Financial Regulation and Oversight: Latin American Financial Crises and Reform Lessons from Chile

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August 11, 2009

Congressional Research Service
7-....
www.crs.gov
R40751

CRS Report for Congress
Prepared for Members and Committees of Congress

Summary

The 111th Congress has taken a broad approach to capturing the lessons on financial crises as part of the effort to evaluate possibilities for revamping the U.S. financial regulatory system. Latin America stands out as one region that has survived multiple financial crises, and in the aftermath of such devastation, many countries undertook comprehensive regulatory reform. Although a smaller developing economy, Chile provides one important example. Following two financial crises, one the result of extreme over regulation, the other of catastrophic under regulation, Chile redesigned its regulatory system in 1986. Since then, it has had one of the most stable financial systems in Latin America and has overcome regional and global financial crises when other countries in the hemisphere did not. In so doing, new-found soundness of the banking system has not compromised bank profitability, reflecting modernization and efficiency gains that paralleled development of effective prudential regulation and oversight.

Chile's success rests on a 1986 overhaul of the General Banking Act. Conceptually, reform had two fundamental principles: simplify and streamline prudential regulation and supervision. Under the framework developed in the G-30 report, *The Structure of Financial Supervision*, Chile adopted what might be classified as an integrated approach to regulation. The architecture was reshaped, consolidated, and vastly strengthened by giving most regulatory responsibility to the Superintendency of Banks and Financial Institutions (SBIF), with supportive oversight by three other specialized agencies. The SBIF has sweeping oversight powers over "banking enterprises irrespective of their nature and the financial entities whose control is not otherwise entrusted by law to a different institution...[and] shall also be in charge of the supervision of companies whose corporate purpose consists in the issuance or operation of credit cards."

Experience from Chile points to the value of establishing: (1) a strong, independent, and consolidated regulatory and oversight agency, with broad and definitive powers; (2) enhanced transparency through a number of specific reporting measures; (3) clear capital standards that include the 8% minimum Basel risk-weighted capital-asset ratio, capital requirements relative to reserves, deposits, and other liabilities, and total capital equal to at least 3% of total assets; (4) deposit insurance to cover up to 90% of an individual's total deposits capped at a specified limit; and (5) oversight based on a formal bank rating system following the CAMEL standards (capital, asset quality, management, earnings, liquidity, and later bank management), Basel II guidelines, and additional limitations on bank investment activities.

Chile's experience correlates with testimony by three noted economists before the Joint Economic Committee on April 21, 2009, who challenged policy makers to think very differently about how the financial sector should work and be regulated. In addressing the theme of the hearings, each conveyed the pitfalls of the "too big to fail" phenomenon, noting how loose or inappropriate regulation has led to "gargantuan," opaque firms that can be exploitive and highly difficult to regulate. The witnesses argued that only when risk is internalized and the promise of a bailout withheld will behavior begin to change. Chile has protected itself from severe repercussions of the current crisis, in part because of regulations in place that restrict risky behavior and promote a more traditional commercial banking model, although they are no guarantee of perpetual success in avoiding future crises. Still, the link between a sound financial sector and economic growth and development is now well documented, and evidence from Chile some argue suggests that although there may be tradeoffs between efficiency, growth and prudential regulation, over the long run, avoiding a major financial crisis may more than offset the opportunity costs of a more comprehensive regulatory environment, particularly if a proper balance can be achieved.

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Effective financial regulation seeks to strike a balance between supporting an efficient and competitive financial market, and ensuring the safety and soundness of the financial system. Too much regulation and the cost of compliance can constrain lending, profitability, innovation, and economic growth. Too little regulation and financial liberalization may result in excessive risk taking. In either case, the outcome may be suboptimal financial intermediation, or perhaps even systemic crisis. Core policy issues are many and interconnected. They include: determining the institutional architecture and level of authority of financial regulation and supervision; setting standards for capital adequacy and deposit insurance; and ensuring operational transparency, with the goal of achieving effective prudential oversight and promotion of timely, coordinated, and successful responses to systemic problems.[1]

The 111th Congress has taken a broad approach to capturing the lessons on financial crises as part of the effort to evaluate possibilities for revamping the U.S. regulatory system. Latin America stands out as one region that has survived multiple financial crises, many of which crippled entire financial sectors. In the aftermath of such devastation, many countries undertook regulatory reform. In the case of Chile, it led to the development of a long-term safe and sound financial system. Although important differences exist between emerging market and developed country economies, insights from Latin American economies can be instructive, and Congress has already taken the lead in fleshing some of them out.[2] This report discusses Latin American financial crises and the lessons from comprehensive regulatory reform undertaken by Chile.

U.S. Financial Deregulation and the Current Crisis

Beginning in 1980, the United States entered a lengthy period of incremental deregulation of the financial sector, for many reasons. In part, this trend reflected an ideological shift toward greater confidence in market-based solutions. Changed macroeconomic conditions, particularly the onset of high inflation in the 1970s, also prompted regulatory reform. Banks and savings and loans (S&Ls or thrifts) had become uncompetitive because of outdated regulations such as interest rate caps on loans and deposits. These types of restrictions caused financial resources to seek higher returns in mutual funds and other less restrictive investment vehicles, threatening the banking and thrift industries.

