Korea made the mistake of suspending banks initially, and found that the suspension of accounts exacerbated rather than diminished the crisis.¹⁵⁵ Instead, governments should consider taking banks over entirely in the event of failure, transferring accounts to viable institutions, or enacting assisted acquisitions.¹⁵⁶

c. Imposing Civil and Criminal Penalties for Violation of Bank Regulatory Laws

Civil and criminal penalties can play an important role in limiting moral hazard on the part of banks. If the managements of institutions, particularly large ones, believe that they are too big to fail and will eventually be bailed out, they will lack incentives to control risky behavior. Management may also not be inclined to declare failure against the best interests of shareholders, who

153. Herring, *supra* note 77, at 209.

154. CAPRIO & KLINGEBIEL, *supra* note 2, at 16.

155. SCOTT, *supra* note 8, at 14.

156. An assisted acquisition, or business transfer or purchase and assumption, is a mechanism under which an insolvent institution's license is withdrawn, and some of its assets and liabilities are sold to one or more other financial institutions(s). *Id.* at 11. The mechanism can minimize disruption to depositors. The solvent institution purchases assets and assumes liabilities in much the same manner as a merger. The transaction allows the failed institution to remain in operation, though in many cases under a different name. MACEY ET AL., *supra* note 7, at 741.

would then lose their equity.¹⁵⁷ The possibility of civil and criminal penalties for mismanagement could act as a deterrent to this behavior. The United States recognized the importance of this deterrence when it passed FIRREA.¹⁵⁸ This legislation expanded civil and criminal penalties to reach officers, directors, attorneys, accountants, appraisers, consultants, and controlling stockholders other than holding companies.¹⁵⁹ These penalties play a particularly important role because of the information asymmetries between management, who are in the best position to be aware of the condition of assets, and shareholders, who do not have access to that information.

Governments, however, must not merely officially legislate these penalties, but also must enforce them. In Chile, the government dismantled the conglomerates that owned failed banks and, in an unusual move, punished those individuals involved in illegal financial transactions, in one case with a nine month jail term.¹⁶⁰ In most cases, the challenge of enforcement remains, especially during a crisis when the organizations in charge of enforcement may feel that more pressing issues exist.

*d. Creating Rapid Resolution Mechanisms to Isolate
Individual Bank Failures*

In the United States, failing institutions can be closed without prior hearing and notice and the assets sold to more viable institutions or liquidated.¹⁶¹ This intervention is justified for two rea-

157. The shareholders would be effectively assuming insolvency could have been avoided by not making high-risk loans with the remaining capital. If insolvency were unavoidable, the shareholders would lose their equity in any case. Under this scenario, the bondholders' interests would be most injured by high-risk activity that diminished their likelihood of repayment as the holders of preferred debt.

158. See *supra* Part III.A.3.

159. 12 U.S.C. § 1813(u); Glancz, *supra* note 25.

160. Stallings & Brock, *supra* note 19, at 107. Chile passed legislation creating criminal penalties in financial practices in 1978. However, they were used for the first time in 1982. For more detail, see De La Cuadra & Valdés, *supra* note 16, at 52–53. It is unclear why the right-wing government acted against the conglomerates. Speculation ranges from the government's fear of the increasing power of these organizations to concern that the conglomerates were undermining the government's economic policies. Stallings & Brock, *supra* note 19, at 107.

161. See 24 C.F.R. Cum. Supp. § 206.1–4, as amended, 24 C.F.R. 1943 Supp. § 206.1. "It is complained that these regulations [Rules and Regulations for the Federal Savings and Loan System] provide for hearing after the conservator takes possession instead of before. This is a drastic procedure. But the delicate nature of the institution and the

sons. First, banks that are closed are almost always insolvent, or close to insolvent, which by definition is an emergency during which extra powers are warranted.¹⁶² Second, the initiation of a judicial proceeding could alert the public to the bank's failure and trigger a run, putting a high price on hearing and notice.¹⁶³ A similar process can aid other countries in rapidly isolating and responding to failures.

2. Potential Problems

Even with legislation adopted, insufficient enforcement presents a risk. In the United States, the S&L crisis developed despite the existence of relevant legislation and a supervisory agency (the Federal Home Loan Bank Board) because the agency lacked independence and failed to carry out its supervisory function.

