

**Government-Sponsored Enterprises and the Future of Housing Finance: Some
Perspectives on the Markets and the Choices**

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I. Introduction: Dueling Charters and Resource Allocation

Not too long ago the US housing finance system, dominated by the “Agencies,” Fannie Mae, Freddie Mac (the Government Sponsored Enterprises or “GSEs”) and Ginnie Mae (a Government Owned Enterprise), provided homebuyers the widest and deepest access to credit, among the broadest selection of instruments and terms and the best customer service of any system in history. A few years later a version of that system was at the center of a credit crunch that brought the global financial system to its knees. The central policy question is how to generate a housing finance system that will perform as well as the pre 2000 system, but without the excesses and risk of systemic failure.

Since the Great Depression the U.S. has developed institutions to try to control financial crises. The most important, deposit insurance, provides depositors with assurance that they can get to their deposits on demand. Most of the time it has worked well, and the system has kept the market for bank loans open in some quite stressful situations. But it also provides incentives for risk-taking. The Savings and Loan problems in the 1980s provide evidence of both sides of the guarantee coin.

The two main GSEs, Fannie Mae and Freddie Mac, (FF) are best understood within the deposit insurance framework. They are not banks; they don’t issue deposits, and they don’t make mortgages directly. Instead they buy mortgages, made by banks and other lenders, and mortgage-backed securities and fund them by issuing debt and their own mortgage-backed securities. They take risk because their assets can change in value and because they are on the hook if borrowers default, regardless of whether the mortgages are held on balance sheet and funded with debt or sold as mortgage-backed securities with FF guarantees. A key to understanding FF, and the thing that has made them similar to banks, has been the perception (not in law) that their liabilities are guaranteed by the government. This “implicit” guarantee is similar in function to deposit insurance, and it has functioned to keep them and the market for prime conventional conforming loans open when the balance sheets of two were not enough. It is, however, an *implicit* guarantee, and uncertainty about it can be a problem, as has uncertainty about implicit guarantees on banks’ non deposit liabilities.

While banks do sell mortgages to FF, their relationship with them is mostly one of competition because FF provide an alternative to the bank model of funding mortgages with insured deposits, which they do by exploiting their ability to fund mortgages with implicitly¹ guaranteed debt and MBSs. When FF buy mortgages they substitute for the traditional bank function of making money by managing credit risk and earning income from the difference between the interest they earn on mortgages and their funding costs, leaving banks with just fee income from originating and servicing² loans. This competition has been referred to as “dueling charters.”

(See Van Order (2000)).

The competition between the charters takes different forms: for instance banks traditionally raised money in deposit markets and held mortgages in portfolio, as opposed to funding in the capital markets, like the GSEs. Alongside these two has been direct government participation via FHA/VA insurance and GNMA securitization. Fannie, Freddie and Ginnie together are often referred as the “Agencies.” Less often mentioned but also important, has been the Federal Home Loan Bank System, which is also a source of liquidity, for instance for mortgages above the conforming loan limit applied to Fannie and Freddie.

Over the past decade or so, particularly since 2003, there emerged a third competitor, the private label securitization market—mortgages that were securitized and sold into capital markets but not by the Agencies. This market has been around for some time, for instance fixed rate mortgages above the loan limit for FF, as well as the subprime and “Alt-A” markets, but its market share increased sharply after 2003. It has used a variety of means and institutions for securitization, and it has performed the worst of three funding vehicles. More recently we have discovered that major financial institutions, e.g., investment banks and insurance companies are *implicit GSEs* in the sense of being eligible for guarantees and bailouts in difficult times; these might be called “state contingent guarantees.” So we have had (until 2008) three dueling charters.

¹ Since their conservatorship, discussed below, the guarantee has become more or less explicit.

² Servicing refers to managing the cash flows from mortgages, in this case as agents for FF.

The question of what to do with the GSEs is more or less the same as the question of the best way to operate our housing finance system. A look at recent history suggests there is no easy answer to this. Analysis of the various ways of funding housing (the Agencies, bank portfolios and private label securitization) suggests that all have similar problems, particularly because of misaligned incentives and “agency costs,” and that choice among them is problematic and may be less important than the regulatory structure that accompanies the choice.

The two central policy issues are:

1. Resource allocation in normal times.
2. Systemic risk when times are bad.

The former refers primarily to incentives for pricing and risk-taking as they effect investment in housing vs. other investment and allocation of housing among households. For instance, guarantees (subject to “second best” concerns), which provide a cheap source of credit, can distort resource allocation by inducing risk-taking and lowering interest rates, directing too many resources to the benefitting sector (in this case housing) and risking “bailout” costs.

