"Nothing emboldens sin so much as mercy."—William Shakespeare; Timon of Athens; Act III, Scene 5

by

Thomas Flynn

Professor Charles Armstrong, Advisor

Dr. William Deringer, Second Reader

Columbia University

New York, New York

3 April 2015

Introduction

Nearly seven years ago, the world stood still. On September 15, 2008, Lehman Brothers filed for bankruptcy. The once venerable investment bank ceased to exist—losing investors billions—and became famous for being "the biggest bankruptcy in US history." That morning, Bank of America proudly declared that it was acquiring Merrill Lynch for \$50 billion.² Two investment-banking titans collapsed in mere hours. The very next day, the Federal Reserve ("Fed") announced that it—along with the US Treasury Department's ("Treasury") support would lend up to \$85 billion to American International Group (AIG), an unprecedented move as the insurance company was out of the Fed's normal purview. Nearly six months before, the Fed had similarly intervened and orchestrated the sale of the investment bank Bear Stearns to JP Morgan, citing its responsibility "to bolster market liquidity and promote orderly market functioning." Less than a week after the AIG bailout, the Fed quickly approved applications that permitted two icons of American financial might, Goldman Sachs and Morgan Stanley, to become bank holding companies (granting them access to cheap and available Fed liquidity).⁵ Almost a month later, Treasury announced the \$700 billion Troubled Asset Relief Program (TARP), which initiated an injection of government capital into ailing financial institutions that spanned several years. As Washington and Wall Street frantically scrambled, the world indeed stood still.

¹ Mamudi, "Lehman folds with record \$613 billion debt."

² Bank of America, "Bank of America Buys Merrill Lynch."

³ The Federal Reserve, "Press Release," Sept. 18, 2008.

 $^{^4}$ Federal Reserve Bank of New York, "Statement on Financing Arrangement of JPMorgan Chase's Acquisition of Bear Stearns."

⁵ The Federal Reserve, "Press Release," Sept. 21, 2008.

⁶ Nelson, *The Great Recapitalization*.

Many of the key actors have since shed light on these desperate months in 2008 and their difficult decisions. One noticeable current that runs through each account is the blatant disgust and fear felt over creating "moral hazard" in the US financial system. According to Nobel Prizewinning economist and New York Times columnist Paul Krugman, a moral hazard is "any situation in which one person makes the decision about how much risk to take, while someone else bears the cost if things go badly." In essence, a moral hazard is an economic infection: actors know that they can behave irresponsibly as they will receive the benefits if they are right and not face the consequences if they are wrong. Like an infection, a moral hazard gets worse and worse—or more and more instilled in the system—over time if not treated. Keenly aware of moral hazard concerns, Hank Paulson, former Goldman Sachs CEO and Treasury Secretary at the time, wrote On the Brink in 2010 and appeared in Joe Berlinger's 2013 documentary Hank: 5 Years from the Brink to explain his actions. Paulson defended the bailouts even after initially finding them "abhorrent." Attempting to explain his decisions, Paulson argues that he was stuck in an impossible situation: "It's hard to save and punish the banks at the same time... [he] tilted toward stability because [he] didn't want the system to collapse." However, he admits that the current situation cannot persist: "Big banks are difficult to manage, and the bank mergers during the crisis only contributed to the increased concentration in our financial system. Clearly, the phenomenon of 'too big to fail' is unacceptable and must end." Another key player, Timothy Geithner, who was the New York Fed President at the time and later became Treasury Secretary, also tackles the difficult choices he made in his post-crisis memoir, Stress Test. He claims that those who criticized the bailouts had two main (and legitimate) grievances:

⁷ Krugman, *The Return to Depression Economics and the Crisis of 2008*, 63.

⁸ Hank: Five Years from the Brink.

⁹ Ibid.

¹⁰ Paulson, *On the Brink*, xxix.

One was a moral argument about justice, what I called the "Old Testament view." The venal should be punished. The irresponsible shouldn't be bailed out. The other was an economic argument about incentives, the "moral hazard" critique. If you protect risk-takers from losses today, they'll take too many risks tomorrow, creating new crises in the future. If you rescue pyromaniacs, you'll end up with more fires. Those are valid concerns. ¹¹

Geithner's boss at the time and chairman of the Fed, Ben Bernanke gave a series of lectures at George Washington University in 2012. He mirrors Paulson's disgust over bailouts and Geithner's fears of setting a long-term precedent:

I would like to emphasize that what we had to do with Bear Stearns and AIG is obviously not a recipe for future crisis management. First, it was a very difficult and, in many ways, distasteful intervention that we had to do to prevent the system from collapsing. But clearly, there is something fundamentally wrong with a system in which some companies are "too big to fail." If a company is so big that it knows that it is going to get bailed out, that is not at all fair to other companies. But even beyond that, "too big to fail" gives these big companies an incentive to take excessive risks, where they will say: "Well, we'll take big risks. Heads I win, tails you lose. If the risks pay off, we make plenty of money. And if they don't pay off, the government will save us." That is a situation that we cannot tolerate. ¹²

And Sheila Bair, at the time the Chairperson of the Federal Deposit Insurance Corporation ("FDIC"), argued in her memoirs *Bull by the Horns* that the bailouts were unfair to "Main Street" Americans and that "participating in those programs was the most distasteful thing [she] has ever done in public life."¹³ The four key actors during the crisis collectively viewed their actions as repulsive and worrying because the bailouts threatened to create moral hazard in the US financial system.

However, bailouts and the moral hazard issues they engender are nothing new to

American finance. Born in the previous decades, moral hazard thoroughly infected the industry

by the time Lehman Brothers closed its doors in 2008. Bailouts occurred alongside several

¹¹ Geithner, *Stress Test*.

¹² Bernanke, "The Federal Reserve's Response to the Financial Crisis."

¹³ Bair, *Bull by the Horns*.

crucial developments in the US financial system during the 1980s and 1990s, which created an entirely new landscape for the industry. These major changes include: Michael Milken's "junk bond" revolution, the largest financial institutions' increasingly close ties with the government, massive deregulation and consolidation of the banking industry—to name a few. With the crisis in hindsight, several journalists and documentary producers have somewhat colorfully commented on this changing environment in American finance. However, the historical question that fascinates me is precisely the opposite: did policy makers and other commentators recognize that bailouts induce moral hazards during the preceding decades leading up to the 2008 Financial Crisis? And, if so, how were they justified? These questions are compelling as they shed light on our current efforts to avoid—or at least be better prepared for—future crises.

In this paper, I will analyze responses over the late 1990s to government bailouts and the moral hazard anxiety that these bailouts prompted. The focus of the paper covers two notable government bailouts in the period: the US' participation in the IMF bailout fund for struggling Asian economies during the 1997 Asian Financial Crisis, and the 1998 demise and subsequent NY Fed-orchestrated bailout of the hedge fund, Long-Term Capital Management ("LTCM"). The former provides an interesting international counterpoint to the latter's domestic rationalizations. The analysis will surround the arguments employed to justify establishing moral hazard abroad in the international financial system and at home in the US financial system. The paper's source material is primarily from the same government entities that were integral during the 2008 Financial Crisis: the Fed (mainly congressional hearings and testimonies) and Treasury (mainly speeches, testimonies, and statements). However, reports and other documents (from a variety of government institutions and entities) are also employed to assess responses and

¹⁴ Prins, All The President's Bankers; Taibbi, Griftopia; Ivry, The Seven Sins of Wall Street; Doyle, In Bed with Wall Street; Capitalism: A Love Story; Inside Job.

reasoning behind US involvement in bailouts during the late 1990s. Essentially, I am most interested in deciphering how key US policy-makers dealt with the fear of establishing moral hazard in both the international and US financial systems after their involvement in bailouts. This paper analyzes responses to events that spanned a little over a one year time period, from fall 1997 to fall 1998, and the main source material is drawn from a close proximity to this time horizon. The US policymakers' responses are vital to understand and clearly provide important insight into how the US (and other countries) should deal with future crises. And the responses are particularly significant considering the aforementioned backdrop of overtly negative reactions to the long-term consequences of financial bailouts nearly a decade later.

The paper argues that US government policymakers recognized that bailouts did induce moral hazard in the international and the US financial system during the late 1990s. Furthermore, these concerns were resoundingly justified when considering the potential costs of the alternative inaction: not bailing out Asian countries and LTCM, and simply allowing the free market to "clear." However, when analyzing responses to the IMF bailouts of struggling Asian economies, US policymakers justified moral hazard creation only as a short-term consequence and argued that, in return for bailouts, these countries must implement strict structural changes to their financial systems. These structural changes are often the lynchpin to the IMF bailout support: they will prevent the moral hazard infection from exacerbating excessive future risk-taking and, therefore, future financial crises. However, despite these rationalizations being fresh in their minds, the same US policymakers were not compelled to mitigate moral hazard created by the LTCM bailout. These findings illuminate the reticence that plagued key decision makers during the 2008 Financial Crisis to establish moral hazard in the US financial system. The paper finds that US policymakers failed to apply the same insistence on structural reforms to alleviate moral

hazard, which was so prevalent during the IMF bailout discussions, to the US financial system following the LTCM bailout. In essence, key regulators recognized that bailouts created moral hazard issues in both the US and Asian countries' financial systems but did not deal with these systematic issues in the US.

In order to understand these bailouts and their justifications, we must first delve into the historical background and the changing landscape of the industry during the period. American finance experienced massive deregulation and consolidation during the late 20th century. This period saw the demise of the 1933 Glass-Steagall Act, which was established during the Great Depression to separate conventional commercial banking from the much riskier investment banking. With the new deregulatory zeal, the banking industry also experienced massive consolidation: both commercial banks and investment banks grew dramatically by going public (in the latter's case) and large mergers and acquisitions. This created colossal entities whose downfall obviously posed systematic risk to the broader US economy. Both historical trajectories—deregulation and consolidation—fundamentally altered the industry and its future.

Deregulation was bolstered by an increasingly close relationship between the financial industry and the government. Since the 2008 Financial Crisis, Americans have come to recognize the existence of this deep relationship. Indeed, Hank Paulson was the CEO of Goldman Sachs before he was appointed as George W. Bush's Treasury Secretary in 2006. Furthermore, Paulson and several other former bankers-turned-government officials from Goldman precipitated the term "Government Sachs." However, this is not a new relationship. The historical trend began on Wednesday, December 3, 1980, when newly elected President

 $^{^{\}rm 15}$ Creswell and White, "The Guys From 'Government Sachs."

Reagan called then-CEO of Merrill Lynch, Donald T. Regan.¹⁶ As Regan points out in *For the Record*, Reagan joked about the similarities in their last names:

I took the instrument and, out of long habit, said, "Hello—Regan." Gosh, said Ronald Reagan in his whispery tenor, I guess I'm going to have to get used to that pronunciation.

"It must be the same family tree—just a different spelling," I replied. I congratulated him on his victory. 17

Just as their names appeared indistinguishable, the distinction between Washington and Wall Street similarly began to blur in the early 1980s. Regan accepted the appointment and initiated an era that spanned the next few decades, in which top bankers would enter top political posts (mainly in Treasury). Financial institutions established formal relationships with the government, pushing deregulation as the rallying cry of the 1980s and 1990s.

It seems obvious that former bankers would want their former companies (and industry) to be under less regulatory pressure. In fact, before joining Reagan's administration, Regan had already pushed for the repeal of the 1933 Glass-Steagall Act, arguing for greater competition: "What the hell happened to competition? There is no God-given right that Wall Street firms should all succeed or that banks shouldn't have competition." And later, as CEO of Merrill Lynch in 1975, Regan initiated the Cash Management Account (CMA), which was essentially a debit card that one could use to purchase securities. Regan even admitted that "this brilliant concept... broke down barriers between brokerage and banking" but also insisted that it did not formally break any laws: "Like most innovative ideas, it met with resistance. Did it comply with the provisions of the Glass-Steagall Act of 1933, which prohibited commercial banks from

¹⁶ Prins, *All The President's Bankers*, 322.

¹⁷ Regan, For the Record, 157.

¹⁸ Smith, *Catching Lightning*, 305.

underwriting securities? [He] saw no conflict."¹⁹ As CEO, Regan firmly believed that "he had to fight for regulatory reform" because greater competition from a less-regulated financial industry would be best for Merrill's clients.²⁰ Similarly, Robert Rubin, the former head of Goldman Sachs and subsequently President Clinton's Treasury Secretary, argued that Glass-Steagall was anti-competitive before the House Committee on Banking and Financial Services. He testified that very little risk disparity existed between commercial and investment banks' main functions: "It is difficult to argue that the security underwriting risk of an investment bank is greater than the loan making risk of a commercial bank."²¹ Regan began the process of repealing Glass-Steagall; Rubin largely finished it. Unsurprisingly, notable bankers brought their industry's deregulatory zeal to Washington.

However, the new connection between Washington and Wall Street could not fully explain the massive financial deregulation in the period. A cultural and philosophical thrust also entered Washington in the 1980s with the Reagan Administration. Alan Greenspan, who became chairman of the Fed under Reagan in 1987, epitomized this new movement. He was a member of objectivist writer Ayn Rand's weekly club, "The Collective." Rand's philosophy, Objectivism, is mainly expounded in her seminal work, *Atlas Shrugged*. In the novel, Rand describes a dystopian world, dilapidated under government regulation that increasingly suffocates the producers and innovators (generally business leaders) in America, which is (naturally) the final bastion of capitalism. To summarize Rand's epic, the government is mainly a force for corruption, cronyism, and intellectual/financial theft. Greenspan brought some of this philosophical trajectory to his long tenure at the Fed, pioneering the idea of "self-regulation." In

¹⁹ Regan, For the Record, 151.

²⁰ Smith, *Catching Lightning*, 305.

²¹ Geisst, Wall Street, 359.

²² Kinsley, "Greenspan Shrugged."

front of the House Subcommittee on Telecommunications and Finance in 1994, he famously argued this theorem: "There is nothing involved in federal regulation per se which makes it superior to market regulation."²³

Greenspan spent his Fed tenure supporting the dismantling of the Glass-Steagall Act like Regan and Rubin. He had previously served as a director at JP Morgan, where he was a vital contributor to the bank's 1984 essay "Rethinking Glass-Steagall" which enumerates reasons for the legislation's repeal.²⁴ Finally, although Greenspan recused himself from voting, his Fed voted in 1989 to grant commercial banks the ability to officially engage in investment banking, arguing that "the introduction of the new competitors into these markets may be expected to reduce concentration levels and correspondingly, to lower consumer and financing costs and increase the types and availability of investment banking services."²⁵ And, before Glass-Steagall's final demise with the passage of the 1999 Gramm-Leach-Bliley Act, Greenspan appeared before the Senate Committee on Banking, Housing, and Urban Affairs to emphasize the necessity of deregulation. Like Regan decades earlier and Rubin months earlier, Greenspan argued that Glass-Steagall was thoroughly obsolete and anticompetitive: "Unless soon repealed, the archaic statutory barriers to efficiency could undermine the competitiveness of our financial institutions, their ability to innovate and to provide the best and broadest possible services to U.S. consumers, and ultimately, the global dominance of American finance."²⁶

The deregulation fervor created a glaring problem in the industry. During the Great

Depression, one of FDR's main tasks was to stem constant "bank runs," in which bank

depositors would quickly remove their deposits fearing that others would do the same when their

²³ Goodman, "Taking Hard New Look at a Greenspan Legacy."

²⁴ Chernow, *House of Morgan*, 716.

²⁵ Board of Governors of the Federal Reserve System, "Order Conditionally Approving Applications to Engage, to a Limited Extent, in Underwriting and Dealing in Certain Securities," 29.