Congress played an important role in holding hearings and ultimately in passing legislation in the early 1980s that guided deregulation. Within a short time, however, these regulatory changes became controversial. The S&L crisis of the mid-1980s, along with record bank failures, was very much tied to the excessive risk taking of management and myriad other causes. However, they also raised questions about the regulatory system that permitted such excessive risk taking and failed to intervene effectively. In the words of the Federal Deposit Insurance Corporation (FDIC), regulatory changes "were generally unaccompanied by actions to restrict the increased risk taking they made possible and so contributed to bank and thrift failures."[3]

[1] More broadly, financial institution regulation may be defined as seeking to achieve safety and soundness of financial institutions, the mitigation of systemic risk, fairness and efficiency of markets, and protection of customers and investors. Group of Thirty, *The Structure of Financial Supervision: Approaches and Challenges in a Global Marketplace*, October 2008, pp. 21-22.

[2] U.S. Congress, Joint Economic Committee, *Too Big to Fail or Too Big to Save? Examining the Systemic Threats of Large Financial Institutions*, 111th Cong., 1st sess., April 21, 2009. See testimony of Professor Simon Johnson.

[3] Federal Deposit Insurance Corporation, *History of the Eighties, Lessons for the Future: An Examination of the*
(continued...)

Nonetheless, deregulation continued into the 1990s and beyond. Banks and thrifts took on increasing risk, reducing capital requirements where possible and continuing to lobby for even greater deregulation.[4] Financial liberalization predictably spawned financial markets that became ever more complex, concentrated, and international in scope. Lines began to blur between the types of financial institutions that compete with one another (e.g. banking, insurance, and securities) and the increasingly complex products they came to offer (e.g. collateralized debt obligations, credit default swaps, and other credit derivatives). In addition, the growth of unregulated institutions, such as hedge funds and private equity firms, raised new questions about financial institution risk management and public sector regulation and oversight.[5] This lesson was widely drawn following the collapse of Long-Term Capital Management in 2000.

Despite macroeconomic changes that compelled the need to reconsider prudential regulation, financial liberalization came with clear warnings of the potential for excessive risk taking, both in terms of institutions seeking out the least demanding regulators (regulatory arbitrage), and possible introduction of systemic contagion through consolidation.[6] A quarter century later, in the wake of repeated financial disasters, the United States faces a more severe financial crisis, leaving many to speculate whether past lessons have been adequately incorporated into policy reform aimed at sound regulation of the financial sector. Sparked by the collapse of U.S. housing and credit markets in 2007, the current crisis is widely understood to have been caused by a confluence of trends in deregulation, global integration, and greater use of highly complex and poorly regulated (or understood) financial products. As stated by one leading expert and member of the Federal Reserve Board, the crisis resulted from "massive failures of risk management by financial institutions and of supervision by government authorities."[7] The United States now faces a fundamental question: what should the approach to prudential regulation and supervision of the U.S. financial system look like in the future?

Some may be tempted to suggest at this point that greater restriction on financial institutions at both the national and international levels is needed. Evidence from many studies suggests, however, that the answer is likely to be more nuanced for three reasons. First, notwithstanding the positive effects of steps taken to address regulatory inconsistencies internationally through the Basel accords,[8] most financial crises arise from domestic market distortions, weak institutions, and inadequate national policies. Second, countries with weak overall government and

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Banking Crises of the 1980s and Early 1990s (Washington, D.C.: FDIC, 1997), p. 10.

[4] Requirements to increase capital reserves, which reduce institutional risk, were met with countervailing tactics. For example, banks increased securitization of debt and altered loan (asset) portfolios in ways that allowed them to actually reduce capital reserves. Reinicke, Wolfgang H., *Banking, Politics and Global Finance: American Commercial Banks and Regulatory Change, 1980-1990* (Washington, D.C.: The Brookings Institution, 1995), pp. 139-140. Also, after much debate and lobbying, Congress eventually revised or eliminated restrictions in some banking laws, such as the Glass-Steagall Act, which had separated commercial and investment banking since the 1930s.

[5] FDIC, op. cit., pp. 10 and 20-21, and Reinicke, op. cit., p. 2.

[6] Reinicke, op. cit., pp. 2-3 and 53. Financial sector integration can create transparency and other problems that make oversight difficult, ultimately leading the "too big to fail" and other issues that can have system-wide repercussions.

[7] Daniel K. Tarullo, *Banking on Basel: The Future of International Financial Regulation* (Washington, D.C.: Peterson Institute for International Economics, 2008), pp. 4 and 8.

[8] The Basel accords are an agreement among participating countries to adopt a framework for setting capital adequacy standards of banks. Basel II was completed in 2004, and a final rule for implementation in the United States was issued on December 7, 2007. See: CRS Report RL34485, *Basel II in the United States: Progress Toward a Workable Framework*, by (name redacted).

bureaucratic systems tend to default to policies that overly restrict financial institutions. Third, although seemingly counterintuitive, some cross-country research suggests that countries with the most highly restrictive regulations encourage less diversified operations, which in turn can increase firm inefficiency and the risk of a financial crisis.[9] Therefore, with respect to regulation, more is not necessarily better.