Rapid deregulation in the industry during the 1980s allowed thrifts to diversify away from long-term housing loans that had been sold during the period of high interest rates of the 1970s.¹⁶⁴ Supervision was not increased during this period of deregulation.¹⁶⁵ As a result, during the economic downturn, thrifts drifted into insolvency, yet remained open.¹⁶⁶ Exacerbating the lack of supervision, thrift industry lobbies within the United States acted aggressively to prevent sick thrifts from being closed.¹⁶⁷ While FSLIC may have had the authority to close failing institutions, it was essentially captive to the thrift industry.¹⁶⁸ Furthermore, as a result of its own insolvency the FSLIC lacked the resources necessary to close institutions.¹⁶⁹

impossibility of preserving credit during an investigation has made it an almost invariable custom to apply supervisory authority in this summary manner." *Fahey v. Mallonee*, 332 U.S. 245, 253 (1947) (upholding seizure in advance of a hearing due to the delicate nature of banking institutions).

162. MACEY ET AL., *supra* note 7, at 727.

163. *Id.* at 727.

164. *See Glancz, supra* note 25.

165. Low levels of supervision stemmed in part from fiscal policy and the Reagan administration's focus on small government. *Id.*; FDIC, *supra* note 54, at 177-78.

166. *Id.*

167. *Id.*

168. MACEY ET AL., *supra* note 7, at 36.

169. *Id.*

The lesson from the S&L crisis is that regulation alone is insufficient; without supervision and enforcement, that regulation is toothless. Thus, the S&L crisis reinforces the importance of an *independent* enforcement agency. After the crisis, the United States attempted to remedy the lack of supervision and independent enforcement of regulations by replacing the deeply discredited Federal Home Loan Bank Board and the FSLIC with the Office of Thrift Supervision and the FDIC.¹⁷⁰ Under FIRREA, the FDIC, an independent agency, can close sick institutions at its discretion without a hearing.¹⁷¹ The FDIC is better financed and more independent than FSLIC, as it is not funded by the thrift industry itself.¹⁷² This new structure, however, has yet to be tested by a crisis.

3. *Items to be Left Unlegislated*

Though some regulation is quite useful, certain aspects of crisis management should not be legislated, and should only be managed on an ad hoc basis. These aspects include guarantees to creditors and methods for re-privatizing institutions in which the government has intervened. For both guarantees and re-privatization method, the appropriate regulations are quite situation-specific and therefore legislators cannot predict in advance what regulations would be necessary or appropriate. In addition, guarantees to creditors should not be instituted because of the moral hazard problem they create.

a. Guarantees to Creditors

Creditors, whose profit comes from risk management, should be able to protect themselves from risk. Nonetheless, political economy reasons may exist that support a bailout of creditors regardless of whether these creditors should have known better than to take on the level of risk that they did. In particular, it may be necessary to preserve relationships with foreign creditors

170. See discussion Part III.A.3.

171. See *supra* note 161.

172. Cantwell F. Muckenfuss, III, *The Financial Institutions Reform, Recovery and Enforcement Act of 1989*, 508 PLI/Comm 7, 40–41 (1989).

in order to gain financial support from these creditors or their countries during the crisis.¹⁷³ Assuming the government insured deposits, the losses from failed institutions would be borne by the banks' shareholders and its domestic and foreign creditors.¹⁷⁴ This market-based solution would have long-term negative consequences, as creditors who experienced losses would be unlikely to make similar loans in the future.¹⁷⁵ Diminished access to international credit would thus have a negative effect on the country's growth strategy and jeopardize its future economic potential.¹⁷⁶ Because it is impossible to anticipate which creditors would be most impacted by a future crisis, the decision to bail out creditors relies on an assessment of the particular situation and cannot be planned in advance. In addition, guarantees made in advance — or permanent guarantees — may present a moral hazard problem: creditors may assume that the government will always protect them from losses. These decisions should therefore be made on a case-by-case basis.

b. Method for Re-privatizing Banks

The government should not intervene without a clear exit strategy. This strategy may need to be developed on a case-by-case basis, depending on the economy and institutions of the particular country.¹⁷⁷ For example, in Chile banks were re-privatized as part of a *capitalismo popular* program to broaden stock ownership.¹⁷⁸ In addition to political considerations, the scale of inter-

173. Cf. LARRAIN, *supra* note 10, at 12 ("Considering the magnitude of the crisis, there were two extreme alternatives: to let insolvent institutions go bankrupt -- forcing domestic and foreign creditors as well as shareholders to take the losses -- or to force them out In the end, an intermediate solution was reached"); see also *infra* note 176.