²⁶ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: Need for Financial Modernization."

bank appeared weak. It was a self-fulfilling prophecy: the depositors' fears led them all to simultaneously "run" on the bank and force it into insolvency. To contend with economically crippling bank runs, FDR and congress passed the Glass-Steagall Act of 1933, which created deposit insurance through the FDIC. The idea permitted the FDIC to guarantee depositors' money (up to a certain limit) so that they would not fear losing their deposits if their bank went under. However, this seemed like "outright socialism" to some as it allowed malfeasant and risky banks to have government protection and assurance.²⁷ The key to preventing this perilous situation was the other portion of the bill that separated commercial and investment banks. Commercial banks engage in making loans and are incentivized to thoroughly assess the creditworthiness of their borrowers as their loan remains on their balance sheet for the loan's duration. They need to establish and maintain a long-term relationship with the borrower. On the other hand, investment banks engage in more speculative activities—like underwriting—that require much less "skin in the game." By gradually combining the two types of banking in the 1980s and 1990s, regulators handed investment banks government-insured deposits as their capital base—incentivizing more risky behavior.

As the deregulation fervor grew, Wall Street underwent a complete transformation. In 1971, Merrill Lynch, the famed investment bank started by "two poor boys from out of town," Charles Merrill and Edmund Lynch, after meeting at the 23rd Street YMCA, went public. This essentially means that Merrill offered ownership of its company to public investors, whereas before the firm's partners and employees privately owned it. In the next three decades, the country's largest investment banks followed suit: Salomon Brothers in 1981, Bear Stearns in

²⁷ Geisst, Wall Street, 224.

²⁸ Smith, *Catching Lightning in a Bottle*, 32.

²⁹ Ibid, 30.

³⁰ Ibid. 288.

1985, Morgan Stanley in 1986, Lehman Brothers in 1994, and Goldman Sachs in 1999. By effectively ending the old partnership model, each investment bank changed dramatically. It was no longer just the partners' money on the line. In essence, investment bankers' decisions and those decisions' risks were partially transferred to public shareholders. By going public, these firms evolved into enormous juggernauts of modern finance, which partially explains the "too big" part of "too big to fail." They could bear more risk with increased size. And, although more difficult to assess, these institutions slowly lost some of their cultural integrity—albeit, some more than others. Short-term quarterly results (a pressure faced by all publically-traded companies) became the bearing for success. Long-term considerations and prudence gradually took a back seat as compensation changed dramatically over this period. 31

Similarly, it was during this period that massive consolidation transformed the broader financial industry. Commercial banks had been lobbying for the past two decades to end the aforementioned Depression-era restrictions established by Glass-Steagall. However, the bill remained resilient until the Fed broke a more than fifty-year precedent in the early 1980s by permitting a small group of commercial banks to underwrite corporate stocks and bonds. Five commercial banks applied for permission to underwrite—and end an era: JP Morgan, Bankers Trust, Citicorp, Chase Manhattan, and Security Pacific. In the next two decades, banks consolidated in staggering rates. In 1984, there were 14,884 banking organizations in the US. In 2003, there were 7,842. This unprecedented consolidation created organizations that—due to their size—threatened the stability of the financial system. However, the endemic risk was worsened by the new complex hybrid banks that emerged from the disintegration of Glass-

³¹ Smith, *Catching Lightning*, 285; Mandis, *What Happened to Goldman Sachs*, 18; Lewis, *Liar's Poker*, 158; and Cassidy, *How Markets Fail*, 292-295.

³² Geisst, Wall Street, 349.

³³ Ibid.

³⁴ United States, FDIC, Consolidation in the U.S. Banking Industry.

Steagall's authority in the period. Newly public investment banks merged or were acquired by large commercial banks. By becoming very big and very complex, these banking institutions increasingly insured that they were integral to the system's functioning. These new behemoths could take excessive risks because they essentially *were* the system—a clear moral hazard. With the government's implicit backstopping, these increasingly "too big to fail" banks had access to cheaper financing and capital—as they were less risky investments.³⁵

However, this paper will focus on moral hazard issues propagated by government bailouts. And it is important to recognize that the US government did not start bailing financial institutions out in 2008 or even 1998. In fact, a precedent was gradually set during the previous two decades (at this point, a tedious refrain throughout the paper). In 1984, the Reagan administration assumed an 80% share of Continental Illinois National Bank and Trust Co., which was the nation's seventh largest bank at the time. This bailout actually created the—according to the FDIC—"rather inaccurate sobriquet of 'too big to fail." Subsequently, the US government used the same "systematic risk" justification to bail out Interfirst Texas in 1987, Bank of New England in 1989-1991, Sovran, C&S, and Citibank in 1991. Concurrently, in 1989, the first Bush administration passed "The Financial Institutions Reform Recovery and Enforcement Act," which authorized nearly \$300 billion to deal with the Savings and Loans Crisis. It established the Resolution Trust Corporation (RTC) to deal with unwinding the many failing banks. The RTC's final cost ended up being approximately \$153 billion, with taxpayers

³⁵ Shull and Hanweck, *Bank Mergers in a Deregulated Environment*, 161.

³⁶ United States. FDIC. Division of Research and Statistics. *An Examination of the Banking Crises of the 1980s and Early 1990s*, 236.

³⁷ Ibid.

³⁸ Shull and Hanweck, *Bank Mergers in a Deregulated Environment*, 162.

³⁹ Geisst. Wall Street. 355.

covering \$124 billion and the private sector covering the rest.⁴⁰ Clearly, the US government made it official policy (especially with the passage of the 1991 Federal Deposit Insurance Corporation Improvement Act or "FDICIA") to bailout large financial institutions that were systematically important and were deemed "too big to fail."⁴¹

This paper will focus on the NY Fed-orchestrated bailout of the hedge fund, LTCM, which quickly (due to enormous amounts of leverage) became insolvent after Russia's 1998 debt default shocked markets. No taxpayer money was lost: the Fed essentially gathered bank CEOs in a room and required them to put up their banks' own capital to bailout the struggling hedge fund. However, after the series of bailouts in the 1980s and 1990s already instilled a significant moral hazard in the financial system, LTCM provided a completely new definition of "too big to fail": the government willingly bailed out a non-bank financial entity that it deemed large enough to destabilize markets. The bailout was most shocking because the government did not even remotely regulate hedge funds, which are not FDIC-insured commercial banks.

Furthermore, right before LTCM's epic demise, US officials were working to deal with the 1997 Asian Financial Crisis. Several Asian countries (mainly, Thailand, Indonesia, and South Korea) experienced significant economic and financial struggles in a chain reaction of currency and debt crises. ⁴³ US policymakers ended up participating in the IMF's bailout funds, however they displayed an insistence on implementing extensive structural reforms, citing significant moral hazard concerns. The IMF bailout arguments and rationalizations provide important insights into how four key US officials (Federal Reserve Chairman Greenspan, Treasury Secretary Rubin, Deputy Treasury Secretary Lawrence Summers, and Assistant Treasury

⁴⁰ United States. FDIC. Division of Research and Statistics. *The Cost of the Savings and Loan Crisis: Truth and Consequences*, 36.

⁴¹ Shull and Hanweck, *Bank Mergers in a Deregulated Environment*, 162.

⁴² Lowenstein, *When Genius Failed*.

⁴³ Geisst. Wall Street, 371-372.

Secretary Timothy Geithner) justified establishing moral hazard precedents. They maintained that IMF bailouts should be contingent upon significant structural reforms to avoid excessive risk-taking in the future. However, the same officials failed to apply similar regulatory reform requirements to the US financial system after LTCM's epic demise and subsequent bailout mere months later. In a little more than over a year, their fears over instilling moral hazard diverged significantly.

The Asian Financial Crisis

Throughout the late 20th century, economic miracles occurred in Asia. Japan rose from the depths of WWII and its crumbled empire to be the second biggest economy in the world (behind the US). South Korea emerged as a world power—especially impressive considering it was on a similar economic level as its northern neighbor at the end of the Korean War. Hong Kong and Singapore, though small, were introduced as international commercial and financial centers—emerging triumphant from their shared British colonial heritage. China began to finally "leap forward" after decades of stalled development. According to the IMF, from 1960 to 1996, China, Indonesia, Japan, Malaysia, and Thailand achieved growth rates of 3-5%. However, the "Four Tigers" (Hong Kong, South Korea, Singapore, and Taiwan) experienced annual growth rates of higher than 6%. With a particularly telling statistic, the IMF reports that "while the average resident of a non-Asian country in 1990 was 72% richer than his parents were in 1960, the corresponding figure for the average Korean is no less than 638%." Economic miracles seemingly became a routine in Asia during the late 20th century.

⁴⁴ Sarel, Growth in East Asia: What We Can and What We Cannot Infer.

With this backdrop in mind, the 1997 Asian Financial Crisis was shocking. On May 14, 1997, Thailand burned through billions of dollars of its foreign reserves to defend the Thai baht (which was pegged to the US dollar) against speculative attacks. And, a little more than a month later, it was forced to devalue the baht, which dropped in value by 20%. The Thai government then requested assistance from the IMF. This began a domino effect of currency crises across Asia: Malaysia, Indonesia, and the Philippines quickly followed suit. On July 18, the IMF employed its "emergency funding mechanism" for the first time in its history for the Philippines, which had devalued the peso only a week earlier. A week later, Singapore's dollar began to decline, and Malaysian Prime Minister Mahathir Mohamad angrily announced that "rogue speculators" were to blame for the economic calamity. On August 5, Thailand agreed to the IMF's tough structural reform requirements—which forced the financing recipient to enact broad, fiscally conservative policy measures—in order to get a \$17 billion loan from the organization. On August 14, Indonesia abandoned its peg to the dollar and the newly floating currency plunged. On October 8, Indonesia requested IMF support after the rupiah had fallen more than 30%. Nearly two weeks later, Hong Kong raised bank-lending rates to 300% and its stock index descended by 10.4% (annihilating \$29.3 billion of value). And, on the same day, the financial tremor reached South Korea as the won started to weaken. On October 31, the IMF approved Indonesia's bailout package, which would eventually amount to \$40 billion. On November 17, South Korea relented and abandoned its defense of the won—causing its dollar exchange rate to fall to a record low. Four days later, South Korea pleaded for IMF aid. On December 3, the IMF approved a \$57 billion bailout for South Korea—the largest in its history. And the Asian Financial Crisis continued well into 1998, finally spilling over into the global

economy and culminating in dual crises in Russia and South America (notably in Brazil and Argentina).

The IMF played the largest role in dealing with the crisis. Through international loans (with the US as the largest contributor), the IMF bailed out several struggling Asian economies and, in return, required strict structural changes to those nations' financial systems. Throughout 1997 and 1998, US policymakers contributed to that international bailout effort and defended their actions at home. Both Treasury and the Fed worked on formulating the international response to the Asian Crisis: "From the very beginning of this crisis, we at Treasury, in close cooperation with Chairman Greenspan and the staff of



Figure 1. (from left to right): Robert Rubin, Alan Greenspan, and Lawrence Summers

the Federal Reserve Board, have been deeply involved in crafting an international response involving the countries in the region, the G-7, the World Bank, and the Asian Development Bank -- all working with the International Monetary Fund."⁴⁵ Moreover, *TIME* placed Chairman Greenspan, Treasury Secretary Rubin, and Deputy Treasury Secretary Lawrence Summers on its February, 15, 1999, cover and declared the group "The Committee to Save the World"⁴⁶ (see **Figure 1**). Therefore, in order to assess the US response to the IMF bailouts, both Treasury and Fed officials' statements are relevant to determine a concise US strategy and rationale. These officials' statements provide significant insight into how they justified the IMF bailouts and the

⁴⁵ Treasury Department. Press Center, "Treasury Secretary Robert E. Rubin on the Asian Financial Situation to Georgetown University Washington, D.C."

⁴⁶ O'Neill, "TIME Magazine Cover: Rubin, Greenspan & Summers - Feb. 15, 1999."

moral hazard concerns that they engendered. Overwhelmingly, the Fed and Treasury policymakers' support for the IMF bailouts was dependent upon the subsequent structural reforms, which they argued would lessen moral hazard precedents. The most striking feature of US officials' arguments surrounds their unrelenting and even increasing conviction on the efficacy of structural reforms despite a worsening world economy and massive international outcry against these policies and their deleterious effects. Similarly, the various speeches, statements, and testimonies during this period occurred in front of disparate audiences (including Chilean, US, and Thai universities; the US Congress; a farmer's association, international banker's summit, the IMF, and the Brookings Institution). However, the policymakers' main arguments remain resilient and do not waver to appeal to their specific audience's ethos.

However, before delving into US financial policymakers' justifications for the IMF bailout programs, the paper will briefly set the stage and provide historical background about the IMF as an institution. Formed following the Bretton Woods Conference in 1944 and officially coming into existence on December 27, 1945, the nascent International Monetary Fund was thrust into a post-WWII world of battered nations and economies, and diverging political ideologies. Its first loan was made to France to help the country rebuild after being occupied during the war. Unsurprisingly, the "Soviet Sphere" countries in Eastern Europe refused to join the fledgling institution. The IMF's main duty was to oversee the international monetary system, ensuring exchange rate stability and fostering free international trade by encouraging members (29 nations initially) to eliminate exchange rate restrictions. Under the Bretton Woods system, the US dollar was granted a fixed value against gold—providing a basis for IMF member nations to peg their currencies against the dollar for stability. During the 1960s, President Lyndon Johnson's "Great Society" domestic spending programs and military spending on the Vietnam

War deteriorated the viability of the fixed exchange between the dollar and gold. The overvaluation worsened until August 1971, when President Nixon formally announced the suspension of the dollar's convertibility into gold. By March 1973, IMF member nations chose to float their currencies against one another—increasing exchange rate volatility. The 1970s also saw volatility in the international energy market, as the Organization of the Petroleum Exporting Countries (OPEC) began to flex its muscles and embargoed exports to many Western nations following the US' involvement (providing tanks and other military aid to Israel) in the 1973 Yom Kippur War. In response to the oil price shocks, the IMF adapted its lending instruments to provide financing facilities for oil importers who experienced current account deficits and inflation.

Paralleling this aid to oil importers, the IMF also began to increasingly support the world's poorest (or "least developed") countries. In the mid-1970s, the IMF created the "Trust Fund" to help poor countries deal with current account weaknesses. In March 1986, the institution established a new loan program called the "Structural Adjustment Facility," which gave way to the "Enhanced Structural Adjustment Facility" in December 1987. Both financing arrangements were concessional loans (or "soft" loans), meaning that they were much cheaper for borrowing countries to access than the private market. However, this cheaper form of financing came at the cost of the IMF's "conditionality" stipulation, which mandated structural adjustment programs (known as SAPs) for borrowing nations. The conditions associated with these programs came to be laid out in the 1989 "Washington Consensus," which was a reaction to several financial crises in Latin American countries during the 1980s. The Washington Consensus was actually created by John Williamson, who was an economist at the Peterson Institute for International Economics. In his influential paper "What Washington Means by

Policy Reform," Williamson seeks to demystify ambiguous phrases about economic reform in exchange for emergency funding: "No statement about how to deal with the debt crisis in Latin America would be complete without a call for the debtors to fulfill their part of the proposed bargain by 'setting their houses in order,' 'undertaking policy reforms,' or 'submitting to strong conditionality.' The question posed in this paper is what such phrases mean, and especially what they are generally interpreted as meaning in Washington."⁴⁷ He says that the consensus is comprised of "both the political Washington of Congress and senior members of the administration and the technocratic Washington of the international financial institutions, the economic agencies of the US government, the Federal Reserve Board, and the think tanks."48 The paper centers around 10 structural reform policies that incorporate key tenants of neoclassical liberal economics: 1) avoiding large fiscal deficits, 2) prioritizing public spending toward broad-based provision of pro-growth investments (and away from subsidization), 3) reforming the tax system toward a more broad tax base and more moderate tax rates, 4) allowing the market to determine interest rates (and keeping them positive), 5) maintaining competitive exchange rates, 6) promoting liberal and open trade, 7) promoting and protecting foreign direct investment, 8) privatizing state enterprises, 9) deregulating the economy to sanction free market competition (but still protecting against certain negative externalities and maintaining prudential oversight of financial institutions), and 10) establishing legal property rights. The IMF and, more specifically, key US policymakers adopted this list as the accepted program to fix struggling nations' economic and financial infrastructure throughout the 1990s.

