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Reregulating Fannie Mae and Freddie Mac

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1. Introduction

This paper offers a framework and a specific proposal for the reregulation of Fannie Mae and Freddie Mac (hereafter F&F) in the aftermath of the subprime mortgage crisis and their conservatorship. There is a growing consensus that Congress and the new Administration should give a high priority to determining the proper long-term regulation of F&F. Federal Reserve Chairman Ben Bernanke (2008, p. 1) recently stated:

“Our task now is now to begin thinking about how best to reestablish a link between homebuyers and capital markets in a way that address the weaknesses of the old system. In light of the central role that the GSEs played, and still play, any such analysis must pay particular attention to how those institutions should evolve.”

Similarly, Treasury Secretary Henry Paulson (2008) noted:

“...these factors should give momentum and urgency to the reform cause. Policymakers must view this next period as a ‘time out’ where we have stabilized the GSEs while we decide their future role and structure”.

Revisiting financial regulations after a major financial crisis is actually the norm in US financial history, and a process with generally very positive results. Actions to reregulate have typically solved the problem at hand, while maintaining an overall efficient and innovative

financial system. The following are some examples, selected for their relevance to issues discussed in this paper:

- The National Bank Act of 1863 created federal chartering and regulation of commercial banks to control “wildcat banking.”
- The Federal Reserve System was created in 1913 in response to a continuing sequence of financial panics.
- Federal deposit insurance was created in 1933 to stem the bank runs of the Great Depression.
- The Glass-Steagall Act was passed in 1933 to control the conflicts of interest between commercial banks and investment banks that became apparent during the 1930s. Glass-Steagall was modified over time, most recently by the Financial Services Modernization Act of 1999. It is under this later legislation that Goldman Sachs and Mortgage Stanley recently opted to operate their investment banks as part of a commercial bank holding company.¹
- The Federal Housing Administration (FHA) was created in 1934, establishing the government’s first insurance program for residential mortgages.² Fannie Mae was created soon after, in 1937, to provide further support to the mortgage markets of the 1930s. In 1968, Fannie Mae was separated into two components: GNMA which continued as a government agency operating within HUD and a new government sponsored enterprise which retained the name Fannie Mae.
- The Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), passed in response to the S&L crisis, required, among many other important provisions, that bank regulators take “prompt corrective action” with regard to any banking firm that was failing to

¹ See Jaffee (2008c) for a discussion of how investment banks will be best regulated as components of bank holding companies.

² See Jaffee and Quigley (2007, 2008) for a discussion of the FHA, including its history, experience during the subprime boom, and its role in helping solve the subprime crash.

meet capital or other regulatory requirements.

In this spirit, this paper develops a framework and offers a proposal for the reregulation of F&F. Part 2 begins with a review of the key factors that led to the F&F bailout and conservatorship in September 2008. My conclusion is that two key factors led to the failure of F&F:

- 1) The implicit Treasury guarantee created the presumption among market investors in F&F debt and mortgage backed securities (MBS) that they would receive government protection were the firms to fail; the recent F&F conservatorship has made that presumption the reality. The result is that the potentially constructive role of F&F bondholders and MBS investors to impose market discipline to constrain the risk-taking propensities of the two firms has been a total failure.
- 2) Management's responsibility to maximize profits, combined with the safety net of the implicit guarantee, has created a business strategy to take on very high levels of risk. The risk-taking activities included: (i) incomplete hedging of the firms' interest rate risk, (ii) asset-liability imbalances that magnified liquidity risk, and most recently (iii) credit risk created by major investments in subprime and ALT A mortgages.

Given these conditions, the failure of F&F was inevitable.³ The bottom line is that the experiment of a government sponsored enterprise-- carrying out a public mission while maximizing private profits—has irreparably failed.