The second issue refers to the center of much of the recent concern because of spillovers from housing finance markets to other markets, which sent the financial system overall into collapse and started off a major recession. Guarantees have been a way of controlling this type of risk, but perhaps at the expense of better resource allocation. For instance, Savings and Loans in the 1980s had similar incentives to take risk and misallocate resources and provoke bailouts (of the government insurance fund that supported the S and Ls), but their collapse did not have broad effects on the economy.

II. Theoretical Underpinning: Modigliani/Miller, Agency Costs, and Securitization

The point of departure is the “Modigliani-Miller Irrelevance Theorem” (Henceforth “MM;” see Modigliani and Miller (1958)). The theorem is that under a set of assumptions, which mainly involve perfectly competitive markets, no transaction costs or taxes and widely agreed on information, the liability structure of the firm is irrelevant in the sense that changing the way the firm finances its assets will not affect its “all-in” cost of funds. This is because different liability

strategies are simply different ways of rearranging the same cash flows from the firm's assets, and in a well-informed, competitive market arbitrage will assure that all structures will be priced so that none has an overall advantage; the sum of the parts will equal the whole.

Taken literally, the theorem, applied to mortgage markets implies that while there are lots of possible institutional structures for funding mortgages and lots of liability structures within the institutional structures, which institutions and structures are chosen doesn't affect mortgage rates because they are all paid from the same cash flows. A softer version is that advantages of different structures are likely to be small, and because of very elastic supply curves small advantages of one source of funding (e.g., some sort of subsidy or slightly lower transaction costs) the small differences can lead to big effects on how the financing is done (who has the biggest market share) but with small effects on mortgage rates and subsequent resource allocation.

The "MM" Theorem is one of those ideas that when you think about it is obvious, but of course, it is wrong (markets aren't perfect; though they're often rather good, asymmetric information is often the rule rather than the exception, and transaction costs matter). But the theorem is not a bad first approximation, and it is a good place to start because it makes us ask the right question: why should we expect one institutional setup to be better than another at financing a particular set of cash flows when they all compete in the same overall financial system? In particular, it suggests that some reasons for particular structures, like "getting assets off balance sheet" or "the high cost of capital relative to debt" or "allowing banks to shed the risk of low down payment loans" are wrong, or at least suspect, pending analysis of what part of MM is violated.

The focus here is on agency costs and transaction costs, which can break the MM theorem. If some structures are better at managing information than others, they can dominate in the sense of having lower all in funding costs. Securitization inevitably involves asymmetric information, which makes it subject to adverse selection and/or moral hazard. To succeed it must have a cost advantage and a way of managing agency costs. An answer is that securitization involves lower transaction costs because of scale economies and ensuing liquidity.

Principal/Agent Problems

Mortgage lending can be thought of as a bundle. The traditional bank portfolio lender performs all aspects of the mortgage bundle: it originates the mortgage, it services it, it takes the risk of default (perhaps along with a private or government insurer), and it raises money in the (guaranteed) deposit market to fund it. Securitization has evolved by unbundling this package and raising money (in the case of FF via implicit guarantees) in the bond markets. All four aspects of the bundle are typically unbundled in securitization structures.

Unbundling takes advantage of scale economies and division of labor and promotes competition among the suppliers of the various bundles, but there is a cost. The cost is that the players that focus on one part of the bundle have to depend on players in the other parts of the bundle to perform services for them as expected (for example, sell them good loans) when it is not always in their interest to do so. That is, there is an agency problem. For investors, or more broadly those who end up taking the risk, the major agency problem comes from relying on originators and servicers to originate good loans and service them well. The major risks are that sellers will select against them or originate loans that are of low quality (sometimes this involves actual fraud, such as selling mortgages not associated with houses, funding mortgages with fake borrowers and borrowers lying about their characteristics). This is particularly true for institutions that are in danger of bankruptcy, for which reputation is less valuable. Hence, to control credit risk, whoever is taking the credit risk needs to align the incentives of originators and servicers with its own needs or get better information on risk.

Guarantees have been pervasive in the mortgage market. The advent of GSEs did not add much in terms of the existence of guarantees, but it changed the types of guarantees and the possible ways of operating and exploiting the guarantees, by allowing institutions to get access to a new market—the bond market, which has lower transaction costs, has a more elastic supply of funds, and is a better way of managing interest rate risk. But the GSEs were forced, because they were *secondary* markets, to take on some asymmetric information problems that banks did not have to take on. So the Modigliani-Miller theorem was violated because of ensuing agency costs, perhaps offset by lower transaction costs (relative to banks).

