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Recession Transgressions: Financial Mishaps that Led to the Credit Crisis

by Kyle Nemchek

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ABSTRACT: This paper explores the financial crisis of 2007-2010 and its causes, including: questionable monetary policy, loose lending standards, the emergence of structured finance products designed to conceal the true risk of subprime loans, a lack of independence and due diligence on the part of credit rating agencies, and the failure of oversight bodies to properly monitor or regulate the parties responsible for the crisis.

INTRODUCTION

I. MONETARY POLICY & INTEREST RATES

Easy money in the wake of the 2001 recession created an economic boom, but a sudden reversal of Federal monetary policy saw an increase in interest rates that left homebuyers unable to pay down their adjustable rate mortgages.

II. LENDING STANDARDS & SUBPRIME LOANS

Government directives designed to increase homeownership, along with reduced lending standards and predatory lending practices, resulted in loans made to unqualified homebuyers who ultimately defaulted.

III. SECURITIZATION & STRUCTURED FINANCE

Mortgage originators sold the loans to investment banks, which repackaged the notes into complex securities that appeared less risky than the underlying loans. Off-balance-sheet conduits effected uninformed investors who were punished when the component mortgages experienced defaults.

IV. CREDIT RATING AGENCIES

Professional rating companies may have lacked independence and objectivity, producing potentially biased and/or flawed analyses that failed to expose the true risk of mortgage-backed securities.

V. DEREGULATION & FEDERAL OVERSIGHT

Federal oversight agencies did not adequately regulate the credit markets. Tools for monitoring and restraining speculative excesses were ineffective, underused, or repealed altogether.

INTRODUCTION

Congress is currently debating a financial regulatory reform package intended to prevent the recent credit crunch, which is considered by many economists to be the worst financial crisis since the Great Depression and from which the United States and world economies are still recovering, from happening again. In order to develop a suitable mechanism for fixing the system, it is important to first determine what broke it. This paper attempts to accomplish that by identifying concrete actions taken by legislators, regulators, lenders, borrowers, investment banks, investors, and insurers that collectively contributed to the credit crisis. Below is a summary of the multiple causes of the near-collapse of the world financial system, which are discussed in more detail throughout this paper.

Governmental policies aimed at increasing homeownership and a subsequent reduction of lending standards across the board led to an explosion of new mortgage loans in the late 1990s and early 2000s. Meanwhile, federal interest rate cuts designed to expand the availability of credit facilitated the use of adjustable rate and exotic mortgage products that concealed the true lifetime costs of the loans, while predatory lending practices and mortgage application fraud brought even more home loans to ill-equipped borrowers. Mortgage originators then sold the loans to government-sponsored enterprises and investment banks, which repackaged them into complex securities that appeared less risky than their underlying components. Unfortunately for investors, credit rating agencies had failed to accurately assess the quality of those securities, and their flawed ratings convinced major Wall Street firms to take highly leveraged positions, which had been made possible by a relaxation of capital reserve requirements and the repeal of financial regulation passed in response to the Great Depression. Meanwhile, an unregulated derivatives market permitted credit default swaps, which were effectively insurance policies on

mortgage-backed securities, to be traded profusely without sufficient collateral to cover losses. When interest rates reset, homeowners found themselves unable to pay back their loans. Lenders were left with houses that had decreased in value, investment banks and investors were stuck with securities that they could not unload, and sellers of credit default swaps discovered obligations that they lacked the capital to satisfy. With everyone looking to rid their portfolios of toxic assets and no one willing to purchase them, credit markets became illiquid, or frozen, resulting in what has become known as the credit crisis.

I. MONETARY POLICY & INTEREST RATES

In November 2002, then Governor and current Chairman of the Federal Reserve, Ben Bernanke, spoke at economist Milton Friedman's ninetieth birthday regarding the responsibility of central bankers for the Great Depression: "You're right," he pronounced, "we did it. We're very sorry. But thanks to you, we won't do it again."¹ Two years later in Washington, D.C. Bernanke discussed a phenomenon known as the Great Moderation, which referred to the substantial decline in macroeconomic volatility that had occurred over the previous two decades and for which he credited improvements in monetary policy.² In hindsight, Bernanke's confidence in the skill of the central banking system to mitigate financial instability may have been misplaced, as even former Federal Reserve Chairman Alan Greenspan admits, "I do not doubt that a low U.S. federal-funds rate in response to the dot-com crash...may have contributed to the rise in U.S. home prices."³ Indeed, this section contends that easy money created by interest rate cuts in the wake of the 2001 recession triggered a housing boom, but a sudden reversal of federal monetary policy saw an increase in interest rates that left homebuyers unable

¹ "On Milton Friedman's Birthday"

² "The Great Moderation"

³ "The Roots of the Mortgage Crisis"

to pay down their adjustable rate mortgages and led to the widespread sale of real estate amidst declining housing prices.

The 2001 Recession & the Federal Response

During the final years of the twentieth century, stock market participants invested heavily in Internet-based startups. In hindsight, experts have criticized investors for failing to evaluate these companies in terms of traditional market criteria like profits or positive cash flow and for speculating that technological advancements would lead to future returns on a massive scale as part of a high-tech revolution known as the “new economy”.⁴ By the spring of 2000, equities comprised sixty-percent of the financial assets in American households, representing the largest exposure of individual investors to the stock market since September 1929.⁵ But when profits ultimately failed to materialize, the dot-com bubble burst. Plunging technology stocks wiped out hundreds of billions of dollars in market capitalization, and layoffs and bankruptcies became commonplace across the e-commerce spectrum.⁶ To add to the devastation, the attacks of September 11, 2001 inflicted heavy financial damage throughout the travel, tourism, entertainment, and insurance industries while increased shipping, security, and insurance costs permeated most sectors of the economy.⁷

One way in which the Federal Reserve can respond to a worsening economic situation is by decreasing its target for the federal funds rate, the interest rate at which financial institutions lend balances to one another, which the Federal Reserve can influence through the use of open market operations.⁸ Lower interest rates make it easier for people to borrow in order to buy cars and homes. Purchases of homes, in turn, increase the demand for other items, such as furniture

⁴ Howcroft

⁵ Lerach

⁶ Rosenbloom

⁷ Kahn

⁸ “Interbank Payments and the Daily Federal Funds Rate”

and appliances, thus providing an additional boost to the economy. What's more, rate reductions mean that consumers spend less on interest costs, leaving them with more of their income to spend on goods and services.⁹ Accordingly, the Federal Reserve cut its federal funds rate target eleven times over the course of 2001 from 6.5% to just 1.75%.¹⁰ Releases from the Federal Open Market Committee cited concerns of tight conditions, lower consumer confidence, a persistent erosion in current and expected profitability, slower growth abroad, and unusual forces restraining demand, which collectively "called for a rapid and forceful response of monetary policy".¹¹ But when economic recovery proved sluggish, the Federal Reserve continued to decrease interest rates, lowering the federal funds rate target to 1.25% in November 2002 and to 1% in June 2003, where it remained for a year.¹²

Policy Criticism, Yield Curves & the Taylor Rule

Some observers questioned whether such aggressive policy measures were wise and whether record-low interest rates could instigate a massive borrowing boom.¹³ Bernanke himself acknowledged that policymakers worried that the sudden massive drop in rates limited the scope for further monetary accommodation as the target interest rate approached its zero lower bound.¹⁴ Further concern arose regarding the elevated degree of intervention, given that the recession from March to November 2001 was short and mild and was only denoted a recession due to the final contraction in economic activity caused by the world trade center attacks.¹⁵ In fact, despite significant job losses in the year's last quarter, Yale professor William D. Nordhaus termed the downturn "the Mildest Recession", showing that in comparison to previous economic

⁹ "Interest Rates and The Economy"

¹⁰ "Open Market Operations"

¹¹ "Federal Reserve Press Release 1/31/2001"

¹² "Historical Changes of the Target Federal Funds and Discount Rates"

¹³ Dattolo

¹⁴ "Monetary Policy and the Housing Bubble"

¹⁵ Goodfriend

slumps, the negative growth for 2001 is almost indiscernible and is unmistakably the smallest downward spike of any postwar recession.¹⁶

Another indication that the need for mediation may have been less than in prior recessions was the favorable operating environment enjoyed by banks, as evidenced by yield curves. The term yield curve refers to the relationship between the interest rates of short-term and long-term fixed-income securities issued by the U.S. Treasury. Typically, short-term debt instruments have lower yields due to the risks associated with time inherent to long-term instruments. This leads to positive yield spreads and an upward sloping, or normal, yield curve, which can suggest a positive long-term economic outlook.¹⁷ Because a bank's assets tend to have longer maturities than its liabilities, a drop in short-term rates and the resulting steepening of the yield curve enables banks to decrease borrowing costs and improve margins. In the 2001 recession, the yield curve steepened quickly and early. Its slope increased by 37% more in the first quarter than during the same period of the 1990-91 recession, confirming that the interest rate environment was more favorable for banks at the beginning of the 2001 downturn than it was at the start of the prior recession and suggesting that such an aggressive federal response may not have been warranted.¹⁸ Nevertheless, despite the tameness of the downturn, the economy received the biggest monetary and fiscal boost in its history.¹⁹

Stanford economist John Taylor was also vocal in opposing the actions of the Federal Reserve based on a monetary policy rule of his invention that stipulated how much the central bank should change interest rates. The Taylor Rule, which had been based on policy evaluation experiments, recommended that the Federal Reserve increase its federal funds target when the

¹⁶ Nordhaus

¹⁷ Campbell, John Y.

