A Short History of Financial Deregulation in the United States

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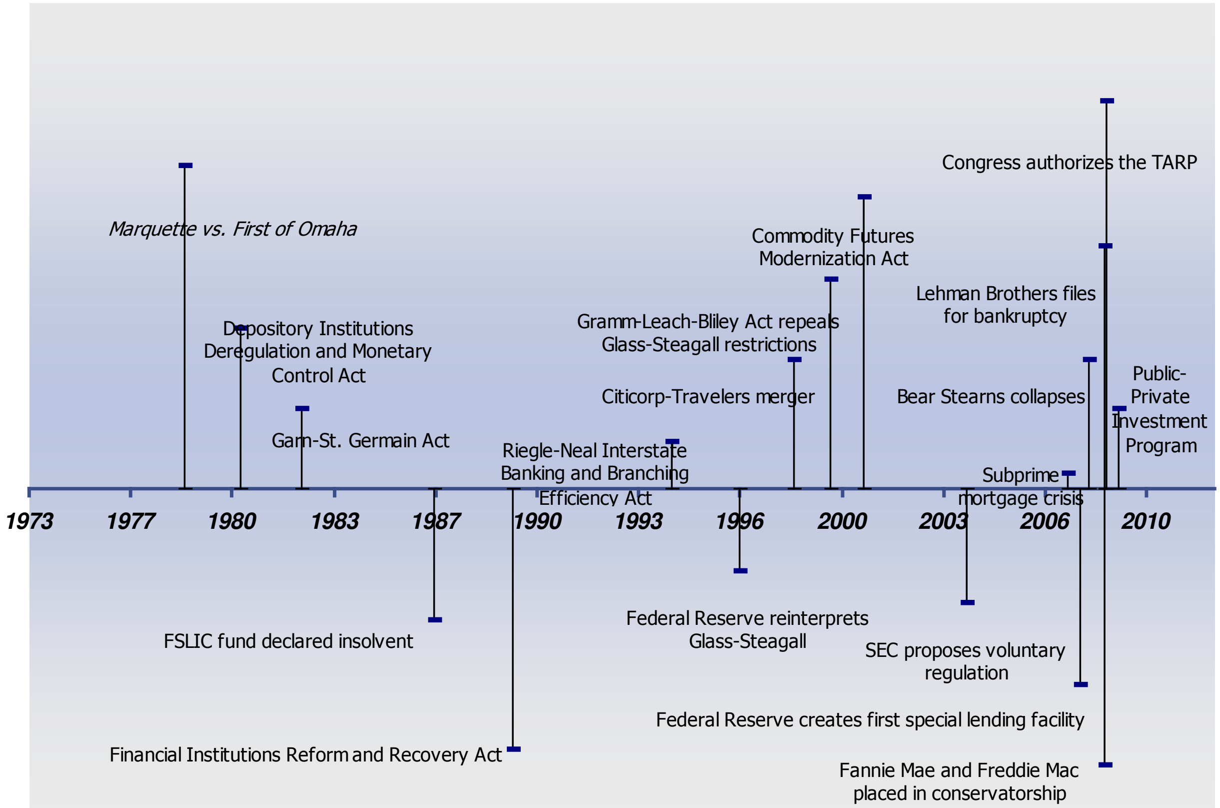
Timeline of Key Events



- **1978, *Marquette vs. First of Omaha*** – Supreme Court allows banks to export the usury laws of their home state nationwide and sets off a competitive wave of deregulation, resulting in the complete elimination of usury rate ceilings in South Dakota and Delaware, among others.
- **1980, Depository Institutions Deregulation and Monetary Control Act** – Legislation increases deposit insurance from $40,000 to $100,000, authorizes new authority to thrift institutions, and calls for the complete phase-out of interest rate ceilings on deposit accounts.
- **1982, Garn-St. Germain Depository Institutions Act** – Bill deregulates thrifts almost entirely, allowing commercial lending and providing for a new account to compete with money market mutual funds. This was a Reagan administration initiative that passed with strong bi-partisan support.
- **1987, FSLIC Insolvency** – GAO declares the deposit insurance fund of the savings and loan industry to be insolvent as a result of mounting institutional failures.
- **1989, Financial Institutions Reform and Recovery Act** – Act abolishes the Federal Home Loan Bank Board and FSLIC, transferring them to OTS and the FDIC, respectively. The plan also creates the Resolution Trust Corporation to resolve failed thrifts.
- **1994, Riegle-Neal Interstate Banking and Branching Efficiency Act** – This bill eliminated previous restrictions on interstate banking and branching. It passed with broad bi-partisan support.

- **1996, Fed Reinterprets Glass-Steagall** – Federal Reserve reinterprets the Glass-Steagall Act several times, eventually allowing bank holding companies to earn up to 25 percent of their revenues in investment banking.
- **1998, Citicorp-Travelers Merger** – Citigroup, Inc. merges a commercial bank with an insurance company that owns an investment bank to form the world's largest financial services company.
- **1999, Gramm-Leach-Bliley Act** – With support from Fed Chairman Greenspan, Treasury Secretary Rubin and his successor Lawrence Summers, the bill repeals the Glass-Steagall Act completely.
- **2000, Commodity Futures Modernization Act** – Passed with support from the Clinton Administration, including Treasury Secretary Lawrence Summers, and bi-partisan support in Congress. The bill prevented the Commodity Futures Trading Commission from regulating most over-the-counter derivative contracts, including credit default swaps.
- **2004, Voluntary Regulation** – The SEC proposes a system of voluntary regulation under the Consolidated Supervised Entities program, allowing investment banks to hold less capital in reserve and increase leverage.
- **2007, Subprime Mortgage Crisis** – Defaults on subprime loans send shockwaves throughout the secondary mortgage market and the entire financial system.
- **December 2007, Term Auction Facility –** Special liquidity facility of the Federal Reserve lends to depository institutions. Unlike lending through the discount window, there is no public disclosure on loans made through this facility.
- **March 2008, Bear Stearns Collapse –** The investment bank is sold to JP Morgan Chase with assistance from the Federal Reserve.
- **March 2008, Primary Dealer Facilities** – Special lending facilities open the discount window to investment banks, accepting a broad range of asset-backed securities as collateral.
- **July 2008, Housing and Economic Recovery Act –** Provides guarantees on new mortgages to subprime borrowers and authorizes a new federal agency, the FHFA, which eventually places Fannie Mae and Freddie Mac into conservatorship.
- **September 2008, Lehman Brothers Collapse –** Investment bank files for Chapter 11 bankruptcy.
- **October 2008, Emergency Economic Stabilization Act** – Bill authorizes the Treasury to establish the Troubled Asset Relief Program to purchase distressed mortgage-backed securities and inject capital into the nation's banking system. Also increases deposit insurance from $100,000 to $250,000.
- **Late 2008, Money Market Liquidity Facilities –** Federal Reserve facilities created to facilitate the purchase of various money market instruments.
- **March 2009, Public-Private Investment Program** – Treasury Secretary Timothy Geithner introduces his plan to subsidize the purchase of toxic assets with government guarantees.