With the IMF's history in the background, the paper will assess key US policymakers' justifications of the international institution's bailout programs. Three days before the IMF

⁴⁷ Williamson, John, *What Washington Means by Policy Reform*.

⁴⁸ Ihid.

officially approved Indonesia's bailout package (on October 29, 1997), Chairman Greenspan testified in front of Congress' Joint Economic Committee about the developing crisis in Asia. Greenspan argued that there are fundamental weaknesses in the Asian economies due to poorly developed financial systems and regulator laxity: "In many instances, those financial systems were less than robust, beset with problems of lax lending standards, weak supervisory regimes, and inadequate capital."⁴⁹ Furthermore, he underlined that functioning and dynamic free markets require participants to fail and that governments should implement structural changes in reaction to the causal issues of crisis: "In these circumstances, companies should be allowed to default, private investors should take their losses, and government policies should be directed toward laying the macroeconomic and structural foundations for renewed expansion; new growth opportunities must be allowed to emerge." ⁵⁰ Correspondingly, Greenspan qualified international bailout efforts to remain cautious and avoid establishing moral hazard in the international financial system: "Similarly, in providing any international financial assistance, we need to be mindful of the desirability of minimizing the impression that international authorities stand ready to guarantee the liabilities of failed domestic businesses. To do otherwise could lead to distorted investments and could ultimately unbalance the world financial system."51 He emphasized that "[t]he recent experience in Asia underscores the importance of financially sound domestic banking and other associated financial institutions... Our unlamented savings and loan crises come to mind."52 Greenspan concluded by asserting that the bailout assistance must parallel the Asian countries structurally correcting their systems.

 $^{^{49}}$ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: Turbulence in world financial markets."

⁵⁰ Ibid.

⁵¹ Ibid.

⁵² Ibid.

Later, on December 3, 1997, Robert Rubin spoke at the Catholic University of Chile on the same day that the IMF approved South Korea's \$57 billion bailout package. Similar to Greenspan, Rubin argued that the struggling Asian countries have fundamentally unsound financial systems and that, "where weak financial sectors or other policy weaknesses remained unaddressed, these problems took the inevitable toll we see today."53 He emphasized that free markets have been the primary reason for the post-WWII economic success in emerging markets, regardless of their current struggles. Similarly, Rubin underlined that Asian countries must initiate structural reforms in order to avoid future crises. He said that "[b]anks need to operate with transparency and on a truly commercial basis, maintaining independence both from the dictates of government policy and from those to which they lend."54 Rubin argued that a bailout—which will alleviate issues in the short run—can only work with policy reforms and an improved infrastructure: "[M]oney is not the answer. Sound policy is, though international support may be necessary to get through a difficult period."55 Rubin also pointed out that, beside structural policy changes, moral hazard concerns are also dampened by the heavy economic costs associated with financial crises. He ended his speech by emphasizing the bright and promising future that awaits emerging market economies that adopt classical liberal openness and Western free market systems—main tenets of the Washington Consensus that his Chilean audience likely recognized from their own experiences during the 1980s.

Subsequently, on December 8, 1997, Secretary Rubin announced that the US Treasury welcomed the IMF's new financing facility, the Supplemental Reserve Facility, which was developed to provide more capital to struggling Asian economies. He reiterated that the funding

⁵³ Treasury Department. Press Center. "Secretary Robert E. Rubin Catholic University of Chile."

⁵⁴ Ibid.

⁵⁵ Ibid.

remains contingent on strong structural changes: "It will be available only in carefully circumscribed situations and only in association with the strong policy response necessary to restore confidence." His statement was a response to the Thai government's closing of 56 insolvent financial institutions—making approximately 30,000 white-collar workers unemployed—to comply with IMF bailout requirements. In response, Michel Camdessus, who was the IMF's managing director at the time, praised the country's "solid progress." ⁵⁷

A day before Christmas 1997, Rubin similarly responded to the IMF's emergency bailout efforts in South Korea, which involved an unprecedented \$3 billion loan from the World Bank and early payment of a \$10 billion IMF loan. ⁵⁸ He outlined the South Korean government's substantial economic and financial policy reforms, mainly predicated on establishing free market fundamentals: "an intensification of efforts to restructure the financial system; a marked acceleration and deepening of the ongoing liberalization of the capital account; market-based measures to encourage a halt to the outflow of short-term capital; and an acceleration of measures to open the economy to imports... to further competition and efficiency." ⁵⁹ And Rubin stressed that the IMF bailout (mostly funded by the Group of Seven countries—Canada, France, Germany, Italy, Japan, the United Kingdom, and the US—or "G-7") was only contingent upon further structural changes. In a matter of weeks, Rubin made it clear that both Thailand's and South Korea's bailouts were conditional on deep structural reforms.

Nearly a month later, Secretary Rubin spoke about consecutive meetings with South Korea's finance officials and Thailand's finance minister. Since his last statement, the Asian Financial Crisis had reached a fever pitch. On January 8, 1998, Indonesian President Suharto

⁵⁶ Treasury Department. Press Center, "Statement by Treasury Secretary Robert E. Rubin," December 8, 1997.

⁵⁷ "IMF Releases More Funds for Thailand," BBC News.

⁵⁸ Blustein and Sullivan, "World Bank Approves \$3 Billion Loan to South Korea."

⁵⁹ Treasury Department. Press Center, "Statement by Treasury Secretary Robert E. Rubin," December 24, 1997.

unveiled an unrealistic budget that did not comply with the IMF's reform program and the rupiah plummeted to an all-time low, forcing fearful citizens to raid super markets in anticipation of food shortages. Two days later, President Suharto—pressured by the IMF—postponed 15 government-subsidized projects. On January 12, Asia's largest private investment bank, Hong Kong-based Peregrine Investments, filed for liquidation. The next day, students in Jakarta rally to protest the IMF's structural reforms. And on January 14, South Korean labor unions agreed to begin discussions about layoffs with business and government leaders—a key condition of the IMF's bailout package. The next day, Suharto bowed to IMF pressure and agreed to eliminate the country's monopolies and subsidies—prompting prices for basic food staples to increase by as much as 80%. 60 Against this backdrop, Rubin reiterated the importance of structural reforms in Korea's financial system to justify the international bailout proceedings: "Korea's reforms, launched with the IMF's backing, are having a real impact in promoting the kinds of adjustments that are needed to restore confidence and stability. As the Korean delegation acknowledged, however, there is much more to be done and no room for complacency."61 And, similarly, he highlighted Thailand's commitment to the IMF's prescribed structural reforms to its financial system, defending the IMF bailouts: "Minister Tarrin and I agreed that the focus of Thailand's efforts should remain on the need to restore confidence through the strong implementation of the policies it has agreed to in the context of the IMF program."62 In subsequent meetings with finance officials from increasingly destabilized countries, Rubin firmly maintained his conviction that aid was contingent upon deep reforms.

⁶⁰ "Timeline of the Crash," PBS.

⁶¹ Treasury Department. Press Center, "Statement by Treasury Secretary Robert E. Rubin," January 20, 1998.

 $^{^{62}}$ Treasury Department. Press Center, "Statement by Treasury Secretary Robert E. Rubin on the Meeting with Thai Finance Minister Tarrin."

The next day, Secretary Rubin spoke about the Asian crisis at Georgetown University in Washington D.C. He began by touting the benefits of increased liberalization in the global financial system, which has "brought tremendous benefits to the American people through greater exports, more high-paying jobs, and higher standards of living and through lower inflation than would have been expected with the strong growth we've had."63 Rubin emphasized that the Asian crisis requires IMF bailouts and structural reforms (which the US has led the way in propagating) in order to have a "viable situation for the years ahead." He admitted the failure of bailouts to correct fundamental issues but stressed that free market-imposed justice would be too damaging and costly: "Action on a global scale is not easy, but the United States cannot turn its back on this crisis in the hope that we will remain insulated from its effects and markets alone will cure the problem. It's neither desirable nor possible to save countries from the consequences of structural deficiencies and bad policies..."65 He emphasized that IMF bailouts are only appropriate for countries that "help themselves" with deep structural reforms. Furthermore, Rubin said that allowing the market to clear would "lead to far deeper and far longer financial instability and economic duress."66 He delved into more specifics about the structural issues. Moreover, Rubin blamed the close relationship between banks and their respective governments for the Asian crisis. And he also blamed their opaque financial systems and weak regulatory environments that exacerbated underlying economic issues. Furthermore, Rubin enumerated the key parts of the structural reforms that are tied to IMF financial assistance and insisted that Asian countries that do not engage in the reforms forfeit their bailout funding: "If countries don't take

 $^{^{63}}$ Treasury Department. Press Center, "Treasury Secretary Robert E. Rubin on the Asian Financial Situation to Georgetown University Washington, D.C."

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Ihid.

these steps, no financial assistance is made available." And he argued that these reforms—despite their prevailing unpopularity in the countries that must adopt them—"are the best and probably the only viable way for these countries to limit the degree and duration of economic distress and reestablish confidence, stability and growth." Rubin further emphasized that bailouts would not solve the Asian economies' issues: "While the temporary financial assistance is an important part of an effective response to these problems, let me stress, no amount of official money alone can solve these problems and official money is not the key. Only when sound policies are pursued, will confidence — and capital — return."

Toward the end of the address, Secretary Rubin tackled the moral hazard concerns for Asian countries by arguing that the crisis itself and the difficult economic period that ensued will prevent excessively risky behavior in the future. However, he admitted that some investors are protected from the IMF bailout actions despite having suffered significant losses: "A byproduct of programs designed to restore stability and growth may be that some creditors will be protected from the full consequences of their actions." Rubin then stressed that the moral hazard precedents from the bailout measures must be dealt with in the future with structural changes and policy reform: "Having said this, it is critically important that we work toward changing the global financial architecture so that creditors and investors bear the consequences of their decisions as fully as possible, while minimizing adverse consequences." He concluded by underlining that the Asian national financial systems must enter modernity and evolve to parallel the new financial system by instituting widely accepted Washington Consensus precepts.

⁶⁷ Treasury Department. Press Center, "Treasury Secretary Robert E. Rubin on the Asian Financial Situation to Georgetown University Washington, D.C."

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ Ibid.

⁷¹ Ibid.

Secretary Rubin's Georgetown Address emphasized a clear and unwavering policy: the IMF bailouts would only succeed (and be made available) if Asian countries engaged in and were committed to structural reform.

Days after Rubin's speech at Georgetown, Indonesia's currency got pummeled—falling to 12,000 rupiahs against the dollar—after President Suharto's choice for vice president provoked anxiety among investors. The Indonesian government, under immense international pressure, was forced to quickly overhaul reform programs and conform to the IMF's strict requirements. Afterward, Secretary Rubin released a statement that welcomed the Indonesian government's reform programs: "We welcome the steps taken by the Indonesian government... the government outlined important steps to strengthen and restructure the banking system and to establish a framework for a voluntary private sector initiative to help address the debt burden."⁷² And, two days later on January 29, 1998, he also welcomed the Korean government's expedited reform programs—which primarily involved taking steps to legalize massive layoffs of union

series of actions to implement its IMF-backed reform program... As a result of these steps... financial stability and confidence have begun to return to Korea. Korea must now sustain this effort as it confronts the challenges that lie ahead in restructuring its economic system."⁷³ These reforms had aggravated massive protests



Figure 2. South Korean protesters riot against the IMF reforms.

in Seoul (see Figure 2). Despite their widespread unpopularity, Rubin supported the reform

⁷² Treasury Department. Press Center, "Statement by Treasury Secretary Robert E. Rubin on Indonesia."

⁷³ Treasury Department. Press Center, "Statement by Treasury Secretary Robert E. Rubin," January 29, 1998.

programs as tough medicine that justified the bailout programs and therefore avoided promulgating moral hazard.

On January 30, 1998, Secretary Rubin testified before the House Banking and Financial Services Committee, mainly about the crisis in Asia and continued US support for the IMF. He argued that the US' support for the IMF bailout programs were—first and foremost—in the country's self-interest. Rubin stressed to Congress that the IMF bailouts are contingent upon structural changes: "our approach requires that these countries take the concrete structural steps necessary to reform their economies."⁷⁴ And he delved into what the structural reforms involve (outlining several key parts of the Washington Consensus)—and what happens when countries refuse to implement these changes: "these reform programs aim to strengthen financial systems, improve transparency and supervision, eliminate the interrelationships between banks, the government, and commercial entities, open capital markets, and institute appropriate monetary and fiscal policies... countries which fail to take these steps receive no financial assistance."75 Secretary Rubin insisted that IMF bailouts only provided short-term aid and that structural programs were the only viable method for long-term economic stability: "financial assistance, while critical for a short period, is not the key. Only when nations purse sound policies will confidence -- and private capital -- return."⁷⁶

Later in his testimony, Secretary Rubin reiterated that the reform programs will prevent future crises in struggling Asian countries and moral hazard issues from developing and promoting future risks: "Reform is the solution, not the problem." He admitted that the IMF bailouts save investors from experiencing losses; however, the imposed structural changes to

⁷⁴ Treasury Department. Press Center, "Testimony by Treasury Secretary Robert E. Rubin."

⁷⁵ Ibid.

⁷⁶ Ibid.

⁷⁷ Ibid.

Asian countries' financial infrastructure were key to preventing this moral hazard: "it is critically important that we work toward changing the global financial architecture so that creditors and investors can bear the consequences of their decisions as fully as possible." In his testimony, Secretary Rubin delineated a clear strategy between the efficacy of bailouts and deep fundamental changes that would prevent future crises.

On the same day, Chairman Greenspan also testified before the House Committee on Banking and Financial Services. He argued that the new efficient financial system exposed weak national markets: "Its efficiency exposes and punishes underlying economic weakness swiftly and decisively. Regrettably, it also appears to have facilitated the transmission of financial disturbances far more effectively than ever before."⁷⁹ Greenspan said that the IMF bailouts established moral hazard in the international financial system: "Opponents of IMF support also argue that the substantial financial backing... could exacerbate moral hazard... Such a reward structure, obviously, could encourage excessive risk taking. To be sure, this is a problem."80 However, Greenspan underlined the fact that the best way to mitigate moral hazard was to implement stricter rules on the struggling Asian nations' economies and financial markets: "Moreover, the policy conditionality, associated principally with IMF lending, which dictates economic and financial discipline and structural change, helps to mitigate some of the moral hazard concerns."81 Furthermore, Greenspan emphasized the weakness in Asian governments' policies—referring to them as "errant." In an ironic statement given recent deregulation in the US financial system, Greenspan said that weakly regulated banking systems helped precipitate

⁷⁸ Treasury Department. Press Center, "Testimony by Treasury Secretary Robert E. Rubin."

