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THE MORTGAGE MACHINE

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In 2004, commercial banks, thrifts, and investment banks caught up with Fannie Mae and Freddie Mac in securitizing home loans. By 2005, they had taken the lead. The two government-sponsored enterprises maintained their monopoly on securitizing prime mortgages below their loan limits, but the wave of home refinancing by prime borrowers spurred by very low, steady interest rates petered out. Meanwhile, Wall Street focused on the higher-yield loans that the GSEs could not purchase and securitize—loans too large, called jumbo loans, and nonprime loans that didn’t meet the GSEs’ standards. The nonprime loans soon became the biggest part of the market—“subprime” loans for borrowers with weak credit and “Alt-A” loans, with characteristics riskier than prime loans, to borrowers with strong credit.¹

By 2005 and 2006, Wall Street was securitizing one-third more loans than Fannie and Freddie. In just two years, private-label mortgage-backed securities had grown more than 30%, reaching \$1.15 trillion in 2006; 71% were subprime or Alt-A.²

Many investors preferred securities highly rated by the rating agencies—or were encouraged or restricted by regulations to buy them. And with yields low on other highly rated assets, investors hungered for Wall Street mortgage securities backed by higher-yield mortgages—those loans made to subprime borrowers, those with non-traditional features, those with limited or no documentation (“no-doc loans”), or those that failed in some other way to meet strong underwriting standards.

“Securitization could be seen as a factory line,” former Citigroup CEO Charles Prince told the FCIC. “As more and more and more of these subprime mortgages were created as raw material for the securitization process, not surprisingly in hindsight, more and more of it was of lower and lower quality. And at the end of that

process, the raw material going into it was actually bad quality, it was toxic quality, and that is what ended up coming out the other end of the pipeline. Wall Street obviously participated in that flow of activity.”³

The origination and securitization of these mortgages also relied on short-term financing from the shadow banking system. Unlike banks and thrifts with access to deposits, investment banks relied more on money market funds and other investors for cash; commercial paper and repo loans were the main sources. With house prices already up 91% from 1995 to 2003, this flood of money and the securitization apparatus helped boost home prices another 36% from the beginning of 2004 until the peak in April 2006—even as homeownership was falling. The biggest gains over this period were in the “sand states”: places like the Los Angeles suburbs (54%), Las Vegas (36%), and Orlando (72%).

FOREIGN INVESTORS: “AN IRRESISTIBLE PROFIT OPPORTUNITY”

From June 2003 through June 2004, the Federal Reserve kept the federal funds rate low at 1% to stimulate the economy following the 2001 recession. Over the next two years, as deflation fears waned, the Fed gradually raised rates to 5.25% in 17 quarter-point increases.

In the view of some, the Fed simply kept rates too low too long. John Taylor, a Stanford economist and former under secretary of treasury for international affairs, blamed the crisis primarily on this action. If the Fed had followed its usual pattern, he told the FCIC, short-term interest rates would have been much higher, discouraging excessive investment in mortgages. “The boom in housing construction starts would have been much more mild, might not even call it a boom, and the bust as well would have been mild,” Taylor said.⁴ Others were more blunt: “Greenspan bailed out the world’s largest equity bubble with the world’s largest real estate bubble,” wrote William A. Fleckenstein, the president of a Seattle-based money management firm.⁵

Ben Bernanke and Alan Greenspan disagree. Both the current and former Fed chairman argue that deciding to purchase a home depends on long-term interest rates on mortgages, not the short-term rates controlled by the Fed, and that short-term and long-term rates had become de-linked. “Between 1971 and 2002, the fed funds rate and the mortgage rate moved in lock-step,” Greenspan said.⁶ When the Fed started to raise rates in 2004, officials expected mortgage rates to rise, too, slowing growth. Instead, mortgage rates continued to fall for another year. The construction industry continued to build houses, peaking at an annualized rate of 2.27 million starts in January 2006—more than a 30-year high.

As Greenspan told Congress in 2005, this was a “conundrum.”⁷ One theory pointed to foreign money. Developing countries were booming and—vulnerable to financial problems in the past—encouraged strong saving. Investors in these countries placed their savings in apparently safe and high-yield securities in the United States. Fed Chairman Bernanke called it a “global savings glut.”⁸

As the United States ran a large current account deficit, flows into the country were unprecedented. Over six years from 2000 to 2006, U.S. Treasury debt held by foreign official public entities rose from \$0.6 trillion to \$1.43 trillion; as a percentage of U.S. debt held by the public, these holdings increased from 18.2% to 28.8%. Foreigners also bought securities backed by Fannie and Freddie, which, with their implicit government guarantee, seemed nearly as safe as Treasuries. As the Asian financial crisis ended in 1998, foreign holdings of GSE securities held steady at the level of almost 10 years earlier, about \$186 billion. By 2000—just two years later—foreigners owned \$348 billion in GSE securities; by 2004, \$875 billion. “You had a huge inflow of liquidity. A very unique kind of situation where poor countries like China were shipping money to advanced countries because their financial systems were so weak that they [were] better off shipping [money] to countries like the United States rather than keeping it in their own countries,” former Fed governor Frederic Mishkin told the FCIC. “The system was awash with liquidity, which helped lower long-term interest rates.”⁹

Foreign investors sought other high-grade debt almost as safe as Treasuries and GSE securities but with a slightly higher return. They found the triple-A assets pouring from the Wall Street mortgage securitization machine. As overseas demand drove up prices for securitized debt, it “created an irresistible profit opportunity for the U.S. financial system: to engineer ‘quasi’ safe debt instruments by bundling riskier assets and selling the senior tranches,” Pierre-Olivier Gourinchas, an economist at the University of California, Berkeley, told the FCIC.¹⁰

Paul Krugman, an economist at Princeton University, told the FCIC, “It’s hard to envisage us having had this crisis without considering international monetary capital movements. The U.S. housing bubble was financed by large capital inflows. So were Spanish and Irish and Baltic bubbles. It’s a combination of, in the narrow sense, of a less regulated financial system and a world that was increasingly wide open for big international capital movements.”¹¹

It was an ocean of money.

MORTGAGES: “A GOOD LOAN”

The refinancing boom was over, but originators still needed mortgages to sell to the Street. They needed new products that, as prices kept rising, could make expensive homes more affordable to still-eager borrowers. The solution was riskier, more aggressive, mortgage products that brought higher yields for investors but correspondingly greater risks for borrowers. “Holding a subprime loan has become something of a high-stakes wager,” the Center for Responsible Lending warned in 2006.¹²

Subprime mortgages rose from 8% of mortgage originations in 2003 to 20% in 2005.¹³ About 70% of subprime borrowers used hybrid adjustable-rate mortgages (ARMs) such as 2/28s and 3/27s—mortgages whose low “teaser” rate lasts for the first two or three years, and then adjusts periodically thereafter.¹⁴ Prime borrowers also used more alternative mortgages. The dollar volume of Alt-A securitization rose almost 350% from 2003 to 2005.¹⁵ In general, these loans made borrowers’ monthly

mortgage payments on ever more expensive homes affordable—at least initially. Popular Alt-A products included interest-only mortgages and payment-option ARMs. Option ARMs let borrowers pick their payment each month, including payments that actually increased the principal—any shortfall on the interest payment was added to the principal, something called negative amortization. If the balance got large enough, the loan would convert to a fixed-rate mortgage, increasing the monthly payment—perhaps dramatically. Option ARMs rose from 2% of mortgages in 2003 to 9% in 2006.¹⁶

Simultaneously, underwriting standards for nonprime and prime mortgages weakened. Combined loan-to-value ratios—reflecting first, second, and even third mortgages—rose. Debt-to-income ratios climbed, as did loans made for non-owner-occupied properties. Fannie Mae and Freddie Mac's market share shrank from 57% of all mortgages purchased in 2003 to 42% in 2004, and down to 37% by 2006.¹⁷ Taking their place were private-label securitizations—meaning those not issued and guaranteed by the GSEs.