¹⁸ Schuermann

¹⁹ "Does America need a recession?"

current inflation rate exceeded policymakers' longer-term inflation objectives or when current output (usually real GDP) exceeded its potential.²⁰ The actual federal funds rate, however, fell beneath the values prescribed by the Taylor Rule by an average of 200 basis points from 2002 to 2006.²¹ Taylor would later write that interest rates were “well below known monetary guidelines that say what good policy should be based on historical experience”, contending that keeping interest rates on the track that had worked well in the previous two decades would have prevented both the initial boom of home values and the ultimate housing bust.²²

Adjustable-Rate Mortgages & the Housing Bubble

Whereas previous housing expansions have been attributed to increases in housing demand or technological progress, the increased impact of monetary policy on home prices this time around was due in part to changes in the methods of housing finance.²³ Because federal rates feed through to monthly mortgage payments more directly when the mortgage interest rate is adjustable and tied to short-term rates, a rise in popularity of adjustable rate mortgage (ARM) products may have rationalized a stronger effect of monetary policy on house prices.²⁴ An ARM is a loan with an interest rate that changes periodically, usually in relation to an index. Lenders typically charge lower initial interest rates for ARMs than for fixed-rate mortgages, but such teaser rates are only valid for a limited time, and a borrower's payment may increase or decrease due to changes in market rates after the initial discounted rate expires.²⁵ Based on a tabulation of average interest rates for prime borrowers from 2003 to 2006, as calculated by Freddie Mac, the initial monthly payment was about 16% lower for ARMs than for fixed-rate 30-year mortgages.

Other, more exotic variations on the ARM, such as interest-only ARMs (resulting in an

²⁰ Orphanides

²¹ “The Target Federal Funds Rate”

²² “How Government Created the Financial Crisis”

²³ Iacoviello & Neri

²⁴ “Monetary Policy and the Housing Bubble”

²⁵ “Consumer Handbook on Adjustable-Rate Mortgages”

unchanged outstanding loan balance each month), negative amortization ARMs (in which the initial payment did not even cover interest costs, thereby increasing the loan balance each month), and pay-option ARMs (which gave the borrower considerable flexibility regarding the size of monthly payments in the early stages of the contract) offered more striking comparisons between ARMs and fixed-rate mortgages. Whereas the initial monthly payment of a standard ARM represented 83.7% of a fixed-rate mortgage payment, the initial monthly payments of negative amortization and pay-option ARMs constituted, at the onset, just 13.9% or less.²⁶ The attractive terms led to a surge in popularity of ARMs, which comprised just eight percent of conventional loans in early 1981 before making up 36.6% of mortgages by March 2005.²⁷

Were homebuyers blindly ignoring the impending resets of obviously impermanent teaser rates? Not exactly, argued Yale professor Robert Shiller: “People who bought ARMs realized that interest payments would go up after some time. But they were not deterred because they thought they would be compensated by rapidly increasing home prices and would be able to refinance their mortgages at a lower rate.” Shiller advanced that lenders, too, believed in the bubble, thus all-around “irrational exuberance” led to an unsustainable buildup of already elevated housing prices.²⁸ Hence, after growing by a mere 8.3% from 1990 to the first quarter of 1997, home prices began a rapid ascent, peaking in the second quarter of 2006 at a level 132% higher than at the start of 1997.²⁹ Homeownership levels made a similar climb. Throughout the three decades leading up to 1995, the homeownership rate fluctuated between 62 and 64 percent, with little discernable trend, but jumped to 69% over the next ten years. Growth in homeownership was so pronounced that during the same period, the amount of renters in the

²⁶ “Monetary Policy and the Housing Bubble”

²⁷ “More home buyers go with adjustable-rate mortgages”

²⁸ Shiller

²⁹ Holt

United States declined for the first time since World War II. This fact would be striking enough, but also telling is that per capita income grew less during the spike than during the 1960s and 1970s.³⁰ With incomes lagging and with trillions of dollars of ARMs scheduled to reset in 2007 and 2008, consumers were sure to face exploding monthly payments.³¹

The Recession

Nevertheless, reassured by apparently robust productivity growth, the Federal Reserve initiated a series of increases to its federal funds rate target, reversing the recent cuts almost as quickly as it had enacted them.³² Over two years from June 2004 to June 2006, the federal target rose seventeen times from 1% to 5.25%.³³ During that time, the previously discussed yield curve became increasingly flat, as observed by Federal Reserve economist Jonathan H. Wright, who noted that inversion of the curve is thought of as a harbinger of a recession.³⁴ While Wright did not seem to think that the flatness heralded a sharp slowdown at the time of his writing, the short-term federal target ultimately exceeded long-term yields, and the slope of the curve entered negative territory by the end of the year. Princeton economist Paul Krugman used models from Wright's research to show that as of December 1, 2006, the probability of a recession occurring during the next four quarters was between 68 and 74 percent,³⁵ although Bernanke "would not interpret the currently very flat yield curve as indicating a significant economic slowdown to come".³⁶ The United States economy entered a recession a year later.³⁷ As the short-term interest rate returned to normal levels, housing demand fell rapidly. Delinquency and foreclosure rates then rose sharply. Real GDP was flat in 2008, unemployment reached 9.5% the following

³⁰ Wheaton & Nechayev

³¹ Johnston

³² "Federal Reserve Press Release 12/14/2004"

³³ "Open Market Operations"

³⁴ "The Yield Curve and Predicting Recessions"

³⁵ "Interest Rates and the Economic Outlook"

³⁶ "Reflections on the Yield Curve and Monetary Policy"

³⁷ "It's official: Recession since Dec. '07"

summer, and the Dow Jones Industrial Average fell 55% from its peak of 14,279.96 in 2007 to 6,440.08 on March 9, 2009.³⁸

II. LENDING STANDARDS & SUBPRIME LOANS

While housing prices were still increasing and homeownership was exceeding record levels, mortgage lenders looked to earn additional profits by seeking a new type of customer: less qualified homebuyers to whom credit was previously unavailable but who were willing to accept higher interest rates and fees in order to secure a home loan. Government directives designed to increase homeownership among poor and minority Americans provided further incentive for lenders to weaken their traditional lending standards. The reduced standards, in conjunction with certain predatory lending and borrowing practices, resulted in growing numbers of loans made to unqualified or subprime homebuyers who ultimately defaulted.

Past Governmental Policies & Housing Discrimination

Homeownership had long been considered the foundation of neighborhood stability and long-term wealth accumulation, thus governmental policies historically encouraged homeownership by allowing taxpayers to deduct mortgage interest payments and state and local real estate taxes from their incomes. But the government became much more directly involved in promoting the American Dream when concerns regarding discrimination of traditionally “underserved” populations in the mortgage market came to light.³⁹ In 1977, for example, the Community Reinvestment Act required banks to conduct business across their entire geographic operating areas, preventing the pursuit of customers in a suburb while neglecting a downtown

³⁸ Holt

³⁹ Gabriel

area.⁴⁰ Such measures were deemed insufficient, however, when a 1992 study by the Federal Reserve Bank of Boston concluded that race still played a significant role in lender decisions.⁴¹

Shortly thereafter, the Boston Fed distributed to loan originators a guideline for equal opportunity lending with best practices designed to “close the mortgage gap”. Several telling recommendations included in the guide seemed to indicate the lax direction that lending standards would soon take: It was advised that property standards and minimum loan amounts be checked for “arbitrary” rules that might negatively affect applicants. Consideration should still be given to applicants with obligation ratios significantly above industry standards. Lack of credit history “should not be seen as a negative factor”, and the calculation of income should even include temporary funding sources such as unemployment benefits and welfare payments.⁴²

Serving Two Masters: Government-Sponsored Enterprises

To ensure the increased availability of credit to un-creditworthy persons, regulators placed pressure on government-sponsored enterprises (GSEs) including the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac). Fannie Mae & Freddie Mac were stockholder-owned, for-profit businesses erected by Congress to help provide liquidity in secondary mortgage markets by purchasing mortgages from loan originators. Because secondary mortgage markets can increase the availability of credit and, consequently, the rate of home purchases, the GSEs could assist the government in achieving its stated goal of bolstering homeownership. As a result, Congress chartered the organizations as government-sponsored enterprises, which meant that their bonds were backed by the federal government and that they could borrow funds at 50 to 75 basis points less than other private lenders. This cheap access to credit propelled Fannie Mae & Freddie Mac to success, and the

⁴⁰ Liebowitz

⁴¹ Bostic

⁴² “Closing The Gap: A Guide to Equal Opportunity Lending”

share of all mortgages held by the firms rose from 25% in 1990 to 45% in 2001. But it also left them destined to “serve two masters”—both their shareholders, who desired profitability, and the federal government, which sought equality in lending.⁴³

Eventually, the conflicting interests of these two principals became evident when the GSEs were called upon to significantly broaden access to mortgage credit, despite such an action potentially being fiscally unwise. The 1992 Federal Housing Enterprises Financial Safety and Soundness Act (FHEFSSA) mandated that Fannie Mae & Freddie Mac increase their acquisition of loans made to low-income borrowers and in areas underserved by private mortgage credit institutions. Fannie Mae responded by announcing a trillion-dollar commitment in 1994 to help 10 million high-need families secure previously unattainable home loans as Freddie Mac pursued similar initiatives.⁴⁴

Subprime Lending

The less creditworthy borrowers affected by FHEFSSA had, in the past, been largely relegated to the subprime lending market, which often charged higher interest rates and mortgage fees than those assessed to prime borrowers. Moreover, GSEs were only permitted to purchase prime loans on the secondary market, which meant that less money was available to mortgage originators who extended credit to subprime debtors and that lenders were less willing to target those borrowers. Distinctions between prime and subprime mortgages were evidenced by the criteria for “conforming” mortgages that could be purchased by Fannie Mae & Freddie Mac. A conforming loan must have been made to a mortgagor with a FICO score above 660 (compared to the low 600s or 500s for subprime), the loan-to-value ratio must have been less than or equal to 80% (compared to close to or equal to 100% for subprime), the mortgagor’s debt-to-income