Introduction

As America weathers the most severe financial crisis since the Great Depression, a singular debate pervades the country – what went wrong? Was it greed or negligence, or some combination of both? Was there too much regulation or too little? Clearly, the system of regulations and incentives in place did not produce optimal results. Can a similar catastrophe be prevented in the future? This paper outlines the major regulatory changes over the last three decades that created the context in which the crisis occurred.

Background

Interest rate regulation dates back to the beginning of the country. At the time of independence, all states set maximum limits for loan interest rates at no more than 8 percent per annum.[1] These regulations remained in place until the late 19th century when enforcement problems emerged around certain salary lenders, or loan sharks. Operating outside the influence of regulators allowed these lenders to charge interest rates equivalent to triple-digit annual rates on loans. Many social reformers urged the passage of a Small Loan Law that would authorize mainstream businesses to compete with salary lenders by charging higher rates, in exchange for certain transparency and disclosure requirements. The Uniform Small Loan Law, passed in 1916, permitted regulated lenders to charge between 24 and 42 percent interest, allowing many businesses to operate profitably in the small loan market.[2]

The nation's central bank was established in 1914 under the Federal Reserve Act. In order to better control the nation's money supply and prevent widespread banking panics, the Federal Reserve System was established to conduct monetary policy and regulate member banks. Member banks were required to register and hold reserves at the Federal Reserve, which until 2009 earned no interest. In exchange, they were given access to the discount window where the Fed could provide loans at below-market rates, as a lender of last resort.

The governing structure of the Federal Reserve System is a peculiar public-private hybrid. The Federal Reserve is comprised of twelve regional, privately owned banks. The boards and presidents of these banks are appointed through a process that is dominated by the member banks within the region. There is also a seven-member Board of Governors, including the chairman, all of whom are appointed by the president and approved by Congress.

The experience of the Great Depression changed attitudes regarding the regulation of financial markets. Much of the current system is the result of changes put in place during the 1930s. In 1933, Congress fundamentally reformed banking with the Glass-Steagall Act. One provision of the act, named Regulation Q, placed limits on the interest rates banks could offer on deposits. The federal

1 Peterson, Christopher L., "Usury Law, Payday Loans, and Statutory Sleight of Hand: An Empirical Analysis of American Credit Pricing Limits," Minnesota Law Review, vol. 92, no. 4, April 2008. http://works.bepress.com/cgi/viewcontent.cgi?article=1000&context=christopher_peterson

2 Carruthers, Bruce G., Timothy W. Guinnane and Yoonseok Lee, "The Passage of the Uniform Small Loan Law," paper presented at the annual meeting of the American Sociological Association, 2007. http://www.lse.ac.uk/collections/economicHistory/seminars/Guinnane.pdf

control removed the possibility of competitive rate wars and kept rates from soaring to exorbitant levels. Regulation Q also made a small exception for institutions specializing in mortgage lending, especially the savings and loan associations. Deposits at these firms received a quarter-percent advantage over other consumer deposits. This was explicitly designed to encourage a flow of money into housing.

The Glass-Steagall Act also established a system of deposit insurance for consumers with the creation of the Federal Deposit Insurance Corporation (FDIC). The FDIC guaranteed consumer deposits up to a certain level, quieting the widespread fears of bank failures. This prevented the sort of bank runs that were common in the early years of the depression.

In addition, the act prohibited banks from being "engaged principally" in non-banking activities, such as the securities or insurance business. Firms were thus forced to choose between becoming a bank engaged in simple lending or an investment bank engaged in securities underwriting and dealing. Later legislation in 1956 would extend this restriction to bank holding companies.

Significant regulations were also established in the securities markets. The Securities Act of 1933 required businesses to register the initial offer or subsequent sale of any security with the government, increasing disclosure and transparency in the primary securities market. In 1934, the Securities Exchange Act established the Securities and Exchange Commission (SEC) to regulate secondary trading of securities by regulating stock exchanges and enforcing against criminal acts of fraud. Firms were required to submit quarterly and annual reports to the SEC. In the futures market, the Commodity Exchange Act of 1936 set rules for exchanges for commodities and futures trading. Later revisions to the act in 1974 would result in the creation of the Commodity Futures Trading Commission (CFTC) as a federal regulator for the market. Both the SEC and the CFTC rely to some extent on private self-regulation, especially in the operation of the exchanges themselves.

Separate regulations were also established for other depository institutions that specialized in taking deposits and making home mortgage loans, such as savings and loan associations and credit unions. Legislation in 1933 created the Federal Home Loan Bank Board to oversee the savings and loan associations, also known as thrifts. Similar legislation in 1934 created the Bureau of Federal Credit Unions to oversee the operation of credit unions. Later reforms in 1970 would transfer oversight of credit unions to the National Credit Union Administration.