In this new market, originators competed fiercely; Countrywide Financial Corporation took the crown.¹⁸ It was the biggest mortgage originator from 2004 until the market collapsed in 2007. Even after Countrywide nearly failed, buckling under a mortgage portfolio with loans that its co-founder and CEO Angelo Mozilo once called “toxic,” Mozilo would describe his 40-year-old company to the Commission as having helped 25 million people buy homes and prevented social unrest by extending loans to minorities, historically the victims of discrimination: “Countrywide was one of the greatest companies in the history of this country and probably made more difference to society, to the integrity of our society, than any company in the history of America.”¹⁹ Lending to home buyers was only part of the business. Countrywide's President and COO David Sambol told the Commission, as long as a loan did not harm the company from a financial or reputation standpoint, Countrywide was “a seller of securities to Wall Street.” Countrywide's essential business strategy was “originating what was salable in the secondary market.”²⁰ The company sold or securitized 87% of the \$1.5 trillion in mortgages it originated between 2002 and 2005.

In 2004, Mozilo announced a very aggressive goal of gaining “market dominance” by capturing 30% of the origination market.²¹ His share at the time was 12%. But Countrywide was not unique: Ameriquest, New Century, Washington Mutual, and others all pursued loans as aggressively. They competed by originating types of mortgages created years before as niche products, but now transformed into riskier, mass-market versions. “The definition of a good loan changed from ‘one that pays’ to ‘one that could be sold,’” Patricia Lindsay, formerly a fraud specialist at New Century, told the FCIC.²²

2/28s and 3/27s: “Adjust for the affordability”

Historically, 2/28s or 3/27s, also known as *hybrid ARMs*, let credit-impaired borrowers repair their credit. During the first two or three years, a lower interest rate meant a manageable payment schedule and enabled borrowers to demonstrate they could make timely payments. Eventually the interest rates would rise sharply, and payments

could double or even triple, leaving borrowers with few alternatives: if they had established their creditworthiness, they could refinance into a similar mortgage or one with a better interest rate, often with the same lender;²³ if unable to refinance, the borrower was unlikely to be able to afford the new higher payments and would have to sell the home and repay the mortgage. If they could not sell or make the higher payments, they would have to default.

But as house prices rose after 2000, the 2/28s and 3/27s acquired a new role: helping to get people into homes or to move up to bigger homes. “As homes got less and less affordable, you would adjust for the affordability in the mortgage because you couldn’t really adjust people’s income,” Andrew Davidson, the president of Andrew Davidson & Co. and a veteran of the mortgage markets, told the FCIC.²⁴ Lenders qualified borrowers at low teaser rates, with little thought to what might happen when rates reset. Hybrid ARMs became the workhorses of the subprime securitization market.

Consumer protection groups such as the Leadership Conference on Civil Rights railed against 2/28s and 3/27s, which, they said, neither rehabilitated credit nor turned renters into owners. David Berenbaum from the National Community Reinvestment Coalition testified to Congress in the summer of 2007: “The industry has flooded the market with exotic mortgage lending such as 2/28 and 3/27 ARMs. These exotic subprime mortgages overwhelm borrowers when interest rates shoot up after an introductory time period.”²⁵ To their critics, they were simply a way for lenders to strip equity from low-income borrowers. The loans came with big fees that got rolled into the mortgage, increasing the chances that the mortgage could be larger than the home’s value at the reset date. If the borrower could not refinance, the lender would foreclose—and then own the home in a rising real estate market.

Option ARMs: “Our most profitable mortgage loan”

When they were originally introduced in the 1980s, option ARMs were niche products, too, but by 2004 they too became loans of choice because their payments were lower than more traditional mortgages. During the housing boom, many borrowers repeatedly made only the minimum payments required, adding to the principal balance of their loan every month.

An early seller of option ARMs was Golden West Savings, an Oakland, California-based thrift founded in 1929 and acquired in 1963 by Marion and Herbert Sandler. In 1975, the Sandlers merged Golden West with World Savings; Golden West Financial Corp., the parent company, operated branches under the name World Savings Bank. The thrift issued about \$274 billion in option ARMs between 1981 and 2005.²⁶ Unlike other mortgage companies, Golden West held onto them.

Sandler told the FCIC that Golden West’s option ARMs—marketed as “Pick-a-Pay” loans—had the lowest losses in the industry for that product. Even in 2005—the last year prior to its acquisition by Wachovia—when its portfolio was almost entirely in option ARMs, Golden West’s losses were low by industry standards. Sandler attributed Golden West’s performance to its diligence in running simulations about what

would happen to its loans under various scenarios—for example, if interest rates went up or down or if house prices dropped 5%, even 10%. “For a quarter of a century, it worked exactly as the simulations showed that it would,” Sandler said. “And we have never been able to identify a single loan that was delinquent because of the structure of the loan, much less a loss or foreclosure.”²⁷ But after Wachovia acquired Golden West in 2006 and the housing market soured, charge-offs on the Pick-a-Pay portfolio would suddenly jump from 0.04% to 2.69% by September 2008. And foreclosures would climb.

Early in the decade, banks and thrifts such as Countrywide and Washington Mutual increased their origination of option ARM loans, changing the product in ways that made payment shocks more likely. At Golden West, after 10 years, or if the principal balance grew to 125% of its original size, the Pick-a-Pay mortgage would recast into a new fixed-rate mortgage. At Countrywide and Washington Mutual, the new loans would recast in as little as five years, or when the balance hit just 110% of the original size. They also offered lower teaser rates—as low as 1%—and loan-to-value ratios as high as 100%. All of these features raised the chances that the borrower’s required payment could rise more sharply, more quickly, and with less cushion.

In 2002, Washington Mutual was the second-largest mortgage originator, just ahead of Countrywide. It had offered the option ARM since 1986, and in 2003, as cited by the Senate Permanent Subcommittee on Investigations, the originator conducted a study “to explore what Washington Mutual could do to increase sales of Option ARMs, our most profitable mortgage loan.”²⁸ A focus group made clear that few customers were requesting option ARMs and that “this is not a product that sells itself.”²⁹ The study found “the best selling point for the Option Arm” was to show consumers “how much lower their monthly payment would be by choosing the Option Arm versus a fixed-rate loan.”³⁰ The study also revealed that many WaMu brokers “felt these loans were ‘bad’ for customers.”³¹ One member of the focus group remarked, “A lot of (Loan) Consultants don’t believe in it . . . and don’t think [it’s] good for the customer. You’re going to have to change the mindset.”³²

Despite these challenges, option ARM originations soared at Washington Mutual from \$30 billion in 2003 to \$68 billion in 2004, when they were more than half of WaMu’s originations and had become the thrift’s signature adjustable-rate home loan product.³³ The average FICO score was around 700, well into the range considered “prime,” and about two-thirds were jumbo loans—mortgage loans exceeding the maximum Fannie Mae and Freddie Mac were allowed to purchase or guarantee.³⁴ More than half were in California.³⁵

Countrywide’s option ARM business peaked at \$14.5 billion in originations in the second quarter of 2005, about 25% of all its loans originated that quarter.³⁶ But it had to relax underwriting standards to get there. In July 2004, Countrywide decided it would lend up to 90% of a home’s appraised value, up from 80%, and reduced the minimum credit score to as low as 620.³⁷ In early 2005, Countrywide eased standards again, increasing the allowable combined loan-to-value ratio (including second liens) to 95%.³⁸

The risk in these loans was growing. From 2003 to 2005, the average loan-to-value ratio rose about 4%, the combined loan-to-value ratio rose about 6%, and debt-to-income ratios had risen from 34% to 38%: borrowers were pledging more of their income to their mortgage payments. Moreover, 68% of these two originators' option ARMs had low documentation in 2005.³⁹ The percentage of these loans made to investors and speculators—that is, borrowers with no plans to use the home as their primary residence—also rose.