Financial Regulatory Models[10]

The Group of Thirty (G-30) released a comprehensive review of financial regulatory models in 2008. It presents a useful typology of financial regulatory models (approaches) based on 17 major countries representing both developing and more advanced economies. The study condenses them into four basic models:

- the Institutional approach: the firm's legal status (bank, broker-dealer, or insurance company) determines which regulator oversees both safety and soundness as well as business conduct of the enterprise, often leading to multiple regulators;
- the Functional approach: the firm's type of business determines the regulator, irrespective of its legal status, each type of business might have a separate regulator;
- the Integrated approach: the firm is subject to "a single universal regulator," that conducts all oversight work; and
- the Twin Peaks approach: the firm is supervised by two agencies, one responsible for safety and soundness, another for conduct-of-business regulation.

The G-30 report notes that there are some key issues that transcend the four regulatory models and that each approach to regulation has its benefits and costs. First, regulatory structures usually arise from the particular economic and political circumstances of the country, often in the wake of a crisis that has exposed the failures of the model in use. Second, no model is unabashedly recommended for all countries. Third, both the Institutional and Functional approaches present problems of communication, coordination, and jurisdictional conflict, and may be falling out of practice in many countries, particularly in light of the trend toward industry concentration. Some countries, however, are still successfully employing one of these two models. Fourth, the Integrated and Twin Peaks models may be coming into vogue, given inherent weaknesses in multi-regulator models. Unifying oversight is one of the primary reasons these two models are receiving more attention, but the single regulator model comes with its own cautions with respect to ensuring that adequate checks and balances are in place and guaranteeing freedom from problems of coordination and intra-agency jurisdictional squabbles.

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[9] James R. Barth, Gerard Caprio, Jr., and Ross Levine, "Financial Regulation and Performance: Cross-Country Evidence," in *Banking, Financial Integration, and International Crises*, ed. Leonardo Hernández and Klaus Schmidt-Hebbel (Santiago: Central Bank of Chile, 2002), pp. 128-136.

[10] Group of Thirty, *The Structure of Financial Supervision*, pp. 24-25. The Group of Thirty comprises leading representatives of the private and public sectors, and academia dedicated to deepening the understanding of international economic and financial issues, particularly with respect to repercussions of policy choices. See: http://www.group30.org/

Latin American Financial Crises and the United States

As small open economies, Latin American countries are much different from the United States and other developed countries, making it important to note some key distinctions related to financial crises. Latin American crises have typically involved deep fiscal deficits, poor prospects for servicing debt, questionable macroeconomic and exchange rate policies, and weak institutions. Collectively these factors have contributed to the self-fulfilling nature of the classic Latin American financial crisis, in which investors (often led by home country elites) typically flee a particular country at the early onset of a problem, causing exchange rate collapses, exacerbated debt problems, and destabilized financial markets (stock and bond markets, banks, and credit markets). Latin American countries can also be vulnerable to external shocks and contagion, an example being the 1998 financial crisis in Brazil, often associated with contagion following foreign capital retreats from Russia and Asia during the previous year.

The United States is not subject to this same type of panic and is better equipped to adopt countervailing policies, so the lessons related to addressing contagion, exchange rate policies, and fiscal excess are not directly relevant. Nonetheless, a key lesson that has emerged from extensive research into Latin American financial crises of the 1980s and 1990s is that domestic market distortions and policy failures in the financial sector were a part of many crises, more so than external shocks and negative repercussions from international financial integration.[11] Also, financial crises, irrespective of their proximate causes or country of origin, tend to unfold in predictably similar ways, devastating asset markets, output and employment levels, and public indebtedness.[12]

As a starting point, the 1980s debt crisis in Latin America represents an unusual episode for both the United States and Latin America. Unlike crises that would follow, this one involved heavy sovereign indebtedness to U.S. banks, reflecting what would become a disturbing nexus between emerging market financial crises and financial liberalization in the United States. U.S. bank exposure to Latin American debt was one example of the increased risk taking in the 1980s by a quickly expanding and consolidating U.S. financial sector in search of new profit opportunities in an increasingly deregulated environment. In fact, the size of the bank debt was so large relative to capital as to imperil some major money center banks. This group included Citicorp, which not only led the charge in acquiring risky Latin American assets, but did the same for “toxic assets” prior to the current crisis.[13] In response, the U.S. Government, including Congress, intervened,

[11] Leonardo Hernandez and Klaus Schmidt-Hebbel, "Banking, Financial Integration, and International Crises: An Overview," in *Banking, Financial Integration, and International Crises*, ed. Leonardo Hernandez and Klaus Schmidt-Hebbel, vol. 3 (Santiago: Banco Central de Chile, 2003). In addition, the limited role of international financial integration on credit markets is explored in a paper that finds no relationship between adoption of Basel I capital requirements and later periods of credit crunch in Latin America. Adolfo Barajas, Ralph Chami, and Tomas Cosimano. “Did the Basel Accord Cause a Credit Slowdown in Latin America?” Working Paper WP/05/39, International Monetary Fund. Washington, D.C. February 2005.

[12] Reinhart, Carmen M. and Kenneth S. Rogoff, “The Aftermath of Financial Crises.” in *American Economic Review: Papers & Proceedings 2009*, (Pittsburgh: American Economic Association, 2009), pp. 466-472.