⁴³ “Special Topic: Crash of 2008”

⁴⁴ Listokin

ratios must have been less than 28/36% (compared to 50% or more for subprime), and there must have been appropriate documentation and verification of the mortgagor's income and assets (compared to little or none for subprime).⁴⁵

Increasing Government Influence on Lending Practices & Standards

To reduce the perceived neglect of subprime borrowers, legislators set their sights on private banks through a 1995 strengthening of the Community Reinvestment Act. This revision established objective criteria for determining whether a bank was adequately and equitably providing credit to low-income earners. While in the past it had been sufficient for lenders to demonstrate “elaborate community lending efforts” (that they were searching for qualified borrowers), banks were now obliged to prove “an evenhanded distribution of loans” (that they had actually issued a specified amount of requisite mortgages) across all income levels.⁴⁶ If a bank failed to adhere to the new requirements, it could face direct legal challenges from the Justice Department.⁴⁷ As it turns out, many lenders discovered that the heightened commitments were actually a boon to business. Countrywide Financial, for instance, used the Act revision as an excuse to lower its underwriting standards and accept more credit applications.⁴⁸ By 2000, it would become the number one lender to minorities in America.⁴⁹

Another governmental incentivizing of widespread credit availability appeared in the form of the United States Department of Housing and Urban Development (HUD). Beginning in the mid-1990s, HUD commenced even more increases to the percentage of mortgages to low-income households that Fannie Mae & Freddie Mac were required to hold in their portfolios. In 1996, the amount of new loans to be purchased by GSEs that had been issued to borrowers with

⁴⁵ Ryan

⁴⁶ Hossain

⁴⁷ “The Real Scandal: How Feds Invited the Mortgage Mess”

⁴⁸ Wallison, 2009

⁴⁹ “Mortgagestats.com Ranks Countrywide Home Loans No. 1 in Lending to Minorities”

incomes below the median was set at 40%. That level increased to 50% in 2000 and to 56% by 2008.⁵⁰

Of course, banks and GSEs could not service these low-income borrowers by simply offering traditional loans in larger numbers, for as discussed, Fannie Mae & Freddie Mac could only purchase mortgages that conformed to certain standards regarding down payment and income requirements, which mortgages issued to low-income households generally did not meet. As the mandatory share of low-income mortgages increased, however, GSEs relaxed their standards so that the new loans could be considered as conforming. Subsequent HUD edicts required GSEs to accept loans with smaller down payments and larger loan-to-income and loan-to-value ratios. These changes represented “a new generation of affordable, flexible, and targeted mortgages, thereby fundamentally altering the terms upon which mortgage credit was offered in the United States from the 1960s through the 1980s.”⁵¹

Evidence of Reduced Lending Standards

Subprime loans expanded from 9% of the mortgage market in 1996 to 20% in 2006.⁵² Fannie Mae & Freddie Mac, meanwhile, purchased \$1 trillion in subprime and Alt-A (“near-prime” mortgages made to buyers that had less documentation or that possessed certain subprime characteristics) loans from 2005 to 2007, representing 40% of their mortgage purchases made during that period.⁵³ Over the same time frame, 57.5% of the mortgages acquired by Fannie Mae (61% for Freddie Mac) were issued to mortgagors with FICO scores below 620 while 62% of Fannie Mae’s mortgage procurement (58% for Freddie Mac) had a loan-to-value ratio greater

⁵⁰ Wallison, 2008

⁵¹ Listokin

⁵² “Economists Brace for Worsening Subprime Crisis”

⁵³ Wallison, 2008

than 90%.⁵⁴ Furthermore, between 2001 and 2006, the annual number of originated loans increased by a factor of four, while the average loan size almost doubled. During the same period, the use of fixed-rate mortgages declined from 33.2% to 19.9%, and the mean debt-to-income ratio of approved loan applicants broke 41%.⁵⁵

The shrinking subprime-prime rate spread also signaled the deteriorating quality of new loans. Interest rates on subprime mortgages were generally greater than those on prime mortgages to compensate lenders for the additional default risk associated with subprime loans. Amidst intensifying competition for mortgage origination, however, the subprime-prime rate spread decreased substantially over time, dropping from a premium of near 3.5% in 2001 to just above 0.75% in 2004.⁵⁶ Likewise, the yield differential between subprime mortgages that were one grade apart, which had been roughly 1% until 2003, was cut in half from 2004 to 2007.⁵⁷ Mortgage fees also dropped from an average of 1% in 1997 to less than 0.5% in 2002.⁵⁸ It appears, at least in hindsight, that lenders were no longer being sufficiently compensated for the additional risk inherent in subprime loans.

Another example of reduced lending standards and supplemental cause of the upsurge in subprime loan issuances was the emergence of automated underwriting. New software systems allowed mortgage lenders to cheaply and quickly screen out the riskiest applicants while automatically approving the rest. At its introduction, automated underwriting was hailed by lenders as a great cost-saver, reducing the average closing costs of a loan by \$916.⁵⁹ But automation could be “vulnerable”, as it immediately accepted all loans that met the standards

⁵⁴ Wallison & Calomiris

⁵⁵ Demyanyk & Van Hemert

⁵⁶ Demyanyk & Van Hemert

⁵⁷ Ryan

⁵⁸ Holt

⁵⁹ Abrahams

input by the software users.⁶⁰ As those standards decreased, the default risk of accepted loans increased. Previously mentioned Countrywide Financial employed automated underwriting to double the number of loans it made monthly in 2004 to 150,000.⁶¹ By 2007, automation software was being used to generate approximately 40% of all new subprime loans.⁶² Despite efficiency gains, however, automated underwriting programs did not verify mortgagor income or inspect the property under loan or exercise any type of due diligence befitting a loan officer. Losses due to adverse selections made in this fashion could more than offset the cost-saving benefits of the automation process⁶³.

Predatory Lending & Borrowing

Apart from the lenders and GSEs that sought to expand credit access to low-income families in order to placate housing discrimination, there also existed mortgage originators who may have targeted subprime borrowers for less noble reasons. Abusive loan practices that benefited lenders to the detriment of mortgagors were termed predatory lending. As approvals grew immensely, it appeared that many of the terms were structured to result in “seriously disproportionate” net harm to borrowers. Examples included 1) loans made without regard to a borrower’s ability to repay, 2) loans with fees and interest rates in excess proportion to the risk presented by the borrowers, 3) fraudulent or deceptive loans based on inflated appraisals or empty promises of future, less costly refinancing, 4) loans that included mandatory arbitration clauses, which prevented borrowers from seeking legal redress through the court system, and 5) exploitative collection methods and unjustified fees during repayment.⁶⁴ Even prior to signing, some lenders deliberately withheld their rate sheets and other pricing information from

⁶⁰ Johnson

⁶¹ “Countrywide Extends Its Automated Underwriting System”

⁶² “The Subprime Loan Machine; Automated Underwriting Software Helped Fuel a Mortgage Boom”

⁶³ Passmore & Sparks

⁶⁴ Reiss

customers, which impeded comparison shopping.⁶⁵ Incentives to generate increased loan volumes explained the somewhat counterintuitive practice of making loans to borrowers that could not pay back the lender,⁶⁶ as did the belief that house prices would continue to rise, permitting lenders to recoup more than their principal by selling foreclosed properties at a profit while assessing additional fees as part of the foreclosure process.⁶⁷ One instance of predatory lending that garnered national attention occurred in Baltimore and was perpetrated by Wells Fargo Bank, which targeted predominately African-American neighborhoods with “toxic” loans that were allegedly “designed to fail” and that resulted in foreclosures. A former loan officer admitted to earning over \$700,000 in a year for carrying out the firm’s corporate policy of lending to ill-equipped minority borrowers at unreasonable expense or under false pretenses.⁶⁸

Yet lenders were not solely to blame for loans granted to undeserving parties. There was also a significant incidence of mortgage application fraud, or predatory borrowing. When bad loans eventually went sour, it was later discovered that as much as 70% of the defaults were on loans with fraudulent misrepresentations on the original applications. For loans issued between 1997 and 2006, applications with misrepresentations were five times as likely to go into default.⁶⁹ Mortgage fraud was estimated to cost up to \$6 billion dollars in 2005 alone.⁷⁰ Moreover, suspicious activity reports relating to mortgage fraud filed with the Financial Crimes Enforcement Network, an agency of the U.S. Treasury, increased by 1,411% between 1997 and 2005.⁷¹ The types of fraud were not elaborate. Many borrowers simply lied about their incomes,

⁶⁵ Engel & McCoy

⁶⁶ “Incentives and the Current Crisis”

⁶⁷ “Predatory Lending Fix Threatens Mortgage Market”

⁶⁸ “The Victim Who Wasn’t There”

⁶⁹ Lander

⁷⁰ “Economists Brace for Worsening Subprime Crisis”

⁷¹ “Understanding the Securitization of Subprime Mortgage Credit”

sometimes overstating the amount by a multiple of five.⁷² Others, who intended to flip a mortgaged home for profit, stated that they planned to live in it instead. These assertions required little to no documentation and went largely unchecked.⁷³

Debt Explosion and the Inevitable Subprime Implosion

Between governmental policies aimed at curbing housing discrimination, underwriting standards that were reduced in order to comply with those policies, and an expansion of predatory lending and borrowing practices that occurred in pursuit of profit, household debt ballooned. In 2003, homeowners borrowed a record \$138 billion against the equity of their homes. In 2004, around half of low-income families were spending at least 50% of their incomes on housing.⁷⁴ By 2009, interest payments alone consumed nearly 15% of the after-tax income of American households.⁷⁵ What's more, mortgage debt grew at a greater clip than home values. While the average ratio of homeowners' equity compared to market value remained above 67% through the 1980s and around 61% over the next two decades, it fell to 55% in the mid-2000s.⁷⁶

Eventually, many of the country's massively leveraged households could no longer afford to make their monthly mortgage payments and defaulted on their home loans. By the third quarter of 2007, 42% of adjustable rate and 12% of fixed rate subprime mortgages had begun the foreclosure process.⁷⁷ When borrowers failed to pay, the mortgage originators who had lent them money were forced to absorb sizable losses. American Business Financial Services, which had lent a billion dollars in its penultimate year, filed for bankruptcy protection in January 2005 while Merit Financial, which had originated \$2 billion from 2001 to 2006, fired 80% of its

⁷² "So We Thought. But Then Again..."

