

Housing After the Fall:
Reassessing the Future of the American Dream

Perspectives on the Regulators and the Credit Agencies

Michael LaCour-Little, Ph.D.
Department of Finance
5133 Mihaylo Hall
Mihaylo College of Business and Economics
California State University, Fullerton
Fullerton, CA 92831
Phone 657-278-2217
FAX 657-278-2161
E-mail: mlacour-little@fullerton.edu

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Abstract

I examine the incentives of the parties in the residential non-agency mortgage loan securitization process and describe the regulatory framework in which each operates. Arrangements are fraught with examples of asymmetric information, adverse selection, and moral hazard. There are also extensive gaps in regulation and cases of under-regulation. This environment, together with conflicts and misaligned incentives, helped to produce the mortgage market collapse of 2007 and financial panic of 2008. I conclude the article by identifying areas for meaningful reform.

Introduction

Perhaps I should begin this essay with a confession: I was once a regulator. Indeed, my first job after graduating from the University of California, Berkeley, was as an Assistant Analyst at the Federal Home Loan Bank of San Francisco, regulator for federally-chartered savings and loan associations in the late nineteen seventies. Note that I say "federally-chartered", since there were also "state-chartered" institutions which operated in a parallel regulatory universe with respect to many dimensions of their activities. Thus, at a relatively young and tender age, I came to witness an example of the peculiar system that we have fashioned to oversee financial institutions in the United States. I also worked in Tom Sharkey's department. Tom Sharkey was Principal Supervisory Agent for the bank and, in 1985 (long after I had left) the recipient of a letter, reproduced in Mayer (1990), offering assurances as to the stellar management of Charles Keating's Lincoln Savings and Loan Association¹. Who provided such a letter, the reader may wonder? The letter was authored by none other than future Federal Reserve Board Chairman, Alan Greenspan, then a private consultant. So perhaps, like the poor, the problems of regulation will always be with us. But let us continue.

¹ The Feb 13, 1985 letter declared of Lincoln Savings that "management has a long and continuous record of success in making sound and profitable investments" and concluded that it "presents no foreseeable risk to the Federal Savings and Long Insurance Corporation". Four years later Lincoln Savings was seized by regulators and eventually liquidated at an estimated cost of taxpayers of \$3.4 billion and its management imprisoned. The letter is reproduced in Mayer (1990), page 324.

Many commentators identify the beginning of the mortgage market collapse of 2007 with the bankruptcies, in August, of two Bear Stearns sponsored hedge funds. Seeds of the crisis had been growing for some time, of course. In April of 2007, New Century Financial Corporation, then the second largest of the subprime lenders, declared bankruptcy. Like other non-bank lenders in the non-agency segment of the market, they originated loans primarily to securitize them in private label issues. This is the segment of the market that will be our main focus here. Based on most measures, housing prices had peaked and begun falling in 2006 as well. After years of increasingly lax underwriting standards, early payment defaults began to surge in 2006, as well (Keys, et al 2008). Nevertheless, the non-agency market surged ahead, generating approximately \$550 billion dollars in new paper during the first six months of 2007. Events during the summer brought this to a grinding halt and by the first six months of 2008, comparable issue volume had dropped to under \$50 billion. How did this process operate and who provided oversight to it?

The Mortgage Securitization Process

Figure 1 provides a schematic representation of the mortgage securitization process in the non-agency segment. The process begins with the household borrower's demand for mortgage debt, either for home purchase or refinancing existing debt. That demand may, of course, be affected by an independent third party, the mortgage broker². Let us consider this group first.

INSERT FIGURE 1 HERE

² It is sometimes said that subprime loans, in particular, are sold and not bought, in the sense that aggressive marketing of these products especially in the refinance segment, accounted for a large portion of the origination volume. Debt consolidation loans to existing homeowners with accumulated housing equity are probably the leading example. For an excellent review of the origins of this business, see Weicher (1997).

The Mortgage Broker

Mortgage brokers are a lightly and inconsistently regulated group, yet their importance in the mortgage origination process has grown over time. Unlike mortgage bankers, who originate loans using their own capital, mortgage brokers are strictly matchmakers, who earn a fee by bringing borrowers and lenders together. Their income is generated both by direct payments of points and fees by borrowers and yield spread premiums paid by lenders³.