[13] FDIC, *History of the Eighties, Lessons for the Future: An Examination of the Banking Crises of the 1980s and Early 1990s*, p. 191-210. This was a time of unprecedented bank failures in the United States, in part because of their efforts to increase profitability by increasing risk as bank regulation was being relaxed. Economic shocks would soon expose the weaknesses of this strategy. Like the current crisis, banks and thrifts also pursued commercial real estate lending (continued...)

not only to help contain crises in major defaulters like Mexico and Brazil, but also to ensure that important U.S. financial institutions did not fail.[14]

Analysts later pointed to flagrant risk taking (or questionable risk management skills) on the parts of institutions in Latin America and the United States that operated largely unchecked. In the case of the United States, this analysis raised doubts about U.S. regulatory efforts even by the regulators themselves, which would eventually encourage Congress to pass legislation requiring uniform, risk-weighted capital requirements for all banks in the United States. This episode also helped prioritize the development of international capital adequacy standards (Basel I), again with the strong encouragement from Congress.[15]

As history has demonstrated, however, U.S. financial institutions would later find new ways to increase profitability in a more relaxed regulatory environment. In Latin America, however, such creative market responses were not pursued, or done so with more oversight. Following their own banking crises in the 1980s, many countries in the region concentrated on financial sector reform with a central focus on reducing risk, preferring to err on the side of prudential supervision. Although vilified by some for accepting the higher opportunity costs, others have argued that the trade off is in part responsible for some notable successes in achieving long-term stability by re-engineering regulatory systems, including surviving the current economic downturn far better than many observers would have thought possible.[16]

Financial Sector Reform in Latin America

Although Latin American countries have longstanding equity and bond markets, and some have well-developed futures markets and nascent derivatives exchanges, by and large, they are far less sophisticated than their U.S. counterparts. Privatization and exchange of equity in corporations on a widespread basis is a fairly recent phenomenon, not developing significantly until after the debt crisis of the 1980s. Even today, while far more robust than in the past, trading remains relatively concentrated and influenced by the state either directly through ownership, or indirectly through regulatory or legal (even constitutional) constraints.[17] Bond markets in Latin America have played an important role in attracting foreign financing in the post-1982 crisis period, but international investors generally have insisted on bonds denominated in major international currencies, and in

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"aggressively" while "a pervasive relaxation of underwriting standards took place, unchecked either by the real estate appraisal system or by supervisory constraints." pp. 3-5, 26.

[14] Tarullo, op. cit., pp. 36-37 and Reinicke, op. cit., pp. 134-136 and 142-146. Mexico alone defaulted on $81 billion of debt, some $23 billion held by U.S. banks (p. 142). Through U.S. and IMF efforts first to reschedule debt payments and later provide debt relief, the major money center banks were given time to shore up their balance sheets and eventually wrote off sizable losses. FDIC, op. cit., pp. 43-44.

[15] Reinicke, op. cit., p. 199-200 argues that the combination of a systemic threat to the U.S. banking system and insufficient, if not negligent, regulation actually "mobilized Congress to participate in the debate over capital adequacy and shifted the distribution of political power in the policy network towards the legislature."

[16] Tarullo, pp. 38-39, and Reinicke, pp. 144 and 162-164, especially on the priority of strengthening and harmonizing capital adequacy standards.

[17] Kathryn C. Lavelle, *The Politics of Equity Finance in Emerging Markets* (Oxford: Oxford University Press, 2004), pp. 93-112.

domestic markets, bonds are used less frequently with the exception of large corporate borrowers.[18]

Because banking is by far the largest element of the financial sector, its regulation has the fullest history to draw on. Prudential regulation and bank supervision experiences have varied considerably among Latin American countries, but one overarching trend has been convergence to international or developed country standards, largely in response to past financial crises.[19] As important as improvements in regulatory and supervisory structures have been, they are also considered incomplete and the current global recession is an important test of these new standards.

By historical standards, the ability of many Latin American countries to avoid major financial instability during the current crisis has been striking. Macroeconomic policies have played an important role. The movement toward flexible exchange rates, in particular, is a major change from previous periods of crisis. This has allowed currency depreciations to do much of the adjustment work, freeing up monetary policy to fulfill, to varying degrees, a traditional countercyclical role (reducing interest rates) often not possible in previous crises. In addition, most Latin American countries have taken steps to support banking systems by maintaining high levels of international reserves, directly increasing liquidity to the private sector, easing reserve requirements, and providing alternative financing to the corporate sector.[20]

Undoubtedly, financial systems in Latin America are, on average, more robust than in the past. As reported by the International Monetary Fund (IMF), the starting conditions of Latin American banks, on average, were healthy as the current crisis unfolded. Capital-asset ratios were sound (15%, nearly double the 8% standard defined in the Basel II accord), returns on equity high (20%), and liquidity ratios “adequate” for “non-crisis situations.” Bank balance sheets were healthy. They had adequate levels of domestic deposits, few toxic assets, and only light exposure to derivatives, mostly in the large banks.[21]

In part, the health of Latin American financial systems reflects what the IMF calls successful “first generation” reform of financial regulation. In evaluating Latin America’s compliance with Basel core principles, however, the IMF notes that these countries may wish to take the next step given they are only 60% compliant with eight core principles that are virtually fully adopted by developed countries. In addition, many Latin American countries still have many systemically important institutions that may not be adequately regulated, including many nonbank financial institutions.[22] In attempting to gauge any lessons from Latin America, therefore, it is perhaps best

[18] Eduardo Borensztein, Kevin Cowan, Barry Eichengreen, and Ugo Panizza, "Building Bond Markets in Latin America," in *Bond Markets in Latin America*, ed. Eduardo Borensztein, Kevin Cowan, Barry Eichengreen, and Ugo Panizza (Cambridge: The MIT Press, 2008), pp. 1-3.