These changes worried the lenders even as they continued to make the loans. In September 2004 and August 2005, Mozilo emailed to senior management that these loans could bring “financial and reputational catastrophe.”⁴⁰ Countrywide should not market them to investors, he insisted. “Pay option loans being used by investors is a pure commercial spec[ulation] loan and not the traditional home loan that we have successfully managed throughout our history,” Mozilo wrote to Carlos Garcia, CEO of Countrywide Bank. Speculative investors “should go to Chase or Wells not us. It is also important for you and your team to understand from my point of view that there is nothing intrinsically wrong with pay options loans themselves, the problem is the quality of borrowers who are being offered the product and the abuse by third party originators. . . . [I]f you are unable to find sufficient product then slow down the growth of the Bank for the time being.”⁴¹

However, Countrywide's growth did not slow. Nor did the volume of option ARMs retained on its balance sheet, increasing from \$5 billion in 2004 to \$26 billion in 2005 and peaking in 2006 at \$33 billion.⁴² Finding these loans very profitable, through 2006, WaMu also retained option ARMs—more than \$60 billion with the bulk from California, followed by Florida.⁴³ But in the end, these loans would cause significant losses during the crisis.

Mentioning Countrywide and WaMu as tough, “in our face” competitors, John Stumpf, the CEO, chairman, and president of Wells Fargo, recalled Wells's decision not to write option ARMs, even as it originated many other high-risk mortgages. These were “hard decisions to make at the time,” he said, noting “we did lose revenue, and we did lose volume.”⁴⁴

Across the market, the volume of option ARMs had risen nearly fourfold from 2003 to 2006, from approximately \$65 billion to \$255 billion. By then, WaMu and Countrywide had plenty of evidence that more borrowers were making only the minimum payments and that their mortgages were negatively amortizing—which meant their equity was being eaten away. The percentage of Countrywide's option ARMs that were negatively amortizing grew from just 1% in 2004 to 53% in 2005 and then to more than 90% by 2007.⁴⁵ At WaMu, it was 2% in 2003, 28% in 2004, and 82% in 2007.⁴⁶ Declines in house prices added to borrowers' problems: any equity remaining after the negative amortization would simply be eroded. Increasingly, borrowers would owe more on their mortgages than their homes were worth on the market, giving them an incentive to walk away from both home and mortgage.

Kevin Stein, from the California Reinvestment Coalition, testified to the FCIC that option ARMs were sold inappropriately: “Nowhere was this dynamic more clearly on display than in the summer of 2006 when the Federal Reserve convened

HOEPA (Home Ownership and Equity Protection Act) hearings in San Francisco. At the hearing, consumers testified to being sold option ARM loans in their primary non-English language, only to be pressured to sign English-only documents with significantly worse terms. Some consumers testified to being unable to make even their initial payments because they had been lied to so completely by their brokers.⁴⁷ Mona Tawatao, a regional counsel with Legal Services of Northern California, described the borrowers she was assisting as “people who got steered or defrauded into entering option ARMs with teaser rates or pick-a-pay loans forcing them to pay into—pay loans that they could never pay off. Prevalent among these clients are seniors, people of color, people with disabilities, and limited English speakers and seniors who are African American and Latino.”⁴⁸

Underwriting standards: “We’re going to have to hold our nose”

Another shift would have serious consequences. For decades, the down payment for a prime mortgage had been 20% (in other words, the loan-to-value ratio (LTV) had been 80%). As prices continued to rise, finding the cash to put 20% down became harder, and from 2000 on, lenders began accepting smaller down payments.

There had always been a place for borrowers with down payments below 20%. Typically, lenders required such borrower to purchase private mortgage insurance for a monthly fee. If a mortgage ended in foreclosure, the mortgage insurance company would make the lender whole. Worried about defaults, the GSEs would not buy or guarantee mortgages with down payments below 20% unless the borrower bought the insurance. Unluckily for many homeowners, for the housing industry, and for the financial system, lenders devised a way to get rid of these monthly fees that had added to the cost of homeownership: lower down payments that did not require insurance.

Lenders had latitude in setting down payments. In 1991, Congress ordered federal regulators to prescribe standards for real estate lending that would apply to banks and thrifts. The goal was to “curtail abusive real estate lending practices in order to reduce risk to the deposit insurance funds and enhance the safety and soundness of insured depository institutions.”⁴⁹ Congress had debated including explicit LTV standards, but chose not to, leaving that to the regulators. In the end, regulators declined to introduce standards for LTV ratios or for documentation for home mortgages.⁵⁰ The agencies explained: “A significant number of commenters expressed concern that rigid application of a regulation implementing LTV ratios would constrict credit, impose additional lending costs, reduce lending flexibility, impede economic growth, and cause other undesirable consequences.”⁵¹

In 1999, regulators revisited the issue, as high LTV lending was increasing. They tightened reporting requirements and limited a bank’s total holdings of loans with LTVs above 90% that lacked mortgage insurance or some other protection; they also reminded the banks and thrifts that they should establish internal guidelines to manage the risk of these loans.⁵²

High LTV lending soon became even more common, thanks to the so-called

piggyback mortgage. The lender offered a first mortgage for perhaps 80% of the home's value and a second mortgage for another 10% or even 20%. Borrowers liked these because their monthly payments were often cheaper than a traditional mortgage plus the required mortgage insurance, and the interest payments were tax deductible. Lenders liked them because the smaller first mortgage—even without mortgage insurance—could potentially be sold to the GSEs.

At the same time, the piggybacks added risks. A borrower with a higher combined LTV had less equity in the home. In a rising market, should payments become unmanageable, the borrower could always sell the home and come out ahead. However, should the payments become unmanageable in a falling market, the borrower might owe more than the home was worth. Piggyback loans—which often required nothing down—guaranteed that many borrowers would end up with negative equity if house prices fell, especially if the appraisal had overstated the initial value.

But piggyback lending helped address a significant challenge for companies like New Century, which were big players in the market for mortgages. Meeting investor demand required finding new borrowers, and homebuyers without down payments were a relatively untapped source. Yet among borrowers with mortgages originated in 2004, by September 2005 those with piggybacks were four times as likely as other mortgage holders to be 60 or more days delinquent. When senior management at New Century heard these numbers, the head of the Secondary Marketing Department asked for “thoughts on what to do with this . . . pretty compelling” information. Nonetheless, New Century increased mortgages with piggybacks to 35% of loan production by the end of 2005, up from only 9% in 2003.⁵³ They were not alone. Across securitized subprime mortgages, the average combined LTV rose from 79% to 86% between 2001 and 2006.⁵⁴

Another way to get people into mortgages—and quickly—was to require less information of the borrower. “Stated income” or “low-documentation” (or sometimes “no-documentation”) loans had emerged years earlier for people with fluctuating or hard-to-verify incomes, such as the self-employed, or to serve longtime customers with strong credit. Or lenders might waive information requirements if the loan looked safe in other respects. “If I’m making a 65%, 75%, 70% loan-to-value, I’m not going to get all of the documentation,” Sandler of Golden West told the FCIC. The process was too cumbersome and unnecessary. He already had a good idea how much money teachers, accountants, and engineers made—and if he didn’t, he could easily find out. All he needed was to verify that his borrowers worked where they said they did. If he guessed wrong, the loan-to-value ratio still protected his investment.⁵⁵

Around 2005, however, low- and no-documentation loans took on an entirely different character. Nonprime lenders now boasted they could offer borrowers the convenience of quicker decisions and not having to provide tons of paperwork. In return, they charged a higher interest rate. The idea caught on: from 2000 to 2007, low- and no-doc loans skyrocketed from less than 2% to roughly 9% of all outstanding loans.⁵⁶ Among Alt-A securitizations, 80% of loans issued in 2006 had limited or no documentation.⁵⁷ As William Black, a former banking regulator, testified before the FCIC, the mortgage industry’s own fraud specialists described stated income

loans as “an open ‘invitation to fraud’ that justified the industry term ‘liar’s loans.’”⁵⁸ Speaking of lending up to 2005 at Citigroup, Richard Bowen, a veteran banker in the consumer lending group, told the FCIC, “A decision was made that ‘We’re going to have to hold our nose and start buying the stated product if we want to stay in business.’”⁵⁹ Jamie Dimon, the CEO of JP Morgan, told the Commission, “In mortgage underwriting, somehow we just missed, you know, that home prices don’t go up forever and that it’s not sufficient to have stated income.”⁶⁰

In the end, companies in subprime and Alt-A mortgages had, in essence, placed all their chips on black: they were betting that home prices would never stop rising. This was the only scenario that would keep the mortgage machine humming. The evidence is present in our case study mortgage-backed security, CMLTI 2006-NC2, whose loans have many of the characteristics just described.