According to the National Association of Mortgage Brokers, 53,000 mortgage brokerage firms employed approximately 419,000 loan officers who produced approximately 65% of the residential mortgage loans originated during calendar year 2004. This is an increase from 52% of all loans in calendar year 1997 (LaCour-Little and Chun (1999)). Percentages for 2005-2006 were probably even higher, though the recent mortgage market turmoil, caused the percentage to drop to 57% for the full year 2007, to 49% during the first quarter of 2008, and finally to 19% by the fourth quarter of 2008 (Inside Mortgage Finance [2008]). Backley, Niblack, Pahl, Risbey, and Vockrodt (2006) discuss mortgage broker regulation, noting that twenty-eight states license the firm only, as opposed to individuals. Bankrate Monitor (2004) provides an online summary of state laws governing mortgage brokers. According to that summary, Alabama, Alaska, Colorado, Montana, and Wyoming had no regulation of mortgage brokers at all. Other states impose various educational requirements, testing requirements, and/or financial requirements on either individual brokers and/or the firm employing them. Kleiner and Todd (2007) analyze mortgage brokers as an emerging regulated occupation, finding that certain aspects of mortgage broker regulation affect market outcomes. Mortgage brokers can earn fees from both borrower and lender (see LaCour-Little [2009] for details on their loan pricing practices). Both mortgage brokers and real estate agents have financial incentives to see transactions close, encouraging behaviors which may be adverse to borrower and lender interests (see, for example, Ben-David [2008]). We next turn to a principal actor in our drama, the household borrower.

³ See LaCour-Little (2009) for a more thorough treatment of mortgage broker compensation issues.

The Borrower

Since the Tax Reform Act of 1986, mortgage interest has been a favored form of credit for individual households since, unlike other forms consumer debt; interest payments are generally tax-deductible for federal income tax purposes⁴. Households must, however, have sufficient income and deductions to itemize, making the deduction highly regressive. Moreover, thanks to the Taxpayer Relief Act of 1997, most capital gains on owner-occupied personal residences are largely tax-free, at least to the extent they below the \$250,000 to \$500,000 exemption limits, for single taxpayers or married couples filing jointly. The 1997 legislation also reduced capital gains rates, from top marginal rates of 28% down to 20%; those rates were reduced still further (generally to 15%) by the Economic Growth and Tax Relief Reconciliation Act of 2001.

Continuing with tax considerations, the combination of declining house prices and the mortgage crisis has triggered an increasing number of short sales and debt forgiveness, whether from short sales, mortgage restructuring, or losses of property through foreclosure proceedings. As a result, Congress enacted the Mortgage Debt Relief Act of 2007, which makes debt forgiveness on a personal residence generally non-taxable for occurrences from calendar year 2007 to 2012 for amounts up to \$2.0 million (for joint filers; \$1.0 million for single taxpayers).

Furthermore, as of this writing, Congress is actively considering legislation that would empower bankruptcy judges to unilaterally re-structure mortgage debt on principal residences, including reducing principal balances owed (so-called cram downs). Mortgage debt is often, though not always⁵, non-recourse, enabling borrowers to walk away from their contractual obligations through forfeiture of the collateral property. Increasingly, programs to encourage debt repudiation, such as www.youwalkaway.com, are appearing.

In summary, households are encouraged to maximize their use of mortgage debt to finance their personal residence and have been increasingly insulated from the

⁴ Under current federal income tax rules, interest deductions on mortgage debt secured by the taxpayer's principal residence in excess of \$1,000,000 are limited.

⁵ State law governs the availability of deficiency judgments and there is often a distinction made between purchase-money debt and mortgage loans for refinancing existing debt.

consequences of over-leverage. In addition, the purchase of second homes and investment properties has grown substantially in recent years. Indeed, according to Home Mortgage Loan Disclosure Act (HMDA) data, the fraction of all loans that are secured by non-owner occupied property increased every year up to a peak of nearly 17% nationally during 2005 (Avery, Brevoort, and Canner [2007]). This trend, as well as the well-known rapid house price appreciation that occurred during the period 2000-2006, contributed to the surging volume of total mortgage debt outstanding.

The Regulators

Residential mortgage origination and loan servicing is a relatively concentrated business and has become more so over time. Origination may occur either through retail or wholesale channels, with the latter including both brokers and correspondents. Originators may be either banks (deposit-taking institutions) or non-banks, including independent mortgage companies (mortgage bankers). Some of these firms have elected to structure their businesses as real estate investment trusts (REITs)⁶.