Insurance companies, unlike other financial institutions, have been subject to regulation only at the state level. A Supreme Court decision in 1944 mandated insurance activities be subject to interstate commercial law, but Congress returned insurance regulation to the states with the McCarran-Ferguson Act of 1945.[3]

The reforms in the first half of the twentieth century created a system of regulatory agencies, most of which remain today, that were organized by financial activity. Separate agencies focused on separate activities, often with very different priorities. The fragmented system leaves room for variation across region and allowed for some self-regulation by private institutions. In the four decades following the Great Depression, few changes were made to the regulatory framework.

[3] Government Accountability Office (GAO), "Financial Regulation: A Framework for Crafting and Assessing Proposals to Modernize the Outdated U.S. Financial Regulatory System," January 2009. http://www.gao.gov/new.items/d09216.pdf

However, in the next three decades, technological advances, as well as shifts in ideology and political power, would all help to transform the system of financial regulation in America.

Usury Laws

In the 1970s, most states still had in place the usury laws from the early years of the century. The interest rate ceiling imposed by these laws imposed little constrain on lending in the first decades after World War II. When inflation picked up in the 70s, the ceilings set by usury laws became an important constraint. This was especially true with credit cards, the use of which began to grow rapidly in the late 60s and 70s.[4]

In 1978, the national landscape of usury regulation changed fundamentally with the Supreme Court's decision in *Marquette National Bank v. First of Omaha Service Corp*. For the first time, the Court considered the question of which state usury law applied to nationally-chartered banks lending across state lines: the bank's home state or the borrower's home state? The Court ruled that the bank's home state law applied, allowing national banks to effectively export the maximum interest rate regulations from one state to their operations nationwide. This provided every incentive for financial firms to relocate their businesses to the states with the most industry-friendly regulation.

In one instance, the state of South Dakota considered completely eliminating usury ceiling legislation in the state in order to attract the credit card operations of Citibank. The arrangement promised to create new jobs in the languishing economy of South Dakota while removing interest rate restrictions for the national commercial bank. Citibank executives made phone calls to the Governor and personal visits to the state, stressing the urgency of the situation. They explained that the bank was struggling to stay afloat and would relocate to South Dakota immediately if the usury laws were overturned. As former Governor Bill Janklow recounts, the process moved so quickly that the legislation was introduced and passed in one day. Overnight, South Dakota had become a regulatory haven for the credit card industry.[5]

South Dakota's actions prompted several other states, most notably Delaware, to eliminate their usury ceilings in response. The competitive wave of deregulation was hugely beneficial to the credit card industry. Nationally chartered banks could now relocate their operations to one of the few states with deregulated usury ceilings and export those regulations nationwide. The end result was a paradoxical one. Nearly every state, with two exceptions, still had strict usury laws on their books, but banks were able to charge any interest they wanted nationwide. The Supreme Court's *Marquette* decision had ushered in the de facto disappearance of usury ceilings, at least for many types of loans.[6]

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4 Mercatante, Steven, "The Deregulation of Usury Ceilings, Rise of Easy Credit, and Increasing Consumer Debt," South Dakota Law Review, Spring 2008. http://findarticles.com/p/articles/mi_m6528/is_1_53/ai_n25019601/

5 Interview with Bill Janklow, *Frontline: The Secret History of the Credit Card*, November 23, 2004. http://www.pbs.org/wgbh/pages/frontline/shows/credit/interviews/janklow.html

6 Peterson, Christopher L., "Usury Law, Payday Loans, and Statutory Sleight of Hand: An Empirical Analysis of American Credit Pricing Limits," University of Florida, August 8, 2007. http://works.bepress.com/cgi/viewcontent.cgi?article=1000&context=christopher_peterson

Later, the Supreme Court would use the same logic in judging restrictions on late fees for overdue credit card payments. In the 1996 decision of *Smiley vs. Citibank,* the Court ruled that these penalties constituted a form of interest, thereby overruling any state-level regulations that placed limits on these charges. Fees increased from $5 or $10, to $30 or $40. Late fees and charges would become a significant source of revenue for the credit card industry and a consistent source of criticism for consumer advocates.[7]

The history of usury ceilings demonstrates how small reforms can end up producing much larger transformations. The actions of a few small states effectively changed the regulatory framework of the entire nation.

Removing Interest Rate Ceilings

After the Great Depression, banks were restricted in the rate of interest they could charge on all types of deposit accounts. Under Regulation Q of the Banking Act of 1933, savings accounts were capped at 5.25 percent, and time deposits were limited to between 5.75 and 7.75 percent, depending on maturity. Checking accounts were restricted to an interest rate of zero. The regulation was intended to prevent rate wars at exorbitant levels, but it made a special distinction for institutions specializing in mortgage lending. In order to encourage mortgage lending within local communities, thrift institutions were allowed to offer deposit accounts interest rates a quarter-percent higher than banks.[8]

In the late 1970s, inflation caused market interest rates to rise above the limits mandated by Regulation Q. The restrictions may have been prudent when inflation was around 3 or 4 percent, but with inflation as high as 10 or 11 percent, investors began to seek out and find alternatives to traditional deposit accounts. In the commercial paper market, investors could lend directly to borrowers, bypassing banks as intermediaries. Brokerage firms and other financial institutions began to create money market mutual funds, which pooled small investors' funds to purchase commercial paper. These money market funds operated without reserve requirements or restrictions on rates of return. They quickly became popular among small investors who shifted their money out of the regulated accounts in depositary institutions, which paid considerably lower interest rates.

With the aim of allowing banks and savings and loans to compete with money market mutual funds, President Carter signed into law the Depository Institutions Deregulation and Monetary Control Act (DIDMCA) of 1980. The legislation established a committee to oversee the complete phase-out of interest rate ceilings within six years. Depository institutions would be allowed to offer accounts with competitive rates of return in the market. The act also increased federal deposit insurance from $40,000 to $100,000 and required all U.S. banks to maintain reports and hold reserves at the Federal Reserve.[9]

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[7] *PBS Frontline: Secret History of the Credit Card,* "Eight Things a Credit Card User Should Know," November 23, 2004. http://www.pbs.org/wgbh/pages/frontline/shows/credit/eight/.