The 4,499 loans bundled in this deal were adjustable-rate and fixed-rate residential mortgages originated by New Century. They had an average principal balance of \$210,536—just under the median home price of \$221,900 in 2006.⁶¹ The vast majority had a 30-year maturity, and more than 90% were originated in May, June, and July 2006, just after national home prices had peaked. More than 90% were reportedly for primary residences, with 43% for home purchases and 48% for cash-out refinancings. The loans were from all 50 states and the District of Columbia, but more than a fifth came from California and more than a tenth from Florida.⁶²

About 80% of the loans were ARMs, and most of these were 2/28s or 3/27s. In a twist, many of these hybrid ARMs had other “affordability features” as well. For example, more than 20% of the ARMs were interest-only—during the first two or three years, not only would borrowers pay a lower fixed rate, they would not have to pay any principal. In addition, more than 40% of the ARMs were “2/28 hybrid balloon” loans, in which the principal would amortize over 40 years—lowering the monthly payments even further, but as a result leaving the borrower with a final principal payment at the end of the 30-year term.

The great majority of the pool was secured by first mortgages; of these, 33% had a piggyback mortgage on the same property. As a result, more than one-third of the mortgages in this deal had a combined loan-to-value ratio between 95% and 100%. Raising the risk a bit more, 42% of the mortgages were no-doc loans. The rest were “full-doc,” although their documentation was fuller in some cases than in others.⁶³ In sum, the loans bundled in this deal mirrored the market: complex products with high LTVs and little documentation. And even as many warned of this toxic mix, the regulators were not on the same page.

FEDERAL REGULATORS: “IMMUNITY FROM MANY STATE LAWS IS A SIGNIFICANT BENEFIT”

For years, some states had tried to regulate the mortgage business, especially to clamp down on the predatory mortgages proliferating in the subprime market. The national thrifts and banks and their federal regulators—the Office of Thrift Supervision (OTS) and the Office of the Comptroller of the Currency (OCC), respectively—resisted the

states' efforts to regulate those national banks and thrifts. The companies claimed that without one uniform set of rules, they could not easily do business across the country, and the regulators agreed. In August 2003, as the market for riskier subprime and Alt-A loans grew, and as lenders piled on more risk with smaller down payments, reduced documentation requirements, interest-only loans, and payment-option loans, the OCC fired a salvo. The OCC proposed strong preemption rules for national banks, nearly identical to earlier OTS rules that empowered nationally chartered thrifts to disregard state consumer laws.⁶⁴

Back in 1996 the OTS had issued rules saying federal law preempted state predatory lending laws for federally regulated thrifts.⁶⁵ In 2003, the OTS referred to these rules in issuing four opinion letters declaring that laws in Georgia, New York, New Jersey, and New Mexico did not apply to national thrifts. In the New Mexico opinion, the regulator pronounced invalid New Mexico's bans on balloon payments, negative amortization, prepayment penalties, loan flipping, and lending without regard to the borrower's ability to repay.

The Comptroller of the Currency took the same line on the national banks that it regulated, offering preemption as an inducement to use a national bank charter. In a 2002 speech, before the final OCC rules were passed, Comptroller John D. Hawke Jr. pointed to "national banks' immunity from many state laws" as "a significant benefit of the national charter—a benefit that the OCC has fought hard over the years to preserve."⁶⁶ In an interview that year, Hawke explained that the potential loss of regulatory market share for the OCC "was a matter of concern."⁶⁷

In August 2003 the OCC issued its first preemptive order, aimed at Georgia's mini-HOEPSA statute, and in January 2004 the OCC adopted a sweeping preemption rule applying to all state laws that interfered with or placed conditions on national banks' ability to lend. Shortly afterward, three large banks with combined assets of more than \$1 trillion said they would convert from state charters to national charters, which increased OCC's annual budget 15%.⁶⁸

State-chartered operating subsidiaries were another point of contention in the preemption battle. In 2001 the OCC had adopted a regulation preempting state law regarding state-chartered operating subsidiaries of national banks. In response, several large national banks moved their mortgage-lending operations into subsidiaries and asserted that the subsidiaries were exempt from state mortgage lending laws. Four states challenged the regulation, but the Supreme Court ruled against them in 2007.⁶⁹

Once OCC and OTS preemption was in place, the two federal agencies were the only regulators with the power to prohibit abusive lending practices by national banks and thrifts and their direct subsidiaries. Comptroller John Dugan, who succeeded Hawke, defended preemption, noting that "72% of all nonprime mortgages were made by lenders that were subject to state law. Well over half were made by mortgage lenders that were exclusively subject to state law."⁷⁰ Lisa Madigan, the attorney general of Illinois, flipped the argument around, noting that national banks and thrifts, and their subsidiaries, were heavily involved in subprime lending. Using different data, she contended: "National banks and federal thrifts and . . . their sub-

sidiaries . . . were responsible for almost 32 percent of subprime mortgage loans, 40.1 percent of the Alt-A loans, and 51 percent of the pay-option and interest-only ARMs that were sold.” Madigan told the FCIC:

Even as the Fed was doing little to protect consumers and our financial system from the effects of predatory lending, the OCC and OTS were actively engaged in a campaign to thwart state efforts to avert the coming crisis. . . . In the wake of the federal regulators’ push to curtail state authority, many of the largest mortgage-lenders shed their state licenses and sought shelter behind the shield of a national charter. And I think that it is no coincidence that the era of expanded federal preemption gave rise to the worst lending abuses in our nation’s history.⁷¹

Comptroller Hawke offered the FCIC a different interpretation: “While some critics have suggested that the OCC’s actions on preemption have been a grab for power, the fact is that the agency has simply responded to increasingly aggressive initiatives at the state level to control the banking activities of federally chartered institutions.”⁷²

MORTGAGE SECURITIES PLAYERS:

“WALL STREET WAS VERY HUNGRY FOR OUR PRODUCT”

Subprime and Alt-A mortgage-backed securities depended on a complex supply chain, largely funded through short-term lending in the commercial paper and repo market—which would become critical as the financial crisis began to unfold in 2007. These loans were increasingly collateralized not by Treasuries and GSE securities but by highly rated mortgage securities backed by increasingly risky loans. Independent mortgage originators such as Ameriquest and New Century—without access to deposits—typically relied on financing to originate mortgages from warehouse lines of credit extended by banks, from their own commercial paper programs, or from money borrowed in the repo market.

For commercial banks such as Citigroup, warehouse lending was a multibillion-dollar business. From 2000 to 2010, Citigroup made available at any one time as much as \$7 billion in warehouse lines of credit to mortgage originators, including \$950 million to New Century and more than \$3.5 billion to Ameriquest.⁷³ Citigroup CEO Chuck Prince told the FCIC he would not have approved, had he known. “I found out at the end of my tenure, I did not know it before, that we had some warehouse lines out to some originators. And I think getting that close to the origination function—being that involved in the origination of some of these products—is something that I wasn’t comfortable with and that I did not view as consistent with the prescription I had laid down for the company not to be involved in originating these products.”⁷⁴

As early as 1998, Moody’s called the new asset-backed commercial paper (ABCP) programs “a whole new ball game.”⁷⁵ As asset-backed commercial paper became a popular method to fund the mortgage business, it grew from about one-quarter to about one-half of commercial paper sold between 1997 and 2001.

In 2001, only five mortgage companies borrowed a total of \$4 billion through asset-backed commercial paper; in 2006, 19 entities borrowed \$43 billion.⁷⁶ For instance, Countrywide launched the commercial paper programs Park Granada in 2003 and Park Sienna in 2004.⁷⁷ By May 2007, it was borrowing \$13 billion through Park Granada and \$5.3 billion through Park Sienna. These programs would house subprime and other mortgages until they were sold.⁷⁸

Commercial banks used commercial paper, in part, for regulatory arbitrage. When banks kept mortgages on their balance sheets, regulators required them to hold 4% in capital to protect against loss. When banks put mortgages into off-balance-sheet entities such as commercial paper programs, there was no capital charge (in 2004, a small charge was imposed). But to make the deals work for investors, banks had to provide liquidity support to these programs, for which they earned a fee. This liquidity support meant that the bank would purchase, at a previously set price, any commercial paper that investors were unwilling to buy when it came up for renewal. During the financial crisis these promises had to be kept, eventually putting substantial pressure on banks' balance sheets.