Deposit-taking institutions are regulated based on their charter (bank, savings bank, thrift, or credit union) with a further distinction of national versus state charter. Banks, then, may be regulated by the Federal Reserve (FRB), the Federal Deposit Insurance Corporation (FDIC), the Office of Comptroller of the Currency (OCC), the Office of Thrift Supervision (OTS), or the National Credit Union Association (NCUA). There are, indeed, so many federal regulatory agencies that they have formed an association, the Federal Financial Institutions Enforcement Association (FFIEC), through which they take collective action. We will note several examples of their collective pronouncements later in the text.

Non-bank lenders grew rapidly over the course of the last decade including, for example, Ameriquest (a closely held private firm and once the largest of the subprime lenders), New Century (the second largest, organized as a REIT), and Countrywide Financial Corporation, for a time the largest of all mortgage lenders, until its acquisition

⁶ For a discussion of the role of the REIT structure in the mortgage crisis, see Muolo and Padilla (2008), especially Chapter Six.

by Bank of America in 2008. Many banks acquired specialty (a.k.a. subprime) lenders over this time period, too, including Washington Mutual's acquisition of Long Beach Mortgage in 1999, Citigroup's acquisition of Associates First Capital Corporation in 2000, JPMorganChase's acquisition of Advanta Corporation in 2000, and HSBC's acquisition of Household International in 2003. Indeed, by 2005, the majority of residential mortgage loans were originated by non-banks. Hence, regulatory pronouncements by the FFIEC generally applied only to the minority of market participants⁷. Another issue for banks is regulatory capture, the tendency of regulated institutions to come to dominate their regulators (see Hardy [2006], for further discussion).

Concurrently, highly leveraged Wall Street investment firms acquired either banks, or non-banks, to function as loan originators and provide servicing capabilities for the non-agency debt originated to fuel production of asset-backed securities. For example, Lehman Brothers Holdings owned Lehman Brothers Bank (a savings bank) which in turn owned Aurora Loan Services. Likewise, Bear Stearns owned EMC Mortgage Corporation. Some of these acquisitions came very late in the housing bubble: for example, Merrill Lynch paid over one billion dollars for subprime lender First Franklin in late 2007, even after evidence of declining house prices had been visible for more than a year.

Who regulates the non-banks? Again, it is a matter of charter: state-chartered institutions are regulated by the states (e.g. each state-chartered incarnation of CitiFinancial, Citigroup's re-branded offices of the Associates), nationally chartered thrift institutions (such as Lehman Brothers Bank) by the OTS, and pure independents, such as Ameriquest⁸, by the Federal Trade Commission (FTC), which is charged with enforcing

⁷ In 2006, the FFIEC issued the Interagency Guidance on Non-traditional Mortgage Products stating that "...for all nontraditional mortgage products, the analysis of borrowers' repayment capacity should include an evaluation of their ability to repay the debt by final maturity at the fully indexed rate".. In 2007, the FFIEC issued the Interagency Statement on Subprime stating that "...verifying income is critical to conducting a credible analysis of borrowers' repayment capacity, particularly in connection with loans to subprime borrowers. Therefore...stated income and reduced documentation should be accepted only if there are mitigating factors..."

⁸ Ameriquest was the retail subprime lending operation of ACC Capital Holdings, a privately-owned firm owned by the late Roland Arnall, a billionaire former savings and loan industry figure profiled in detail in Padilla and Muolo (2008) and therein quoted as saying to an associate "We've got to stay under the radar".

laws related to financial and lending practices affecting consumers, including privacy laws, fair credit reporting and debt collection statutes, and unfair and deceptive trade practices. Importantly, however, non-bank regulators do not have the conservatorship or receivership authority, so when Lehman Brothers Holdings collapsed in September 2008, there was no regulatory agency with power to seize the institution to prevent further harm to the financial markets. The principal enforcement tool available to the FTC is litigation, a lengthy process with at best uncertain outcomes. During the most recent ten-year period, the FTC pursued a total of 21 actions against financial firms, occasionally obtaining large settlements based on business conduct, especially in the subprime market segment, but this entity is essentially powerless in the safety and soundness arena.