[8] Beebe, Jack, "Deposit Deregulation," Federal Reserve Bank of San Francisco, April 10, 1981. http://www.frbsf.org/publications/economics/letter/1981/el81-15.pdf

[9] Gilbert, R. Alton, "Requiem for Regulation Q: What it Did and Why it Passed Away," Federal Reserve Bank of St. Louis, February 1986. http://research.stlouisfed.org/publications/review/86/02/Requiem_Feb1986.pdf

In 1982, Congress passed the Garn-St. Germain Act of 1982. The legislation authorized thrifts to engage in commercial loans up to 10 percent of assets and offer a new account to compete directly with money market mutual funds. The new expanded powers allowed thrifts to act more like a bank and less like a specialized mortgage lending institution. Realizing the possibility of industry problems in the future, the Garn-St. Germain Act also provided direct capital assistance to distressed institutions and expanded federal regulators' ability to deal with institutional failures in the future.[10]

The financial deregulation of the early 1980s was designed to benefit depository institutions, especially the thrift industry, but it also altered the composition of the market. The DIDMCA removed interest rate ceilings on deposits, which removed the interest rate advantage that thrifts had held over banks. The Garn-St. Germain Act was intended to benefit the thrift industry specifically, but in doing so, it allowed these firms to enter into new financial territory with new risks.

The thrift industry was already in distress by the end of the 70s. Savings and loan associations specialized in taking in deposits in the short-term and making mortgage loans in the long-term. This type of asset-liability mismatch made thrifts especially vulnerable to the costs of high interest rates. With high inflation and competitive pressure for deposits pushing up the interest rates they had to pay, most thrift institutions reported large losses in the early 1980s. Net worth of the entire industry approached zero, falling from 5.3 percent of assets in 1980 to 0.5 percent in 1982.[11] Institutions failed at a regular pace as a result of this pressure, but no large-scale action was taken for a variety of reasons.

For one, the industry's deposit insurance fund, the Federal Savings and Loan Insurance Corporation (FSLIC), was ill equipped to deal with the prospect of widespread insolvency. According to some estimates, bailing out all the insolvent institutions in 1983 would have cost the FSLIC around $25 billion, but the fund held only $6.3 billion in reserves at the time. The problems of the thrift industry had spread beyond the reach of its deposit insurance scheme, making early intervention problematic.[12]

In addition to inadequate deposit insurance, supervision and oversight of the thrift industry proved to be insufficient. In 1981, the Federal Home Loan Bank Board (FHLBB), the federal oversight body for the thrift industry, had approved more lax accounting standards than generally accepted, allowing thrifts to spread out recognition of losses over a ten-year period. At a time when "Reagonomics" dominated the public consciousness, regulators were urged to avoid intervention and use forbearance in private markets. The Bank Board's supervisory structure was decentralized across several regional banks, which were owned by the institutions they oversaw. Bank Board staff in particular had a reputation as being underpaid and poorly trained, and powerful lobbyists were frequently able to delay regulation or enforcement. Some within the industry referred to the FHLBB and the FSLIC as the "doormats of financial regulation."[13]

In a deregulated industry with poor supervision, the competition for deposits could spiral out of control. Some institutions attracted capital by offering large brokered deposits at above-market rates

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[10] Wells, F. Jean, "Garn-St. Germain Depository Institutions Act of 1982: A Brief Explanation," Congressional Research Service, November 1, 1982. http://digital.library.unt.edu/govdocs/crs/permalink/meta-crs-8503:1

[11] Federal Deposit Insurance Corporation, *A History of the 80s: Lessons for the Future*, ch. 4, July 28, 1999. http://www.fdic.gov/bank/historical/history/167_188.pdf

[12] Ibid.

[13] Ibid.

of return. Between the years of 1982 and 1985, deposits flowed in and the savings and loan industry underwent a rapid expansion. Investors saw potential for profit in the new investment powers granted to thrifts, and invested in condominiums and other commercial real estate. This meant that the investment portfolios of savings and loan associations shifted away from traditional home mortgage loans into higher-risk loans. From 1981 to 1986, the percent of savings and loan assets in home mortgage loans decreased from 78 percent to 56 percent.[14]

In the mid-1980s, the boom in real estate went bust. A contributing factor was the passage of the Tax Reform Act of 1986. Reagan's tax cuts eliminated many of the tax shelters that had made real estate an attractive investment in the first place, and deposits fled from the thrifts. As hundreds of institutions failed, the FSLIC fund was overrun with claims. In 1987, the Government Accountability Office (GAO) declared the fund was insolvent by at least $3.8 billion. Congress responded with legislation that recapitalized the fund with $10.8 billion over the next year. However, troubled institutions continued to fail over that time, and more drastic action was required.[15]

In 1989, a newly-elected President Bush signed into law a bailout plan for the savings and loan industry. The Financial Institutions Recovery and Enforcement Act (FIRREA) abolished the FSLIC fund and transferred its assets to the FDIC. The FHLBB was abolished and a new institution, the Office of Thrift Supervision, was created to regulate savings and loans. It was also in this piece of legislation that the Resolution Trust Corporation (RTC) was created to dissolve and merge troubled institutions. Between the FSLIC and the RTC, the federal government resolved the failure of 1,043 savings and loan institutions with total assets of $874 billion (in 2009 dollars).[16] The total thrift industry declined from 3,234 to 1,645 institutions, a decrease of almost 50 percent. After all the dust had settled, the savings and loan crisis was estimated to cost taxpayers around $210 billion, with the thrift industry itself providing another $50 billion.[17]

The savings and loan crisis of the 1980s was undoubtedly a failure of public policy. Financial deregulation transformed the character of the thrift industry. Institutions entered markets in which they had little experience, and a vulnerable industry expanded beyond the reach of its federal safety net. Supervision and oversight activities proved to be insufficient, and early intervention was avoided in the name of regulatory forbearance.