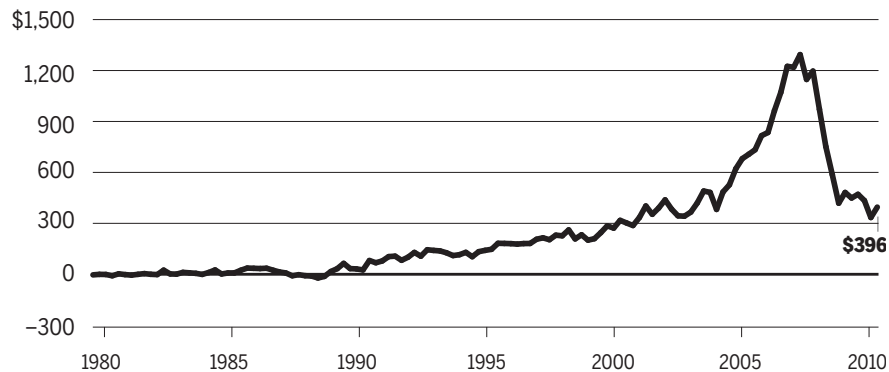
When the Financial Accounting Standards Board, the private group that establishes standards for financial reports, responded to the Enron scandal by making it harder for companies to get off-balance-sheet treatment for these programs, the favorable capital rules were in jeopardy. The asset-backed commercial paper market stalled. Banks protested that their programs differed from the practices at Enron and should be excluded from the new standards. In 2003, bank regulators responded by proposing to let banks remove these assets from their balance sheets when calculating regulatory capital. The proposal would have also introduced for the first time a capital charge amounting to at most 1.6% of the liquidity support banks provided to the ABCP programs. However, after strong pushback—the American Securitization Forum, an industry association, called that charge “arbitrary,” and State Street Bank complained it was “too conservative”⁷⁹—regulators in 2004 announced a final rule setting the charge at up to 0.8%, or half the amount of the first proposal. Growth in this market resumed.

Regulatory changes—in this case, changes in the bankruptcy laws—also boosted growth in the repo market by transforming the types of repo collateral. Prior to 2005, repo lenders had clear and immediate rights to their collateral following the borrower's bankruptcy only if that collateral was Treasury or GSE securities. In the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005, Congress expanded that provision to include many other assets, including mortgage loans, mortgage-backed securities, collateralized debt obligations, and certain derivatives. The result was a short-term repo market increasingly reliant on highly rated non-agency mortgage-backed securities; but beginning in mid-2007, when banks and investors became skittish about the mortgage market, they would prove to be an unstable funding source (see figure 7.1). Once the crisis hit, these “illiquid, hard-to-value securities made up a greater share of the tri-party repo market than most people would have wanted,” Darryll Hendricks, a UBS executive and chair of a New York Fed task force examining the repo market after the crisis, told the Commission.⁸⁰

Repo Borrowing

Broker-dealers' use of repo borrowing rose sharply before the crisis.

IN BILLIONS OF DOLLARS



NOTE: Net borrowing by broker-dealers.

SOURCE: Federal Reserve Flow of Funds Report

Figure 7.1

Our sample deal, CMLTI 2006-NC2, shows how these funding and securitization markets worked in practice. Eight banks and securities firms provided most of the money New Century needed to make the 4,499 mortgages it would sell to Citigroup. Most of the funds came through repo agreements from a set of banks—including Morgan Stanley (\$424 million); Barclays Capital, a division of a U.K.-based bank (\$221 million); Bank of America (\$147 million); and Bear Stearns (\$64 million).⁸¹ The financing was provided when New Century originated these mortgages; so for about two months, New Century owed these banks approximately \$940 million secured by the mortgages. Another \$12 million in funding came from New Century itself, including \$3 million through its own commercial paper program. On August 29, 2006, Citigroup paid New Century \$979 million for the mortgages (and accrued interest), and New Century repaid the repo lenders after keeping a \$24 million (2.5%) premium.⁸²

The investors in the deal

Investors for mortgage-backed securities came from all over the globe; what made securitization work were the customized tranches catering to every one of them. CMLTI 2006-NC2 had 19 tranches, whose investors are shown in figure 7.2. Fannie Mae bought the entire \$155 million triple-A-rated A1 tranche, which paid a better return than super-safe U.S. Treasuries.⁸³ The other triple-A-rated tranches, worth

Selected Investors in CMLTI 2006-NC2

A wide variety of investors throughout the world purchased the securities in this deal, including Fannie Mae, many international banks, SIVs and many CDOs.

	Tranche	Original Balance (MILLIONS)	Original Rating ¹	Spread ²	Selected Investors
SENIOR 78%	A1	\$154.6	AAA	0.14%	Fannie Mae
	A2-A	\$281.7	AAA	0.04%	Chase Security Lendings Asset Management; 1 investment fund in China; 6 investment funds
	A2-B	\$282.4	AAA	0.06%	Federal Home Loan Bank of Chicago; 3 banks in Germany, Italy and France; 11 investment funds; 3 retail investors
	A2-C	\$18.3	AAA	0.24%	2 banks in the U.S. and Germany
MEZZANINE 21%	M-1	\$39.3	AA+	0.29%	1 investment fund and 2 banks in Italy; Cheyne Finance Limited; 3 asset managers
	M-2	\$44.0	AA	0.31%	Parvest ABS Euribor; 4 asset managers; 1 bank in China; 1 CDO
	M-3	\$14.2	AA-	0.34%	2 CDOs; 1 asset manager
	M-4	\$16.1	A+	0.39%	1 CDO; 1 hedge fund
	M-5	\$16.6	A	0.40%	2 CDOs
	M-6	\$10.9	A-	0.46%	3 CDOs
	M-7	\$9.9	BBB+	0.70%	3 CDOs
	M-8	\$8.5	BBB	0.80%	2 CDOs; 1 bank
	M-9	\$11.8	BBB-	1.50%	5 CDOs; 2 asset managers
	M-10	\$13.7	BB+	2.50%	3 CDOs; 1 asset manager
	M-11	\$10.9	BB	2.50%	NA
EQUITY 1%	CE	\$13.3	NR		Citi and Capmark Fin Grp
	P, R, Rx: Additional tranches entitled to specific payments				

¹ Standard & Poor's.

² The yield is the rate on the one-month London Interbank Offered Rate (LIBOR), an interbank lending interest rate, plus the spread listed. For example, when the deal was issued, Fannie Mae would have received the LIBOR rate of 5.32% plus 0.14% to give a total yield of 5.46%.

SOURCES: Citigroup; Standard & Poor's; FCIC calculations

Figure 7.2

\$582 million, went to more than 20 institutional investors around the world, spreading the risk globally.⁸⁴ These triple-A tranches represented 78% of the deal. Among the buyers were foreign banks and funds in China, Italy, France, and Germany; the Federal Home Loan Bank of Chicago; the Kentucky Retirement Systems; a hospital; and JP Morgan, which purchased part of the tranche using cash from its securities-lending operation.⁸⁵ (In other words, JP Morgan lent securities held by its clients to other financial institutions in exchange for cash collateral, and then put that cash to work investing in this deal. Securities lending was a large, but ultimately unstable, source of cash that flowed into this market.)