174. LARRAIN, *supra* note 10, at 12.

175. *Id.* at 12, 13.

176. Once-burned creditors would likely place a higher risk rating on loans to the country, leading to more expensive credit from abroad. Increased reliance on local credit could drive up local interest rates based on simple supply and demand.

177. Certain other reforms, such as structural reforms (better information, risk management, etc.) directed at correcting the regulatory mismatch are critically important, but outside the scope of this Note, as are debt restructurings and longer-term workout mechanisms. First, steps must be taken to contain costs by minimizing crisis, followed by these medium-term restructuring and longer term structural reforms.

178. Stallings & Brock, *supra* note 19, at 108. The program of *capitalismo popular*, or popular capitalism, served to broaden ownership of stock as well as making the re-privatization process more transparent. For further information, see Jose Pinera & Wil-

vention and the number of institutions involved would largely determine the appropriate process. A large-scale intervention would have created de facto a largely state-owned banking system, at least during the period of direct intervention.¹⁷⁹ The government in general is unlikely to be the most efficient long-term manager of the banking system,¹⁸⁰ and therefore a re-privatization strategy would have been required on a large scale.¹⁸¹ A small number of institutions, on the other hand, could be merged fairly seamlessly with healthy institutions in a manner invisible to depositors.

IV. RISKS OF CRISIS REGULATION

Anticipatory legislation as described in the previous section poses one important potential risk that once the anticipatory legislation is created, agencies will be tempted to intervene unwisely or excessively. If the government is tempted to intervene outside of the boundaries of a crisis, such that it weakens the banking system and the private-public boundary, anticipatory banking regulation may actually precipitate problems in the banking industry, if not a full-blown crisis. Empirical research, however, has indicated that this fear is groundless.

In a study of over 100 countries,¹⁸² Barth, Caprio, and Levine determined that there is no significant connection between supervisory powers and bank performance.¹⁸³ In fact, they found

liam Glade, *Privatization in Chile*, in *PRIVATIZATION OF PUBLIC ENTERPRISES IN LATIN AMERICA* 33 (William Glade ed., 1991).

179. Even under the plan implemented, the government had unprecedented control over the banking sector. "The decision to intervene the banks left the government officials in a truly anomalous position. Firm proponents of a small state, they found themselves with more control over the economy than even Allende had had. Pundits referred to the process as 'the Chicago road to socialism.'" Stallings & Brock, *supra* note 19, at 108.

180. See JAMES R. BARTH ET AL., *BANK REGULATION AND SUPERVISION: WHAT WORKS BEST?* 38 (World Bank Working Paper, 2001).

181. In both Chile and Korea, the government purchased bad loans from failed banks to restructure the balance sheets of these institutions. In Chile, the government required that these institutions repurchase the loans once they returned to health, while in Korea, KAMCO took ownership over the debts, reselling them later at a profit. LARRAIN, *supra* note 10, at 15; *Kamco Eyes Global Market Leadership in Bad Loans*, KOREA TIMES, Oct. 15, 2003.

182. The database contains data from 107 countries regarding bank regulation, supervision, and performance. BARTH ET AL., *supra* note 6, at 1.

183. The supervisory powers included in the data set assembled by the authors are (1) Official Supervisory Power, which measures the extent to which official supervisory au-

that official supervisory power, declaring insolvency power, and the designation of a supervisor are all unrelated to the likelihood of a crisis.¹⁸⁴ Furthermore, prompt corrective power in the event of a crisis is also unrelated to the likelihood of a crisis taking place.¹⁸⁵