Part 3 of the paper analyses alternative proposals for the reregulation of F&F, and recommends one specific plan. The recommended plan continues the firms' mortgage guarantee

³ Many commentators pointed out that the risk-taking propensities of the firms made it only a question of when, not if, the firms would fail. As specific examples, see Jaffee (2003.....).

and securitization programs in support of middle-income borrowers. The programs, however, would now operate as government agencies, in a format parallel to the current FHA and GNMA programs that support lower-income borrowers. In this way, the firms' public mission to support mortgage markets continues, but with no potential to create systemic risks. At the same time, the remaining net balance-sheet assets and technology of the retained mortgage portfolios are to be returned to the firms' investors, who would operate the new entities as private firms with no government connection. The new entities would be, in effect, hedge funds, and would pose no greater systemic risk than any other private market funds. The key concept here is that even if the new retained portfolio/hedge fund were to suffer large future losses, there would be no more reason for the government to bail it out than any other such fund.⁴

Part 4 of the paper discusses the support of mortgage markets for lower income families that represents a second public mission for F&F. The academic literature generally finds that F&F were unsuccessful in providing significant support to lower-income families, and the firms certainly were less effective than the FHA and the Community Reinvestment Act (CRA) in promoting homeownership among lower-income families. Thus, the proposal offered here is to transfer the resources previously used by F&F to the FHA as a more efficient means to support the homeownership goals of lower-income families.

Part 5 of the paper provides concluding comments.

⁴ It is noteworthy that the government has had no reason to bailout any stand-alone hedge funds in the context of the subprime mortgage crisis. Indeed, the 1998 liquidation of the hedge fund Long Term Capital Management (LTCM) was entirely carried out by private firms.

2. Sources of the Financial Failure of Fannie Mae and Freddie Mac

F&F, of course, did not fail in a vacuum, and it is important to understand how the subprime mortgage conditions led to their financial failure.⁵ The starting point is the business structure and strategy the two firms adopted.

2.A Business Structure and Strategy

F&F have dominated the US mortgage market through two distinct business lines. First, the firms issue and guarantee residential *mortgage backed securities (MBS)*, in amounts that historically have represented the majority of all MBS issued in the US. These MBS are sold to capital market investors, but F&F guarantee the timely payment of interest and principal on the securities; currently, about investors hold about \$3.5 trillion of F&F MBS. Second, F&F hold *retained mortgage portfolios* on their balance sheets, which have represented more than one-fifth of all outstanding US mortgage securities; the current size is about \$1.5 trillion for the two firms. These portfolios are primarily funded by issuing F&F bonds—called “agency bonds”—for which investors have presumed an implicit Treasury guarantee. For both business lines, F&F retain (through guarantee or ownership) all the risks of possible default by mortgage borrowers. The retained portfolios additionally create significant interest rate and liquidity risks due to the particular strategies employed by F&F in managing these portfolios.

The MBS issue/guarantee business is relatively straightforward in both design and implementation. Mortgage originators offers pools of newly originated and qualifying mortgages, which are evaluated by F&F using proprietary loan evaluation tools. On this basis, F&F charge a guarantee fee as a percentage of the outstanding loan balance, which historically has been about 0.20 percent (that is, 20 basis points) annually. The MBS are then sold to third-party investors, who hold them till maturity. If any of the underlying mortgages become

⁵ See Jaffee (2008a) for a general description of the subprime crisis and the lessons to be learned.

delinquent or default, the guarantee requires that F&F provide timely payment of all interest and principal. The F&F charters further require that the firms hold capital equal to .50 percent (50 basis points) of their outstanding MBS to backstop their guarantees. For most of their history, losses on insured mortgages never approached the 20 basis point guarantee fee, so the MBS business was highly profitable, generating returns on equity of about 15 percentage annually.

The retained mortgage portfolio business has implemented a substantially more complex strategy. The portfolios are funded by issuing agency bonds, which historically could be issued in virtually unlimited amounts and at a small spread to comparable US Treasury rates (based on the implicit Treasury guarantee). F&F face a statutory capital requirement of 2.5 percent of their retained portfolio assets, a requirement that historically was readily met, even as the portfolios expanded, by retaining a part of the firms' high profits.