Repealing Glass-Steagall

The Glass-Steagall Act of 1933 had established a firm separation between commerce and banking in the financial world. The bill prevented institutions that were "engaged principally" in banking activities from underwriting or dealing in securities of any kind, and vice versa. The Bank Holding Act of 1956 applied the same wall of separation to bank holding companies. After the experience of the Great Depression, the restrictions were intended to curb conflicts of interest and excessive risk-

[14] Ibid.
[15] FDIC, "The S&L Crisis: A Crono-Bibliography," December 20, 2002. http://www.fdic.gov/bank/historical/s%26l/index.html
[16] Numbers for bailout costs converted into 2009 dollars using CPI numbers available from the St. Louis Federal Reserve at http://research.stlouisfed.org/fred2/data/CPIAUCSL.txt.
[17] Curry, Timothy and Lynn Shibut, "The Cost of the Savings and Loan Crisis: Truth and Consequences," December 2000. http://www.fdic.gov/bank/analytical/banking/2000dec/brv13n2_2.pdf

taking in the combination of banking and securities dealing. The structure of regulation and deposit insurance created under Glass-Steagall was very effective at minimizing bank failures throughout the mid-twentieth century.[18]

Banks began lobbying Congress as early as the 1960s to loosen the restrictions of Glass-Steagall. With money market mutual funds and other complex financial instruments that blurred the lines between deposits and securities, the banking industry complained the Glass-Steagall restrictions were becoming obsolete. Banks wanted to enter the municipal bond market, among other securities markets, to remain competitive. Regulators in government were sympathetic to the industry's concerns on some accounts. There was always a fear that financial deregulation in foreign countries would entice firms to take their capital abroad, and many in government shared the free market ideology of deregulation.

In December of 1986, for the first time, the Federal Reserve reinterpreted the Glass-Steagall restrictions and ruled that a bank could derive up to 5 percent of gross revenues in investment banking business. This seemed to conflict with the letter of the law, but the Fed argued that since Glass-Steagall did not precisely define the meaning of "engaged principally," the regulation was open to reinterpretation. The Federal Reserve continued to loosen the restrictions in 1987, when the Board approved the request of several banks to participate in various underwriting businesses. Overriding the opposition of its Chairman Paul Volcker, the Federal Reserve allowed banks to handle, among other things, commercial paper, municipal bonds, and mortgage-backed securities.

In August 1987, Alan Greenspan was appointed as Chairman of the Federal Reserve. A student of Ayn Rand's "objectivist" thinking and an outspoken advocate of deregulation, Greenspan would serve four terms, stretching three decades and four Presidencies, becoming the second-longest serving Fed Chairman in history. Early in his tenure, the Federal Reserve reinterpreted Glass-Steagall to allow banks to deal in certain debt and equity securities, so long as it did not exceed the 10 percent limit rule. Later, in 1996, the Federal Reserve issued an audacious ruling, allowing bank holding companies to own investment banking operations that accounted for as much as 25 percent of their revenues. The decision rendered Glass-Steagall effectively obsolete, since virtually any institution would be able to stay within the 25 percent level.[19]

As the Fed allowed financial institutions to diversify their investment operations, the banking industry was also moving towards greater consolidation. The process was already underway, but it increased significantly after the passage of the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994, which eliminated previous restrictions on interstate banking and branching. Between 1990 and 1998, the number of banking institutions decreased by 27 percent as banks continued to merge.[20]

A high-profile example of consolidation came in April of 1998 when Travelers Insurance Group and Citicorp, the parent of Citibank, announced their plans to merge and form Citigroup, Inc. Before the announcement, the executives of Travelers and Citicorp placed personal calls to Fed Chairman Alan

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[18] Jackson, William D., "Glass-Steagall Act: Commercial vs. Investment Banking," Congressional Research Service, June 29, 1987. http://digital.library.unt.edu/govdocs/crs/permalink/meta-crs-9065:1

[19] PBS Frontline, "The Long Demise of Glass-Steagall," The Wall Street Fix, May 8, 2003. http://www.pbs.org/wgbh/pages/frontline/shows/wallstreet/weill/demise.html

[20] Heiney, Joseph N., "Consolidation in the U.S. Banking Industry Since Riegle-Neal," *Clute Institute,* IABR & TLC Conference, 2009. http://www.cluteinstitute.com/Programs/San_Antonio_2009/Article%20303.pdf.

Greenspan, Treasury Secretary Robert Rubin, and President Bill Clinton. They were careful to structure the merger so it conformed to the Fed's interpretation of Glass-Steagall. The deal was technically illegal, but as the law stood, the bank would have two years to divest itself of its insurance business. This did not deter the executives and their regulators. They were so confident that Congress would repeal Glass-Steagall in the meantime that they went ahead with the deal. Citigroup became the world's largest financial services company, formed by the largest corporate merger in history, at that time. For many, this represented just another step in the evolution of a national banking system.

The crumbling walls of Glass-Steagall received a final blow in 1999 when Congress passed the Financial Modernization Act, also known as the Gramm-Leach-Bliley Act. The act repealed all restrictions against the combination of banking, securities and insurance operations for financial institutions. The deregulation was a boon for national commercial banks, allowing for the formation of "mega-banks." The Gramm-Leach-Bliley Act was the crowning achievement of decades and millions of dollars worth of lobbying efforts on behalf of the finance industry. The repeal of Glass-Steagall was a monumental piece of deregulation, but in many ways it ratified the status quo of the time.[21]

Hands-Off Regulation

Many argued that consolidation in banking was an inevitable evolution and championed it as financial "modernization," but the changes posed challenges for market regulators. Since banking and securities and insurance operations could be housed under the same roof, regulators from several different agencies might be responsible for overseeing different parts of the same institution. The arrangement could be confusing and inefficient as regulators struggled to keep pace with the innovations in financial markets.