⁷³ Ryan

⁷⁴ Dattolo

⁷⁵ "Special Topic: Crash of 2008"

⁷⁶ Dattolo

⁷⁷ Roberts & Jones

employees in May 2006.⁷⁸ New Century Financial, the nation's second largest subprime lender, which had also sold many its mortgages to securitizers, announced in February 2007 that it would restate earnings for the first three quarters of 2006 because its allowance for recourse obligations (the expected amount of mortgages it would be contractually compelled to repurchase due to defaults) was grossly insufficient.⁷⁹ Over the next two months it was forced to stop originating new loans altogether and declared bankruptcy.⁸⁰ HSBC, the largest subprime lender, faced similar struggles, announcing loan impairment provisions of \$10.6 billion for 2006 and \$16 billion for 2007.⁸¹

III. SECURITIZATION & STRUCTURED FINANCE

Had mortgage lenders been the only parties with exposure to the subprime loan market, the extent of the credit crisis might have been significantly reduced. Accompanying the rising popularity of subprime loans, however, were new structured finance products that enabled many other market players to capitalize on the risky notes, which had been repackaged into supposedly safer securities that could be purchased and traded. Of course, the actual risk of subprime positions turned out to be great, and when the market for subprime loans imploded, government-sponsored enterprises that had issued mortgage-backed securities, investment banks that had sold collateralized debt obligations, insurance companies that had guaranteed those obligations, and investors who purchased them could no longer unload them in a frozen credit market and were all forced to post substantial losses.

⁷⁸ Ryan

⁷⁹ "New Century to restate earnings"

⁸⁰ "New Century, Biggest Subprime Casualty, Goes Bankrupt"

⁸¹ "HSBC – \$26.5B"

Mortgage-Backed Securities

As previously mentioned, government-sponsored enterprises such as Fannie Mae & Freddie Mac were instrumental in providing liquidity through secondary mortgage market operations. GSEs accomplished this by purchasing loans from mortgage originators and reselling them to investors as mortgage-backed securities (MBS).⁸² In 1970, the Government National Mortgage Association, another GSE, first pooled similar mortgages together and sold them as securities that represented claims on the mortgage payments from the pool. The mortgage payments then passed through to the security holders, which most commonly were institutional investors, wealthy individuals, and even the original lenders (who often preferred the more liquid version of loan assets to the actual loans).⁸³

MBS were beneficial for several reasons. First, they spread (shifted, really, as discussed later) default risk across a larger class of investors and removed the loans from the balance sheets of the lenders. This permitted mortgage originators to earn fee income from their underwriting activities without being directly exposed to the inherent risk of the loans. Second, purchasers of MBS gained access to more liquid and more diversified mortgage assets. While individual loans required large amounts of principal and lengthy time commitments and could be risky in isolation, MBS offered small pieces of groups of loans, which could be freely traded. Third, GSEs were able to obtain vast sources of capital to finance their continued purchases of mortgages, maintaining liquidity in the secondary mortgage markets and encouraging lending by creditors. Lastly, because MBS were issued by GSEs, GSEs earned guarantee fees, and the securities carried the implicit guarantee of the United States government.⁸⁴

⁸² “Mortgage-Backed Securities”

⁸³ Dodd

⁸⁴ “Why Fannie Mae, Freddie Mac Continue To Cost US Taxpayers Billions”

Private-Label Securities

Securitization became the prevailing tool for the diversification and liquidation of mortgage loans, and its success prompted intense competition from other financial institutions. Indeed, the share of MBS issued by GSEs, which stood at a dominant 76% in 2003, fell to 43% in 2006 due to the growth of private-label securities issued by major Wall Street firms.⁸⁵ Top issuers of private-label MBS included mortgage firm Countrywide Financial as well as investment banks Lehman Brothers and Wells Fargo.⁸⁶ Unlike MBS issued by GSEs, private-label issuances were not backed by the government, and they were not limited to including only mortgages that conformed to federal requirements. This meant that private-label issuers could issue MBS that represented claims on subprime and other risky loans, but it also became necessary for the firms to develop methods for counteracting the elevated risk in order to convince investors to purchase the securities. One way that financial institutions shielded investors, at least cosmetically, from the risk of the underlying mortgages of MBS was through overcollateralization. In this example of “credit enhancement”, the principal amount of the pool of mortgages exceeded the principal value of the issued securities. Another credit enhancement technique, known as excess spread, occurred when the interest payments on the underlying mortgages exceeded the payments offered to purchasers of MBS.⁸⁷ The excess was first used to cover default losses, and if any spread was left, it could be used to build up a cushion against future losses or to pay down the principal on senior bonds.⁸⁸

Unquestionably the most popular tool for creating an apparently sheltered security out of more vulnerable components was structured securitization, whereby underlying mortgages were

⁸⁵ “The rise of private label”

⁸⁶ Rosen

⁸⁷ “MBS Basics”

⁸⁸ Rosen

separated into different levels, called tranches, which were prioritized in how they absorbed losses from the underlying portfolio. The senior tranche, at the top, was perceived to be the least risky because it held first claim to mortgage payments and was protected from losses by the tranches below it. As such, it offered the lowest interest rates. Any payments remaining after the senior tranche requirements were fulfilled flowed to the junior, or mezzanine, tranche below it, which earned slightly greater interest due to the greater likelihood of shortfalls. The bottom, or equity, tranche—often referred to as “toxic waste”—was the first to absorb losses and thus presented the greatest amount of risk, but successful performance by this tranche’s underlying assets could lead to high returns for investors. When losses did occur, they hit the lowest tranche first until it was completely eroded; additional losses were directed at the mezzanine and finally senior tranches. Collateralized debt obligations (CDOs), which pooled hundreds of individual tranches from MBS, allowed investment banks to tailor securities with differing risk-return profiles to different investors.⁸⁹

A mathematical example helps to illustrate just how such structured securitization, or subordination, could alleviate concerns of default risk among investors. Consider a scenario in which a security contains a pool of just two loans, each with a face value of \$1 and with a probability of default of 10%. One loan represents the junior tranche and will absorb the first \$1 of losses such that it will pay out \$1 if both loans avoid default but \$0 if either defaults. The other loan represents the senior tranche and will only fail to pay out if both loans default. In this example, the senior tranche will pay out either \$1 or \$0—the same as the underlying mortgages—but, if the two probabilities of default are uncorrelated, the likelihood that the senior tranche will fail to pay out is less than that of either loan by itself (1% vs. 10%). As more securities are added to the mortgage pool, an increasingly greater fraction of tranches will have a

⁸⁹ Jacobs

lower probability of default than the average loan component. For instance, if a third bond is added to the example, also with a 10% probability of default, and if the probabilities are uncorrelated, the senior tranche will only fail to pay out if all three loans default, or 0.1% of the time (0.1^3); the middle tranche will only fail to pay out if two or more loans default, or 2.8% of the time ($3C_2 * 0.1^2 * 0.9 + 0.001$), much less often than the 19% ($1 - 0.9^3$) default incidence of the second bond in the previous example; and the bottom tranche will fail to pay out if any of the loans default, or on 27.1% of occasions ($1 - 0.9^3$). And so, through the magic of subordination, two-thirds of the issuance is repackaged into securities that appear significantly less risky than the underlying loans.⁹⁰ As MBS often contained thousands of mortgages and CDOs contained hundreds of MBS, the percentage of seemingly low-risk tranches grew ever closer to 100%, and securities that were backed by BBB components earned AAA ratings.⁹¹

Risk Sharing vs. Risk Shifting

Of course, these examples rest on an important assumption—that the probabilities of default for the underlying mortgages are uncorrelated. This notion simply may not hold true. Granted, the type of diversification offered by MBS can produce risk-reducing benefits when the underlying risk is random. For instance, a home insurance company might diversify geographically among policyholders to protect itself from the risk of a particular house burning down since the likelihood of all insured houses catching fire simultaneously is infinitesimal. Risk of default, on the other hand, can be much more systematic than risk of fire. Because mortgage loans implicitly contain a put option that allows a borrower to sell a home back to the lender when its value falls below the value of the mortgage, defaults often increase as house prices decline. Prices tend not to decline in isolation, though, as the decline in value of one house can

⁹⁰ Coval

⁹¹ Blundell-Wignall 2007

signal general problems that will similarly affect the values of surrounding houses.⁹² As such, the probability of default for loans comprising MBS were likely correlated, and the benefits of diversification were likely overstated. The deteriorating quality of subprime loans within MBS augmented further the prospect of default.

Returning to the home insurance company example, when a single house *is* destroyed due to fire, an insurer can use the proceeds from other insurance premiums to cover the loss, thus risk is shared by policyholders. In the case of default risk, however, it is more appropriate to say that risk is shifted, first from borrower to lender, then from lender to secondary market participants, then to investment banks, insurers, and investors. Even within individual MBS or CDOs, risk is shifted from the most senior to the junior tranches. Because risk could be passed on to the next party at each stage of securitization, less incentive existed for loan originators and purchasers to exercise due diligence regarding borrower quality or appropriateness of credit instruments. And as we will see, credit rating agencies did a poor job assessing the true risk of MBS, allowing securitizers to sell them at prices that did not reflect the issuer's lack of attentiveness. Mortgage originators and investment banks thus had incentive and opportunity to cherry-pick loans while leaving the worst to investors. Countrywide Financial President Stanford Kurland confessed, "We're looking to hold only pristine product on the balance sheet."⁹³ Such information asymmetry created problems for investors, who could not examine loan applications firsthand but who relied on the representations of issuers regarding the credit quality of borrowers.