The profitability of the retained portfolios arises from the spread equal to the interest rates earned on the mortgage assets minus the interest rates paid on the agency bonds. This spread often exceeded 1 full percentage point annually, creating a return on capital often above 30 percent annually, a level more than double that of most successful financial firms. Given this high profit margin, the firms had incentive to grow the portfolios at a fast pace and generally did so. They also had incentive to expand the profit margin by taking on riskier portfolio positions. One basic strategy was to use short-term debt to fund long-term mortgage assets, a version of the so-called "carry trade". While this generally expanded profits, it exposed the firms to losses from large interest rate changes or from a liquidity crisis, the latter arising if capital market investors became unwilling to roll over the firms' maturing debt.⁶ A second, and more recent strategy, was

⁶ This risk was discussed in detail in Jaffee (2003). It should be noted that F&F generally maintained a net portfolio duration of close to zero through the use of interest rate derivatives. However, the firms remained fully exposed to liquidity risk because the timing of their cash inflows and outflows reflected a major imbalance. A zero net portfolio duration would also have protected the firms from large interest rate changes due to the so-called convexity effects.

to invest in subprime and Alt A mortgages. These mortgages offered exceptionally high interest rates, but of course also created a much greater risk of credit losses.

2.B Conservatorship

Expanding credit losses and expected losses on their retained mortgage portfolios, primarily from their subprime and Alt A positions, was the proximate cause of the conservatorship imposed on F&F on September 7, 2008. As a result of the losses, the firms violated, or soon would have violated, their capital requirements, and with no likely prospect to offset the losses by raising new capital. As a further consequence, investors became increasingly reluctant to rollover the firms' maturing debt, raising the prospect of an immediate bankruptcy due to inadequate liquidity.

Bankruptcy would have disrupted the firms' ongoing mortgage acquisitions and MBS guarantee businesses. F&F bankruptcies would have had major consequences for the US mortgage markets even under normal conditions. In the context of the evolving subprime mortgage crisis, with virtually no ongoing private mortgage investment activity, the result would likely have been a systemic failure of the US mortgage system and quite possibly the entire financial system. Thus, the government had no choice but to place the firms in conservatorship and to implement various Treasury loan and equity backstops for F&F using its authority under the newly passed Housing and Economic Recovery Act of 2008.

The conservatorship places F&F under the stewardship of the Director of the Federal Housing Financing Agency (FHFA), the newly created F&F regulator. Statements by the Director indicate that F&F will be managed with the joint goals of restoring the firms to a safe and sound status and continuing their support of the mortgage market through mortgage

acquisitions and securitization.⁷ It is thus sensible to look forward to a point in time—hopefully not too distant—at which the firms can be released from conservatorship. We assume at that point the firms will still retain their two business activities, on one hand issuing and guaranteeing MBS and the other hand holding their retained mortgage portfolios.

3. The Reregulation of Fannie Mae and Freddie Mac

Regulatory reform of F&F has been a continuing quest for most of the firms' history, and with a notable, even remarkable, lack of success. The primary case for regulatory reform has always been based on the systemic risks that the firms pose for the US mortgage and financial markets. But in the absence of an actual crisis, the firms were always able to deter any serious action; for example, the firms would argue that regulatory reform was tantamount to eliminating their mission to expand homeownership. The lobbying power of F&F in this regard is legendary.

It is now clear, of course, that the fears of a systemic meltdown were all too accurate, and that the model of a government sponsored enterprise (GSE)—to combine a public mission with an implicit guarantee and a profit maximizing strategy—is simply untenable. Nevertheless, the F&F mission to support the mortgage market retains strong Congressional and public support, perhaps even more than ever in the aftermath of the subprime mortgage crisis. Therefore, in this section, we consider proposals with the goal to continue the F&F mission to provide mortgage market support, but in a form that avoids the systemic risks of the GSE model. I begin with a description of my own proposal—Middle Income Mortgage Support—and then compare it with some other proposals.