[19] Jorge Ivan Canales-Kriljenko, *Regional Economic Outlook: Western Hemisphere*, International Monetary Fund, Washington, D.C., May 2009, p. 51-52. Crises have been the major incentive for reform in the United States as well. See: CRS Report R40249, *Who Regulates Whom? An Overview of U.S. Financial Supervision*, by (name redacted) and (name redacted).

[20] International Monetary Fund, op. cit., pp. 17-19.

[21] Ibid., pp. 51-52.

[22] Ibid., pp. 52-61. The eight Basel core principles summarized are: overall compliance; licensing and structure; objectives, independence, transparency, and cooperation; prudential regulation and requirements; methods of ongoing banking supervision; accounting and disclosure; corrective and remedial power of supervisors; and consolidated cross-border banking supervision.

to consider the most pertinent examples of financial sector regulatory reform, of which Chile is a prime candidate, despite noted differences with the United States.

Chile: Financial Crisis and the Long Road to Prudential Regulatory Reform

By all accounts, Chile has had one of the most stable financial systems in Latin America for the past quarter century, the product of major changes to its banking law in 1986. In the aftermath of two financial crises, the first that resulted from macroeconomic policy failures that were exacerbated under a system of over regulation, the second directly related to catastrophic under regulation, Chile redesigned its financial regulatory system. Since then, Chile's financial sector has overcome many regional and global financial crises when other countries in the hemisphere could not. In so doing, soundness of the banking system has not compromised bank profitability, reflecting modernization, efficiency gains, and increased competition that paralleled development of effective prudential regulation and oversight.[23] Because regulation and oversight of the U.S. system is being heavily scrutinized, some lessons from Chile may be instructive as Congress grapples with various policy alternatives.

Early Failures in Chilean Financial Regulatory Reform

From 1930 until 1973, Chile lived under a highly regulated financial system including interest rate controls and quantitative restrictions on credit. From 1970 to 1973, under Chile's short-lived "socialist experiment," the state had virtually full control of banks. This system imploded as part of a broader economic collapse in 1973, which was due largely to poor policy choices that led to severe macroeconomic imbalances. The financial sector suffered deeply and because of heavy state control, was poorly positioned to respond to economic shocks. Regulation was also cumbersome and fragmented. Chile had adopted a Functional approach to regulation, having agencies assigned to oversee financial institutions based largely on their type of business – commercial lending, insurance, mortgages, and securities.

Following the 1973 crisis, Chile undertook a wholesale change in economic management, including financial reform that transformed a model based on state control to one relying on market discipline combined with light regulation.[24] Supervision was consolidated in the Superintendency of Banks and Financial Institutions (Superintendencia de Bancos E Instituciones Financieras – SBIF), but an ideological bias against strong regulation and lack of resources "discouraged the SBIF from taking an active regulatory stance."[25] Banks were privatized,

[23] From 2000 to 2004, the Chilean banking system maintained a capital adequacy ratio of 13.5%, notably higher than the 8% minimum recommended by the Basel accords. It also had a return on equity of 15.6%, far more than other countries, including the United States. This combination of positive results was achieved even as interest rate spreads declined, reflecting greater operational efficiency. Cristina Betancour, José de Gregorio, and Alejandro Jara, *Improving the Banking System: the Chilean Experience*, Bank of International Settlements, BIS Papers No 28, Basel, December 2005, p. 169.

[24] Andrés Velasco, "The Chilean Financial System, 1975-85," in *Banking Crises: Cases and Issues*, ed. V. Sundararajan and Tomás J.T. Baliño (Washington, D.C.: International Monetary Fund, 1991), pp. 165, and 120-121 and p. 117-120 and Francisco Gallego and Norman Loayza, *Financial Structure in Chile: Macroeconomic Developments and Microeconomic Effects*, Banco Central de Chile, July 2000, pp. 5-7.

[25] Boris Kozolchyk and Heinz P. Rudolph, *Transparency and Truth in Latin American Banking* (Tucson: The National (continued...)

regulations loosened (e.g., reserve requirements lowered, interest rate ceilings removed, limitations on foreign banking softened), and prudential supervision relaxed, resulting in ineffective oversight. The scope of financial institutions became more expansive; commercial, investment, mortgage, pension fund, and development institutions operated in many of the same markets, offering a variety of the same products.