Other particularly egregious risk-shifting tools including special purpose entities and structured investment vehicles enabled banks and lenders to move the risk of the underlying loans so that it was virtually invisible to outsiders. In fact, these conduits fell under the umbrella

⁹² Jacobs

⁹³ "How American Lenders Shelter Themselves"

aptly called “structured finance” because transactions were structured to isolate loan pools from the original lenders or purchasers. In this process, mortgage originators and investment banks established offshore entities that were owned by, but legally distinct from, the creators.⁹⁴ Due to the alleged independence of these entities, their assets and liabilities were kept separate from the balance sheets of the sponsoring institutions. Conduits allowed the banks to sidestep capital reserve requirements and invest more heavily in MBS and CDOs.⁹⁵

Was this accounting treatment appropriate? Well, to assure investors of the soundness of these entities, the establishing banks often committed to provide them with liquidity (in extraordinary amounts) in case of need. While the commitments were not required to be shown on a backer’s balance sheet if its management considered it unlikely that the promises would be called upon, it seems clear now that banks and lenders had provided at least implicit guarantees regarding the health of subsidiaries under their ownership.⁹⁶ At the end of 2008, off-balance-sheet assets at the country’s four largest banks—Bank of America, Citigroup, JPMorgan Chase, and Wells Fargo—totaled \$5.2 trillion.⁹⁷ Citigroup CEO Chuck Prince infamously declared: “When the music stops, in terms of liquidity, things will get complicated. But as long as the music is playing, you’ve got to get up and dance. We’re still dancing.”⁹⁸ Other dancers, issuers and investors alike, were caught unawares when the commitments were revealed to be large enough to bankrupt many of the sponsoring banks.

Over-Exposure

Some investment banks did realize that they were the lenders of last resort for their private-label issuances, which were not secured by the federal government. So to shift the risk

⁹⁴ Engel & McCoy

⁹⁵ “Inside Wall Street: Why Hocus-Pocus Accounting Will Perpetuate the Capital Markets Credit Crisis”

⁹⁶ “Bring Transparency to Off-Balance Sheet Accounting”

⁹⁷ “Banks’ Hidden Junk Menaces \$1 Trillion Purge”

⁹⁸ Makin

burden one step further, issuers purchased credit default swaps (CDS) from insurers to protect their MBS, CDOs, and SIVs. Sellers of CDS, in exchange for a premium, agreed to reimburse a contract holder that suffered losses to its underlying assets and conferred the insurer's own credit rating onto those assets. While CDS may have resolved, on the face of it, the matter of liability for individual banks, the financial instruments created deeper problems for the credit market at large. First, many CDS were offered as unregulated derivatives, which meant that guarantors were not subject to the same capital requirements as monoline insurers and commitments greatly exceeded the funds available to fulfill them. Also, CDS, like the securities they insured, could be traded in over-the-counter markets with prices reflecting the perceived financial health of the underlying assets. Moreover, the "insurable interest" requirement, which limits most insurance policies to parties that would be negatively affected by damage to the insured object, did not apply, thus CDS shifted the focus of insurance contracts from protecting against loss to creating opportunities for speculative gains. Multiple contracts could be purchased for the same underlying asset, and the resulting overlap produced investors with significantly greater exposure to loans than actually existed. At the end of 2008, the CDS market was valued at \$67 trillion, but the value of the component loans was only \$15 trillion!⁹⁹

As previously discussed, an increasing number of those loans significantly deteriorated in quality, and when borrowers defaulted and mortgage originators went bankrupt, it spelled disaster for everyone with exposure to subprime holdings. At the same time, lenders and banks that had failed to disclose certain assets and liabilities realized enormous losses when failing notes and obligations to SIVs appeared on their balance sheets. In October 2007 Merrill Lynch reported a \$7.9 billion loss on subprime positions and a \$5.8 billion loss on its senior (the *safest* tranche) CDOs. A month later, Citigroup announced a \$1.8 billion loss, to which it added at least

⁹⁹ Morgan

\$8 billion in a subsequent disclosure. What's more, sellers of CDS were now liable for large sums that did not exist. In the first quarter of 2008, two major loan insurers, Ambac and MBIA announced losses of \$5.2 and \$3.5 billion, respectively. The fate of these companies, which had guaranteed \$2 trillion of debt, raised concerns of rapid contagion due to interdependency.¹⁰⁰

Later that year, prominent investment bank Lehman Brothers filed for bankruptcy protection due to debts of over \$600 billion, marking the largest bankruptcy in United States history.¹⁰¹ In bankruptcy examinations, it was discovered that Lehman had allegedly shifted \$50 billion in troubled assets off its balance sheet to conceal the firm's true financial condition by employing what has been called a Repo 105 maneuver. A repo, or repurchase agreement, occurs when a borrower uses securities as collateral for a cash loan, which when fully paid back, triggers the return of the securities to the borrower. Lehman, however, was able to avoid treating such transactions as repos and to give the appearance of permanently ridding itself of failing assets by narrowly tailoring the arrangements to satisfy the requirements of a sales deal. To qualify for sales treatment, a firm must prove that it no longer controls the securities being exchanged, usually by trading securities of significantly greater value than the cash received, since it would be perceived as unlikely that the firm could or would buy them back. Accounting guidance suggests that an exchange of securities in excess of 102% of the cash value denotes a lack of control, thus Lehman structured its repo transactions at a level of 105%. However, it was later revealed that the firm had no economic reason for doing so and that it had consistently used a standard 105% level regardless of the deal, seemingly indicating that there existed a concerted effort to disguise inevitable repurchases of volatile assets as permanent sales.¹⁰²

¹⁰⁰ Ryan

¹⁰¹ "Lehman folds with record \$613 billion debt"

¹⁰² "Questions on Ernst Auditing"

New discoveries have also surfaced that some asset-backed securities were intentionally arranged to fail, much to the dismay of unsuspecting investors. As recently as April 2010, the SEC charged investment bank Goldman Sachs with fraud relating to the structuring and marketing of CDOs tied to subprime mortgages. The complaint alleges that the investment bank failed to disclose fundamental information about some of its CDOs to investors, particularly the role that a major hedge fund played in the portfolio selection process and the fact that the hedge fund had taken a short position against the securities. Paulson & Co., one of the world's largest hedge funds, purportedly paid Goldman Sachs to structure a transaction in which Paulson could bet against mortgage securities that it had chosen based on their expected failure. With knowledge of Paulson's undisclosed short interest, Goldman executives deliberately misled institutional investors to purchase the CDOs now under investigation.¹⁰³

IV. CREDIT RATING AGENCIES

How did we end up here? What would cause banks to acquire and securitize mortgage loans of deteriorating quality? Why would investors purchase securities that they did not fully understand? Where were the minds of insurers, who provided guarantees that greatly exceeded their ability to follow through? Who was responsible for leading rational parties to make such irrational yet enormous decisions? Certainly some fault must lie with the credit rating agencies, whose ultimately flawed ratings stamped seals of approval on poor investments and propped up the market for structured finance products by understating the inherent risk of mortgage-backed securities and their components. A lack of competition, the absence of transparency, and apparent conflicts of interest contributed to inaccurate or misleading ratings and poorly served users who had relied on the rating services.

¹⁰³ "SEC Charges Goldman Sachs With Fraud in Structuring and Marketing of CDO Tied to Subprime Mortgages"

The Gatekeepers

The primary function of credit rating agencies (CRAs) is to assess the creditworthiness and the debt obligations of companies and their issuances. CRAs issue alphabetic credit ratings, which represent opinions on the future ability, legal obligation, and willingness of obligors to make full and timely payments on principal and interest to investors. Like public accounting and securities research firms, CRAs facilitate the raising of capital by providing to individual investors an independent, low-cost source of information regarding the reliability of issuers of securities. Credit ratings greatly influence the decisions of investors in fixed-income vehicles and determine the ability of issuers to obtain financing. By serving such a verification function, CRAs have become known as external gatekeepers who act as reputational intermediaries by evaluating issuers in order to protect outside investors.¹⁰⁴

When gatekeepers perform their jobs well, they provide a useful service of pairing investors with risk-appropriate instruments and keeping conservative portfolios free of toxic components. Time, of course, has revealed that CRAs were notoriously inept at fulfilling this role. Beginning in early 2007, increasing delinquencies on subprime mortgages raised concerns about the ability of CRAs to accurately assess the quality of securitized obligations in the structured finance market.¹⁰⁵ The President's Working Group on Financial Markets would later issue a policy statement identifying faulty ratings as one of the principal causes of financial market turmoil.¹⁰⁶ Likewise, the Financial Stability Forum blamed poor credit assessments for both the buildup and the unfolding of the crisis.¹⁰⁷ Indeed, as a result of the initial severe underestimation of credit risks, recent changes in CRA ratings have been much more volatile and

¹⁰⁴ Pinto

¹⁰⁵ "The Role of Credit Rating Agencies in Structured Finance Markets"

¹⁰⁶ "Policy Statement on Financial Market Developments"

¹⁰⁷ "Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience"

weighted toward downgrades than the historical record.¹⁰⁸ Between Moody's and Standard & Poor's, the world's two largest CRAs, \$322 billion in mortgage securities were downgraded in the last two quarters of 2007, and \$1.58 trillion were downgraded in the first half of 2008.¹⁰⁹ Dissatisfaction with perceived CRA incompetence led PIMCO (manager of the world's largest mutual fund) analyst Bill Gross to scold rating agencies for being foolishly wooed by "good looking" but far from "high-class" instruments bearing "tramp stamp[s]".¹¹⁰