3.A A Middle Income Mortgage Program

The core concept for the proposed Middle Income Mortgage Program (MIMP) is to reconfigure the current MBS issue/guarantee divisions of F&F to operate within a government

⁷ See Lockhart.....

agency, while spinning off to the firms' investors the assets, liabilities, capital, and technology associated with their retained mortgage portfolios. The proposal rests on two features, which I will motivate in the discussion that follows:

- 1) The reconfigured MBS issue/guarantee program can satisfy the principal goal of supporting the mortgage market for middle income borrowers, while imposing no measurable systemic risk for the economy or for taxpayers.
- 2) The retained portfolio net assets and technology will take the form of a new private sector entity, with no links, implicit or explicit, current or future, to the US government.

Government Mortgage Issue and Guarantee Program.

My proposal for the new MBS issue/guarantee program has the goal to provide mortgage market access for middle-income families much as the existing FHA and GNMA programs provide mortgage market support for lower-income families. I believe that the FHA/GNMA combination provides a useful model because it represents a long-standing, stable, and successful program for supporting the homeownership goals of lower-income families; see Green and Wachter (2005). I begin with a brief summary of the FHA and GNMA programs.

FHA and GNMA

Since it began in 1934, the FHA has operated to insure the mortgages on homes for lower-income families, thus providing these families with access to mortgage funding that would not otherwise be available.⁸ The insurance premiums are paid by the borrowers and must be set to

⁸ The recent era of subprime mortgages is a noteworthy exception. To its credit, the FHA did not try to compete with the subprime mortgages, but instead allowed its volume to dwindle to close to zero. Indeed, there were discussions of the demise of the FHA. In the wake of the subprime crisis, in contrast, FHA volume has been soaring, and these numbers do not yet include the agency's participation in the new Hope for Homeowners program that offers access to FHA loans for subprime borrowing facing imminent foreclosure.

cover the expected losses, with the exception of special programs on which subsidies are explicitly intended.⁹ Over its long history, the primary FHA program for single-family mortgages has been self-supporting and has required no government appropriations.

GNMA was created in 1968 as a government agency operating within HUD, with the primary task of securitizing the government guaranteed FHA and VA mortgages. Indeed, GNMA pioneered the concept of mortgage-back securities. GNMA has continued to operate with a small staff to certify the pools of FHA and VA mortgages created by private sector originators as mortgage-backed securities. GNMA provides a guarantee on its MBS that represents the full faith and credit of the US, on par with US Treasury securities.

Government Mortgage Issue and Middle Income Mortgage Agency

I will refer to the new government agency as MIMA (middle-income mortgage agency). Just as the FHA charges the borrowers an actuarially-based insurance fee, so will MIMA, although with its more credit-worthy clientele I expect the premium to be much lower. The GSEs have been charging MBS guarantee fees on the order of 20 bps annually, and I see no reason why that would change under MIMA. I would also expect private sector mortgage originators and mortgage investors to welcome the new government agency, for the same reason they enthusiastically use the FHA/GNMA agencies. In particular, private sector firms will continue to originate and hold the mortgages, so they would face no government crowding out. Similarly, the private market securitizers of “jumbo” mortgages—above the GSE limits for conforming mortgages--would continue to operate as they do currently. The only losers, so to speaker, are the subprime originators, from whom we might not expect to hear very much at all.

The Retained Mortgage Portfolios as Private Sector Hedge Funds

⁹ The new Hope for Homeowners program is an example of an FHA program with an explicit subsidy. See the Congressional Budget Office (2008) for a very useful analysis of how this subsidy is being computed.