In particular, the rapid growth of new types of derivative instruments posed problems for regulators. Derivatives are financial instruments that derive their value on their claim to another asset, such as an option to purchase wheat or a futures contract on oil. Derivatives can be used to hedge against risk, protecting against a decline in value of the underlying asset. Alternatively, they can be used for simple speculation, to profit off an expected change in value. Derivatives do not involve the actual transfer of assets, so a buyer often does not own the underlying asset.[22]

The financial industry developed a wide range of derivative instruments in the 90s, most of which were not regulated. The most important of these derivatives were credit default swaps, which were effectively a form of bond insurance, where the issuer would pay the loss in the event that a bond defaulted. In the late 1990s, Brooksley Born, the chairwoman of the Commodity Futures Trading Commission, raised concerns about the potential risks of the unregulated market in many derivative instruments. Unlike stocks, bonds, and options, there was no clearinghouse for trades in most of the

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[21] Barth, James R., R. Dan Brumbaugh Jr. and James A. Wilcox, "The Repeal of Glass-Steagall and the Advent of Broad Banking," Journal of Economic Perspectives, vol. 14, no. 2, Spring 2000. http://www.business.auburn.edu/~barthjr/papers/The%20Repeal%20of%20Glass-Steagall.pdf

[22] Tijoe, Lily, "Credit Derivatives: Regulatory Challenges in an Exploding Industry," Boston University Law School, April 2007. http://www.bu.edu/law/central/jd/organizations/journals/banking/archives/documents/vloume26/tijoe.pdf

new derivative instruments. Without a transparent record, derivative trades could become a source of dispute and uncertainty.

Born's public concerns were vociferously opposed by Federal Reserve Chairman Alan Greenspan, Treasury Secretary Robert Rubin, and Rubin's successor, Lawrence Summers. They saw no reason to interfere with the new innovations in financial markets. After one meeting between the nation's top financial regulators, Secretary Rubin was reported to say to Chairwoman Born, "You're not going to do anything, right?" The debate left Born politically isolated, and she left the CFTC in mid-1999. Later that year, Greenspan and Rubin issued a report along with Born's successor at CFTC that recommended no regulation on derivatives.[23]

Ultimately, the fate of derivatives regulation was decided in Congress. Senator Phil Gramm, co-sponsor of the Gramm-Leach-Bliley Act, was one of several Congressman to push legislation that would deregulate the market. Gramm, in particular, wanted strict language to limit the direct oversight of the CFTC and SEC. A group of regulators, including the Chairs of the CFTC and SEC as well as Treasury Secretary Summers, reached a compromise with Gramm, and Congress moved quickly on the bill. The day after the Supreme Court effectively decided the fate of the 2000 Presidential election, the Commodity Futures Modernization Act of 2000 passed in Congress, attached as a rider to an 11,000-page spending bill. The legislation, passed without debate or review, exempted derivatives from regulation and made a special exemption for energy derivative trading that would gain notoriety as the "Enron loophole."[24]

In a completely unregulated market, derivatives trading expanded quickly, increasing from a total outstanding nominal value of $106 trillion in 2001, to a value of $531 trillion in 2008.[25] This rapid growth overwhelmed the legal and technological infrastructure of the industry. Commercial banks – the major players in the market – could make trades so quickly and enter contracts so freely that oftentimes no firm was certain who owed exactly how much to whom. Regulators placed their trust in the self-regulation of the firms to avoid potential risks.[26]

In 2004, the SEC took a similar tact in discussing the regulation of global investment banks. Investment banks wanted a loosening of capital requirements that would allow them to hold fewer reserves and take on more debt. After a brief 55 minutes of discussion, the SEC agreed to relax the net capital rule and created the Consolidated Supervised Entities program for investment banks. Brokerage firms would voluntarily submit reports to the SEC regarding their assets and activities. The system of voluntary regulation relied on the internal computer models of these firms, essentially outsourcing the job of monitoring risk to the firms themselves.[27]

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[23] Faiola, Anthony, Ellen Nakashima and Jill Drew, "What Went Wrong," Washington Post, October 15, 2008. http://www.washingtonpost.com/wp-dyn/content/story/2008/10/14/ST2008101403344.html

[24] Blumenthal, Paul, "Read the Bill: The Commodity Futures Modernization Act," Sunlight Foundation, April 1, 2009. http://blog.sunlightfoundation.com/2009/04/01/read-the-bill-the-commodity-futures-modernization-act/.

[25] Goodman, Peter S., "Taking Hard New Look at a Greenspan Legacy," New York Times, October 8, 2008. http://www.nytimes.com/2008/10/09/business/economy/09greenspan.html

[26] Wessel, David, "Wall Street is Cleaning Derivatives Mess," *Wall Street Journal,* February 16, 2006.

[27] Labaton, Stephen, "Agency's '04 Rule Let Banks Pile Up New Debt," *New York Times,* October 3, 2008. http://www.nytimes.com/2008/10/03/business/03sec.html.

Inflating the Bubble

In previous decades, banks had essentially been portfolio lenders, holding assets on their books until they reached maturity. Now, by a process of securitization, assets could be pooled together and repackaged into securities. Financial institutions could turn the illiquid assets on their books into highly-liquid securities that could be sold off to investors. Other financial obligations mixed aspects of options and futures and insurance contracts, and they allowed financial firms to bet on or hedge against all sorts of possible outcomes.

The first securitized assets, mortgage loans, were packaged into mortgage-backed securities in 1970 at the Government National Mortgage Association (Ginnie Mae). The Federal Home Loan Mortgage Corporation (Freddie Mac) and the Federal National Mortgage Association (Fannie Mae) soon followed suit in the nationwide push to foster homeownership; these government-sponsored agencies (GSEs) bought up mortgage loans to facilitate a secondary market. The securities carried an implicit guarantee from the federal government, and they were required to conform to underwriting standards that ensured loan quality and limited risk.