Despite their apparent lack of foresight, the ratings issued by CRAs effectively buoyed the securitization market, which in turn provided much of their business. As structured finance products became more advanced, unsophisticated investors required quality assurance about the inherent complexity. For this reason, it became an axiom that "securitization is, and always has been, a rating-driven product."¹¹¹ So crucial to the proliferation of structured products were the credit ratings of CRAs that Pulitzer Prize winning journalist Thomas Friedman remarked: "There are two superpowers in the world today...there's the United States and there's Moody's Bond Rating Service...and believe me, it's not clear sometimes who's more powerful."¹¹² At the same time that issuers were obviously dependent upon rating agencies, CRAs possessed an "enormous amount of self-interest vested in keeping the structured finance machine going".¹¹³ CRAs offered up guidance on the more complex vehicles at a premium, charging almost three times as much for ratings of securitized loans and derivatives than for ordinary corporate bond work. Moreover, these ratings represented the largest business and growth driver for Fitch Ratings and accounted for 40% of Moody's revenues.¹¹⁴ In effect, CRAs transitioned from gatekeepers to "gate

¹⁰⁸ Utzig

¹⁰⁹ "The woman who called Wall Street's meltdown"

¹¹⁰ Gross

¹¹¹ Kettering

¹¹² "Free Market Society"

¹¹³ "Finding a Way Out of the Rating Agency Morass"

¹¹⁴ Alam

openers”, issuing ratings that created and sustained a multi-trillion dollar structured finance market.¹¹⁵

Causes of Low-Quality Ratings: Lack of Competition

The market for credit ratings has historically been directed by two major players, Moody’s and Standard & Poor’s, with Fitch trailing in a distant third until recently. Together, the three firms control around 98% of the entire rating agency business and issue more than 99% of ratings for asset-backed and government securities.¹¹⁶ Such astounding market concentration has led economists to describe the credit rating industry as “curiously devoid of competition and oversight”.¹¹⁷ The problem has been compounded by what has been ingrained as a two-rating norm, whereby standard practice for issuers of securities dictates obtaining ratings from two different firms on each issue, the default pair almost always being Moody’s and Standard & Poor’s.¹¹⁸ This measure means that the largest two CRAs have effectively no need to compete for business and have been able to construct a “partner monopoly”.¹¹⁹ Such lack of competition has resulted in the prominent CRAs employing generally similar (and ultimately flawed) rating methodologies, not surprisingly attaining identical results, with little use for differing or inventive approaches.¹²⁰ Moreover, accusations of anticompetitive practices have been levied at Moody’s and Standard & Poor’s by Fitch, which asserted that its older siblings had colluded in attempting to squeeze it out of the structured finance market. The two giants had allegedly engaged in notching, which involved lowering their ratings of or refusing to rate certain asset pools unless the firms were recruited to rate a substantial portion of the assets in those pools.¹²¹

¹¹⁵ Partnoy 2006

¹¹⁶ “Annual Report on Nationally Recognized Statistical Rating Organizations”

¹¹⁷ “Who rates the raters? Credit-rating agencies”

¹¹⁸ Hill

¹¹⁹ “November 15, 2002 Hearing on Credit Rating Agencies”

¹²⁰ Hunt

¹²¹ “Report on the Role and Function of Credit Rating Agencies in the Operation of the Securities Markets”

How did the CRAs achieve their dominant positions in the first place? In 1975, the SEC established a significant barrier to entry for the rating agency market by creating the designation of nationally recognized statistical rating organizations (NRSROs).¹²² It became essential for any firm wishing to become a viable CRA to first earn this title, which was viewed as the mark of a real rating agency, but for which the approval process was considered “unnecessarily cumbersome and insufficiently transparent”.¹²³ The original NRSROs—Moody’s, Standard & Poor’s, and Fitch—were still the only three firms to hold the designation almost thirty years later, despite the dramatic increase in global reliance on credit ratings.¹²⁴ CRAs also benefited from heavily rating-dependent regulation. At least forty-four of the SEC’s rules require the use of credit ratings, the banking regulatory system calls for rating agencies to measure asset risk, pension plans under the framework set by the Employee Retirement Income Security Act of 1974 must be assessed by NRSROs, the National Association of Insurance Commissioners’ Securities Valuation Office uses ratings to monitor insurance companies, and many state laws and banking regulations compel the same. Likewise, ratings became just as hard-wired in private arrangements, as minimum weighted average rating requirements and rating triggers emerged as popular elements of private contracts.¹²⁵ The ubiquity of ratings in financial regulation and industry practice multiplied the demand for the service while the coveted label of NRSRO reinforced the notion that only a select trio of agencies was qualified to complete the work. As regulation, rather than reputation, became a fundamental source of business for CRAs, the big firms experienced continued prosperity, even in the face of poor performance.¹²⁶

¹²² “Credit Rating Agencies—NRSROs”

¹²³ “Statement of Ken Wideman”

¹²⁴ “Written Statement of Rating and Investment Information”

¹²⁵ Hunt

¹²⁶ Partnoy 2001

Causes of Low-Quality Ratings: Rating Transparency

Another vulnerability of CRAs concerns the transparency of their rating methodologies—that is, the ability of outsiders to view and comprehend the models used in the rating process and to discern just how the agencies arrive at the ratings they impart. Even after the Credit Rating Agency Reform Act of 2006, passed in part to address such fears of opacity, CRAs were still only required to provide a *description* of rating procedures and methodologies, as opposed to disclosing substantive information on actual methods and models.¹²⁷ Consequently, ratings criteria often omitted important variables and assumptions and were not released “up to a level of replicability.”¹²⁸ When agency methodologies were disclosed, they often turned out to be erroneous or outdated. One CRA compliance officer, in discussing how his firm’s actual processes for determining credit ratings diverged from its stated criteria, revealed:

*Our published criteria as it currently stands is a bit too unwieldy and all over the map in terms of being current or comprehensive. It might be too much of a stretch to say that we’re complying with it because our SF [structured finance] rating approach is inherently flexible and subjective, while much of our written criteria is detailed and prescriptive. Doing a complete inventory of our criteria and documenting all of the areas where it is out of date or inaccurate would appear to be a huge job.*¹²⁹

Issues regarding performance transparency also existed. Many CRAs did not publish verifiable or easily comparable historical data on rating performance, making it difficult for customers to assess the accuracy of past ratings.¹³⁰ Without informed views on the quality of a

¹²⁷ “§ 780–7”

¹²⁸ “Testimony of Joseph R. Mason”

¹²⁹ “Summary Report of Issues Identified in the Commission Staff’s Examinations of Select Credit Rating Agencies”

¹³⁰ “Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience”

firm's credit ratings, users could not reasonably rely on them to make the investments they did. Of course, for reasons previously stated—lack of competition among rating agencies, regulation and industry practices that were dependent on ratings, etc.—it appears they had little choice.

On the flipside, while information pertaining to CRA credit ratings were not fully transparent to their end users, rating agencies regularly supplied clients (the issuers of the securities being rated) with various “customer end” tools, which enabled them to run tests of proposed securitization portfolios based on guidelines provided prior to rating. As long as an issuer's offering adhered to the criteria in a relevant model, it could earn the desired rating, regardless of any additional risk beyond the scope of the model. This practice of structuring to rating was a dangerous one, as new issuances could be constructed with design features solely intended to satisfy the requirements of narrow rating tests.¹³¹

Causes of Low-Quality Ratings: Conflicts of Interest

Other conflicts of interest arose regarding the issuer-pays model. While this conflict is common to many gatekeepers, such as accounting firms, and not necessarily a definitive sign of deficient independence, it occurred to a greater extent at CRAs, who did little to manage problem areas. As competition dwindled and financial markets became more reliant on credit ratings, CRAs successfully transitioned from a subscription model, wherein investors and other users of rating information paid, to an arena in which issuers of securities funded their rating. Such a compensation scheme raises fears that clients might offer to pay more for inflated ratings or, by the same token, that rating agencies could threaten to issue damaging ratings unless sufficiently remunerated. Moreover, CRAs earned 90% of their revenues from issuer-paid ratings,¹³² in contrast to the Big 4 accounting firms, whose audit services account for less than half of total

¹³¹ “New Financial Order Recommendations by the Issing Committee”

¹³² Partnoy 2006

proceeds.¹³³ These concerns were exacerbated by the fact that CRAs began providing an increasing amount of ancillary services to their existing rating clients. In particular, all three NRSROs offered risk management consulting, which included credit scoring models, internal ratings systems services, and empirical data on default incidence, loss severity, and rating transitions. They also marketed pre-rating assessments, which allowed issuers, for an additional fee, to determine how a particular corporate action, like a merger or stock repurchase, would affect their credit rating.¹³⁴ But whereas accounting and securities research firms face new rules and restrictions regarding such conflicts of interest, regulators did not place any limits on the activities of rating agencies with respect to ancillary and consulting services.¹³⁵

CRAs drew further negative attention by issuing unsolicited ratings. Standard & Poor's, for instance, assigned and published ratings for all debt issues over \$50 million, with or without request from the issuer, "as a matter of policy".¹³⁶ There are several problems with this practice. Ostensibly, CRAs appeared to be offering a public service by disseminating free information to the investing community, and more information is generally useful in decision making. However, in the case of unsolicited assessments, rating agencies were limited to publicly available intelligence and could not have constructed ratings with the same quality as those for clients or securities on which they possessed inside information. In fact, research has shown that CRAs assign empirically lower unsolicited ratings than when hired and paid to do so.¹³⁷ While such adverse opinions may result from conservative assumptions regarding confidential information, their publication may also serve as a "veiled threat" from CRAs against issuers that

¹³³ "Like Everyone Else, Big 4 Saw Revenue Decline in 2009"

¹³⁴ "Report on the Role and Function of Credit Rating Agencies in the Operation of the Securities Markets"

¹³⁵ Partnoy 2006

¹³⁶ "Rating Agencies and the Use of Credit Ratings under the Federal Securities Law"

¹³⁷ Bannier

do not pay for their services.¹³⁸ In order to improve or correct a rating that it never requested, an issuer may be obligated to hire the CRA responsible for its circulation.