⁷⁹ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: The current Asia crisis and the dynamics of international finance."

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² Ibid.

the collapse in Asia: "Banks play a crucial role in the financial market infrastructure. When they are undercapitalized, have lax lending standards, and are subjected to weak supervision and regulation, they become a source of systemic risk both domestically and internationally." Moreover, he scolded the Asian governments for promoting excessive risk-taking by instilling moral hazard in their financial systems—arguing that these governments enacted policies that helped originate and aggravate the crisis with implicit bailout protection. Greenspan ended his testimony by stressing that the IMF bailout must be conditional on structural changes in Asian countries' financial systems: "A backup source of international financial support provided only with agreed conditions to address underlying problems, the task assigned to the IMF, can play an essential stabilizing role." Although more opposed to the IMF bailouts and more fearful about moral hazard than Rubin, Greenspan similarly justified the bailouts to Congress on the premise that they would force needed systematic changes.

Following Rubin's and Greenspan's congressional testimonies, Deputy Secretary

Lawrence Summers spoke at the Economic Strategy Institute in Washington D.C. on February 8,

1998. His speech came two days after Seoul's National Assembly ratified legislation to legalize
layoffs of government and private sector union employees, as part of the IMF's structural reform
program. Summers reiterated Rubin's main reason for getting involved in the IMF bailout fund
for struggling Asian economies: "In short, as Secretary Rubin has said, we have acted to help
restore stability in Asia for a clear purpose: to protect and benefit the American people." After
explicating the "Systematic Roots of the Crisis," he stressed that structural reforms are key to

⁸³ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: The current Asia crisis and the dynamics of international finance."

⁸⁴ Ibid.

⁸⁵ Treasury Department. Press Center, "'Emerging From Crisis: the Beginnings of a New Asia.'"

Asia's lasting success and to avoiding future crises. Summers emphasized the gravity of the structural reforms that must occur in the struggling Asian economies, including:

[N]ot just restructuring the financial system, but laying the ground for a new one... not just corporate debt work-outs, but system-wide changes with improved financial and corporate accounting standards and better disclosure... not just an end to government-directed lending, but wholesale market opening and deregulation to increase the power of market incentives and reduce the scope for official rent-seeking and corruption.⁸⁶

He further accentuated how deep the changes would be by bringing up a specific example from Indonesia: "by June the Indonesian government is pledged to abolish a dozen officially sanctioned monopolies that have dominated a whole swathes of the economy for decades -- including every pad of paper sold in country, every piece of timber, and every sack of flour." Summers said that these changes were important for the long run avoidance of moral hazard, which was exacerbated by the IMF bailout. And he argued that both domestic and international policymakers "must weigh the long-term need to ensure investors take responsibility for their actions against the short-term necessity to prevent confidence declining further." In his speech, Summers clearly understood that the IMF bailouts developed moral hazard in the international financial system, but he insisted that the agreed upon structural changes would abate the long-term effects of the bailouts.

As the Asian Crisis began to spillover to Russia in mid-February 1998, Deputy Secretary Summers again spoke about the global financial crises in a talk entitled "American Farmers: Their Stake in Asia, Their Stake in the IMF." In the speech, he underlined how interconnected the new global economy was and made connections between rural, Midwestern American farmers and laid off, urban South Korean workers. Furthermore, Summers argued that the IMF

⁸⁶ Treasury Department. Press Center, "'Emerging From Crisis: the Beginnings of a New Asia."

⁸⁷ Ibid.

⁸⁸ Ihid.

bailouts are feckless without the broader structural changes to the Asian countries' financial systems: "The overriding imperative must be to restore stability and growth... To support that objective we have given strong United States support to tough IMF-led reform programs in Thailand, Indonesia and Korea to restore market confidence and lay a surer foundation for growth." And, in a somewhat cynical tone, he pointed out that the IMF bailouts have succeeded in pushing Asian countries to adopt more free market and Western financial policies than other more formal diplomatic approaches: "In some ways the IMF has done more in these past few months to liberalize these economies and open their markets to United States goods and services than has been achieved in rounds of trade negotiations... And it has done so in a way that serves our critical, short and longer term interest in the restoration of confidence and growth in this vital part of our world." Deputy Secretary Summers provided similar justifications for the IMF bailouts to the ones put forward by Rubin and Greenspan. He emphasized that bailouts are "band aid" measures that must be followed with meaningful structural reforms to abate future risk-taking and crises.

On February 24, 1998, another future Treasury Secretary (but only Assistant Secretary at the time), Timothy Geithner, spoke in front of the Joint Economic Committee, while Chairman Greenspan spoke in front of the House Subcommittee on Domestic and International Monetary Policy about the spreading global financial crisis. Geithner began by pointing out the flaws in bailout measures if not contingent upon deep structural reforms: "There is no amount of official money available in the world that could substitute for or compensate for a lack of commitment to reform in these countries." And Geithner stressed that, with the impending reforms, the IMF

⁸⁹ Treasury Department. Press Center, "'American Farmers: Their Stake in Asia, Their Stake in the IMF.'"

⁹⁰ Ibid.

 $^{^{91}}$ Treasury Department. Press Center, "Treasury Assistant Secretary Timothy F. Geithner Joint Economic Committee."

bailouts would avoid exacerbating moral hazard concerns in the international financial system: "The IMF reform programs are structured carefully to help ensure it works, to help limit the moral hazard risks that are inherent in any provision of official finance, and to maximize burden sharing." Geithner argued that moral hazard is not a short-term issue and must be dealt with after the immediate financial crisis. And he argued that imposing deep structural changes to the financial system was the only policy avenue to dampen moral hazard. Similarly, in his policy report later that day, Greenspan reiterated both Rubin's and Summers' earlier points and argued that it is in the US' best interest to support the IMF bailout programs and subsequent required structural changes to the Asian financial systems. Greenspan and Geithner both agreed on systematic changes to stabilize the world economy and prevent moral hazard creation.

A week later, Secretary Rubin spoke to the Institute of International Bankers, which is essentially an annual meeting of the world's leading bank executives. He began by underlining the structural changes that would help the world avoid future financial crises: "I would like to discuss... the issues around the global financial system, both in the short term as we address the current crisis in Asia, and over the longer term as we build the architecture to help prevent future financial crisis, and better manage them when they occur." Rubin mentioned the connections between crises in the developing countries, honing in on their weak financial systems. And he explicated that weakness—arguing that it was established by a cozy relationship between the government, banks, and corporations. And he added that poor regulatory oversight of their financial systems "masked the extent of the problem, undercutting the effectiveness of market

⁹² Treasury Department. Press Center, "Treasury Assistant Secretary Timothy F. Geithner Joint Economic Committee."

 $^{^{93}}$ Treasury Department. Press Center, "Secretary Robert E. Rubin Remarks before the Institute of International Bankers."

discipline." Secretary Rubin said that these countries' financial systems were locked into the past: "In short, the essential underpinnings to a modern financial system were either weak or relatively nonexistent." And he further emphasized, reiterating both Summers and Geithner, that IMF bailouts were a short-term strategy contingent upon the much more important structural reforms: "While financial assistance may be critical to provide the necessary breathing room for these nations, the key is for nations to implement internal reforms." Rubin concluded that US policymakers would work to prevent moral hazard creation in the international financial system by adopting structural reforms.

Over the next month, as the crisis became increasingly global, both Secretary Rubin and Deputy Secretary Summers emphasized how integral the structural reforms were in order to justify the IMF bailouts. On March 4, 1998, Secretary Rubin bolstered the US' commitment to Thailand. He offered the Thai government more US bailout funds in exchange for maintaining structural reform measures: "As a sign of our continued confidence in the commitment of the Thai Government to reform, the United States would be prepared, if circumstances warrant, to support additional IMF financing for Thailand in the form of access to the IMF's Supplemental Reserve Facility." Rubin's statement highlighted how important the systematic reforms were to the bailout efforts. And, on March 9, Deputy Secretary Summers spoke before IMF economists and other members. Before his speech, Indonesia's President Suharto angrily labeled the IMF's programs "unconstitutional" after the IMF announced that it was withholding \$3 billion—citing

⁹⁴ Treasury Department. Press Center, "Secretary Robert E. Rubin Remarks before the Institute of International Bankers."

⁹⁵ Ibid.

⁹⁶ Ibid.

 $^{^{97}}$ Treasury Department. Press Center, "Statement by Treasury Secretary Robert E. Rubin on Thailand."

an Indonesian unwillingness to implement reforms. 98 Under this inauspicious backdrop,
Summers discussed the failures of bailouts to suppress excessive risk-taking and future financial crises, maintaining that only structural reforms could ensure future progress: "There will never be enough money in the world to respond in any kind of official lender of last resort function to all the crises that potentially can come in developing countries and industrial countries as global capital flows increase. That cannot be the way forward." Later, on April 3, Secretary Rubin met with South Korean finance officials. He praised South Korea's Finance Minister for "bring[ing] about decisive change to Korea's economy. And, after their meeting, Rubin underlined Korea's commitment to structural changes: "Minister Lee and I agreed that while many challenges have been successfully met, difficult structural reforms lie ahead. We also agreed on the importance of ensuring that Korea sustains strong macroeconomic policies." As the global crisis progressed, US officials increasingly stressed the importance of structural reforms to rationalize the IMF bailouts—even as the reform programs progressively became increasingly unpopular in the countries they were intended to "fix."

On April 14, 1998, Secretary Rubin gave a speech at the Brookings Institution in Washington D.C. about the global financial calamity. This speech was a week after Indonesia and the IMF had reached a third pact in the past six months, with both sides finally making substantial concessions. The IMF withdrew its mandate that Indonesia dismantle subsidies for food and fuel, while Suharto closed more insolvent banks. The IMF Deputy Director prematurely

⁹⁸ "Timeline of the Crash," PBS.

 $^{^{99}}$ Treasury Department. Press Center, "Deputy Secretary Summers Remarks Before the International Monetary Fund."

 $^{^{100}}$ Treasury Department. Press Center, "Statement by Treasury Secretary Robert E. Rubin on Meeting with Korean Finance Minister Lee."

¹⁰¹ Ibid.

declared "the worst of the crisis is over." With this recent deal in the background, Rubin spoke before a G-7 meeting, where developed nations' leaders were set to discuss ways to tackle the crisis. In the speech, Rubin reiterated that private market participants should bear the risks of their decisions: "When crises do occur... the provision of temporary financial support by the IMF, conditioned on countries pursuing sound policies, is essential... But, and the balance here will always be difficult, the private sector must fully bear the consequences of its decisions in the context of restoring financial stability." And he took on the moral hazard issue head-on, arguing that bailouts must be employed sparingly to avoid sanctioning future excessive risktaking: "There is also a risk with international assistance of what economists call 'moral hazard'... Some protection of creditors may be an inevitable by-product of the overarching objective of restoring financial stability, but this protection should be kept to the minimum possible." ¹⁰⁴ Interestingly, Secretary Rubin noticeably modified his previous statements on moral hazard, more readily admitting a fear of setting a long-term economic precedent. This makes sense as financial crisis permeated both the developing and developed world (at this point, extending to Russia), and the IMF would certainly struggle to bailout all of them.

More than a month later, Chairman Greenspan testified about the Asian Crisis before the House Committee on Agriculture. The testimony was after significant developments in the international financial crisis. On May 4, 1998, the IMF reinitiated its bailout program in Indonesia with a \$1 billion payment. The next day, Indonesian students protested rising prices and the Suharto administration for failed economic policies—demanding political reforms. A week later, Indonesian soldiers fired upon peaceful protesters, killing six students and sparking a

¹⁰² "Timeline of the Crash," PBS.

¹⁰³ Treasury Department. Press Center, "Secretary Robert E. Rubin Brookings Institution."

¹⁰⁴ Ibid.

week of riots (see **Figure 3**). Finally, on May 21, Indonesian President Suharto resigned after 32 years in power. With Suharto's resignation, Indonesia's political instability threatened the IMF programs' viability. Greenspan spoke to Congress that same day. In his testimony, he again underlined that the new financial system is too efficient for the institutions and systems in the late 1990s. Greenspan adamantly opposed blaming the IMF for moral hazard and said that it was the Asian countries' governments' insistence on supporting their decrepit financial systems that

developed moral hazard. Furthermore, he reiterated that the IMF bailouts avoided creating moral hazard by imposing structural changes that force domestic policy changes: "Moreover, the policy conditionality, associated principally with IMF lending, which dictates economic and financial discipline and structural change, helps to mitigate some of the inappropriate risk-



Figure 3. Widespread public protests in Indonesia force President Suharto's resignation in 1998.

taking on the part of governmental authorities."¹⁰⁵ Greenspan emphasized that free markets are the best option and that Asian countries should learn from Western systems. Agreeing with Summers' earlier point, Greenspan says that the IMF was a tool for advancing this Western free market agenda: "But my sense is that there is a growing understanding and appreciation of the benefits of market capitalism as we practice it, and that what is being prescribed in IMF-supported programs fosters their own interests."¹⁰⁶ As the situation in Indonesia deteriorated,

 $^{^{105}}$ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: The current Asian crisis." 106 Ibid.

Greenspan underlined that structural changes must persevere in order to protect Asian countries from themselves and avoid establishing moral hazard.

On June 30, 1998, Secretary Rubin went to the heart of the crisis and spoke at the Sasin Institute of Business Administration in Bangkok, Thailand. He spoke after a month of escalating turmoil. On May 22, the IMF—following Suharto's resignation—indefinitely postponed its bailout payment to Indonesia. On May 27, Russia's financial system reached a breaking point as its stock and bond markets nosedived—moving Russia's central bank to triple interest rates to 150% to salvage the ruble. And, on that same day, South Korean union workers began a two-day, nationwide strike to protest the enormous firings: since February, South Korean companies had laid off 10,000 workers per day as part of the IMF's imposed structural reforms. ¹⁰⁷ On June 1. Russia's stock market crashed, and its cash reserves dissipated as it scrambled to prop up the ruble—leading President Clinton to pledge support for President Boris Yeltsin. On June 12, another economic miracle officially came to an end: Japan announced that it was in an economic recession for the first time in 23 years. A week later, the yen fell to 144 against the dollar, forcing US Treasury and Federal Reserve officials to purchase yen in an attempt to strengthen it and President Clinton to ask Japan's leadership to stimulate its flailing economy. Nearly a week later, Russian Prime Minister Sergei Kirienko submitted a fiscally conservative budget plan to the IMF, which then granted a previously withheld loan of \$670 million to the struggling superpower. And, the following day on June 25, the IMF announced a fourth deal with Indonesia—agreeing to restore food and fuel subsidies and lend another \$4 to \$6 billion for basic necessities. By this point, Rubin's speech in Thailand was not so much in the heart of the crisis—but rather the lion's den.

¹⁰⁷ "Timeline of the Crash," PBS.

In his speech, Secretary Rubin emphasized that structural reform was the only salvation for the ailing global economies. He argued that fundamental changes in Thailand's and other struggling Asian countries' economies will ensure protection from future crises. Similarly, Rubin said that policy makers must implement structural reforms to combat the creation of moral hazard after the IMF bailouts:

[W]e must create mechanisms so that creditors and investors more fully bear the consequences of their actions. This is an exceedingly complex issue, but it is one we cannot shy from tackling. Because of the size of the markets and the size of the capital flows today, at some point there will simply not be sufficient official money to deal with the crises that could develop. Furthermore, we need to reduce the risk that providing official finance shields creditors and investors from the consequences of bad decisions and therefore sows the seeds of future crisis, the so-called, moral hazard problem. ¹⁰⁸

As the world became more and more precarious and the IMF bailout programs grew both in size and infamy, Secretary Rubin increasingly emphasized the need for deep fundamental reforms. As a result, the threat of moral hazard began to play a larger role in US policy.