The mortgage market began to evolve as early as the 1980s. The Alternative Mortgage Transactions Parity Act of 1982 lifted restrictions against classes of mortgage loans with exotic features, such as adjustable-rate and interest-only mortgages. These loans carried low "teaser" rates during the first few years, after which interest rates reset at much higher levels.[28] Consumers often did not understand the complex financial arrangements they entered into. Mortgage lenders also targeted lower-income, higher-risk borrowers with lower credit ratings through the use of alt-A and subprime loans. As these markets became more and more profitable, the mortgage industry aggressively pushed these non-conforming loans onto consumers. The *Wall Street Journal* reported the surprising fact that in 2006, 61 percent of subprime borrowers had credit scores high enough to qualify them for conventional mortgages.[29]

The changes in the industry led to heavy investment in alternative mortgages. In 2001, there were twice as many agency-conforming loans as there were non-conforming ones. By 2006, the non-conforming market had eclipsed the conforming market in size.[30] Coinciding with this expansion in the mortgage market were the interest rate reductions issued by the Federal Reserve.

After the collapse of the tech bubble, Fed Chairman Alan Greenspan continued his policy of interest rate reduction and maintained rates at ultra-low levels through 2005. Even then, Greenspan only increased rates slowly in stepwise fashion.[31] The loose monetary policy, combined with the new forms of mortgage lending and securitized trading, allowed a housing bubble that had begun in the

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[28] Birger, Jon, "How Congress Helped Create the Subprime Mess," *Fortune,* January 31, 2008. http://money.cnn.com/2008/01/30/real_estate/congress_subprime.fortune/.

[29] Brooks, Rick and Ruth Simon, "Subprime Debacle Traps Even Very Credit-Worthy," *Wall Street Journal,* December 3, 2007. http://online.wsj.com/article/SB119662974358911035.html.

[30] Ashcraft, Adam B. and Til Schuermann, "Understanding the Securitization of Subprime Mortgage Credit," Federal Reserve Bank of New York, staff report no. 318, March 2008. http://www.newyorkfed.org/research/staff_reports/sr318.pdf

[31] Lee, Susan, "It Really Is All Greenspan's Fault," *Forbes,* April 3, 2009. http://www.forbes.com/2009/04/02/greenspan-john-taylor-fed-rates-china-opinions-columnists-housing-bubble.html

mid-90s to expand. Historically, house prices nationwide had only kept pace with inflation. But during the peak of the housing bubble, house prices increased by more than 70 percent after adjusting for inflation. In some regions they increased by more than 100 percent above their historic trend levels.[32]

There was enormous opportunity for profit with house prices at bubble-inflated prices, and the mortgage industry found creative ways to expand lending. Complex financial instruments were labeled as safe, while their underlying mortgage assets could be shoddy. All the while, government regulators took a hands-off approach to the activities of private actors. The system was highly vulnerable, and the inevitable collapse would have ramifications for the broader economy.

Crisis

The history of the current financial crisis is still being written, but the general picture has already become quite clear. As housing prices started to decline and adjustable rate mortgages reset to higher levels, many borrowers felt squeezed and defaulted on their loans. The mortgage-backed securities linked to these mortgage loans, spread across nearly all financial institutions, began to lose value. The result was a widespread decline in capital followed by mounting losses and institutional failures.

Since the spring of 2008, financial markets have experienced turmoil not seen since the Great Depression. The prominent investment bank Bear Stearns was liquidated and sold to JP Morgan Chase at a fire-sale price. Lehman Brothers, another prominent major investment bank, declared bankruptcy. The other large investment banks either merged with investment banks or changed their status to become bank holding companies. Some of the largest financial firms, including Bank of America and Citigroup and AIG, received huge sums of capital assistance from the federal government. The system of non-bank institutions, sometimes referred to as the "shadow banking system," experienced a massive withdrawal of funds in a sort of modern day bank run.[33]

Regulators have responded to the current crisis with various emergency measures. The Federal Deposit Insurance Corporation (FDIC) oversaw the takeover of the failed bank IndyMac, the largest failure of an insured bank in history. The FDIC completed the sale of IndyMac in March of 2009. The FDIC also authorized the Temporary Liquidity Guarantee Program, providing a federal guarantee to newly issued unsecured debt as well as non-interest bearing transaction accounts. Congress also passed legislation that raised the level of deposit insurance at FDIC to $250,000.

The distress in the housing market also prompted changes in regulation for the government-sponsored entities of Fannie Mae and Freddie Mac. The Housing and Economic Recovery Act of 2008 guaranteed up to $300 billion in loans to subprime borrowers on the condition that lenders write down the loan principal to 90 percent of the current value of the home. The legislation also created the Federal Housing Finance Agency (FHFA) to oversee the government-sponsored

[32] Baker, Dean, "The Housing Bubble Fact Sheet," *CEPR Issue Brief,* July 2005. http://www.cepr.net/documents/publications/housing_fact_2005_07.pdf.
[33] Krugman, Paul, "Financial Russian Roulette," *New York Times,* September 14, 2008. http://www.nytimes.com/2008/09/15/opinion/15krugman.html.

enterprises. In September of 2008, with assistance from the Treasury, Fannie Mae and Freddie Mac were placed under the conservatorship of the FHFA.