Supplementary Causes of Low-Quality Ratings

The list of additional charges directed at rating agencies is extensive, but I will attempt to summarize them briefly. Perhaps the most important criticism is that CRAs asserted that ratings were intended to be consistent across different types of instruments, so that a rating of AAA should have meant the same thing whether it was attached to a corporate bond or a complex structured finance product. Investors may have been understandably attracted to the newer issuances, which bore the same grade as, but promised greater returns than, their traditional counterparts. The structured vehicles ultimately behaved much differently, however, with defaults and downgrades occurring much more frequently.¹³⁹ Studies carried out subsequent to the credit crisis also revealed that CRAs had relied on flawed rating methodologies that took into account neither the weakening of underwriting standards nor the correlation of defaults.¹⁴⁰ Moreover, rating agencies performed inadequate due diligence concerning the quality of the collateral pools underlying the rated securities, basing their findings on historical mortgage default rates for similar pools instead of evaluating mortgages individually. This historical data quickly became irrelevant as defaults reached unprecedented levels.¹⁴¹ At the same time, institutional investors with the capacity to undertake their own credit analysis did not independently examine structured products prior to investment, instead placing excessive reliance on CRAs without fully understanding their methodologies.¹⁴²

¹³⁸ Manns

¹³⁹ Hunt

¹⁴⁰ Utzig

¹⁴¹ Holt

¹⁴² “Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience”

Lastly, rating agencies possessed little incentive to ensure quality ratings because they were largely able to escape liability. CRAs repeatedly asserted that their evaluations were constitutionally protected opinions, and courts accepted this defense on numerous occasions, implying that credit ratings could be issued without fear of litigation under the protection of the First Amendment. Even if a credit rating was judged to be a (false) factual assertion, plaintiff corporations were often considered to be public figures, which required them to show malice on the part of the defendant—that is, to prove that a CRA had acted with reckless disregard to the truth.¹⁴³ The effective legal immunity of rating agencies is surprising given the limited degree to which they sought to protect against falsehoods. Moody's, for example, in its Code of Professional Conduct, described in no uncertain terms its indifference to ensuring the quality of its ratings:

*[Moody's Investor Service] has no obligation to perform, and does not perform, due diligence with respect to the accuracy of information it receives or obtains in connection with the rating process. MIS does not independently verify any such information. Nor does MIS audit or otherwise undertake to determine that such information is complete. Thus, in assigning a Credit Rating, MIS is in no way providing a guarantee or any kind of assurance with regard to the accuracy, timeliness, or completeness of factual information reflected, or contained, in the Credit Rating or any related MIS publication.*¹⁴⁴

Reasons for CRAs to sustain the structured finance market were numerous, while incentives to promote quality credit ratings were scarce. Investors lured by assurances of creditworthiness and promises of great returns ignored the considerable lack of competition and transparency and

¹⁴³ Pinto

¹⁴⁴ "Code of Professional Conduct"

looked past potential conflicts of interest, making highly leveraged purchases of precarious securities. Then, well, you know the rest.

V. DEREGULATION & FEDERAL OVERSIGHT

Much of what led to the bursting of the housing bubble and resulting devaluation of asset-backed securities likely could have been prevented if certain actions had been prohibited by law or at least closely monitored by those appointed to keep watch. Instead, regulators and overseers elected to take a backseat in their supervisory roles, permitting unregulated credit markets to produce and trade exotic mortgage products to the point where leverage surpassed historic levels. First, Congress issued several edicts gradually returning more power to the parties responsible for previous financial crises. Moreover, it repealed landmark legislation that had been passed in response to the Great Depression and was intended to prevent familiar speculative excesses that had been at the core of that banking failure. In addition, the Securities and Exchange Commission allowed the largest investment banks to greatly increase their exposure to structured finance products by reducing capital requirements and amplifying leverage. Finally, legislators sanctioned self-regulation of over-the-counter derivatives, triggering precipitous growth of the market for credit default swaps.

The Origins of Regulation & Financial Amnesia

The collapse of the United States stock market in 1929 and subsequent contagion to the worldwide economy over the following decade convinced legislators that unregulated financial markets could not be trusted to ensure economic stability and that the government should closely monitor major financial institutions to prevent the excessive risk taking characteristic of damaging boom and bust periods. In 1933, therefore, President Franklin Delano Roosevelt

signed into law the Glass-Steagall Act, which separated the activities of investment and commercial banks. Specifically, the act sought to prevent the use of banking deposits to finance speculative capital market activity. The SEC was tasked with regulating investment banks by requiring the publication of complete and dependable securities information. Moreover, commercial banks were obligated to retain the consumer and commercial loans that they had originated, which motivated them to avoid risky lending practices.¹⁴⁵

Not surprisingly, as often happens after enough time elapses, memories of the reasons behind the Great Depression faded, and serious policy discussions on the advantages of liberal financial markets and innovative instruments commenced.¹⁴⁶ Post-Keynesian macroeconomist James Crotty conjectures that catastrophic economic and political events often lead to successful attempts to tightly regulate the industries deemed responsible, but regulated firms ultimately possess a strong incentive to try to weaken and evade their regulatory restraints.¹⁴⁷ And so, over the course of two decades of deregulation beginning in the 1980s, the United States grew into its “new financial architecture” (NFA), one in which regulations were nonexistent, loosely enforced, or designed favorably for financial institutions.¹⁴⁸ Proponents of the NFA argued that capital markets price securities correctly with respect to expected risk and return, enabling participants to make optimal decisions and leading risk to be held only by those capable of managing it, negating the need for significant government intervention.¹⁴⁹ But this defense ignores the lessons of history and rests on the now discredited assumption that all market players have access to all information. As we have seen, securitization masked the extent of risk inherent to investments in subprime loans, off-balance-sheet conduits concealed toxic assets from shareholders, and credit

¹⁴⁵ Russell

¹⁴⁶ Eichengreen

¹⁴⁷ Crotty

¹⁴⁸ Farrar

¹⁴⁹ “Remarks by Paul A. Volcker”

rating agencies did little to squelch conflicts of interest that disincentivized the formation of high-quality ratings. Indeed, in testimony before the House of Representatives Oversight Committee, former Federal Reserve Chairman Alan Greenspan admitted that he and “those of us who have looked to the self-interest of lending institutions” found themselves in a “state of shocked disbelief” when confronted with the failing reality of the NFA.¹⁵⁰

The Beginnings of Deregulation

Without the benefit of hindsight, legislators pushed ahead with their deregulation efforts and in 1980 first set their sights on residential mortgage credit. At the time, policies aimed at increasing the availability of credit seemed prudent. Annual inflation had climbed to 13.5% (compared to an average of 2.6% from 2000 to 2009),¹⁵¹ mortgage interest rates towered at 13.74% (vs. 6.29% throughout the most recent decade),¹⁵² and states with strict usury limits made credit conditions even tighter.¹⁵³ Congress responded by passing the Depository Institutions Deregulation and Monetary Control Act of 1980, which phased out government imposed interest rate ceilings on first lien home mortgages, effectively repealing usury caps imposed by individual states.¹⁵⁴ Soon after, the Alternative Mortgage Transaction Parity Act of 1982 authorized the use of adjustable rate mortgages, balloon clauses, and negative amortization loans and accorded to all mortgage financiers parity with federally chartered lenders.¹⁵⁵ Together, these two acts created an environment in which even the riskiest of loan features could be legally implemented to obscure the total cost of a loan.¹⁵⁶ Exotic mortgages set buyers up for

¹⁵⁰ “Testimony of Dr. Alan Greenspan”

¹⁵¹ “Historical Inflation Rates: 1914-2010”

¹⁵² “30-Year Fixed-Rate Mortgages Since 1971”

¹⁵³ “The History of Usury”

¹⁵⁴ Allen & Wilhelm

¹⁵⁵ Rudolph

¹⁵⁶ “Subprime Markets, the Role of GSEs, and Risk-Based Pricing”

significant payment shock by requiring small payments to start while the newly dismantled interest rate prohibitions could offer no protection against excessive resets.