On September 16, 1998, Chairman Greenspan testified before the House Committee on Banking and Financial Services about the global crisis. In the past month, Russia officially defaulted on its debt—prompting the IMF and G-7 countries to refuse any additional loans to Russia. And financial crisis threatened Latin America, causing the IMF's Deputy Managing Director, Stanley Fischer, to announce that the financial woes in the region are "an overreaction to Russian events" and that the organization was prepared to bailout Latin American countries. ¹⁰⁹ In reaction, investors fled Brazil—drawing out more than \$2 billion a day—despite the Brazilian Central Bank's desperate rate increase to 50%. ¹¹⁰ With these two events threatening global

 $^{^{108}}$ Treasury Department. Press Center, "Secretary Robert E. Rubin Sasin Institute of Business Administration."

 $^{^{109}}$ IMF, External Relations Department, "International Monetary Fund Press Briefing on 1998 Annual Report."

¹¹⁰ "Timeline of the Crash," PBS.

financial markets, Greenspan defended the new market's efficiency as a broadly positive innovation for the world but, again, argued that it is just better at punishing weak national financial systems. Furthermore, he insisted that Asian and other emerging market countries have an "obligation" to adopt Western free market principles and financial infrastructures. Greenspan argued that important conditions and requirements must be in place before bailing out new struggling nations. He emphasized that IMF bailouts should avoid creating long-term moral hazards, as that would erode future market discipline: "Whatever international financial assistance is provided must be carefully shaped not to undermine that discipline. As a consequence, any temporary financial assistance must be carefully tailored to be conditional and not encourage undue moral hazard." In his testimony following Russia's shocking default and the beginning of Brazil's financial crisis, Greenspan doggedly insisted on structural reforms to avoid setting moral hazard precedents in the international financial system.

Finally, on September 23, 1998, Chairman Greenspan reiterated all of his previous stances over the past year in testimony before the Senate Budget Committee. A week earlier, Tokyo's Nikkei index fell to a 12-year low, and the Dow dropped 216 points after Congress blocked President Clinton's \$18 billion funding request for the IMF—mainly due to moral hazard fears propagated by bailouts. In his testimony, Greenspan argued that the new financial system is a positive innovation. He defended it both as a mechanism for raising people's standard of living and as an arbiter of financial prudence. Greenspan further underlined that the new market efficiency "appears far more draconian and less forgiving than twenty or thirty years

 $^{^{111}}$ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: International economic and financial systems."

¹¹² Ibid.

ago."¹¹³ And he argued that these emerging market economies are not financially mature enough to succeed "in the big leagues" yet: "For the more recent participants in global finance, their institutions, until recently, had not been tested against the rigors of major league pitching, to use a baseball analogy."¹¹⁴ He admonished private investors but again argues that the emerging market economies had failed to adopt sound policies. Following Congress' refusal to continue US support to the IMF, Greenspan endorsed the new global financial system and blamed the structurally unsound Asian economies for aggravating the global market's ire.

The night after Greenspan spoke, the NY Fed announced that it had saved the besieged hedge fund, LTCM. However, before assessing the US Treasury and Fed officials' response to that crisis, their responses to the past year's events provide insight into how they reacted to moral hazard. Each official—Chairman Greenspan, Secretary Rubin, Deputy Secretary Summers, and Assistant Secretary Geithner—clearly recognized that the IMF bailouts would propagate some level of moral hazard in the financial system. However, they resoundingly justified the bailout measures as necessary in the short-term and argued that the required structural reforms would mitigate negative long-term consequences. Similarly, most officials hailed free market efficiency but warned that this new financial market quickly exposed and promptly punished obsolete or immature financial systems. One of the striking components of their arguments over the period is their insistence on deep structural reforms despite the widespread unpopularity of these IMF measures—provoking riots, food shortages, political upheaval, and emerging countries' mistrust of Bretton Woods international institutions. In fact, throughout the tumultuous period and irrespective of their intended audience, US officials only appear to become more dogged about

 $^{^{113}}$ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: The crisis in emerging market economies."

¹¹⁴ Ibid.

the necessity of structural reforms to lessen moral hazard issues. Their anxiety increased as the crisis emerged from its isolation in Asia and became truly global.

The Fall of Long-Term Capital Management

The infamous story of Long-Term Capital Management began in the late 1980s at the investment bank, Salomon Brothers. As the 1980s came to a close, Salomon faced large internal pressures between two distinct groups in the investment bank: the academics (or "quants") and the conventional traders. John Meriwether ran Salomon's risk arbitrage credit trading group (comprised of the academics), which brought academic financial ideas—like Modern Portfolio Theory or the Black-Scholes Option Pricing model—from the blackboard to Wall Street and real markets. They were very successful toward the mid-1980s and began to fight with the firm's conventional traders, who did not employ esoteric financial models. Increasingly, the quants felt underappreciated and asked for a greater share of the investment bank's profits as they were generating the vast majority of those profits. The cultural divide continued until, after Salomon was caught attempting to corner the US Treasury market in 1991, Meriwether was fired. However, he quickly decided to start a Greenwich-based hedge fund, Long-Term Capital Management, in 1994. The hedge fund would mainly be based on the bond arbitrage strategies that proved so successful at Salomon: both spread trades (relative-value and convergence trades) and directional trades. The rational for LTCM's trades was actually quite simple: search for assets that were relatively mispriced. And, to better carry out this trading strategy, Meriwether recruited a team of famous academics: mainly Robert Merton, Myron Scholes, Eric Rosenfeld, Larry Hillabrand, Victor Haghani, William Krasker, and Gregory Hawkins. Furthermore, he brought in David Mullins Jr. (former vice chairman of the Federal Reserve), Dick Leahy (a

former Salomon executive), and Jame McEntee (one of the conventional bond traders and a close friend of Meriwether's). His team was touted as a "dream team" (see **Figure 4**) of infallible geniuses by the entire financial world—hailing from prestigious universities (like Harvard, Stanford, M.I.T., the University of Chicago, and the London School of Economics).

LTCM was supposed to mark a new era of investing: "As Scholes remarked at its inception, 'We're not just a fund. We're a financial technology company." The nascent hedge fund mainly relied on convergence trades (the rational of which was based on the Black-Scholes risk assessment formula and other models), which were basically where they would purchase an "on-the-run" (the most current or liquid) bond



Figure 4. The financial world was captivated by the LTCM "dream team." The *Businessweek* headline reads: "John Meriwether and his dream team of high-tech traders made billions for Salomon Bros. How big will they score on their own?"

and then buy an "off-the-run" (any older issue than the most current) bond. And then LTCM's traders would wait for the two interest rates on these bonds to converge together, which would occur because it was an inherent market inefficiency to have different interest rates for such similar securities. Although later accounts have depicted the LTCM group as arrogant, they were actually remarkably conscientious about how much risk they assumed. The hedge fund used Value-at-Risk ("VAR") daily, which was a statistical risk measurement that was pioneered in the early 1990s by JP Morgan and quickly adopted by the rest of Wall Street to find the likely losses

¹¹⁵ Lowenstein, When Genius Failed, 65.

of an investment portfolio: "Meriwether and his partners performed value-at-rick calculations for every position in their fund, then combined each potential loss into a total for the whole portfolio." Because the spreads on LTCM's trades were so small (regularly 10 or 15 basis points), the firm was extremely leveraged. This permitted the hedge fund to make impeccable returns on such small spreads: earning over 21% in its first year, 41% in its second year, and 43% in its third year. The new era of "financial technology" and academic models was off to a brilliant start.

However, LTCM quickly faced the reality of any financial institution that attempts to exploit obvious inefficiencies in markets: less and less opportunities exist as markets become more and more efficient over time. The hedge fund explored other options as rival investment banks were taking their conventional business away right in front of them: "Lured by the scent of fantastic profits being earned in Greenwich, other banks were reaching for the same nickels as Long-Term. Inevitably, they whittled away the very spreads that had attracted them; thus do free markets punish success. Long-Term has always been dogged by imitators, but now the imitators were piling on faster than ever." LTCM began to do many other types of trades involving more than simple interest rate convergence—even merger arbitrage (which was essentially measuring the likelihood that a merger will take place). However, some of LTCM's partners did not agree on the efficacy of their financial models to determine more risky scenarios with many prevailing assumptions: "Scholes and Merton argued that merger arbitrage—particularly on such a scale—was excessively risky for the obvious reason that Long-Term was playing in a field in which it had absolutely no expertise." But the hedge fund's unyielding faith in statistical

¹¹⁶ Mallaby, *More Money than God*, 227.

¹¹⁷ Lowenstein, When Genius Failed, 96.

¹¹⁸ Ibid. 101.

financial models proved too strong: "But the partners' experience—to them, at least—seemed to belie the adage that it is dangerous to try to transport success to unfamiliar ground. Trusting their models, they simply rebooted their computers in virgin territory." To make matters worse, the world began to experience widespread financial crisis: the 1997 Asian Financial Crisis tore through emerging markets and was quickly followed by Russia's 1998 default. Leading up to Russia's unlikely default (as many thought a nuclear power could not default), LTCM had bet heavily on Russia avoiding a default: "Now, while the entire world was watching Russia, while its finances were in shambles and its government on hold, Haghani and a researcher named Ayman Hindy... bought more Russian bonds as though they had the inside scoop on that enigmatic eastern riddle. Neither the Nobel Prize nor all the degrees mattered now; the professors were rolling the dice." 120 When Russia defaulted, investors quickly sold all of their bonds and only wanted the safest, most liquid securities (mainly on-the-run U.S. Treasury Bills). This throttled LTCM, whose models were based on spreads converging—not getting wider apart, which is the effect of massive irrational selling in financial markets. In 1998, the highly leveraged hedge fund lost \$4.6 billion in a four-month span. Its risk models had failed to protect it in an inherently irrational and unpredictable world.

However, the New York Fed did swoop in to protect LTCM. On September 28, 1998, the NY Fed announced that it had arranged for a consortium of Wall Street banks—which were mainly LTCM's custody and account managers—to bailout the hedge fund. The banks put up about \$3.6 billion of their own capital to save the hedge fund from insolvency. According to a General Accounting Office inquiry after the bailout, the NY Fed never expressly forced the consortium of banks to bailout LTCM—it "used moral suasion to get LTCM's major creditors to

¹¹⁹ Lowenstein, When Genius Failed, 97.

¹²⁰ Ihid. 142.

discuss a private-sector rescue of LTCM." However, the NY Fed implicitly made a statement by inviting the executives of the largest financial institutions in the world to its offices: LTCM must not fail. Furthermore, by stepping in to save an ailing hedge fund, the NY Fed also sent a message to much larger investment banks and their CEOs: the government will not allow sufficiently large and interconnected financial institutions to fail—regardless of the level of regulatory scrutiny over that institution (and hedge funds are not regulated). If a hedge fund is "too big to fail," then what is a much larger investment bank? Clearly, the NY Fed's actions created a moral hazard precedent on Wall Street where the government would protect large and—more importantly due to increasingly extensive derivative contracts—interconnected firms from bringing down the financial system.

As the NY Fed was the main government agency involved in the LTCM bailout, Fed Chairman Greenspan testified before the House Committee on Banking and Financial Services on October 1, 1998 and defended his agency's actions. Initially, Greenspan attempted to avoid categorizing the event as a bailout. He shied away from what seems like a pretty obvious entrance into financial markets by the government, arguing that there was actually very little intrusion: "[N]o Federal Reserve funds were put at risk, no promises were made by the Federal Reserve, and no individual firms were pressured to participate. Officials of the Federal Reserve Bank of New York facilitated discussions in which the private parties arrived at an agreement that both served their mutual self interest and avoided possible serious market dislocations." Furthermore, Greenspan emphasized that the NY Fed's actions were justified due to large systematic risk posed by LTCM's failure. He said that—had the NY Fed done nothing—there

 $^{^{121}}$ United States, General Accounting Office, Responses to Questions Concerning Long-Term Capital Management, 10.

 $^{^{122}}$ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: Private-sector refinancing of the large hedge fund, Long-Term Capital Management."

could have been dire consequences for the US financial system: "Financial market participants were already unsettled by recent global events. Had the failure of LTCM triggered the seizing up of markets, substantial damage could have been inflicted on many market participants, including some not directly involved with the firm, and could have potentially impaired the economies of many nations, including our own." He argued that large defaults are necessary for dynamic markets. However, Greenspan did not seem to recognize a connection between crises and government reactions. He expresses surprise that there have not been more potentially cataclysmic defaults: "What is remarkable is not this episode, but the relative absence of such examples over the past five years. Dynamic markets periodically engender large defaults." 124

Despite his stubborn defense of the bailout, Chairman Greenspan admitted that the hedge fund's strategies were too risky and would inevitably bring about its failure: "To counter these diminishing opportunities, LTCM apparently reached further for return over time by employing more leverage and increasing its exposure to risk, a strategy that was destined to fail." Furthermore, he argued that efficient markets work best when investors who made bad decisions are punished accordingly with financial failure (which seems particularly at odds with defending a government bailout): "When market prices and interest rates adjust promptly to evidence of such mistakes, their consequences are generally felt mostly by the perpetrators... Indeed, the operation of an effective market economy necessitates that investment funds committed to capital projects that do not accurately reflect consumer and business preferences should incur losses and ultimately be liquidated." And he justified the power of default and failure to increase economic efficiency and growth: "By such winnowing of inefficiencies, productivity is

 $^{^{123}}$ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: Private-sector refinancing of the large hedge fund, Long-Term Capital Management."

¹²⁴ Ibid.

¹²⁵ Ibid.

¹²⁶ Ibid.

enhanced and standards of livings expand over time." Similarly, Greenspan defended free market operations and efficiency—arguing that sparse periods of financial distress exist when investors are emotional and irrational: "Financial markets operate efficiently only when participants can commit to transactions with reasonable confidence... Effective and seasoned markets pass this test *almost* all of the time. On rare occasions, they do not. Fear, whether irrational or otherwise, grips participants and they unthinkingly disengage from risky assets in favor of those providing safety and liquidity." ¹²⁸ Greenspan then outlined "too interconnected to fail" or a situation when financial institutions pose enough risk to harm the entire system: "However, a fire sale may be sufficiently intense and widespread that it seriously distorts markets and elevates uncertainty enough to impair the overall functioning of the economy. Sophisticated economic systems cannot thrive in such an atmosphere." ¹²⁹ He argued that certain sizes and levels of complexity could not just be allowed to fail without some sort of arbiter stepping in to the process to prevent harm to "innocent bystanders": "The scale and scope of LTCM's operations... made it exceptionally difficult to predict the broader ramifications of attempting to close out its positions precipitately. That its mistakes should be unwound and losses incurred was never open to question. How they should be unwound and when those losses incurred... was much more difficult to assess." ¹³⁰ Furthermore, Greenspan justified the moral hazard precedent established by "too big to fail" government policies in the US. He said "In situations like this, there is no reason for central bank involvement unless there is a substantial

 $^{^{127}}$ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: Private-sector refinancing of the large hedge fund, Long-Term Capital Management."

¹²⁸ Ibid.

¹²⁹ Ibid.