The Securities and Exchange Commission (SEC) plays a role; too, to the extent banks or non-banks issue asset-backed securities in public markets. Such activities are frequently carried out by affiliates, for example, CitiFinancial Mortgage Securities, Inc., exists exclusively to bundle and issue mortgage-backed securities backed by CitiFinancial loans. The mission of the SEC is "to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation"⁹. Moreover, the SEC is responsible for interpreting federal securities laws; issuing new rules and modifying existing ones; overseeing securities firms, brokers, investment advisors, and rating agencies; and coordinating U.S. securities regulation with federal, state, and foreign authorities. Nevertheless, prior to the adoption of Regulation AB by the SEC in 2005, residential mortgage-backed securities (RMBS) were not subject to SEC registration and many still are not¹⁰.

This brings us to the rating agencies.

⁹ Source SEC website: www.sec.gov

¹⁰ Regulation AB (www.sec.gov/rules/final/33-8518fr.pdf) represents the codification of many years of guidance and practice in the regulation of asset-backed securities (ABS), a broader category that includes mortgage-backed securities. RMBS issued or guaranteed by exempt entities such as Fannie Mae, Freddie Mac and Ginnie Mac, are not subject to Regulation AB; nor are private placements. But most publicly issued, non-agency RMBS are now subject to Regulation AB which imposes a variety of disclosure requirements, among other provisions.

The Rating Agencies

Credit rating agency ratings play a central role in the fixed income market since many market participants (banks, insurance companies, and pension fund managers, for example) are required to limit their investments to "investment grade" securities as established by agency ratings. Indeed, the SEC has made reference to rating agency ratings in its rules for years, but only recently increased its regulatory authority over them.

The top three rating agencies in the United States are Standard and Poors (S&P); Moody's Investor Services (Moody's); and Fitch Ratings (Fitch). These firms have been in existence for a long time: for example, John Moody & Company began publishing Moody's Manual of Industrial and Miscellaneous Securities in 1900. While the original business model was a subscription service aimed at investors seeking objective analysis, since the 1970s, the rating agencies have charged issuers to rate their securities. The historical reason for this evolution is unclear.

Attention was focused on the role of credit rating agencies, technically referred to as Nationally Recognized Statistical Ratings Organizations (NRSROs), with the passage of Sarbanes-Oxley in 2002 which represented the first major securities legislation in many years. Leading rating agencies had rated both WorldCom and Enron investment grade immediately prior to their bankruptcies, suggesting significant failures in the process. One of the outcomes of Sarbanes-Oxley was a mandate which directed the SEC to conduct a study of the role of credit rating agencies in securities markets, including an assessment of impediments to the rating agencies' accurate appraisal of issuers, barriers to entry into the credit rating business, and any conflicts of interest in the operation of the rating agencies. Prior to this time, the SEC had recognized only five NRSROs, with Moody's and S&P holding a combined market share of roughly 80%, raising concerns of a de facto duopoly. The result was the Credit Rating Agency Reform Act of 2006 (CRARA), which was intended to foster competition in the credit rating agency business and establish a registration process and standards for NRSROs.

Among its other provisions, the CRARA requires:

(1) a credit rating agency seeking to be registered as an NRSRO to apply for registration with the SEC, make public in its application certain information to help persons assess its credibility, and implement procedures to manage the handling of material nonpublic information and conflicts of interest;

(2) a registered NRSRO to disclose in its public filings with the SEC a general description of its procedures and methodologies for determining credit ratings and make public certain performance measurement statistics including historical down grade and default rates within each of its credit rating categories over the short, medium, and long terms;

(3) a registered NRSRO to also disclose the conflicts of interest that are inherent in its business of determining credit ratings and establish policies and procedures reasonably designed to address and manage the conflicts of interest¹¹.

The CRARA gives the SEC broad authority to examine the books and records of any registered NRSRO to ensure compliance with provisions of the law and SEC rules explicitly excluding, however, any authority to regulate the "substance of the credit ratings or the procedures and methodologies" (Cox [2007]).

Rosner (2009) provides an excellent review of the issues surrounding credit rating agencies and argues that their role in structured finance, especially Collateralized Debt Obligations (CDOs), is fundamentally different from that involved in rating firm or agency debt, their original role. Rather than being independent bystanders who examine, analyze, and rate particular security issues, structured finance begins with a particular rating agency outcome objective then designs the security to accomplish that capital structure. Sale of the securities becomes rating-dependent and, hence, the rating agencies are active participants in the structuring process, implying greater responsibility for the ultimate outcome. Rosner is critical of the SEC for not establishing

¹¹ Source: www.sec.gov

methodological standards for the rating agencies, noting that "many of the problems that have infected global credit markets result from poor modeling, untested assumptions, staffing inadequacies, lack of transparency, and lack of consistently applied methods and models".