The Securities and Exchange Commission (SEC) made an unprecedented move in the wake of Lehman Brother's collapse when it announced a temporary ban on short selling for all financial stocks. The ban expired a month later. The SEC has also considered the issue of fair value, or mark-to-market accounting. Under fair value accounting, financial instruments are revalued and set to currently available market prices, even in the absence of a transaction. The SEC maintained its position on mark-to-market in 2008 and recommended no changes to the rules. However, in April of 2009, the Federal Accounting Standards Board (FASB), the organization designated by the SEC to establish accounting standards, voted to relax mark-to-market rules. The rule change would allow banks to assign their own value to assets for which there is no functioning market and would allow many firms to report higher profits than they would otherwise be able to.[34]

The SEC and FDIC have played a role in responding to the financial crisis, but the two most prominent players have been the Federal Reserve and the Treasury. After the collapse of Lehman Brothers, Treasury Secretary Henry Paulson urged Congress, in a three-page proposal, to grant him broad authority in addressing the crisis. After heated debate and much public outcry, a revised version of the bill was signed into law as the Emergency Economic Stabilization Act of 2008. The bill authorized the Treasury to spend up to $700 billion to purchase troubled assets and inject capital into the nation's banking system under the Troubled Assets Relief Program (TARP).

Over the rest of the fall the Treasury bought preferred stock and warrants in banks across the country, including all of the largest commercial banks. To date, the largest recipients of TARP funds have been AIG with $70 billion, Citigroup with $50 billion, and Bank of America with $45 billion. Another smaller segment of the TARP was used to assist the major automobile companies.[35]

In March of 2009, newly-appointed Treasury Secretary Timothy Geithner revealed details of the Treasury's plans to deal directly with troubled assets. Under the Public-Private Investment Program (PPIP), the Treasury, in conjunction with the FDIC and the Federal Reserve, would provide equity to facilitate the purchase of these loans and securities. The program has been criticized for its susceptibility to industry gaming.[36] Also, the SEC's strategy of mark-to-market relaxation may make banks more likely to keep assets on their books and less likely to participate in the Treasury's program.[37]

The Treasury's efforts to assist institutions were often made in concert with the Federal Reserve. The Fed created a limited liability company called Maiden Lane to facilitate the acquisition of Bear Stearns by JP Morgan Chase. The deal would eventually lead to $3 billion in losses for the Federal

[34] Norris, Floyd, "Banks Get New Leeway in Valuing Their Assets," *New York Times,* April 2, 2009. http://www.nytimes.com/2009/04/03/business/03fasb.html?_r=1&em.
[35] Ericson, Matthew, Elaine He and Amy Schoenfeld, "Tracking the $700 Billion Bailout," *New York Times.* http://projects.nytimes.com/creditcrisis/recipients/table.
[36] Sachs, Jeffrey, "Obama's Bank Plan Could Rob the Taxpayer," *Financial Times,* March 25, 2009. http://www.ft.com/cms/s/0/b3e99880-1991-11de-9d34-0000779fd2ac.html?nclick_check=1.
[37] Moore, Heidi N., "Move to Ease 'Mark' Rule May Subvert Treasury Plan," *Wall Street Journal,* April 1, 2009. http://online.wsj.com/article/SB123854595878676211.html#mod=testMod.

Reserve.[38] Two other limited liability companies, Maiden Lane II and Maiden Lane III, were created to facilitate the purchase of mortgage-backed securities and collateralized debt obligations, respectively, from the insurance giant AIG. The Federal Reserve also played a role in guaranteeing hundreds of billions of dollars worth of assets at Citigroup and Bank of America.

Additionally, the Fed has created several special lending facilities to provide emergency liquidity to financial institutions. The Term Auction Facility (TAF) was the first of these entities. Created in December of 2007, the TAF was formed to auction off funds to depository institutions in exchange for a broad range of collateral. In March of 2008, the Fed created two more facilities, the Primary Dealer Credit Facility (PDCF) and the Term Securities Lending Facility (TSLF). The PDCF made overnight loans while the TSLF auctioned off treasuries; both facilities accepted a broad range of investment-grade securities as collateral. The PDCF and the TSLF were available exclusively to primary dealers, some of the world's largest investment banks.[39]

In late 2008, the Federal Reserve created several other special lending facilities to enhance liquidity in asset-backed commercial paper and other money market instruments. Some facilities were for depository institutions while others were designed to lend directly to money market mutual funds. All of them accepted highly rated asset-backed securities or asset-backed commercial paper as collateral.[40]

Federal Reserve Chairman Ben Bernanke has repeatedly cited "unusual and exigent circumstances" as reason for the Fed's actions. Even in its traditional role in conducting monetary policy, the Federal Reserve reached unprecedented levels. The Federal Reserve decreased interest rates in stepwise fashion beginning in August of 2007, and eventually reached an effective rate of zero in December of 2008. The special lending facilities complemented monetary policy, allowing the Federal Reserve to enhance liquidity in specific markets by taking on certain types of assets and liabilities. In so doing, Chairman Ben Bernanke has quietly expanded the Fed's balance sheet to around $2 trillion, an increase of more than $1 trillion since September of 2008.[41]

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[38] Krasny, Ros, "Fed Data Shows Big Losses On Bear Stearns Deal," *Reuters,* April 23, 2009. http://www.reuters.com/article/businessNews/idUSTRE53M5TO20090423.

[39] Baker, Dean and Matt Sherman, "Investment Bank Welfare? The Implicit Bank Subsidies in the Primary Dealer Credit Facility (PDCF) and the Term Securities Lending Facility (TSLF) Created by the Federal Reserve Board," *CEPR,* March 2009. http://www.cepr.net/documents/publications/investment-bank-welfare-2009-03.pdf.

[40] These facilities are the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF), the Commercial Paper Funding Facility (CPFF), the Money Market Investor Funding Facility (MMIFF), and the Term Asset-Backed Securities Lending Facility (TALF). "Other Lending Facilities," *Federal Reserve,* April 2, 2009. http://www.federalreserve.gov/monetarypolicy/bst_lendingother.htm.

[41] Wilder, Rebecca, "Fed Balance Sheet Growing Again; TALF to Start Soon," *RGE Monitor,* February 23, 2009. http://www.rgemonitor.com/financemarkets-monitor/255692/fed_balance_sheet_growing_again_talf_to_start_soon.