¹³⁰ Ibid.

probability that a fire sale would result in severe, widespread, and prolonged disruptions to financial market activity."¹³¹

Returning to an earlier point, Chairman Greenspan emphasized that the intervention was not a literal financial bailout as the government did not provide any financing or force any unwilling participants' hands: "This agreement was not a government bailout, in that Federal Reserve funds were neither provided nor ever even suggested. Agreements were not forced upon unwilling market participants." However, he subsequently diverged and admitted that the LTCM bailout did establish moral hazard in the financial system, but he diminished the overall consequences:

Of course, any time that there is public involvement that softens the blow of private-sector losses--even as obliquely as in this episode--the issue of moral hazard arises. Any action by the government that prevents some of the negative consequences to the private sector of the mistakes it makes raises the threshold of risks market participants will presumably subsequently choose to take. Over time, economic efficiency will be impaired as some uneconomic investments are undertaken under the implicit assumption that possible losses may be borne by the government. ¹³³

Furthermore, Greenspan justifies establishing moral hazard to protect the broader market from—essentially—itself as it is prone to emotional and fearful gyrations: "But is much moral hazard created by aborting fire sales? To be sure, investors wiped out in a fire sale will clearly be less risk prone than if their mistakes were unwound in a more orderly fashion. But is the broader market well served if the resulting fear and other irrational judgments govern the degree of risk participants are subsequently willing to incur?" ¹³⁴ And he subsequently answered his own question by reminding his listeners of the importance of risk-taking in markets: "Risk taking is a

 $^{^{131}}$ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: Private-sector refinancing of the large hedge fund, Long-Term Capital Management."

¹³² Ibid.

¹³³ Ibid.

¹³⁴ Ibid.

necessary condition for wealth creation. The optimum degree of risk aversion should be governed by rational judgments about the market place, not the fear flowing from fire sales." ¹³⁵ Greenspan argued that the Federal Reserve only "provided its good offices to LTCM's creditors, not to protect LTCM's investors, creditors, or managers from loss" but rather to preserve market efficiency and avoid distortions from efficient market equilibrium. ¹³⁶ However, he reluctantly admitted that the invitation to the NY Fed's "good offices" could have propagated moral hazard: "To be sure, this may well work to reduce the ultimate losses to the original owners of LTCM, but that was a byproduct, perhaps unfortunate, of the process." ¹³⁷

At the end of his testimony, Chairman Greenspan emphasized that the government should not attempt to mitigate moral hazard engendered by the NY Fed's bailout. He asserted that policymakers should also refrain from regulating hedge funds because there would be dire consequences to market efficiency. He employed hyperbole and used an extreme example of not allowing hedge funds, which were (and currently are) largely domiciled in international tax and regulatory safe havens, to operate in US financial markets: "If, somehow, hedge funds were barred worldwide, the American financial system would lose the benefits conveyed by their efforts, including arbitraging price differentials away. The resulting loss in efficiency and contribution to financial value added and the nation's standard of living would be a high price to pay--to my mind, too high a price." Taking a completely different tact from his testimonies on the Asian Financial Crisis only weeks before, Greenspan opined that the US financial system inherently sanctions moral hazard and that Americans must recognize all of the prosperity that existing moral hazard precedents have afforded them and their country before condemning them:

 $^{^{135}}$ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: Private-sector refinancing of the large hedge fund, Long-Term Capital Management."

¹³⁶ Ibid.

¹³⁷ Ibid.

¹³⁸ Ibid.

Fifth, how much weight should concerns about moral hazard be given when designing mechanisms for governmental regulation of markets? By way of example, we should note that were banks required by the market, or their regulator, to hold 40 percent capital against assets as they did after the Civil War, there would, of course, be far less moral hazard and far fewer instances of fire-sale market disruptions. At the same time, far fewer banks would be profitable, the degree of financial intermediation less, capital would be more costly, and the level of output and standards of living decidedly lower. Our current economy, with its wide financial safety net, fiat money, and highly leveraged financial institutions, has been a conscious choice of the American people since the 1930s. We do not have the choice of accepting the benefits of the current system without its costs. 139

Greenspan concluded his testimony that government intervention should be employed sparingly, avoiding future precedents that could encourage excessive risk-taking: "We must also remain mindful where to draw the line at which public-sector involvement ends. The efforts last week were limited to facilitating a private-sector agreement and had no implications for Federal Reserve resources or policies." Only a week after his last testimony about the international financial crisis, Greenspan displayed a divergence from his previous insistence (which was unrelenting) on adopting structural changes to avoid long-term issues propagated by financial rescues. Similarly, he does not emphasize the new efficient market's ability to quickly expose and promptly punish weaknesses in financial systems, which was a consistent refrain in his testimonies during the previous year. Instead, Greenspan maintained that these are the result of irrational and emotional market behavior, whereas before they were the result of a powerfully efficient, arbitrating global financial market.

After Chairman Greenspan's testimony, NY Fed President William McDonough, who arranged the LTCM bailout consortium, also testified in front of the House Committee on Banking and Financial Services. Obviously, McDonough's speech was much more concerned with NY Fed officials' rationale behind the financial rescue. He began his testimony by stressing

 $^{^{139}}$ The Federal Reserve Board, "Testimony of Chairman Alan Greenspan: Private-sector refinancing of the large hedge fund, Long-Term Capital Management." 140 Ibid.

that the hedge fund's failure would have posed systematic risk to the US economy, especially under the tenuous circumstances of the period: "in the circumstances that did in fact exist, it was my judgment that the American people, whom we are pledged to serve, could have been seriously hurt if credit dried up in a general effort by banks and other intermediaries to avoid greater risk." ¹⁴¹ Furthermore, McDonough admitted that the NY Fed openly explained its interest to essentially cushion the broader market from a quick failure of LTCM. However, like Greenspan, McDonough stressed that no financial promises were ever made, implicitly or explicity: "Mr. Fisher explained our interest in being aware of developments and in reducing the risk of an abrupt and chaotic close-out of Long-Term Capital... At no point... was there discussion of the use of public monies -- Federal Reserve or otherwise. No Federal Reserve or government guarantees, actual or implied, were offered, discussed or solicited." McDonough's testimony is especially important in how often he reiterated two main points: that LTCM posed a systematic threat to the system and that the NY Fed never offered any of its own resources to bailout the hedge fund. These points are at odds with one another. A truly systematically important institution's failure would have had dire consequences on the broader US economy and reverberated through the world economy (as the US has the largest financial market in the world). Therefore, it is difficult to justify the "systematic threat" statement with his argument that no bailout was ever in the cards. If the consortium of investment banks could not save the day and rescue LTCM, then the Fed had a duty (as per its mandate—which McDonough points out) to protect the US financial system with its own funds.

Later, on April 28, 1999, Treasury released the long-awaited "Report of The President's Working Group on Financial Markets." After LTCM's failure and subsequent bailout, President

¹⁴¹ The Federal Reserve Bank of New York, "Statement by William J. McDonough."

¹⁴² Ibid.

Clinton established "The President's Working Group on Financial Markets" to investigate the event and provide insight on possible policy initiatives to prevent a similar crisis. The group included four US government financial regulators: Treasury, the Fed, the Securities and Exchange Commission ("SEC"), and the Commodity Futures Trading Commission ("CFTC"). And, in April 1999, Treasury Secretary Robert Rubin, Fed Chairman Alan Greenspan, SEC Chairman Arthur Levitt, and CFTC Chairperson Brooksley Born signed and released their report, Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management, to Congress. The report begins by admonishing excessive leverage, arguing that it can "greatly magnify the negative effects of any event or series of events on the financial system as a whole." ¹⁴³ Furthermore, the report highlights the vulnerability of the financial system to the downfall of an interconnected institution, like LTCM. This essentially underlines and, more importantly, acknowledges the precedent of "too big to fail," which had previously not been associated with non-bank financial entities like hedge funds. On that note, the report stresses that the danger of excessive leverage applies to all financial institutions—not only hedge funds or other non-bank institutions: "While leverage can play a positive role in our financial system, problems can arise when financial institutions go too far in extending credit to their customers and counterparties. The near collapse of LTCM illustrates the need for all participants in our financial system, not only hedge funds, to face constraints on the amount of leverage they assume."144 The report compares LTCM's leverage ratio (or its ratio of assets to equity capital) in 1998 to the four largest investment banks' leverage ratios. Startlingly, LTCM's leverage ratio was 28-to-1, Goldman Sach's ratio was 34-to-1, Lehman Brothers' ratio was 28-to-1, Merrill Lynch's ratio was 30-to-1, and Morgan Stanley's ratio was a measly 22-to-1. Furthermore, the paper argues

 $^{^{143}}$ United States; Report of The President's Working Group on Financial Markets; *Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management*; viii.

¹⁴⁴ Ibid.

that the US financial system's reliance on market discipline exposes the system to damaging failures. The report vaguely recommends that more transparency should be applied to hedge funds and public companies (especially financial institutions), that financial institutions employ more thorough risk management systems, that regulators should promote "more risk-sensitive but prudent approaches to capital adequacy" and should have expanded risk assessment authority, that Congress should support the report's provisions on financial contract netting, and that "regulators should consider stronger incentives to encourage offshore financial centers to comply with international standards." ¹⁴⁵

However, the report does not urgently push for more significant reforms, like stricter capital requirements to reign in on excessive leverage (which were part of the IMF's required structural reforms). In fact, the report promises to assess how well its prescribed measures work. And it also underlines a firm commitment to the deregulated, free market policies that permeated the last two decades: "If further evidence emerges that indirect regulation of currently unregulated market participants is not effective in constraining excessive leverage, there are several matters that could be given further consideration; however, the Working Group is not recommending any of them at this time." Moreover, the report suggests that the private sector should internalize risk exposure and that "market discipline of risk taking is the rule and government regulation is the exception." It does not advise any changes to the current system, which the report argues aptly deals with excessive leverage because the government already regulates financial intermediaries that "have access to the federal safety net, that play a central

¹⁴⁵ United States; Report of The President's Working Group on Financial Markets; *Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management,* ix.

¹⁴⁶ Ibid.

¹⁴⁷ Ibid. 26.

dealer role, or that raise funds from the general public."¹⁴⁸ (Apparently, it did not occur to the various government agencies who authored the piece that overly leveraged financial intermediaries with access to the "federal safety net" could prompt future bailout measures). The report warns that "[a]ny resort to government regulation should have a clear purpose and should be carefully evaluated in order to avoid unintended outcomes."¹⁴⁹

Furthermore, the report determines that—referencing studies of the recent emerging market disruptions (especially the recent Asian Financial Crisis)—"the activities of highly leveraged institutions do not appear to have played a significant role in precipitating the financial market crises of the past few years." This seems like an odd rationalization: LTCM's fall conclusively proved that excessive leverage has the ability to precipitate large market disturbances in the US. As the report mentions, the hedge fund's positions, "combined with the market volatility and lack of liquidity might have led to a series of dramatic and punishing events for LTCM's trading counterparties and the markets themselves in the event of a default by the LTCM fund." The report shows an obvious reticence to view the US through an objective lens and to admit that its financial system has its own weaknesses.

And, finally, the US General Accounting Office released an investigative report *Responses to Questions Concerning Long-Term Capital Management and Related Events* on February 23, 2000, into the LTCM bailout, which responded to a series of 14 questions from Senator Byron Dorgan, Senator Tom Harkin, and Senator Harry Reid. The report was primarily based on interviews and testimonies with Fed and LTCM officials: "To answer the questions posed, we interviewed FRBNY, the Federal Reserve Board, and LTCM officials and review

¹⁴⁸ United States; Report of The President's Working Group on Financial Markets; *Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management*, 26.

¹⁴⁹ Ibid.

¹⁵⁰ Ibid, ix.

¹⁵¹ Ibid, 17.

relevant testimonies. In addition, we submitted questions to Consortium members about the recapitalization and FRBNY's role in it. We also reviewed various agency documents, press articles, academic articles, and regulatory reports on LTCM." Obviously, with the recent IMF debates and testimonials in the background, the senators were anxious over moral hazard concerns in the US financial system, asking: "Did the Federal Reserve's intervention create new incentives for other large financial institutions to take huge financial market risks in the future?" And the report's response argues that the NY Fed definitely protected LTCM from a quick and painful failure, which does not assuage moral hazard fears:

Any type of intervention creates the potential for increased moral hazard; however, the long-term implications of FRBNY's involvement in the recapitalization are unknown. Although the FRBNY stressed that its actions were dictated by the state of worldwide financial markets at that time, its actions raised concerns among some industry officials about moral hazard. Some industry officials said that FRBNY's involvement in the rescue, however benign, would encourage large financial institutions to assume more risk, in the belief that the Federal Reserve would intervene on their behalf. According to FRBNY officials, it is unlikely LTCM's creditors would have been able to work together to avoid the rapid liquidation of the Fund if FRBNY officials had not intervened. Thus, FRBNY's intervention probably affected the outcome in this case and, over time, such actions could increase moral hazard and potentially undermine the effectiveness of market discipline. 154

And, similarly, the report underlines concerns that the NY Fed has expanded the "too big to fail" doctrine to hedge funds. It ends by advising that—although admittedly unlikely—the main "federal financial regulators work together to develop ways to enhance their ability to assess risks that cross traditional industry boundaries. This enhanced oversight, should not, however, be focused exclusively on hedge funds because the issues raised by LTCM were not unique to

¹⁵² United States, General Accounting Office, *Responses to Questions Concerning Long-Term Capital Management*, 3.

¹⁵³ Ibid, 14.

¹⁵⁴ Ibid.

hedge funds."¹⁵⁵ The GAO report, which was mailed to the numerous Congressmen and Chairman Greenspan, displays a cognizance and fear of the NY Fed bailout engendering moral hazard in the US financial system. However, in the coming months, the infamous "dot-com bubble"—which climaxed in March 2000—would push LTCM into the periphery. No major regulatory reforms or structural changes were enacted after the NY Fed bailed out LTCM. There were no riots or political upheavals in the US. In fact, John Meriwether even went on to create another hedge fund called JWM Partners in 1999, which failed in the 2008 Financial Crisis.

It is important to recognize the juxtaposition created by two bailouts that occurred within one year of one another. US officials, mainly in the Fed and Treasury, stressed the need for structural changes in Asian countries that received IMF bailouts. They insisted that bailouts were merely palliative measures that must be followed with serious systematic reforms. Furthermore, these policymakers argued that modern financial markets were efficient and punishing the Asian countries' weak systems. They similarly argued that moral hazard concerns would be alleviated by structural reform and better regulatory oversight. However, when confronted by a bailout at home, these same policymakers experienced a change of heart. Greenspan argued that fears about moral hazard in the US financial system were legitimate but that Americans have happily profited from them since the 1930s. Similarly, he argued that modern financial markets—which were previously effective arbiters of strong verses weak financial systems—were erratic and emotional when discussing LTCM. And, finally, both Greenspan and Rubin did not see it necessary to impose new regulation on the US financial system following the NY Fed bailout. This is in stark contrast to their previous hardline on the subject.

¹⁵⁵ United States, General Accounting Office, *Responses to Questions Concerning Long-Term Capital Management*, 16.