Other issues related to the rating agencies include the ability of issuers to shop for the most favorable rating; the reliance that relatively unsophisticated investors may place on agency ratings; and the reported revolving door among rating agency employees and firms issuing rated securities. Moreover, the need to continue to generate new rating assignment business implies a moral hazard problem not unlike that faced by real estate appraisers who rely on repeat business from their lender clients.

Among a lengthy list of reforms recommended, Rosner suggests (1) establishing minimum industry standards for analyst training; (2) reducing the liability exemption¹² afforded rating agencies on certain structured finance issues; (3) prohibiting revolving door practices between issuers and rating agencies; and (4) establishing within each NRSRO an independent office of the chief statistician (a keeper of the models). This last proposal is akin to the organizational structure and protection afforded audit functions within public corporations.

Comprehensive Proposals for Reform

Given this review of the players in the residential mortgage loan securitization process and the issues identified, it is useful to briefly consider some of the recent published studies aimed at identifying areas for reform. As these are invariably lengthy reports, I offer here at only a few comments on proposals included that focus on particular problem areas previously identified.

Among the first reports issued was the U.S. Treasury Department (March, 2008). The report provides short, intermediate, and longer term recommendation, including the goal of restructuring regulation to be based on objectives, rather than institutional charter. Under the blueprint, there would ultimately be a market stability regulator; a prudential

¹² Rating agencies have generally been able to avoid legal liability for their ratings under a First Amendment argument based on the notion that they are a part of the financial press expressing opinions only.

financial regulator; and a business conduct regulator. Among short term goals, the report recommends creation of a Mortgage Origination Commission (MOC) to examine the adequacy of each state's regulation of mortgage originators. Federal authority would be sought for the MOC to establish minimum licensing standards, auditing, and enforcement powers. On the topic of bank regulation, the report recommends phasing out of the federal thrift charter and merging the OTS and the OCC. The report also recommends "rationalizing" the joint federal regulation of state-chartered banks by the FRB and the FDIC. Other than identifying the role of credit rating agencies in the mortgage-backed securities process and noting the relatively new regulatory authority obtained by the SEC under the CRARA of 2006, the report does not make recommendations for the ratings agencies.

The Group of Thirty¹³ (2009) provides another comprehensive review and set of recommendations. Under the direction of former Federal Reserve Chairman Paul Volker, the report focuses to a greater degree on international coordination of regulatory action, given that recent market problems in the U.S. quickly spread to other countries. The report contains four core and eighteen specific recommendations. Among these, are that each country should have a single prudential regulator for all government-insured depository institutions; systematically important financial institutions should be subject to close supervision based on high and common international standards; government-insured depositories should not be owned or controlled by unregulated non-financial organizations; and non-bank financial institutions (including insurance companies) should be subject to consolidated supervision. Recommendation 14 of the study focuses on credit rating agencies and includes three specific recommendations: (1) users of risk ratings should be encouraged to acquire the capacity to obtain independent evaluation of the products in which they are investing; (2) risk ratings issued by NRSROs should be expanded to address liquidity and price volatility risk, not just credit risk; and (3) regulatory bodies should encourage alternative compensation structures that better align incentives between rating agencies and their clients.

¹³ The Group of Thirty is a private, nonprofit, entity focused on international economic and financial issues and composed of senior representatives of the private and public sectors and academia. Former Federal Reserve Chairman Paul Volker is its chairman.

Finally, GAO (2009) lays out a framework for evaluating proposals to modernize the U.S. financial regulatory system. The report sets forth nine key principles against which proposals for reform might be judged. Among these are well-defined regulatory goals; a system-wide focus; a system that is flexible and adaptable to financial market innovations; a system that is efficient and effective; a system that provides consistent protection to both consumers and investors; and a system that provides regulators with independence, prominence, authority, and accountability. The report notes that for years the GAO has recommended that Congress reduce the number of bank regulators. The report also comments on the role of the largely unregulated credit rating agencies and the proliferation of structured finance products noting that:

"Between 2004 and 2007, nearly all adjustable-rate subprime mortgages were packaged into mortgage-backed securities, a large portion of which were structured into CDOs." (GAO [2009] page 37).