The second part of the proposal is to spin off the retained mortgage portfolios to the GSE shareholders, and to transform these entities into what would become basically publicly traded mortgage REITs.¹⁰ The GSE shareholders would receive the mortgage assets, bond liabilities, and the net worth of the retained portfolios as it exists at the time of the spinoff. These entities would also receive all of the intellectual capital of the GSEs, which would include their proprietary software for evaluating loan quality, techniques for hedging interest rate risk, and similar items. As private sector entities, the new firms would no longer be constrained by the limitations of the GSE charters. In particular, they would be allowed, for the first time, to originate mortgages directly. A similar path to privatization was taken earlier by Sallie Mae—the student loan government sponsored enterprise—and it prospered for many years based on its new power to originate student loans.

The End of Government Sponsored Enterprises

This solution ends government sponsored enterprises, and well it should. Many commentators, including this author, have long argued that the concept of a privately owned, profit maximizing company combined with a public mission and an implicit government guarantee was a recipe for disaster; see, for example, Jaffee (2003). The disaster has now occurred. The proposal offered here reassembles the components of the GSEs into an equitable and efficient structure. Given the continuing Congressional support for homeownership, it is appropriate to provide mortgage market access for middle-income families, as the new agency will do. At the same time, the GSE shareholders will own and manage the retained portfolios, albeit as private sector entities.

¹⁰ This proposal presumes there would be no significant value to the government to continue to operate the retained portfolios. On the contrary, the GSEs have argued strongly that the retained portfolios were important for carrying their market mission. See also the discussion in Roll (2003).

Low-Income Housing Support

One further issue concerns the support to lower-income borrowers that has been provided by the GSEs through their required housing goals and the recently passed profit fees. Congressional support of the GSEs was based in significant part on the premise that GSE aid to lower-income families was basically available at no cost; it certainly was perceived to be easier to “tax” the GSEs than to obtain Congressional appropriations to increase the HUD budget for direct housing subsidies. As their bailout costs have demonstrated, however, the GSE support for lower-income borrowers was actually far from free. Instead, Congress should now recognize that specific appropriations to the FHA represent a much more effective means to help low-income borrowers

The good news, so to speak, is that regulatory remedies to stop predatory lending and encourage loan modifications are already well in process. For predatory lending, the Federal Reserve has already issued important additions to the Truth in Lending Laws, and HUD will soon announce parallel changes in the RESPA rules; see Federal Reserve System (2008) and HUD (2008a). For loan modifications, Congress has created and HUD has now implemented the Hope for Homeowners program; see HUD (2008b).¹¹

Real estate cycles in this form are repeated with remarkable historical regularity, so it is an intriguing question why sophisticated financial investors continued to hold mortgage assets even as the real estate market prices became increasingly divorced from the affordability fundamentals. There is also the related question why the monetary authority did not take actions to dampen the up-leg of the cycle.

¹¹ To be clear, loan modification programs are likely to have limited success in deterring mortgage foreclosures. The Congressional Budget Office analysis of the Hope for Homeowners program, CBO (2008), is very instructive in showing that even with a significant subsidy, the program is expected to help only a small fraction of defaulting subprime loans.

The bailout of the GSEs (Fannie Mae and Freddie Mac) is somewhat more complicated than Bear Stearns and AIG. To be sure, the GSEs are perhaps the world's largest counterparties in the markets for interest rate swaps and swaptions (options based on swaps), and their failure on these contracts could well have had systemic effects as large as Bear Stearns or AIG. Indeed, Secretary of the Treasury Paulson [2008] in explaining their bailout stated:

“...[this] program is the best means of protecting our markets and the taxpayers from the systemic risk posed by the current financial condition of the GSEs.