III. Recent History: Underwriting and Bubbles

FF have been losing money for about two years. It is unclear what the final figure will be, but losses will be at least well into tens of billions for each company. Major sources of the loss appear to be two things: The first is lower loan quality beginning around 2005, particularly 2006 and 2007, primarily associated with increase in purchases of “Alt-A” loans, which are loans to seemingly “prime” borrowers, but without full documentation. These have had losses far in excess of their share of their share (around 10%) of total mortgages. The second source has been the sharp decline in house prices, particularly in places like California, Arizona, Nevada and Florida, which have left a historically unprecedented share of borrowers with negative equity. This will be the major problem over the next few years as “normal” mortgage products like prime 30 year fixed rate mortgages experience high defaults.

The two dimensions are intertwined: the acceleration in Alt-A purchases happened at or around the peak in house prices (as the bubble was beginning to burst) and tended to be concentrated in the above mentioned, then rapidly growing, states. A further, but harder to measure, source of losses will be on subprime and Alt-A securities that are protected up to a point by subordinated tranches ahead of them in the risk queue, and some other credit enhancements.

On Sept 8 2008 FF were put into conservatorship. The conservatorship involved firing the board of directors and the CEOs of the two, replaced by government appointed CEOs, and provisions for aid to the companies in the form of secured loans and the purchase of senior preferred stock. The Fed has also been buying FF securities. Obviously a key question is where the conservatorship will lead.

The housing and mortgage market collapse can be broken down into three parts:

- A bubble in house prices that culminated in a sharp decline after 2006.
- A huge increase in defaults, especially in the subprime market (the market for borrowers with poor credit history) and to a lesser extent the Alt-A market that is being followed by across the board losses.

- A seizure in the securities markets where the bulk of these loans have been packaged and sold, which has spread to other markets and countries.

In the mortgage and housing markets:

- Foreclosure rates accelerated sharply after 2005. See Figure one.
- All product types have been affected by the recent surge in foreclosures but adjustable rate mortgages (ARMs), especially subprime ARMs, are clearly worse than fixed rate mortgages (FRMs). See Figure two.
- Early performance of the 2005-2007 subprime and (albeit to a lesser extent) Alt-A vintages has been extraordinarily bad. Such early defaults are unusual and suggest poor underwriting-real homeowners don't give up so quickly. See Figure three.
- Property values, which had already been increasing at an above average pace, accelerated after 2003, especially in places like Phoenix (phnx), Las Vegas (lv), Los Angeles (la), Tampa and Miami that had the major "bubbles" and subsequent default losses. See Figure four.
- The market share of subprime and Alt-A loans rose dramatically after 2003 (See Table one), and subsequently fell. The market share of the GSEs fell (see Figure five). At the same time, the non Agency share of securitization grew very rapidly (see Figure six). It has recently fallen just as rapidly.
- Housing Starts increased with the price bubble and have crashed with the burst in the bubble (see Figure seven).

2003 was a pivotal year. Around that time strong markets turned into bubble markets. Then the subprime and Alt-A markets and their securitization grew very rapidly, in retrospect much faster than what was consistent with maintaining quality standards. Around 2006 the price bubble began to slow and then burst; housing production, which had had accelerated in response the increase in prices, fell sharply. In 2007 the subprime and Alt-A markets crashed, which exposed banks and the GSEs to major write downs and was a major source of the world wide recession.

Since Fannie and Freddie were put into conservatorship they have operated more or less as government agencies, and, along with Ginnie Mae, they are more or less the only source of funds for mortgages. While the supply of funds for prime conforming loans is elastic (and aided by Fed purchases of Agency MBS) and their rates are low, the market for lower quality loans and low documentation loans is dead. A measure of the problem outside the Agency market is the spread between rates on 30 year fixed rate prime loans above and below the “conforming loans limit” (eligible for Agency purchase). The spread has risen from around .25% has risen to over 1.50% on loans. Almost all of that has to be due to lost liquidity as the “Jumbo” securitization market crashed.

Fannie and Freddie have been blamed for contributing to the price bubble and subsequent crash, but the data do not support that. If anything, their behavior was countercyclical; there was a decline in their market share as the bubble gathered steam and an increase after the bubble burst (See Figures 5 and 6). That is not to say they made good business decisions; when they expanded at the end of the boom, they risked their franchise, with too little capital to survive severe stress. They missed Genesis but hung around through Exodus. Currently they are acting in a countercyclical manner, with tighter underwriting but open to risk from continuing house price declines.

The other parts of the mortgage system have by and large performed worse than the GSEs. Davidson and Sanders (2009) point out that have had a very low share of delinquencies relative to their overall market share. Their delinquency rates have consistently been below (generally less than half) those of the rest of the industry across products and origination years. In terms of write-offs (an imperfect measure, but the differences are too big to be ignored) on mortgages and mortgage-backed securities (see Davidson and Sanders, Figure 6), the GSEs, since the third quarter of 2007 (through the fourth quarter of 2008), have had \$119 billion in write offs versus \$145 billion for insurance companies (e.g., AIG) and \$747 billion for banks (both commercial and investment). No one has done very well over the past few years.