The middle, mezzanine tranches in this deal constituted about 21% of the total value of the security. If losses rose above 1% to 3% (by design the threshold would increase over time), investors in the residual tranches would be wiped out, and the mezzanine investors would start to lose money. Creators of collateralized debt obligations, or CDOs—discussed in the next chapter—bought most of the mezzanine tranches rated below triple-A and nearly all those rated below AA. Only a few of the highest-rated mezzanine tranches were not put into CDOs. For example, Cheyne Finance Limited purchased \$7 million of the top mezzanine tranche. Cheyne—a structured investment vehicle (SIV)—would be one of the first casualties of the crisis, sparking panic during the summer of 2007. Parvest ABS Euribor, which purchased \$20 million of the second mezzanine tranche,⁸⁶ would be one of the BNP Paribas funds which helped ignite the financial crisis that summer.⁸⁷

Typically, investors seeking high returns, such as hedge funds, would buy the equity tranches of mortgage-backed securities; they would be the first to lose if there were problems. These investors anticipated returns of 15%, 20%, or even 30%. Citigroup retained part of the residual or “first-loss” tranches, sharing the rest with Capmark Financial Group.⁸⁸

“Compensated very well”

The business of structuring, selling, and distributing this deal, and the thousands like it, was lucrative for the banks. The mortgage originators profited when they sold loans for securitization.⁸⁹ Some of this profit flowed down to employees—particularly those generating mortgage volume.

Part of the \$24 million premium received by New Century for the deal we analyzed went to pay the many employees who participated. “The originators, the loan officers, account executives, basically the salespeople [who] were the reason our loans came in . . . were compensated very well,” New Century’s Patricia Lindsay told the FCIC. And volume mattered more than quality. She noted, “Wall Street was very hungry for our product. We had our loans sold three months in advance, before they were even made at one point.”⁹⁰

Similar incentives were at work at Long Beach Mortgage, the subprime division of Washington Mutual, which organized its 2004 Incentive Plan by volume. As WaMu showed in a 2007 plan, “Home Loans Product Strategy,” the goals were also product-specific: to drive “growth in higher margin products (Option ARM, Alt A, Home Equity,

Subprime),” “recruit and leverage seasoned Option ARM sales force,” and “maintain a compensation structure that supports the high margin product strategy.”⁹¹

After structuring a security, an underwriter, often an investment bank, marketed and sold it to investors. The bank collected a percentage of the sale (generally between 0.2% and 1.5%) as discounts, concessions, or commissions.⁹² For a \$1 billion deal like CMLTI 2006-NC2, a 1% fee would earn Citigroup \$10 million. In this case, though, Citigroup instead kept parts of the residual tranches. Doing so could yield large profits as long as the deal performed as expected.

Options Group, which compiles compensation figures for investment banks, examined the mortgage-backed securities sales and trading desks at 11 commercial and investment banks from 2005 to 2007.⁹³ It found that associates had average annual base salaries of \$65,000 to \$90,000 from 2005 through 2007, but received bonuses that could well exceed their salaries. On the next rung, vice presidents averaged base salaries and bonuses from \$200,000 to \$1,150,000. Directors averaged \$625,000 to \$1,625,000.⁹⁴ At the top was the head of the unit. For example, in 2006, Dow Kim, the head of Merrill’s Global Markets and Investment Banking segment, received a base salary of \$350,000 plus a \$35 million bonus, a package second only to Merrill Lynch’s CEO.⁹⁵

MOODY’S: “GIVEN A BLANK CHECK”

The rating agencies were essential to the smooth functioning of the mortgage-backed securities market. Issuers needed them to approve the structure of their deals; banks needed their ratings to determine the amount of capital to hold; repo markets needed their ratings to determine loan terms; some investors could buy only securities with a triple-A rating; and the rating agencies’ judgment was baked into collateral agreements and other financial contracts. To examine the rating process, the Commission focused on Moody’s Investors Service, the largest and oldest of the three rating agencies.

The rating of structured finance products such as mortgage-backed securities made up close to half of Moody’s rating revenues in 2005, 2006, and 2007.⁹⁶ From 2000 to 2007, revenues from rating such financial instruments increased more than fourfold.⁹⁷ But the rating process involved many conflicts, which would come into focus during the crisis.

To do its work, Moody’s rated mortgage-backed securities using models based, in part, on periods of relatively strong credit performance. Moody’s did not sufficiently account for the deterioration in underwriting standards or a dramatic decline in home prices. And Moody’s did not even develop a model specifically to take into account the layered risks of subprime securities until late 2006, after it had already rated nearly 19,000 subprime securities.⁹⁸

“In the business forevermore”

Credit ratings have been linked to government regulations for three-quarters of a century.⁹⁹ In 1931, the Office of the Comptroller of the Currency let banks report publicly traded bonds with a rating of BBB or better at book value (that is, the price

they paid for the bonds); lower-rated bonds had to be reported at current market prices, which might be lower. In 1951, the National Association of Insurance Commissioners adopted higher capital requirements on lower-rated bonds held by insurers.¹⁰⁰ But the watershed event in federal regulation occurred in 1975, when the Securities and Exchange Commission modified its minimum capital requirements for broker-dealers to base them on credit ratings by a “nationally recognized statistical rating organization” (NRSRO); at the time, that was Moody’s, S&P, or Fitch. Ratings are also built into banking capital regulations under the Recourse Rule, which, since 2001, has permitted banks to hold less capital for higher-rated securities. For example, BBB rated securities require five times as much capital as AAA and AA rated securities, and BB securities require ten times more capital. Banks in some countries were subject to similar requirements under the Basel II international capital agreement, signed in June 2004, although U.S. banks had not fully implemented the advanced approaches allowed under those rules.

Credit ratings also determined whether investors could buy certain investments at all. The SEC restricts money market funds to purchasing “securities that have received credit ratings from any two NRSROs . . . in one of the two highest short-term rating categories or comparable unrated securities.”¹⁰¹ The Department of Labor restricts pension fund investments to securities rated A or higher. Credit ratings affect even private transactions: contracts may contain triggers that require the posting of collateral or immediate repayment, should a security or entity be downgraded. Triggers played an important role in the financial crisis and helped cripple AIG.

Importantly for the mortgage market, the Secondary Mortgage Market Enhancement Act of 1984 permitted federal- and state-chartered financial institutions to invest in mortgage-related securities if the securities had high ratings from at least one rating agency. “Look at the language of the original bill,” Lewis Ranieri told the FCIC. “It requires a rating. . . . It put them in the business forevermore. It became one of the biggest, if not the biggest, business.”¹⁰² As Eric Kolchinsky, a former Moody’s managing director, would summarize the situation, “the rating agencies were given a blank check.”¹⁰³

The agencies themselves were able to avoid regulation for decades. Beginning in 1975, the SEC had to approve a company’s application to become an NRSRO—but if approved, a company faced no further regulation. More than 30 years later, the SEC got limited authority to oversee NRSROs in the Credit Rating Agency Reform Act of 2006. That law, taking effect in June 2007, focused on mandatory disclosure of the rating agencies’ methodologies; however, the law barred the SEC from regulating “the substance of the credit ratings or the procedures and methodologies.”¹⁰⁴

Many investors, such as some pension funds and university endowments, relied on credit ratings because they had neither access to the same data as the rating agencies nor the capacity or analytical ability to assess the securities they were purchasing. As Moody’s former managing director Jerome Fons has acknowledged, “Subprime [residential mortgage-backed securities] and their offshoots offer little transparency around composition and characteristics of the loan collateral. . . . Loan-by-loan data, the highest level of detail, is generally not available to investors.”¹⁰⁵ Others, even large

financial institutions, relied on the ratings. Still, some investors who did their homework were skeptical of these products despite their ratings. Arnold Cattani, chairman of Mission Bank in Bakersfield, California, described deciding to sell the bank's holdings of mortgage-backed securities and CDOs:

At one meeting, when things started getting difficult, maybe in 2006, I asked the CFO what the mechanical steps were in . . . mortgage-backed securities, if a borrower in Des Moines, Iowa, defaulted. I know what it is if a borrower in Bakersfield defaults, and somebody has that mortgage. But as a package security, what happens? And he couldn't answer the question. And I told him to sell them, sell all of them, then, because we didn't understand it, and I don't know that we had the capability to understand the financial complexities; didn't want any part of it.¹⁰⁶

Notably, rating agencies were not liable for misstatements in securities registrations because courts ruled that their ratings were opinions, protected by the First Amendment. Moody's standard disclaimer reads "The ratings . . . are, and must be construed solely as, statements of opinion and not statements of fact or recommendations to purchase, sell, or hold any securities." Gary Witt, a former team managing director at Moody's, told the FCIC, "People expect too much from ratings . . . investment decisions should always be based on much more than just a rating."¹⁰⁷

"Everything but the elephant sitting on the table"

The ratings were intended to provide a means of comparing risks across asset classes and time. In other words, the risk of a triple-A rated mortgage security was supposed to be similar to the risk of a triple-A rated corporate bond.