He was also referring, however, to the disruptive effects if the firms had defaulted on their approximately \$5 trillion of capital market obligations—debt and guaranteed mortgage backed-securities. There was also serious concern that the GSEs could not continue their mission to support the US mortgage market if doubts remained concerning their ability to rollover their debt or to meet their regulatory capital requirements. Technically, the GSEs were placed in a conservatorship, under the control of their regulator, the Federal Housing Finance Agency (FHFA). Under this status, the GSEs no longer must meet capital requirements, and if necessary, they have access to the Treasury to borrow, sell mortgages, and obtain capital infusions.

3.A The Dilemma for Effective Regulation

The basic regulatory dilemma posed by the investment banks and the GSEs is that they have carried out two parallel, but very different, business activities. On the one hand, they operate what are basically hedge funds, that is highly leveraged and cash flow mismatched portfolios. I will refer to this as their hedge fund division. On the other hand, they carry out systemic missions, serving as key counter parties in the OTC derivatives market, and in the case of the

GSEs, with the additional mission to stabilize the mortgage markets. I will refer to this as their infrastructure division. Both divisions provide fundamental economic benefits.

The hedge fund divisions are major participants in the fundamental market activity of aggregating information. While the funds are operated for private profit, they generate the social benefits of price discovery and efficient resource allocations. Both the private profits and social benefits will generally be maximized if the funds are managed with the least regulatory intrusion.¹² The problem arises, however, if the hedge fund is part of a larger holding company, and one where another division carries out an infrastructure function that would require the firm to be bailed out if losses from the hedge fund threatened bankruptcy for the overall entity.

With the problem posed in this manner, the general structure for the solution becomes clear: one must separate the two activities in a manner that makes the infrastructure division fully bankruptcy remote from any losses created by the hedge fund division. It turns out that there is long experience in both insurance and banking regulation with methods that offer solutions to exactly this problem. I now briefly review the techniques.

than any link to Fannie and Freddie could ever provide.

¹² See Wallison (2008) for a strong statement in support of the non-regulation of hedge funds.

4. Concluding Comments

This paper has offered a framework and proposal for the re-regulation of investment banks and the GSEs in a post-crisis world. The basic goal is to minimize the likelihood that future losses on risky portfolios would pose systemic risks requiring government bailouts of the offending firms. The key feature of the proposed solution is to isolate the risky portfolios—called the hedge fund divisions—from the activities that create the systemic risk—called the infrastructure divisions. Comparable regulatory mechanisms have been in long use in regulating catastrophe insurers in the form of monoline restrictions and in regulating bank holding companies through modified Glass-Steagall restrictions. Given that all major investment banks are now already part of bank holding companies, the only real change for the banks is to ensure that the capital of the infrastructure division is bankruptcy remote from any possible failure of the overall holding company. The proposal has more major ramifications for the GSEs, since it would make the MBS securitization division a government agency in parallel with the FHA and GNMA, while it would spin-off the retained portfolios to the GSE shareholders, but with the requirement that the entity function without any sense of government support.

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DJ Notes

The specific activities that created the firms losses and crisis arise from their structure in which they carry out two separate the firms' two major business lines:

- 1) Through their securitization business, the firms issue mortgage-backed securities (MBS). The firms currently have outstanding about \$3.5 billion of securitized MBS, all held by third party investors. F&F guarantee the credit risk on these securities, while the investors bear the risk that changing interest rates will affect the securities' values.
- 2) Through their retained mortgage portfolios, the firms directly own approximately \$1.5 trillion in mortgage securities, funded by issuing an approximately amount of debt. The securitization business has allowed F&F to carry out the primary requirements of their public mission, while the retained portfolios are the source of the liquidity crisis which necessitated their conservatorship.

Thus in all 3 characteristics—leverage, cash-flow mismatch, and subprime investments—the retained portfolios of the GSEs are remarkably similar to the hedge fund portfolios described earlier for the investment banks. And it appears that their bailout on September 7, 2008 was necessitated by the same issues of solvency and a liquidity crisis that necessitated the bailout of Bear Stearns and AGI.