Collateralized debt obligations are beyond the scope of this article yet it is clear that they represent an important innovation in financial markets and one with which the existing regulatory structure and rating agency system was unable to cope. For more on this topic, see Mason and Rosner (2007) or Lucas, Goodman, and Fabozzi (2007).

Conclusions and Policy Prescriptions

We have seen that the residential mortgage-backed securities process is fraught with examples of asymmetric information, adverse selection, and moral hazard. Asymmetric information exists between loan originators and the ultimate holders of mortgage credit risk, under the originate-to-distribute business model. Likewise, informed loan originators (whether brokers or retail loan officers) have far more information on pricing and details of loan terms than do borrowers, who typically have limited experience in the mortgage arena. Adverse selection occurs as mortgage aggregators have an incentive to retain the best loans and securitize those of lower quality. We have already identified moral hazard in the context of credit rating agencies' compensation being paid by the issuers of the securities they rate. In addition, under the

originate-to-distribute model loan originators may be incented to steer borrowers into products that generate the maximum commission income for them, rather than acting as a trusted advisor with a fiduciary obligation to their client.

Mortgage brokers, in particular, and mortgage originators in general have little stake in the long term performance of the loans they originate and borrowers are incented to maximize their use of mortgage debt with few economic consequences for excessive leverage. Securities issuers are distant from the borrowers whose debt they package and have limited incentives to screen for quality, particularly if they can structure the securities produced to accomplish capital structures suitably rated to facilitate profitable sales. A fragmented set of regulatory agencies regulates banks and non-banks active in the mortgage market, providing too many opportunities to "stay under the radar"¹⁴.

Given this admittedly gloomy assessment, what would constitute meaningful reform? Let me suggest five general areas for focus.

1. Issuers retain meaningful portion of credit risk on securitized transactions

The securitization process itself deserves review with alternative structures (e.g. covered bonds) considered. But, given the process as it exists today, issuers must retain a meaningful portion of the credit risk to better align their incentives with investors.

2. Regulatory consolidation based on objectives, e.g. financial stability, prudential financial regulation, and business conduct, versus current institutional focus.

We need fewer, and more effective, regulators with independence and authority to act when necessary. The structure of regulation should be based on objectives, rather than on the institutional charter approach that currently exists.

3. Independent fee-based credit rating services paid for by investors, rather than by issuers

¹⁴ Refer to Footnote 8.

The importance of the credit rating agencies in the market has been widely recognized yet their regulation is limited and these entities continue to operate under a problematic business model.

4. Greater transparency in assets backing securities and the models used to assess risk.

If, as Brandeis (1913) said, "Sunlight is said to be the best of disinfectants; electric light the most efficient policeman", perhaps transparency in asset-backed securities and risk modeling is the best regulatory prescription. Such a process would impose duties on issuers to disclose details about the loans backing asset-backed securities and upon rating agencies to disclose details about their risk modeling techniques and ratings. Regulation AB issued by the SEC in 2005 was a start in the right direction.

5. Modify borrower incentives

"The fault, dear Brutus, is not in our stars, but in ourselves..."¹⁵

And lastly we come back to the household borrower. Here we must confront the extensive system of incentives that encourage use of mortgage debt, especially mortgage debt secured by the principal residence. While other proposals identified here may be helpful, I fear we will not solve the incentive problems described previously without fundamentally addressing the borrowers themselves. Among other recommendations, Shiller (2008) argues that we must also separate the dispensing of financial advice from the selling of financial products and encourage more prudent financial behavior by households, including greater use of risk management products, which might include utilization of the house price futures market which he helped create.