Granted, there are also clear differences between these bailouts that should be taken into account. The IMF bailouts were for entire nations and, as part of its conditionality clause, the IMF required structural reforms in return for emergency funding. On the other hand, the NY Fed was obligated to protect the US financial system—not ensure any subsequent structural changes. Furthermore, the bailouts of Asian countries should not only be confined to economic and financial assessment. Because they were sovereign nations in delicate geographical areas, the struggling Asian countries' prolonged financial and economic failure bore steep geopolitical costs and threatened global political stability. Although obviously an extreme example, prolonged financial and economic crisis in post-WWI and Treaty of Versailles Germany undermined the Weimar Republic and provided an opportunity for the rise of Hitler's Third Reich in the 1930s. Russia—which was allowed to default in the late 1990s—provides a recent example of these geopolitical costs. Russia's 1998 debt default and the national embarrassment it engendered created an opportunity for new political leaders—who represented a more nationalistic and powerful past—to rise and gain popularity. Russia's current President, Vladimir Putin, in many ways rose to prominence by promising stability and tapping into the country's nationalistic fervor, which were both absent following the country's shocking default. Another key difference between the two bailouts is that LTCM—unlike the Asian economies—was involved in derivative contract exposures of about \$1.3 trillion. 156 Derivative contracts are exempt from normal bankruptcy proceedings and can therefore be sold off en masse. With this in mind, it provides more insight into why the NY Fed would not want a disorderly liquidation of the hedge fund: LTCM's counterparties would have simultaneously attempted to exit nearly \$1.3

¹⁵⁶ Eichengreen, Barry and Donald Mathieson. *Hedge Funds: What Do We Really Know*, 14.

trillion of contracts and "markets around the globe could have been disrupted." However, key US policymakers (mainly, Greenspan, Rubin, and Summers) still chose not to regulate derivative contracts after LTCM's bailout. In fact, the "Committee to Save the World" infamously dismissed CFTC Chairperson Brooksley Born's attempts to regulate derivative markets in 1998 both before and even after LTCM's demise. Obviously, key differences separated the US' involvement in the IMF bailout programs for Asian countries and the subsequent bailout for LTCM.

On the other hand, clear similarities existed between the two bailouts. The IMF was funded by long-term loans from G-7 countries that spread the costs of the bailout programs amongst the entire group. This establishes a parallel to the LTCM consortium, which was a group of large investment banks that internalized the costs of the bailout. The most important link is that both bailouts were primarily due to an increasingly global and interconnected "new" financial system. Asian countries fell so quickly in 1997 because international investors (including many hedge funds) challenged and inevitably broke their currency pegs. As these countries began to weaken, foreign capital was swiftly pulled out of each country. Therefore, a chain reaction of currency crises led to economic calamity because of swift international capital movements. Similarly, the Asian crises spilled over to other nations as they were interconnected in the new global financial system. Most notably, Russia experienced a significant currency crisis and investors fled from Russian bonds. This forced Russia's central bank to try to entice international investors back with higher yields. These higher interest rates were obviously unsustainable and—for the first time ever—a nuclear power defaulted on its debt. LTCM, which was a hedge fund headquartered in Greenwich, Connecticut, bet heavily on Russian bonds and

¹⁵⁷ Eichengreen, Barry and Donald Mathieson. *Hedge Funds: What Do We Really Know*, 15.

that it had bet against or "shorted" US treasury securities (betting that the yields were too low). As the international financial system collapsed, international investors increasingly poured their money into US treasury securities, believing them to be the only safe (or "risk-free") asset left in the world. This caused yields to fall even lower and therefore led LTCM to its financial ruin. This new world dynamic—of increasingly global connections in financial markets—truly links these two seemingly disparate bailouts together.

Conclusion

In the late 1990s, US policymakers dealt with two major financial crises and subsequent bailouts in separate ways. They opted in to the IMF bailout programs for struggling Asian countries during their respective financial crises; however, they stressed that structural reforms must be enacted to avoid establishing moral hazard in the global financial system. And, only months later, these same officials orchestrated a bailout of the struggling hedge fund, LTCM. But they did not find it necessary to enact regulatory changes—or really any concrete changes—to the US financial system, despite the blatant weaknesses (especially excessive leverage) that LTCM exposed. As the author of the Washington Consensus correctly surmised almost a decade earlier, "Washington does not, of course, always practice what it preaches to foreigners." These policymakers found moral hazard to be a problem in Asia—but not at home.

Nearly a decade after LTCM fell, US financial officials found themselves in similar positions dealing with a much larger financial crisis. Treasury Secretary Hank Paulson, while

 $^{^{\}rm 158}$ Williamson, John. What Washington Means by Policy Reform.

desperately trying to convince Bank of America's CEO, Ken Lewis, to purchase reeling Lehman Brothers, invoked the late 1990s and LTCM:

Ken Lewis called a little after 5:00 p.m. He said that the capital issue had been more or less settled with the Fed; Ben Bernanke had assured him that the Fed would try to resolve the problem. But that was the extent of any good news.

"We took a hard look at Lehman Brothers, and there are a number of assets we're uncomfortable with," he said. "I'm sorry to tell you we won't be able to do this deal."

I wouldn't let him off the hook. "If you had help with the bad assets, would you be willing to proceed?"

"You said there would be no government money," he pointed out. "Have you changed your position?"

"No, we haven't. But I expect that if you made an acceptable offer, we could get others in the industry to help finance the part that you weren't going to take. It would be just like the LTCM consortium." ¹⁵⁹

Similarly, Geithner mentions that—in dealing with the Lehman collapse—they attempted to repeat the LTCM bailout: "I mentioned that Merrill's John Thain and a few other market types had raised the possibility of a Long-Term Capital Management-style consortium of private firms helping out, even though I was doubtful that could work." Unfortunately, times had changed: the LTCM consortium only worked when investment banks were relatively healthy enough to bail out the hedge fund. As Paulson reminisces, "I thought glumly of the challenge before us. The crisis was far greater than what we'd faced with LTCM, a decade before, almost to the day." And, as Geithner stresses, "Lehman was much larger than LTCM, and it would need more money than LTCM had needed a decade earlier; the firms that would have to step up were also in much worse shape in a much worse economy." When those investment banks were in a similar situation to the infamous hedge fund (for similar reasons), who would be left to bail them out? The government. And that is precisely what happened. In fact, Tim Geithner points

¹⁵⁹ Paulson, *On the Brink*, 183-184.

¹⁶⁰ Geithner, Stress Test.

¹⁶¹ Paulson, *On the Brink*, 189.

¹⁶² Geithner, *Stress Test*.

out that LTCM provided US officials and regulators with important insights about weaknesses in the financial system: "We had seen during the LTCM crisis in 1998 how quickly the potential failure of a financial firm could infect the overall financial system—and there was now much more risk outside the banking system in institutions with much more leverage." ¹⁶³

In their respective post-crisis memoirs, the key four financial regulators that dealt with the 2008 Financial Crisis (mentioned in the introduction: Paulson, Geithner, Bernanke, and Bair) stressed the need for structural changes to the US financial system following the government bailouts. Paulson concludes by stressing that the US must enact structural reforms in order to evade the long-term issues that were thrust into the open during the 2008 Financial Crisis: "We must also demonstrate our commitment to rebuilding our economy, fixing our regulatory system, and getting the government out of the private sector as soon as possible. The world needs to know that we are serious about reducing our budget deficit and cleaning up our other messes." Geithner similarly argues for deep structural changes in the US: "The success of our financial rescue did not solve the many problems we face as a nation... These challenges will require better government—not necessarily more government, but smarter policies, designed on the merits, less distorted by politics and money." Ben Bernanke argued that the US must prepare for a new financial era by correcting its relaxed system:

Let me conclude by saying a couple of things about the future. Central banks, not just in the United States but around the world, have been through a very difficult and dramatic period, which has required a lot of rethinking about how we manage policy and how we manage our responsibilities with respect to the financial system. In particular, during much of the World War II period, because things were relatively stable, because financial crises were things that happened in emerging markets and not in developed countries, many central banks began to view financial stability policy as a junior partner to monetary policy. It was not

¹⁶³ Geithner, *Stress Test*.

¹⁶⁴ Paulson, *On the Brink*, 452.

¹⁶⁵ Geithner, Stress Test.

considered as important. It was something to which they paid attention, but it was not something to which they devoted many resources... But given what the potential for damage is now, as we have seen, it is really important for central banks and other regulators to do what we can, first, to anticipate or prevent a crisis, but also, if a crisis happens, to mitigate it and to make sure the system is strong enough to make it through the crisis intact. ¹⁶⁶

And Sheila Bair angrily argues that the US financial system must be dramatically changed to justify officials' actions in 2008:

The things I hate hearing most when people talk about the crisis is that the bailouts "saved the system" or ended up "making money." Participating in bailout measures was the most distasteful thing I have ever had to do, and those ex post facto rationalizations make my skin crawl. What system were we trying to save, anyway? A system in which well-connected big financial institutions get government handouts while smaller institutions and home owners are left to fend for themselves? A system that allows government agencies unfettered discretion to pick winners and losers with taxpayer money? A system that has created cynicism and despair among honest, average working people who take responsibility for their own actions and would never in a million years ask for a government bailout? A system that has spawned two angry political movements on the left and the right that are united in their desire to end the crony capitalism characterized by too-big-to-fail policies? That is not a system I want to save. 167

As this paper shows, memory is a fickle agent. One of the more interesting dialogues during the 2008 financial crisis occurred between Treasury Secretary Paulson and Chinese government officials. In *On the Brink*, Paulson says that he developed close relationships with Chinese financial regulators during the 1990s as he built, and then led, Goldman Sachs' operations in the rising economic superpower. He stresses that these relationships proved indispensable during the recent crisis. But, as Paulson recalls, the US' insistence on financial reformation in struggling Asian economies during the late 1990s came back to haunt it during 2008:

Like so much of the rest of the world, the Chinese watched in horror as the financial crisis began because they had been working hard at best practices and

¹⁶⁶ Bernanke, "Aftermath of the Crisis."

¹⁶⁷ Bair. *Bull by the Horns*.

they thought that the United States had the right model. I've worked extensively with the Chinese leadership and with Wang Qishan (China's top anti-corruption official), and we have a good working relationship. When I was pressing them very hard on their financial-market reform, Wang very nicely said to me, "You used to be our teacher, but right now, our teacher doesn't look quite as wise." 168

This passage provides an interesting juxtaposition to US policymakers during the late 1990s. Those policymakers admonished Asian countries for their weak and structurally unsound financial systems. The difference a decade makes.

In 2009, the IMF released a study that stated the 2008 Financial Crisis cost Western governments approximately \$10 trillion. ¹⁶⁹ Furthermore, according to a 2013 Dallas Fed paper, the recent financial crisis caused an output loss of—using "conservative estimates"—\$6 trillion to \$14 trillion in the US, which amounts to approximately \$50,000 to \$120,000 for every US household. And the paper portentously announces: "If the effects of the crisis are permanent, the path of consumption observed since 2007 suggests that the cost of the crisis may be more than double the \$6 trillion to \$14 trillion estimate." These costs are staggering.

However, it is also important to emphasize that US policymakers during the late 1990s (and the previous decades, for that matter) could not have foreseen the crisis in 2008. Finance is a dynamic and constantly changing industry. It evolves incredibly fast—much faster than regulators could hope to keep up with. Historical analysis, however, moves at a more gradual pace. Broadly, history is a study of recurrent human nature (both in folly and fortune)—and financial history is definitely replete with both folly and fortune. As this paper argues, US officials during the late 1990s failed to apply similar standards to finance practiced in the US as were applied to struggling Asian nations only months earlier. Did they truly not appreciate that a

¹⁶⁸ Fish, "Epiphanies from Hank Paulson."

¹⁶⁹ Cassidy, *How Markets Fail*, 332.

 $^{^{170}}$ United States, Federal Reserve Bank of Dallas, Assessing the Costs and Consequences of the 2007-09 Financial Crisis and Its Aftermath.

bailout in the US and a bailout in South Korea (or Thailand or Indonesia) could produce the same moral hazard in each respective financial system?

Although this paper has heretofore strayed from answering the seemingly impossible to answer "why" question, it will now attempt to do so. In researching and analyzing 1998 and 2008, I found a very interesting parallel. In 1998, Russia defaulted on its debt. And, a decade later, Lehman Brothers went bankrupt. In both instances, we can surmise that moral hazard had existed before their respective demises because of the evident surprise that jolted financial markets following each instance. Investors believed that Russia would be saved just as South Korea (or other Asian countries) had been. Similarly, investors thought that Lehman would be protected by the US government just like Bear Stearns had been. Therefore, in both instances, moral hazard was extinguished. And, as moral hazard quickly vanished, financial markets went into a tailspin that threatened to wreak havoc on the real global economy. So, I think that during the late 1990s—US policymakers were reticent to let LTCM fail and pay the steep price of swiftly eradicating moral hazard in the US financial system. Similarly, in 2008, US policymakers were afraid of allowing AIG or anymore large financial institutions to fail after Lehman failed—and they tried their utmost to find a buyer for Lehman. The prices were too high and consequences too dire for either group of policymakers to stomach. In 1998, US policymakers also saw the price of gradually ridding international financial markets of moral hazard issues: the IMF's structural reforms mitigated moral hazard but also caused widespread protests, supply shortages, political disruptions, and a growing disillusionment with the post-WWII international paradigm. And, consequently keenly aware of the costs of gradually lessening moral hazard, these US policymakers balked at imposing regulatory or even structural reforms after LTCM's bailout. As discussed in the introduction, the US had established many

moral hazard precedents before 1998, so what was one more bailout? It is obvious now that this historical inaction, which spanned several decades, had dire ramifications for the 2008 Financial Crisis. And, as current US policymakers struggle with the aftermath of the 2008 Financial Crisis and decide whether or not to implement deep structural reforms to the US financial system, they should take heed of a portentous line from their counterparts at the turn of the century: "Market history indicates that even painful lessons recede from memory with time." We can only hope that recent US financial history—full of soaring profits, deflated bubbles, and squandered opportunities—provides painful enough memories that are truly "too big to forget."

¹⁷¹ United States; Report of The President's Working Group on Financial Markets; *Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management*; viii.

Bibliography

- "About the IMF History." International Monetary Fund. Accessed March 22, 2015. https://www.imf.org/external/about/history.htm.
- Bair, Sheila. Bull by the Horns: Fighting to Save Main Street from Wall Street and Wall Street from Itself. New York: Free Press, 2012. doi:B0061Q688A.
- Bank of America. "Bank of America Buys Merrill Lynch Creating Unique Financial Services Firm." News release, September 15, 2008. Newsroom. Accessed February 06, 2015. http://newsroom.bankofamerica.com/press-release/corporate-and-financial-news/bank-america-buys-merrill-lynch-creating-unique-financial.
- Bernanke, Ben S. "The Aftermath of the Crisis." Lecture. In *The Federal Reserve and the Financial Crisis*. Princeton: Princeton University Press, 2013. 121-122.
- Bernanke, Ben S. "The Federal Reserve's Response to the Financial Crisis." Lecture. In *The Federal Reserve and the Financial Crisis*. Princeton: Princeton University Press, 2013.
- Blustein, Paul, and Kevin Sullivan. "World Bank Approves \$3 Billion Loan to South Korea." *Washington Post*. December 24, 1997. Accessed January 26, 2015. http://www.washingtonpost.com/wp-srv/inatl/longterm/korea/stories/loan122497.htm.
- Blustein, Paul. And the Money Kept Rolling In (and Out): Wall Street, the IMF, and the Bankrupting of Argentina. New York: Public Affairs, 2006.
- Board of the Governors of the Federal Reserve System. "Order Conditionally Approving Applications to Engage, to a Limited Extent, in Underwriting and Dealing in Certain Securities." Press Release, January 18, 1989.
- Bowring, Philip. South Korean protesters riot against the IMF reforms. Digital image. *The Wall Street Journal*. April 29, 2013. Accessed March 26, 2015. http://www.wsj.com/articles/SB10001424127887323528404578452472323591716. (**Figure 2**).
- Capitalism: A Love Story. Dir. Michael Moore. Perf. Michael Moore. The Weinstein Company, 2009. Youtube. Web. 22 Apr. 2014.
- Cassidy, John. *How Markets Fail: The Logic of Economic Calamities*. New York: Farrar, Straus and Giroux, 2009.
- Chernow, Ron. *The House of Morgan: An American Banking Dynasty and the Rise of Modern Finance*. New York: Atlantic Monthly Press, 1990.