As happened in many developed and developing countries in the 1980s following banking liberalization, deregulation led to a rapid increase in bank credit and capital market deepening. In Chile, it was further enhanced by relaxed rules on foreign banking and forced saving through pension reform. A number of inherent problems, however, eventually surfaced. Expansive credit led to asset bubbles, not unlike what the United States experienced in 2007.[26] Of particular concern to regulators, privatization encouraged industry consolidation dominated by conglomerates, which would prove difficult to supervise. The government also agreed to sell state-owned banks to conglomerates, financing as much as 90% with public funds. This policy compounded the problem by creating opaque conglomerates (*grupos*) with highly leveraged financial subsidiaries. In addition, banking law allowed for intra-conglomerate lending so that by June 1982, as Chile tipped into financial crisis, some 21% of loans held by the five largest banks were made to firms within the same *grupo*.[27] In many cases, this amounted to rolling over unrealized loan losses, which eventually contributed to bank insolvency.[28]

These policies and practices not only produced highly leveraged financial institutions, but they failed to curtail illegal practices in bank lending that increased risk taking, circumvented prudential oversight, and eventually led to the collapse of the financial sector. For example, to avoid restrictions on intra-conglomerate lending, the *grupos* created shell corporations, operating both within Chile and abroad to funnel loans to intra-group subsidiaries. These corporations also sold stocks among themselves in sufficiently large quantities so as to raise share prices above the market value. These stocks were then used as collateral for loans to buy banks.[29]

Analyses point to the government's role in compounding these "conduct of business" problems by agreeing to the rescue of a major bank in 1976, an act that was widely interpreted as an implicit open-ended guarantee of all deposits in the banking system. This further encouraged imprudent behavior by banks and diluted market discipline.[30] Depositors had little incentive to scrutinize their bank. In short, the regulatory regime was circumvented and ultimately failed. It has been characterized by one specialist as "one of the world's weakest regulatory systems, operating with unwarranted confidence in the strength of the banking sector coupled with a lack of adequate supervision."[31]

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Law Center for Inter-American Free Trade, 2001), p. 81.

[26] These types of assets bubbles have occurred in many countries over time, including the United States on more than one occasion.

[27] Velasco, op. cit., pp. 135-136.

[28] Sergio de la Cuadra and Salvador Valdés, "Myths and Facts about Financial Liberalization in Chile: 1974-1983," in *If Texas Were Chile: A Primer on Banking Reform*, ed. Philip L. Brock (San Francisco: ICS Press, 1992), pp. 38-39, 90.

[29] Velasco, op. cit., p. 135.

[30] Ibid., p. 136 and 151 and Gallego and Loayza, *Financial Structure in Chile: Macroeconomic Developments and Microeconomic Effects*, pp. 5-7.

[31] Kozolchyk and Rudolph, op., cit., p. 80.

The faltering economy exposed the over leveraged financial system and weak regulatory structure. Although the Chilean Congress passed the first banking law requiring diversification away from *grupo* self-financing in August 1981, it was too late.[32] Non-performing loans rose to a huge 113% of capital and reserves and in the end, beginning in November 1981, the government intervened with a massive rescue package involving 60% of the combined sector's loan portfolio. The bank bailout was managed by the Central Bank of Chile and focused on a three-tier strategy: (1) debt restructuring for commercial and household borrowers; (2) purchases of non-performing loans from financial institutions; and (3) the expeditious sale, merger, or liquidation of distressed institutions. Chile's aggressive actions succeeded in correcting a systemic crisis in the financial system and restoring the banking system to complete health within four years.[33] The important lessons for regulatory reform, however, came in the years that followed.[34]

Financial Sector Reform in Chile: the General Banking Act and Strengthening of Prudential Supervision and Regulation

During the 1980s, Chile modified its banking laws, regulatory structure, and oversight practices in ways that would lead to a widely regarded improvement in the stability of the country's financial sector.[35] The basis for Chile's success by many accounts rests with a 1986 overhaul of the General Banking Act (GBA). The GBA remains the governing statute, last revised in June 2007. It sought a middle path by providing a strong and well-defined prudential regulation within a market-based economy. The overall goal was to strike a balance between two extreme regulatory models that had failed, each in their own way, to provide a transparent and credible oversight structure. Reforms also eliminated or restricted many of the practices that were directly responsible for the 1981-83 financial crisis, particularly lending among affiliated companies.

Conceptually, Chile's comprehensive reform had two fundamental principles: simplify and streamline prudential regulation and supervision. Under the G-30 report framework for financial regulation, Chile adopted what might be classified as an integrated approach to regulation. The architecture was reshaped, consolidated, and vastly strengthened by giving most regulatory responsibility to one agency, the Superintendency of Banks and Financial Institutions (SBIF). This priority arose from concerns over the previous system that had failed to prevent excesses in the financial system. The new structure also placed supportive regulatory responsibility in three other agencies: the Central Bank of Chile (Banco Central de Chile); the Superintendency of Pensions (Superintendencia de Pensiones – SP); and the Superintendency of Securities and Insurance (Superintendencia de Valores y Seguros – SVS). Each, however, looks to the SBIF as the primary regulator and supervisory institution of banks and their financial subsidiaries.

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[32] de la Cuadra and Valdés, op. cit., p. 88.

[33] This is in keeping with the "protracted" nature of recessions caused by financial crises, see Reinhart and Rogoff, op. cit., p. 466.

[34] Velasco, op. cit., pp. 113, 140, and 151. Other causes of Chile's crisis include the 1981-82 U.S. recession, and Chile's large macroeconomic imbalances, excessive indebtedness, and incongruous policy responses. For a discussion of the crisis and its resolution, see: CRS Report RS22961, *The U.S. Financial Crisis: Lessons From Chile*, by (name redacted).