A number of caveats are in order. This essay represents an abbreviated effort to address some of the major issues in the non-agency residential mortgage securitization process. I have deliberately ignored the government-sponsored enterprises (GSEs) and

¹⁵ Shakespeare: Julius Caesar (I, ii, 140-141)

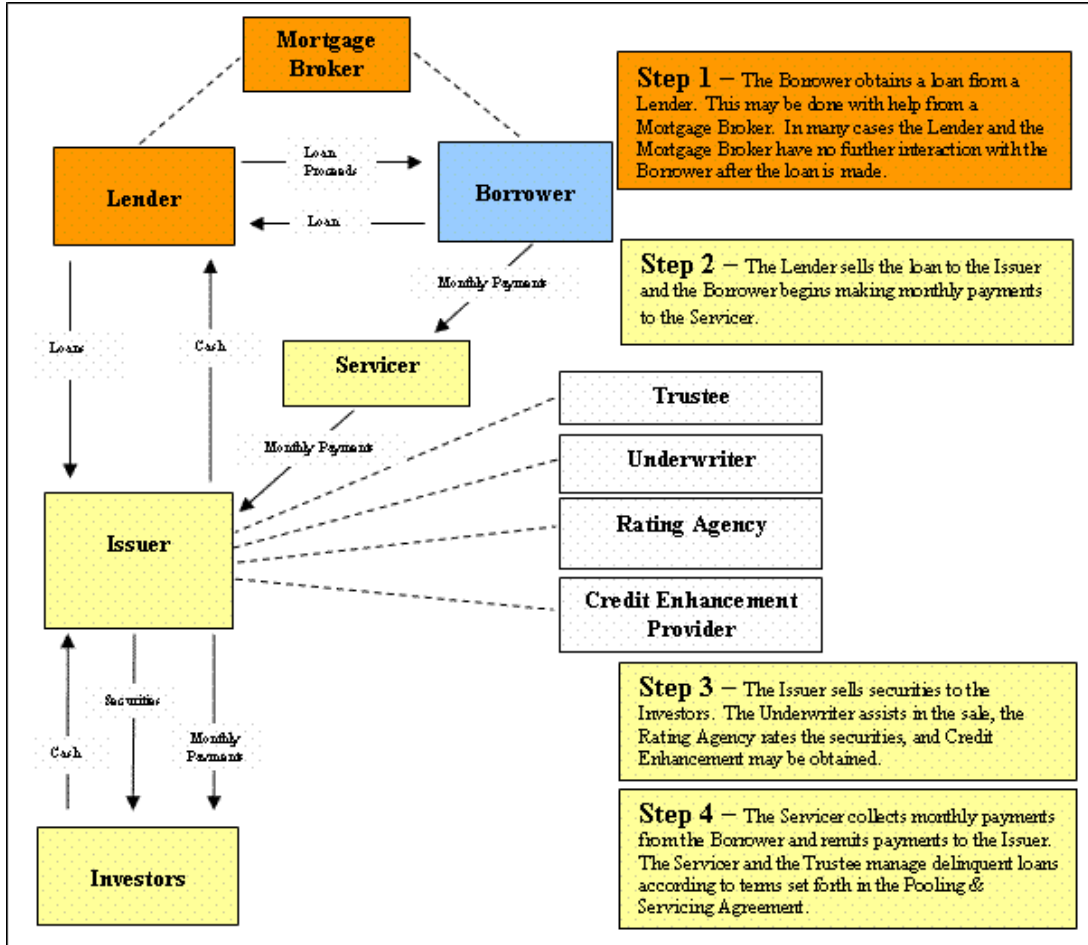
said little about the insurance industry, who were market participants through the creation and sale of credit default swaps (CDS). Yet the GSEs were frequent buyers of the AAA rated tranches of subprime securitizations, arguably due in part to the affordable housing goals imposed upon them by their regulator (then OFHEO). With respect to the insurance industry, regulation is as complex as banking, and several of the comprehensive proposals for reform suggest a national insurance charter under which the largest and most systematically important insurance firms might be federally regulated. American International Group's (AIG) role in the CDS market, which is intimately connected to the CDO market, underscores the importance of examining financial product innovations in the insurance business, as well as in banks and other non-bank lenders. As it turns out, AIG also owns a bank (AIG Bank, a federal savings bank). AIG became a thrift holding company in 1999, allowing it to own federal savings banks and it acquired several in the following years. As a result, AIG Financial Products, the London-based operation that issued CDS was regulated by the Office of Thrift Supervision.

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Figure 1: The Mortgage Securitization Process in the Non-agency RMBS Market



Notes:

In the diagram above, the issuer is typically a bankruptcy-remote trust or other special purpose investment vehicle. This entity may be, but is not necessarily, an affiliate of the lender and/or the servicer. The underwriter is the underwriter of the RMBS issue, not the underwriter of the original loans. Loan underwriting is performed by the lender with the assistance of the mortgage broker, if one is involved.