The key, once a crisis is underway, is not the relationship between these supervisory powers and the banking system as a whole over the long term, but rather the relationship between the supervisor and the affected institutions in the short period following the onset of the crisis.¹⁸⁶ At the point of crisis, the banking system is clearly not healthy. The question is whether these supervisory powers allow countries to minimize the overall cost of the crisis and contain its effect. In the cases of Chile, Korea, and the United States, these very supervisory powers were crucial to resolution.¹⁸⁷ Extrapolating from the detailed research by Barth, Caprio and Levine,¹⁸⁸ one can conclude that these laws, demonstrated above to be extremely useful in the event of a crisis, *do no harm* if no crisis occurs. In other words, the existence of these

thorities have the authority to take specific actions to prevent and correct problems; (2) Supervisory Forbearance Discretion, which measures the degree to which supervisory authorities may engage in forbearance when confronted with violations of laws or regulations or with other imprudent behavior on the part of banks; (3) Loan Classification Stringency, which measures the degree to which loans that are in arrears must be classified as sub-standard, doubtful, or loss; (4) Provisioning Stringency, which measures the degree to which a bank must provision as a loan is classified first as sub-standard, then as doubtful, and lastly as loss; and (5) Diversification Index, which measures whether regulations support geographical asset diversification. *Id.* at 18–21.

184. According to the study,

the overall official supervisory power indicator is not related to the bank development or bank efficiency or the level of nonperforming loans. . . . Official supervisory power, declaring insolvency power, loan classification stringency, and supervisor are all unrelated to the likelihood of crisis. In turn, prompt corrective power and provisioning stringency are unrelated to the likelihood of a crisis. The one exception [is that] there is a negative relationship between the diversification index and the likelihood of suffering a major crisis in small economies.

BARTH ET AL., *supra* note 180, at 36.

185. *Id.* at 36.

186. The focus of Barth, Caprio and Levine's study is the relationship between banking regulation and supervision and bank performance and stability. It focuses on the effect of various factors on the long-term health of the financial sector, rather than the short-term effects of regulation in a crisis. BARTH ET AL., *supra* note 6, at 1. Nonetheless, the lack of a correlation between supervision and crisis supports the relative safety of limited anticipatory regulation, particularly regulations which prove extremely useful during a crisis. See *supra* Part II.A.3.

188. The data is available at <http://econ.worldbank.org/programs/finance/datasets/data?id=23456> (last updated Jan. 22, 2003).

regulations on the books does not appear to trigger over-enforcement.¹⁸⁹

V. CONCLUSION

This Note's recommendations speak to managing a crisis that is already underway by having necessary regulations in place prior to the commencement of the crisis. They address the authority that a government agency must have in order to best mitigate the damage of a banking crisis. By having certain specific legal powers in place, and the confidence that the agency will use these powers, crisis intervention can be rapid and effective, perhaps even preventing a small number of failures from ballooning into a crisis. Three countries effectively used these mechanisms with different government structures, at different times, and facing different crises.

When banks start to fail, they fall below their required capital level. This problem occurred in Chile, Korea, and the United States. The supervisory agency's powers to stop risky transactions in institutions that they identify as non-viable or even potentially nonviable, to move accounts from these troubled institutions, and if necessary to change the ownership of the institutions, are all critical to stopping losses and the further draining of liquidity from the system. In Chile and Korea, the strong authority of a military dictator in one case and the strict requirements of the IMF in the other overcame potential political stagnation and allowed for the creation of necessary legislation, but vital months were lost in the process. With the right laws in place, a few isolated bank failures could be rapidly and quietly managed before they disrupt depositor confidence and create contagion.

The rapid identification of weakened institutions is also critical. The ability to acquire the most up-to-date information must be part of the supervisory agency's mandate. The threat of a criminal penalty for providing inaccurate information creates incentives for management to reveal precarious financial situations in their institutions, provided of course that the government en-

189. Barth, Caprio and Levine's research also helps to alleviate the concern of the moral hazard created by having excess regulations on the books. The historical experience of over 100 countries indicates that the existence of the power to intervene does not seem to effect the likelihood of a banking crisis arising.

forces the penalties. Such penalties also create incentives not to take excessive risks as the bank's capital is depleted.

Putting all of these laws into place will not prevent a crisis. The United States had legislation in place to manage a crisis, but still fell victim to the S&L crisis in the 1980s due in part to a dearth of regulators to enforce that legislation and in part to the lack of independence of its enforcement agency. Poor regulation and supervision can allow a financial system to become weakened and more likely to succumb to crisis in the event of an economic shock. Economists may be most able to answer the question of which financial system structure best prevents financial meltdowns. Regardless of the type of financial system a country has in place, a targeted set of laws can help mitigate the crises that to date have eluded prevention.