[35] This effort was part of a comprehensive economic reform program. See: Vittorio Corbo, Leonardo Hernández, and Fernando Parro, *Institutions, Economic Policies and Growth: Lessons from the Chilean Experience*, Banco Central de Chile, Working Paper 317, Santiago, April 2005, pp. 17-19.

By way of example, the Central Bank works cooperatively with the SBIF, supporting the banking system with its discount window and role as lender of last resort. Although it has selective off-site oversight responsibilities (e.g., balance of payments and foreign exchange issues), a 1989 amendment to the banking law restricts the Central Bank's duties largely to monetary policy. The pension system, a major investor in banks, has a separate regulator under the SP, but it relies heavily on the SBIF for information. The SVS is responsible for oversight of brokerages, stock exchanges, securities dealers, mutual funds, and other investment related firms. As is common, however, where securities and insurance firms are organized as subsidiaries of banks or other financial institutions, their oversight falls to the SBIF.[36] The three superintendencies meet to coordinate regulation as part of the Financial Area Superintendents Committee, but the lead agency remains the SBIF.[37]

In addition to consolidating regulation and oversight largely in a newly strengthened SBIF, the 1986 reform gave it vastly new powers to conduct its business. As stated in the General Banking Act, the Superintendent is appointed by the President of the Republic, and the SBIF has sweeping oversight powers for "banking enterprises irrespective of their nature and the financial entities whose control is not otherwise entrusted by law to a different institution...[and] shall also be in charge of the supervision of companies whose corporate purpose consists in the issuance or operation of credit cards." The SBIF has authority: (1) "to examine, without any restriction whatsoever" institutions to ensure compliance with laws, regulations, by-laws and other provisions that apply; (2) to issue instructions to institutions to correct any irregularities; and (3) to impose fines or restrictions on banking activities (e.g., granting or renewal of loans) of institutions not in compliance. Authority is extended to include all subsidiaries of banks that may be in nonbanking financial services and was further extended in 2005 to the derivatives market as well, to promote a comprehensive and coordinated approach to prudential supervision.[38]

Possible Lessons from the Chilean Case

Because Chile experienced two financial crises between 1973 and 1981 under two extreme regulatory systems, followed by nearly 25 years of financial stability after implementing major reforms, some argue it showcases the merits of a balanced and comprehensive model of financial regulation and oversight. Of particular note, most of the major principles illuminated by the G-30 report, *The Structure of Financial Supervision*, were identified and formed the basis for reform in Chile over two decades earlier. Specific policy responses and some lessons they drew on are summarized below.

Regulatory Structure

Chile stopped short of instituting a pure Integration approach or single regulator model, but it did react to the failures of ineffective regulation by creating a strong, independent, and consolidated regulatory and oversight agency in the SBIF. As an independent agency, it has broad and definitive powers over a financial system dominated by large bank conglomerates with multiple subsidiaries operating in nonbank finance (securities, insurance, and derivatives). This highly

[36] GBA, Art. 70, General SVS law, and Kozolchyk and Rudolph, op. cit., p. 86.

[37] Kozolchyk and Rudolph, op. cit., p. 101.

[38] GBA, Art. 1, 12, 20, and 22.

centralized regulatory system has so far appeared to have improved accountability in the financial institutions industry, the success of which may be seen in the sector's ability to weather the current global recession sparked by financial serious shocks in developed economies.[39] Cooperation with the Central Bank and coordination with the other three regulatory agencies via a special inter-agency committee follows the guidelines offered in the 2008 G-30 report. The G-30 report also argues that domestic coordination and communication are critical elements of effective regulation and that the Integrated or Twin Peaks approaches may be better solutions for regulating current business models with diverse financial services and products.

Transparency

Transparency dominated concerns of Chile's regulatory shortfalls. In the 1980s, the activities of large financial conglomerates, many of them illegal even under the then existing system, were largely opaque, contributing to excessive risk taking and ultimately the failure of many large banks. Chilean banking law now requires a number of specific reporting measures to ensure reasonable institution and system transparency. First, the SBIF must publish detailed information on the type and quality of each financial institution it supervises at least three times per year. Second, loan information must be transmitted electronically to the SBIF on a daily basis. Third, loan losses must be recognized on a timely basis, without exception. Fourth, banks are rated annually by two independent private auditors. One key lesson from Chile is that without readily available information, there was little basis for either market or regulatory discipline, leaving financial institutions free to operate solely on their internal decision making process. This can introduce systemic fragility if banks have little confidence in each other when shocks occur.[40]

Capital Adequacy Standards

Capital adequacy standards are still considered the first line of defense for protecting bank safety and soundness.[41] Chile tightened and clarified its standards in the GBA. In addition to the standard 8% minimum Basel risk-weighted capital-asset ratio, Chilean banks have to meet capital requirements relative to reserves, deposits, and other liabilities. Capital must equal at least 3% of total assets.[42] Non-compliance can result in limitations placed on loan and investment activities. These standards were a response to overly leveraged banks during the 1980s crisis. In fact, Chile's banking culture seems to have opted for maintaining capital standards well in excess of the minimum prescribed by Basel II, contributing to confidence in (and stability of) the financial system over the long run.

Deposit Insurance

Given the history of bank bailouts in Chile, it was necessary to change expectations of an implicit government guarantee of all deposits. The 1986 law limited deposit insurance to accounts payable on sight and those of small depositors. Perhaps taking a page from U.S. regulations, it was later

[39] Banco Central de Chile, *Financial Stability Reports, First Half 2009*. Santiago, July 2009.