Remaining tools for federal oversight were ineffective or underutilized, including two laws designed to promote transparency in lending arrangements. The Truth in Lending Act of 1968, which had been enacted to protect consumers and enhance competition among creditors by requiring uniform disclosures regarding loan costs, and the Real Estate Settlement Procedures Act of 1974, passed with similar intent, have both been criticized for failing to ensure informed comparison shopping due to the decreasing relevance of the required disclosures.¹⁵⁷ In 1994, Congress attempted to remedy some of its perceived regulatory weaknesses by ratifying the Home Ownership and Equity Protection Act of 1994 (HOEPA). One of the law's chief objectives was to temper the distribution of high-cost loans, which it endeavored to accomplish by banning balloon payments and prepayment penalties, but the scope of loans affected by the act was limited.¹⁵⁸ First, HOEPA applied only to non-purchase money transactions, which included home refinancing but not first time home purchases, reverse mortgages, or home equity lines of credit.¹⁵⁹ This meant that new subprime borrowers could still be subjected to the abuses that HOEPA sought to eliminate. In addition, lenders found ways to circumvent the high-cost loan provisions by slightly lowering interest rates and fees to below HOEPA's thresholds.¹⁶⁰ Former Federal Reserve Governor Edward Gramlich revealed that although it was expected that half of all subprime mortgage loans would be brought under HOEPA coverage, in reality the act only covered one percent of the loan population.¹⁶¹ HOEPA did provide other, more expansive means for policing lending practices. Specifically, it granted the Federal Reserve with a broad

¹⁵⁷ Renuart & Thompson

¹⁵⁸ "Changes to Regulation Z Expand Loans Subject to HOEPA"

¹⁵⁹ "High-Rate, High-Fee Loans"

¹⁶⁰ McCoy

¹⁶¹ Gramlich

authority to prohibit unfair or deceptive loan terms in both the purchase and refinance markets, regardless of interest rates or fees.¹⁶² Nevertheless, Chairman Greenspan declined to exercise that authority.¹⁶³ Criticism regarding the Fed's reluctance to intervene led Ben Bernanke, Greenspan's successor, to finally implement comprehensive restrictions on loan abuses in 2008, long after problems with subprime loans had become apparent.¹⁶⁴

While federal regulators remained on the sidelines, many states enacted their own statutes for keeping checks on the mortgage market. Before long, however, just like with what had happened to state restrictions on usury and alternative mortgage products, the new statutes were federally preempted. In 1996, the Office of Thrift Supervision (OTS), the federal branch responsible for regulating thrift institutions, opined that federal savings and loan associations were exempt from observing state lending laws.¹⁶⁵ The decision did not relieve national banks, state thrifts, or independent nonbank mortgage lenders from state directives, though, and these institutions were increasingly targeted beginning in 1999 when North Carolina introduced comprehensive anti-predatory lending legislation.¹⁶⁶ Georgia and thirty other states followed suit, each passing a version of a HOEPA-fix that expanded coverage and imposed more stringent restrictions on lender behavior.¹⁶⁷ But in 2004, as perhaps should have been expected, the Office of the Comptroller of the Currency (OCC), the regulator of national banks and non-thrifts, issued a proclamation declaring that its member firms, too, were not bound by state laws.¹⁶⁸ It should be noted that the revenues of OTS and OCC derive almost exclusively from the entities that they regulate, thus both agencies had an incentive to appease their constituent institutions through

¹⁶² "Encouraging Responsible Mortgage Lending: Prospective Rulemaking Initiatives"

¹⁶³ "The Financial Crisis and the Role of Federal Regulators"

¹⁶⁴ "Greenspan's Folly"

¹⁶⁵ "Federal Preemption of State Prepayment-Penalty Statutes: The OTS Reverses Itself"

¹⁶⁶ Quercia

¹⁶⁷ Whalen

¹⁶⁸ Bagley

federal preemption for fear that a federal thrift might defect to national bank status or vice versa.¹⁶⁹ At any rate, the decision to favor federal regulations over state rulings would not have been so contentious had federal regulators enforced comparable guidelines or provided the same level of oversight. Instead, the OTS merely issued non-binding advisory letters that were routinely dismissed as “suggestions”.¹⁷⁰ The sole rule adopted by the OCC, meanwhile, which prohibited the issuance of mortgage loans to unqualified borrowers, turned out to be vague in design and execution.¹⁷¹ In the words of Financial Crisis Inquiry Commission Chairman Phil Angelides, federal regulators “tied the hands of the states” and then “sat on [their own] hands.”¹⁷²

The Makings of a Crisis

While lack of oversight can be challenging to prove, federal agencies also made three verifiable changes to the financial landscape that have been linked to the recent crisis. First, at the turn of the millennium, President Clinton certified the Gramm-Leach-Bliley Financial Services Modernization Act of 1999, repealing the section of the Glass-Steagall Act that had mandated the separation of commercial and investment banking activities.¹⁷³ Recall that Glass-Steagall was drafted in response to the Great Depression, which resulted partly from the ill-advised investment of banking deposits. Nevertheless, in a study requisitioned by Congress to consider whether the separation should be upheld, the case against preserving Glass-Steagall contended: “The securities activities that depository institutions are seeking are both low-risk by their very nature, and would reduce the total risk of organizations offering them -- by

¹⁶⁹ “Why Is It So Hard To Hold Wall Street Accountable?”

¹⁷⁰ “Hearing on Consumer Protections in Financial Services: Past Problems, Future Solutions”

¹⁷¹ “Neglect and Inaction: Bank Regulators Allowed Bad Lending”

¹⁷² “State-based rules wouldn’t have stopped crisis, regulators say”

¹⁷³ “Gramm-Leach-Bliley Act”

diversification.”¹⁷⁴ Hopefully this claim has been sufficiently debunked. Nobel Prize winning economist Joseph Stiglitz added that repeal of Glass-Steagall led to a significant culture change:

*Commercial banks are not supposed to be high-risk ventures; they are supposed to manage other people's money very conservatively. It is with this understanding that the government agrees to pick up the tab should they fail. Investment banks, on the other hand, have traditionally managed rich people's money, people who can take bigger risks in order to get bigger returns. When repeal of Glass-Steagall brought investment and commercial banks together, the investment-bank culture came out on top.*¹⁷⁵

Following passage of Gramm-Leach-Bliley, that culture change manifested itself in the form of several enormous mergers that either occurred for the first time (Bank of America with Fleet Bank) or were made permanent (Citibank with Smith Barney, Shearson, Primerica, and Travelers Insurance), creating massive financial services companies with access to capital through means other than traditional bank deposits, like borrowing.

And borrow those conglomerates did. In fact, the second concrete step taken by regulators that led to the excesses responsible for the crisis was the SEC's 2004 decision to relax its rule setting minimum capital requirements for certain investment banks. Before the amendment, broker-dealers were subject to stringent rules limiting leverage ratios to no more than 15:1.¹⁷⁶ The change, however, permitted broker-dealers that were part of consolidated supervised entities to adopt voluntary, alternative methods of computing deductions to net capital using internal mathematical models.¹⁷⁷ Leverage ratios limit how much debt a company may

¹⁷⁴ “Glass-Steagall Act: Commercial vs. Investment Banking”

¹⁷⁵ Stiglitz

¹⁷⁶ Blundell-Wignall 2008

¹⁷⁷ “Alternative Net Capital Requirements for Broker-Dealers That Are Part of Consolidated Supervised Entities”

assume for every dollar it has in equity. Lower leverage ratios and higher capital requirements mean that firms must maintain more resources for buffering against losses, but the new net capital rule allowed investment banks with assets in excess of \$5 billion and that consented to SEC supervision to unshackle funds previously held in reserve.¹⁷⁸ Unfortunately, the SEC eventually conceded that the results of its rule change “made it abundantly clear that voluntary regulation does not work.”¹⁷⁹ The country’s largest investment banks, meanwhile, took full advantage of the modification and began piling on debt. Merrill Lynch’s debt-to-equity ratio, for instance, nearly doubled from 15:1 in 2003 to 28:1 in 2007 while the leverage ratios of Morgan Stanley and Goldman Sachs grew to 33:1 and 28:1, respectively.¹⁸⁰ By 2008, each of the five biggest broker-dealers had either met its demise or neared collapse. Bear Stearns received a \$29 billion bailout and was sold for cheap to JPMorgan, Merrill Lynch sold itself to Bank of America, Lehman Brothers was allowed to fail, and Goldman Sachs and Morgan Stanley converted to commercial bank status to gain permanent access to the Fed’s discount window.¹⁸¹

Hard times were made worse because the firms had used their extremely leveraged positions to purchase highly speculative instruments, notably credit default swaps, which were traded to insure mortgage-backed securities. CDS are derivatives with features of commodities, securities, and insurance, but Congress and regulatory agencies have created exceptions exempting CDS from any of those regulatory regimes. In 1989, 1992, and 1993, the Commodity Futures Trading Commission first approved rules to excuse some swaps from commodities regulation.¹⁸² Years later, the Commodity Futures Modernization Act of 2000 clarified that the derivatives would be regulated as neither futures under the Commodities Exchange Act nor

¹⁷⁸ “Ex-SEC Official Blames Agency for Blow-Up of Broker-Dealers”

¹⁷⁹ “S.E.C. Concedes Oversight Flaws Fueled Collapse”

¹⁸⁰ “Goldman, Morgan Scrap Wall Street Model, Become Banks in Bid to Ride Out Crisis”

¹⁸¹ “Agency’s ’04 Rule Let Banks Pile Up New Debt”

¹⁸² “Statement Concerning the CFTC and SEC Agreements with Bankers Trust”

securities under federal securities law.¹⁸³ Interestingly, the act was backed by Senator Phil Gramm, who was also co-sponsor of Gramm-Leach-Bliley and who, according to federal records, was the top recipient of campaign contributions from commercial banks and in the top five for donations from Wall Street from 1989 to 2002.¹⁸⁴ The exemptions kept CDS out of exchanges and in over-the-counter markets, where a lack of a reliable central repository of information made it challenging for traders of CDS to determine how exposed the parties on the other side of the transactions were.¹⁸⁵ Unchecked, the market for swaps grew sharply, nearly doubling in size each year from 2005 to 2008 and creating a completely interconnected financial arena as issuers of CDS acquired insurance of their own.¹⁸⁶ CDS were ultimately to blame for the troubles faced by AIG, which had sold commitments of protection on roughly \$500 billion worth of securities but which, under the terms of its sales, was not compelled to post collateral as long as the firm remained highly rated and the value of the underlying securities did not decline.¹⁸⁷ When AIG failed to satisfy either requirement, it lacked sufficient capital to cover margin calls on its CDS until it found salvation in the form of a \$150 billion federal bailout.¹⁸⁸

¹⁸³ “The Commodity Futures Modernization Act of 2000”

¹⁸⁴ “Deregulator Looks Back, Unswayed”

¹⁸⁵ “How AIG fell apart”

¹⁸⁶ Chander & Costa

¹⁸⁷ “Behind Insurer’s Crisis, Blind Eye to a Web of Risk”

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