- Creswell, Julie, and Ben White. "The Guys From 'Government Sachs.'" *The New York Times*, October 17, 2008. October 18, 2008. Accessed January 19, 2015. http://www.nytimes.com/2008/10/19/business/19gold.html?pagewanted=all& r=0.
- Doyle, Larry. *In Bed with Wall Street: The Conspiracy Crippling Our Global Economy*. First ed. New York: Palgrave Macmillan, 2014.
- Federal Reserve Bank of New York. "Statement on Financing Arrangement of JPMorgan Chase's Acquisition of Bear Stearns." News release, March 24, 2008. Federal Reserve Bank of New York. Accessed February 06, 2015. http://www.newyorkfed.org/newsevents/news/markets/2008/rp080324.html.
- Federal Reserve. "Press Release." News release, September 21, 2008. Board of the Governors of the Federal Reserve. Accessed February 06, 2015. http://www.federalreserve.gov/newsevents/press/bcreg/20080921a.htm.
- Fish, Isaac S. "Epiphanies from Hank Paulson." *Foreign Policy*. May 5, 2014. Accessed January 22, 2015. http://foreignpolicy.com/2014/05/05/epiphanies-from-hank-paulson/.
- Eichengreen, Barry and Donald Mathieson. *Hedge Funds: What Do We Really Know.*Publication. Vol. 19. Economic Issues. Washington D.C.: IMF, September 1999.
 Accessed January 29, 2015. http://www.imf.org/external/pubs/ft/issues/issues19/.
- Geisst, Charles R. *Wall Street: A History*. Updated ed. New York: Oxford University Press, 1997.
- Geithner, Timothy F. *Stress Test: Reflections on Financial Crises*. 1st ed. New York: Crown Publishing Group, 2012. Accessed April 14, 2014. doi:B00IN73B9E.
- Goodman, Peter S. "Taking Hard New Look at a Greenspan Legacy." The New York Times. October 08, 2008. Accessed January 09, 2015. http://www.nytimes.com/2008/10/09/business/economy/09greenspan.html?pagewanted= all&_r=0.
- Hank: Five Years from the Brink. Directed by Joe Berlinger. Performed by Hank and Wendy Paulson. Bloomberg Businessweek, 2013. Accessed April 28, 2014. http://www.netflix.com.
- IMF. External Relations Department. "International Monetary Fund Press Briefing on 1998 Annual Report." News release, September 11, 1998. IMF. Accessed January 27, 2015. https://www.imf.org/external/np/tr/1998/tr980911.htm.
- "IMF Releases More Funds for Thailand." BBC News. December 08, 1997. Accessed January 27, 2015. http://news.bbc.co.uk/2/hi/world/far east/37733.stm.

- *Inside Job.* Dir. Charles Ferguson. Perf. Matt Damon. Sony Pictures Classic, 2010. *Amazon Video*. Web. 22 Apr. 2014.
- Ivry, Bob. *The Seven Sins of Wall Street: Big Banks, Their Washington Lackeys, and the Next Financial Crisis.* First ed. New York: PublicAffairs, 2014.
- Kinsley, Michael. "Greenspan Shrugged." *The New York Times*. October 13, 2007. Accessed January 25, 2015. http://www.nytimes.com/2007/10/14/books/review/Kinsley-t.html? r=0.
- Krugman, Paul R. *The Return of Depression Economics and the Crisis of 2008*. Reprint ed. New York: W.W. Norton, 2009.
- Lewis, Michael. *Liar's Poker: Rising through the Wreckage on Wall Street*. 1st ed. New York: Norton, 1989.
- Lowenstein, Roger. When Genius Failed: The Rise and Fall of Long-Term Capital Management. 1st ed. New York: Random House, 2000.
- Mallaby, Sebastian. *More Money than God: Hedge Funds and the Making of a New Elite*. New York: Penguin Press, 2010.
- Mamudi, Sam. "Lehman folds with record \$613 billion debt." *MarketWatch*, September 15, 2008. Accessed February 6, 2015. http://www.marketwatch.com/story/lehman-folds-with-record-613-billion-debt?siteid=rss.
- Mandis, Steven G. What Happened to Goldman Sachs?: An Insider's Story of Organizational Drift and Its Unintended Consequences. 1st ed. Boston: Harvard Business School Publishing, 2013.
- Nelson, Edward. *The Great Recapitalization*. Report no. 29. Economic Synopses. St. Louis: Federal Reserve Bank of St. Louis, 2008. http://research.stlouisfed.org/publications/es/08/ES0829.pdf.
- O'Neill, Michael. "TIME Magazine Cover: Rubin, Greenspan & Summers Feb. 15, 1999." *TIME*. February 15, 1999. Accessed January 26, 2015. http://content.time.com/time/covers/0,16641,19990215,00.html. (**Figure 1**).
- Prins, Nomi. *All the Presidents' Bankers: The Hidden Alliances That Drive American Power*. 1st ed. New York: Nation Books, 2014.
- Paulson, Henry M. *On the Brink: Inside the Race to Stop the Collapse of the Global Financial System.* New York: Business Plus, 2010. Accessed January 23, 2015. doi:B00DTUHN80.
- Regan, Donald T. For the Record: From Wall Street to Washington. San Diego: Harcourt Brace Jovanovich, 1988.

- Reinhart, Carmen M., and Kenneth S. Rogoff. *This Time Is Different: Eight Centuries of Financial Folly*. Princeton: Princeton University Press, 2009.
- Rodrik, Dani. "Goodbye Washington Consensus, Hello Washington Confusion?" *Journal of Economic Literature* XLIV (December 2006): 973-87. http://faculty.washington.edu/swhiting/pols502/Rodrik Washington Confusion.pdf.
- Sarel, Michael. *Growth in East Asia: What We Can and What We Cannot Infer*. Publication. Vol. 1. Economic Issues. Washington D.C.: IMF, 1996. Accessed January 23, 2015. http://www.imf.org/external/pubs/ft/issues1/.
- Shull, Bernard, and Gerald A. Hanweck. *Bank Mergers in a Deregulated Environment: Promise and Peril*. Westport, CT: Quorum Books, 2001.
- Smith, Winthrop H., Jr. Catching Lightning in a Bottle: How Merrill Lynch Revolutionized the Financial World. 1st ed. Hoboken, N. J.: John Wiley & Sons, 2013.
- Stiglitz, Joseph. "Challenging The Washington Consensus." *The Brown Journal of World Affairs* IX, no. 2 (2002): 33-40. doi:10.1111/j.1743-4580.2006.00089.x.
- Taibbi, Matt. *Griftopia: Bubble Machines, Vampire Squids, and the Long Con That Is Breaking America*. New York: Spiegel & Grau, 2010.
- The Federal Reserve Board. "Testimony of Chairman Alan Greenspan: International economic and financial systems." Press Release, September 16, 1998. www.federalreserve.gov. Accessed January 22, 2015. http://www.federalreserve.gov/boarddocs/testimony/1998/19980916.htm.
- The Federal Reserve Board. "Testimony of Chairman Alan Greenspan: Need for Financial Modernization." Press Release, February 23, 1999. www.federalreserve.gov. Accessed January 22, 2015. http://www.federalreserve.gov/boarddocs/testimony/1999/19990223.htm.
- The Federal Reserve Board. "Testimony of Chairman Alan Greenspan: Private-sector refinancing of the large hedge fund, Long-Term Capital Management." Press Release, October 1, 1998. www.federalreserve.gov. Accessed January 22, 2015. http://www.federalreserve.gov/boarddocs/testimony/1998/19981001.htm.
- The Federal Reserve Board. "Testimony of Chairman Alan Greenspan: The Federal Reserve's semiannual monetary policy report." Press Release, February 24, 1998. www.federalreserve.gov. Accessed January 22, 2015. http://www.federalreserve.gov/boarddocs/hh/1998/february/testimony.htm.
- The Federal Reserve Board. "Testimony of Chairman Alan Greenspan: The crisis in emerging market economies." Press Release, September 23, 1998. www.federalreserve.gov.

- Accessed January 22, 2015. http://www.federalreserve.gov/boarddocs/testimony/1998/19980923.htm.
- The Federal Reserve Board. "Testimony of Chairman Alan Greenspan: The current Asia crisis and the dynamics of international finance." Press Release, January 30, 1998. www.federalreserve.gov. Accessed January 22, 2015. http://www.federalreserve.gov/boarddocs/testimony/1998/19980130.htm.
- The Federal Reserve Board. "Testimony of Chairman Alan Greenspan: The current Asian crisis and the financial resources of the IMF." Press Release, May 21, 1998. www.federalreserve.gov. Accessed January 22, 2015. http://www.federalreserve.gov/boarddocs/testimony/1998/19980521.htm.
- The Federal Reserve Board. "Testimony of Chairman Alan Greenspan: Turbulence in world financial markets." Press Release, October 29, 1997. www.federalreserve.gov. Accessed January 22, 2015. http://www.federalreserve.gov/boarddocs/testimony/1997/19971029.htm.
- The Federal Reserve Bank of New York. "Statement by William J. McDonough, President Federal Reserve Bank of New York Before the Committee on Banking and Financial Services U.S. House of Representatives." Press Release, October 1, 1998. www.newyorkfed.gov. Accessed January 22, 2015. http://www.newyorkfed.org/newsevents/speeches/1998/mcd981001.html.
- The Federal Reserve Board. "Press Release." News release, September 16, 2008. Board of the Governors of the Federal Reserve. Accessed February 06, 2015. http://www.federalreserve.gov/newsevents/press/other/20080916a.htm.
- The financial world was captivated by the LTCM "dream team" Digital image. Bloomberg BusinessWeek. August 28, 1994. Accessed March 28, 2015. http://www.bloomberg.com/ss/07/08/0823 hubris/image/1994-98.jpg. (**Figure 4**).
- "Timeline of the Crash." PBS. June 1999. Accessed January 24, 2015. http://www.pbs.org/wgbh/pages/frontline/shows/crash/etc/cron.html.
- Treasury Department. Press Center. "'American Farmers: Their Stake in Asia, Their Stake in the IMF,' Remarks by Deputy Treasury Secretary Lawrence H. Summers." News release, February 23, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2241.aspx.
- Treasury Department. Press Center. "Deputy Secretary Summers Remarks Before the International Monetary Fund." News release, March 9, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2286.aspx.

- Treasury Department. Press Center. "'Emerging From Crisis: the Beginnings of a New Asia' Remarks by Lawrence H. Summers, Deputy Secretary of the Treasury, Economic Strategy Institute." News release, February 11, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2217.aspx.
- Treasury Department. Press Center. "Secretary Robert E. Rubin Brookings Institution Strengthening the Architecture of the International Financial System." News release, April 14, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2366.aspx.
- Treasury Department. Press Center. "Secretary Robert E. Rubin Catholic University of Chile." News release, December 3, 1997. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2092.aspx.
- Treasury Department. Press Center. "Secretary Robert E. Rubin Remarks before the Institute of International Bankers." News release, March 2, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2266.aspx.
- Treasury Department. Press Center. "Secretary Robert E. Rubin Sasin Institute of Business Administration Chulalongkorn University Bangkok, Thailand." News release, June 30, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2568.aspx.
- Treasury Department. Press Center. "Statement by Treasury Secretary Robert E. Rubin." News release, December 8, 1997. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2121.aspx.
- Treasury Department. Press Center. "Statement by Treasury Secretary Robert E. Rubin." News release, December 24, 1997. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2131.aspx.
- Treasury Department. Press Center. "Statement by Treasury Secretary Robert E. Rubin." News release, January 20, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2167.aspx.
- Treasury Department. Press Center. "Statement by Treasury Secretary Robert E. Rubin." News release, January 29, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2167.aspx.
- Treasury Department. Press Center. "Statement by Treasury Secretary Robert E. Rubin on Indonesia." News release, January 27, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2173.aspx.

- Treasury Department. Press Center. "Statement by Treasury Secretary Robert E. Rubin on Thailand." News release, March 4, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2276.aspx.
- Treasury Department. Press Center. "Statement by Treasury Secretary Robert E. Rubin on Meeting with Korean Finance Minister Lee." News release, April 3, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2346.aspx.
- Treasury Department. Press Center. "Statement by Treasury Secretary Robert E. Rubin on the Meeting with Thai Finance Minister Tarrin." News release, January 20, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2163.aspx.
- Treasury Department. Press Center. "Testimony by Treasury Secretary Robert E. Rubin." News release, January 30, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2186.aspx.
- Treasury Department. Press Center. "Treasury Assistant Secretary Timothy F. Geithner Joint Economic Committee." News release, February 24, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2243.aspx.
- Treasury Department. Press Center. "Treasury Secretary Robert E. Rubin Address on the Asian Financial Situation to Georgetown University Washington, D.C." News release, January 21, 1998. U.S. Department of the Treasury. Accessed January 22, 2015. http://www.treasury.gov/press-center/press-releases/Pages/rr2168.aspx.
- United States. FDIC. Consolidation in the U.S. Banking Industry: Is the "Long, Strange Trip" About to End? By Kenneth D. Jones and Tim Critchfield. 4th ed. Vol. 17. FDIC Banking Review. 2005. www.fdic.gov.
- United States. FDIC. Division of Research and Statistics. *An Examination of the Banking Crises of the 1980s and Early 1990s*. By Lee Davison. Vol. 1. History of the Eighties Lessons for the Future. FDIC, 1997. Accessed January 25, 2015. https://www.fdic.gov/bank/historical/history/.
- United States. FDIC. Division of Research and Statistics. *The Cost of the Savings and Loan Crisis: Truth and Consequences*. By Timothy Curry and Lynn Shibut. FDIC Banking Review. FDIC, 2000. Accessed January 26, 2015. https://www.fdic.gov/bank/analytical/banking/2000dec/brv13n2_2.pdf.
- United States. Federal Reserve Bank of Dallas. Dallas. Assessing the Costs and Consequences of the 2007-09 Financial Crisis and Its Aftermath. By David Luttrell, Tyler Atkinson, and Harvey Rosenblum. 7th ed. Vol. 8. Economic Letter. Dallas: Federal Reserve Bank of

- Dallas, 2013. Accessed January 28, 2015. http://www.dallasfed.org/assets/documents/research/eclett/2013/el1307.pdf.
- United States. General Accounting Office. Washington, D.C. *Responses to Questions Concerning Long-Term Capital Management and Related Events*. Accessed January 22, 2015. http://www.gao.gov/archive/2000/gg00067r.pdf.
- United States. Report of The President's Working Group on Financial Markets. *Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management*. By Robert E. Rubin, Alan Greenspan, Arthur Levitt, and Brooksley Born. April 28, 1999. http://www.treasury.gov/resource-center/fin-mkts/Documents/hedgfund.pdf.
- Williamson, John. *What Washington Means by Policy Reform*. Publication. Latin American Adjustment: How Much Has Happened?. Washington D.C.: Peterson Institute for International Economics, 1990. Accessed March 23, 2015. http://www.iie.com/publications/papers/paper.cfm?researchid=486.
- Widespread public protests in Indonesia force President Suharto's resignation in 1998. Digital image. *BBC News*. January 28, 2008. Accessed March 28, 2015. http://news.bbc.co.uk/2/hi/in pictures/4528925.stm. (**Figure 3**).