[40] GBA, Art. 1, 12, 20, and 22. See also: Kozolchyk and Rudolph, op. cit., pp. 80-83 and 97-98, and Velasco, op. cit. pp. 165-167.

[41] Tarullo, op. cit., p. 15.

[42] GBA, Art. 66.

expanded to cover up to 90% of an individual's total deposits in the banking system to a specified limit.[43] Chile was able to find a balance that conveyed security to the depositors, thereby guarding against bank runs, and that limited the public commitment, thereby ensuring that depositors still had an incentive to scrutinize banks.

Bank Supervision

Oversight is based on a formal bank rating system following the CAMEL standards (capital, asset quality, management, earnings, liquidity, and later bank management), Basel II guidelines, and additional limitations on bank investment activities (e.g. equity capital, agricultural land). Banks may extend their services through subsidiaries to include securities brokerage, investment fund management, mutual funds, real estate, and financial leasing, all subject to review by the SBIF.[44] Capital requirements already exceed those of the international Basel accord. More sophisticated derivatives are either carefully limited or not permitted. Monitoring falls to the primary financial sector regulatory agency.

Conclusions: Chile's Relevance to the United States

Testimony before the Joint Economic Committee on April 21, 2009 by three noted economists challenged policy makers to think very differently about how the financial sector should work and be regulated. In addressing the theme of the hearings, each conveyed the pitfalls of the "too big to fail" phenomenon, noting how loose or inappropriate regulation has led to "gargantuan," opaque firms that can be exploitive and difficult to regulate. They all pointed out that, in one form or another, a new approach to regulation should emphasize scaling back the size and scope of certain financial institutions, limiting risk-taking options of these institutions (e.g. types of products and services they can offer), and codifying clear rules of oversight and resolution to make sure all institutions understand that they will bear the cost of bad decisions and behavior. The witnesses argued that only when risk is internalized and the promise of a bailout withheld will behavior begin to change.[45]

The lessons from Chile bear out all these points. The existing prudential regulatory and oversight system has so far limited these types of mistakes from being repeated and is credited with helping maintain the health of the banking sector during the global financial crisis. It continues to update regulations to stay current with a dynamic and innovative industry so as to balance competitiveness with prudence. The result, in 2009 Chile has one of the most stable banking systems among emerging market countries, as evidenced by its capacity to withstand external shocks related to the global recession and international credit contraction. Profitability has declined slightly as loan loss reserves have been increased in response to higher credit risk. But these same measures ensured that the banking industry as a whole has an average capital adequacy ratio above 12%, similar to that of the United States. The portfolio quality of banks is high and yet the banking industry has an annual average return on equity of 15% over the past

[43] Kozolchyk and Rudolph, op. cit., p. 84. GBA, Art. 144.

[44] Ibid., pp. 86 and 101.

[45] See testimony of Joseph E. Stiglitz, Simon Johnson, and Thomas M. Hoenig. U.S. Congress, Joint Economic Committee, *Too Big to Fail or To Big to Save? Examining the Systemic Threats of Large Financial Institutions*, 111th Cong., 1st sess., April 21, 2009. Available at: http://jec.senate.gov/

decade, also equal to or exceeding that of the United States in recent years. Market confidence in the sector may be seen in consistently high bank stock prices and credit ratings on debt securities.[46]

In particular, Chile has protected itself from severe repercussions of the current crisis, which, many argue, is no accident given the regulations in place that improve accountability by restricting risky behavior, enhancing transparency, and promoting a more traditional commercial banking model. For example, the derivatives market deals mostly with interest rate and exchange rate options, which are highly regulated. Banks are not authorized to issue credit derivatives. Chile represents only 3% of securitization activity in Latin America compared to Mexico's 40% and Brazil's 32%. Off-balance sheet exposure is considered only moderate. To the contrary, loans constitute 70% of assets and are originated and administered on the balance sheet. Half of all liabilities are retail or time deposits. The SBIF monitors this system carefully and it is widely understood that noncompliance will be addressed.[47] This situation does not guarantee that a full-proof financial regulatory system is possible, or that Chile will perpetually avoid and future financial crisis. It does, however, point to a very positive exception in a region with a lengthy history of financial crises.

The United States has a far more complex financial sector than Chile. Chile's financial regulatory system could not replace that of the United States. Nonetheless, the broader lessons may be worth consideration because the benefits reach beyond the financial sector. Because it has remained healthy, the financial sector has not pulled Chile into a deep recession, and it appears to be recovering from the global downturn. The link between a sound financial sector and economic growth and development is now well documented, and evidence from Chile, many argue, suggests that although there may be tradeoffs between efficiency, growth and prudential regulation, over the long run, avoiding a major financial crisis may more than offset the opportunity costs of a more comprehensive regulatory environment, particularly if a proper balance can be achieved.

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[46] Banco Central de Chile, *Financial Stability Reports, Second Half 2008 and First Half 2009.* Santiago, January and July 2009, and International Monetary Fund, *Chile: 2008 Article IV Consultation*, Washington, D.C., July 2008, pp. 15-16 and 28-29.

[47] Banco Central de Chile, *Financial Stability Report, Second Half 2008.* Santiago, January 2009.