Since the mid-1990s, Moody's has rated tranches of mortgage-backed securities using three models. The first, developed in 1996, rated residential mortgage-backed securities. In 2003, Moody's created a new model, M3 Prime, to rate prime, jumbo, and Alt-A deals. Only in the fall of 2006, when the housing market had already peaked, did it develop its model for rating subprime deals, called M3 Subprime.¹⁰⁸

The models incorporated firm- and security-specific factors, market factors, regulatory and legal factors, and macroeconomic trends. The M3 Prime model let Moody's automate more of the process. Although Moody's did not sample or review individual loans, the company used loan-level information from the issuer. Relying on loan-to-value ratios, borrower credit scores, originator quality, and loan terms and other information, the model simulated the performance of each loan in 1,250 scenarios, including variations in interest rates and state-level unemployment as well as home price changes. On average, across the scenarios, home prices trended upward at approximately 4% per year.¹⁰⁹ The model put little weight on the possibility prices would fall sharply nationwide. Jay Siegel, a former Moody's team managing director involved in developing the model, told the FCIC, "There may have been [state-level] components of this real estate drop that the statistics would have covered, but

the 38% national drop, staying down over this short but multiple-year period, is more stressful than the statistics call for.” Even as housing prices rose to unprecedented levels, Moody’s never adjusted the scenarios to put greater weight on the possibility of a decline. According to Siegel, in 2005, “Moody’s position was that there was not a . . . national housing bubble.”¹¹⁰

When the initial quantitative analysis was complete, the lead analyst on the deal convened a rating committee of other analysts and managers to assess it and determine the overall ratings for the securities.¹¹¹ Siegel told the FCIC that qualitative analysis was also integral: “One common misperception is that Moody’s credit ratings are derived solely from the application of a mathematical process or model. This is not the case. . . . The credit rating process involves much more—most importantly, the exercise of independent judgment by members of the rating committee. Ultimately, ratings are subjective opinions that reflect the majority view of the committee’s members.”¹¹² As Roger Stein, a Moody’s managing director, noted, “Overall, the model has to contemplate events for which there is no data.”¹¹³

After rating subprime deals with the 1996 model for years, in 2006 Moody’s introduced a parallel model for rating subprime mortgage-backed securities. Like M3 Prime, the subprime model ran the mortgages through 1,250 scenarios.¹¹⁴ Moody’s officials told the FCIC they recognized that stress scenarios were not sufficiently severe, so they applied additional weight to the most stressful scenario, which reduced the portion of each deal rated triple-A. Stein, who helped develop the subprime model, said the output was manually “calibrated” to be more conservative to ensure predicted losses were consistent with analysts’ “expert views.” Stein also noted Moody’s concern about a suitably negative stress scenario; for example, as one step, analysts took the “single worst case” from the M3 Subprime model simulations and multiplied it by a factor in order to add deterioration.¹¹⁵

Moody’s did not, however, sufficiently account for the deteriorating quality of the loans being securitized. Fons described this problem to the FCIC: “I sat on this high-level Structured Credit committee, which you’d think would be dealing with such issues [of declining mortgage-underwriting standards], and never once was it raised to this group or put on our agenda that the decline in quality that was going into pools, the impact possibly on ratings, other things. . . . We talked about everything but, you know, the elephant sitting on the table.”¹¹⁶

To rate CMLTI 2006-NC2, our sample deal, Moody’s first used its model to simulate losses in the mortgage pool. Those estimates, in turn, determined how big the junior tranches of the deal would have to be in order to protect the senior tranches from losses. In analyzing the deal, the lead analyst noted it was similar to another Citigroup deal of New Century loans that Moody’s had rated earlier and recommended the same amount.¹¹⁷ Then the deal was tweaked to account for certain riskier types of loans, including interest-only mortgages.¹¹⁸ For its efforts, Moody’s was paid an estimated \$208,000.¹¹⁹ (S&P also rated this deal and received \$135,000.)¹²⁰

As we will describe later, three tranches of this deal would be downgraded less than a year after issuance—part of Moody’s mass downgrade on July 10, 2007, when housing prices had declined by only 4%. In October 2007, the M4–M11 tranches

were downgraded and by 2008, all the tranches had been downgraded. Of all mortgage-backed securities it had rated triple-A in 2006, Moody's downgraded 73% to junk.¹²¹ The consequences would reverberate throughout the financial system.

**FANNIE MAE AND FREDDIE MAC:
"LESS COMPETITIVE IN THE MARKETPLACE"**

In 2004, Fannie and Freddie faced problems on multiple fronts. They had violated accounting rules and now faced corrections and fines.¹²² They were losing market share to Wall Street, which was beginning to dominate the securitization market. Struggling to remain dominant, they loosened their underwriting standards, purchasing and guaranteeing riskier loans, and increasing their securities purchases.¹²³ Yet their regulator, the Office of Federal Housing Enterprise Oversight (OFHEO), focused more on accounting and other operational issues than on Fannie's and Freddie's increasing investments in risky mortgages and securities.

In 2002, Freddie changed accounting firms. The company had been using Arthur Andersen for many years, but when Andersen got into trouble in the Enron debacle (which put both Enron and its accountant out of business), Freddie switched to PricewaterhouseCoopers. The new accountant found the company had understated its earnings by \$5 billion from 2000 through the third quarter of 2002, in an effort to smooth reported earnings and promote itself as "Steady Freddie," a company of strong and steady growth. Bonuses were tied to the reported earnings, and OFHEO found that this arrangement contributed to the accounting manipulations. Freddie's board ousted most top managers, including Chairman and CEO Leland Brendsel, President and COO David Glenn, and CFO Vaughn Clarke.¹²⁴ In December 2003, Freddie agreed with OFHEO to pay a \$125 million penalty and correct governance, internal controls, accounting, and risk management. In January 2004, OFHEO directed Freddie to maintain 30% more than its minimum capital requirement until it reduced operational risk and could produce timely, certified financial statements. Freddie Mac would settle shareholder lawsuits for \$410 million and pay \$50 million in penalties to the SEC.

Fannie was next. In September 2004, OFHEO discovered violations of accounting rules that called into question previous filings. In 2006, OFHEO reported that Fannie had overstated earnings from 1998 through 2002 by \$11 billion and that it, too, had manipulated accounting in ways influenced by compensation plans.¹²⁵ OFHEO made Fannie improve accounting controls, maintain the same 30% capital surplus imposed on Freddie, and improve governance and internal controls. Fannie's board ousted CEO Franklin Raines and others, and the SEC required Fannie to restate its results for 2001 through mid-2004. Fannie settled SEC and OFHEO enforcement actions for \$400 million in penalties. Donald Bisenius, an executive vice president at Freddie Mac, told the FCIC that the accounting issues distracted management from the mortgage business, taking "a tremendous amount of management's time and attention and probably led to us being less aggressive or less competitive in the marketplace [than] we otherwise might have been."¹²⁶

As the scandals unfolded, subprime private label mortgage-backed securities (PLS) issued by Wall Street increased from \$87 billion in 2001 to \$465 billion in 2005 (shown in figure 7.3); the value of Alt-A mortgage-backed securities increased from \$11 billion to \$332 billion. Starting in 2001 for Freddie and 2002 for Fannie, the GSEs—particularly Freddie—became buyers in this market. While private investors always bought the most, the GSEs purchased 10.5% of the private-issued subprime mortgage-backed securities in 2001. The share peaked at 40% in 2004 and then fell back to 28% in 2008. The share for Alt-A mortgage-backed securities was always lower.¹²⁷ The GSEs almost always bought the safest, triple-A-rated tranches. From 2005 through 2008, the GSEs' purchases declined, both in dollar amount and as a percentage.

These investments were profitable at first, but as delinquencies increased in 2007 and 2008, both GSEs began to take significant losses on their private-label mortgage-backed securities—disproportionately from their purchases of Alt-A securities. By the third quarter of 2010, total impairments on securities totaled \$46 billion at the two companies—enough to wipe out nearly 60% of their pre-crisis capital.¹²⁸

OFHEO knew about the GSEs' purchases of subprime and Alt-A mortgage-backed securities. In its 2004 examination, the regulator noted Freddie's purchases of these securities. It also noted that Freddie was purchasing whole mortgages with "higher risk attributes which exceeded the Enterprise's modeling and costing capabilities," including "No Income/No Asset loans" that introduced "considerable risk." OFHEO reported that mortgage insurers were already seeing abuses with these loans.¹²⁹ But the regulator concluded that the purchases of mortgage-backed securities and riskier mortgages were not a "significant supervisory concern," and the examination focused more on Freddie's efforts to address accounting and internal deficiencies.¹³⁰ OFHEO included nothing in Fannie's report about its purchases of subprime and Alt-A mortgage-backed securities, and its credit risk management was deemed satisfactory.¹³¹

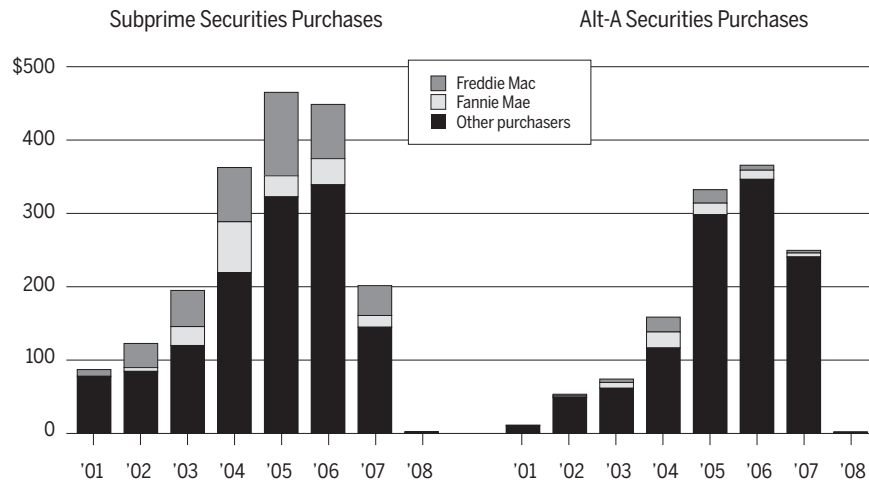
The reasons for the GSEs' purchases of subprime and Alt-A mortgage-backed securities have been debated. Some observers, including Alan Greenspan, have linked the GSEs' purchases of private mortgage-backed securities to their push to fulfill their higher goals for affordable housing. The former Fed chairman wrote in a working paper submitted as part of his testimony to the FCIC that when the GSEs were pressed to "expand 'affordable housing commitments,' they chose to meet them by investing heavily in subprime securities."¹³² Using data provided by Fannie Mae and Freddie Mac, the FCIC examined how single-family, multifamily, and securities purchases contributed to meeting the affordable housing goals. In 2003 and 2004, Fannie Mae's single- and multifamily purchases alone met each of the goals; in other words, the enterprise would have met its obligations without buying subprime or Alt-A mortgage-backed securities. In fact, none of Fannie Mae's 2004 purchases of subprime or Alt-A securities were ever submitted to HUD to be counted toward the goals.

Before 2005, 50% or less of the GSEs' loan purchases had to satisfy the affordable housing goals. In 2005 the goals were increased above 50%; but even then, single- and multifamily purchases alone met the overall goals.¹³³ Securities purchases did, in

Buyers of Non-GSE Mortgage-Backed Securities

The GSEs purchased subprime and Alt-A nonagency securities during the 2000s. These purchases peaked in 2004.

IN BILLIONS OF DOLLARS



SOURCES: Inside Mortgage Finance, Fannie Mae, Freddie Mac

Figure 7.3

several cases, help Fannie meet its subgoals—specific targets requiring the GSEs to purchase or guarantee loans to purchase homes. In 2005, Fannie missed one of these subgoals and would have missed a second without the securities purchases; in 2006, the securities purchases helped Fannie meet those two subgoals.

The pattern is the same at Freddie Mac, a larger purchaser of non-agency mortgage-backed securities.¹³⁴ Estimates by the FCIC show that from 2003 through 2006, Freddie would have met the affordable housing goals without any purchases of Alt-A or subprime securities, but used the securities to help meet subgoals.¹³⁵

Robert Levin, the former chief business officer of Fannie Mae, told the FCIC that buying private-label mortgage-backed securities “was a moneymaking activity—it was all positive economics. . . . [T]here was no trade-off [between making money and hitting goals], it was a very broad-brushed effort” that could be characterized as “win-win-win: money, goals, and share.”¹³⁶ Mark Winer, the head of Fannie’s Business, Analysis, and Decisions Group, stated that the purchase of triple-A tranches of mortgage-backed securities backed by subprime loans was viewed as an attractive opportunity with good returns. He said that the mortgage-backed securities satisfied

housing goals, and that the goals became a factor in the decision to increase purchases of private label securities.¹³⁷

Overall, while the mortgages behind the subprime mortgage-backed securities were often issued to borrowers that could help Fannie and Freddie fulfill their goals, the mortgages behind the Alt-A securities were not. Alt-A mortgages were not generally extended to lower-income borrowers, and the regulations prohibited mortgages to borrowers with unstated income levels—a hallmark of Alt-A loans—from counting toward affordability goals.¹³⁸ Levin told the FCIC that they believed that the purchase of Alt-A securities “did not have a net positive effect on Fannie Mae’s housing goals.”¹³⁹ Instead, they had to be offset with more mortgages for low- and moderate-income borrowers to meet the goals.

Fannie and Freddie continued to purchase subprime and Alt-A mortgage-backed securities from 2005 to 2008 and also bought and securitized greater numbers of riskier mortgages. The results would be disastrous for the companies, their shareholders, and American taxpayers.

COMMISSION CONCLUSIONS ON CHAPTER 7

The Commission concludes that the monetary policy of the Federal Reserve, along with capital flows from abroad, created conditions in which a housing bubble could develop. However, these conditions need not have led to a crisis. The Federal Reserve and other regulators did not take actions necessary to constrain the credit bubble. In addition, the Federal Reserve’s policies and pronouncements encouraged rather than inhibited the growth of mortgage debt and the housing bubble.

Lending standards collapsed, and there was a significant failure of accountability and responsibility throughout each level of the lending system. This included borrowers, mortgage brokers, appraisers, originators, securitizers, credit rating agencies, and investors, and ranged from corporate boardrooms to individuals. Loans were often premised on ever-rising home prices and were made regardless of ability to pay.

The nonprime mortgage securitization process created a pipeline through which risky mortgages were conveyed and sold throughout the financial system. This pipeline was essential to the origination of the burgeoning numbers of high-risk mortgages. The originate-to-distribute model undermined responsibility and accountability for the long-term viability of mortgages and mortgage-related securities and contributed to the poor quality of mortgage loans.

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Federal and state rules required or encouraged financial firms and some institutional investors to make investments based on the ratings of credit rating agencies, leading to undue reliance on those ratings. However, the rating agencies were not adequately regulated by the Securities and Exchange Commission or any other regulator to ensure the quality and accuracy of their ratings. Moody's, the Commission's case study in this area, relied on flawed and outdated models to issue erroneous ratings on mortgage-related securities, failed to perform meaningful due diligence on the assets underlying the securities, and continued to rely on those models even after it became obvious that the models were wrong.

Not only did the federal banking supervisors fail to rein in risky mortgage-lending practices, but the Office of the Comptroller of the Currency and the Office of Thrift Supervision preempted the applicability of state laws and regulatory efforts to national banks and thrifts, thus preventing adequate protection for borrowers and weakening constraints on this segment of the mortgage market.