IV. Incentives, Guarantees and the Mortgage Market:

The U.S. mortgage system has some misaligned incentives. These have arisen for reasons that are in some cases typical of financial markets in general: garden variety principle-agent problems. They are also policy-driven by implicit and explicit guarantees and regulatory structures that promote risk-taking and agency conflicts between banks and GSEs and their guarantors. The story until recently was that the main source of moral hazard was government guarantees, but we have found out that the least guaranteed sector, private label securitization, indulged in a very large amount of moral hazard and the private market, for reasons common to financial markets, as well as policy decisions (e.g., delegating too much regulatory authority to rating agencies), did not monitor risk very well.

Moral hazard is complicated. Financial institutions do not always exploit it fully, to the extent that they have reputations or franchises to preserve: Institutions with guarantees don't always take as much risk as possible, so that they can survive to make money in the future. Investment banks don't always put really bad loans into pools because they want to establish a reputation for good service and survive to collect high fees again. But institutions will ramp up risk-taking when they are in trouble or when the benefits are bigger than the expected loss in reputation or franchise value.³ All of the mortgage market institutions, banks, GSEs, investment banks, ramped up risk taking and put their reputations or franchises at risk in the last few years. Predicting the ramping up is difficult. A short summary of important characteristics of major institutions is in Table two.

V. The Systemic Part:

Unlike the 1980s with the Savings and Loans the recent mortgage market debacle has spread around the world. Gorton (2008) argues that the complexity of the securitization and resecuritization of subprime and Alt-A mortgages was the main cause of the panic. In particular, once it became clear that inflation was not going to smooth over the underlying low quality of the mortgages backing the securities, finding out the quality of individual tranches of complicated securities was very difficult and provoked major fears of adverse selection, which virtually closed down the market in which they traded. On top of this was a

³ See Lai and Van Order (2008) for a discussion.

market for credit risk insurance, Credit Default Swaps, which appeared to be unable to pay off claims.

Twenty years ago the Savings and Loans had a similar collapse. Credit losses were very high, probably comparable to losses today, and the government ended up spending (net) around \$150 billion. However, there was scarcely a ripple in the economy. So what is different this time around?

The key difference is that the S&Ls were funded almost entirely by insured deposits. Thus, there was little need for depositors to worry, and there were no banks runs to speak of. That stands in sharp contrast with the complexity of the securitization of non-prime mortgages, which has made it very hard for investors to evaluate both the securities and the health of the institutions that hold them. The current story is about non-deposit liabilities of banks and of the “shadow banking” system of investment banks and other financial institutions that have operated outside the traditional commercial banking model.⁴

Conservatorship and the promise of future capital injections have shored up the FF guarantee. As a result FF, despite being on life support, continue to function as an elastic source of funds for mortgages. The rest of the system has become more complicated.

VI. Going Forward

Right now Fannie, Freddie and Ginnie dominate the market, and there is little prospect of private capital moving into Fannie and Freddie, and little prospect for banks moving heavily into mortgages. One way or the other the mortgage market will have some sort of guarantee: full faith and credit, implicit or explicit and state contingent. For that and other reasons it will be necessary to worry about risk-taking and especially about risk-shifting if we go at the problem one charter at a time.

⁴ See Gorton (2008)/

Going forward, efficient functioning of the mortgage market may have less to do with the institutions we choose (remember MM) as with the way they are regulated and changes in their incentive structures. It looks like major financial institutions are GSEs anyway.

There are five ways that housing finance will get done in the U.S:

1. Banks with explicit guarantees on deposits and sometimes implicit guarantees on other liabilities.
2. GSEs, such as a revived version of Fannie and Freddie with implicit guarantees but altered parameters, such as stronger capital requirements.
3. GSEs with sharply altered charters, such as a public utility or collective model or separating portfolio and guarantee functions into separate institutions.
4. Non Agency (not Fannie, Freddie or Ginnie) securitization by institutions that have turned out to be *implicit* GSEs with implicit guarantees in emergencies.
5. Government owned institutions like Ginnie Mae with full guarantees

These all have benefits and costs, and none get taxpayers entirely off the hook. The fourth is the closest thing to private (without guarantee). It runs the risk of fragility—and bailouts anyway. The last has the problems of government management and inflexibility (For instance, pricing by both FHA and Ginnie Mae are fixed by statute), and FHA is subject to “cream skimming” by everyone else. The first three use some sort of guaranteed institution and the second and third address the degree and the manner of restructuring FF. None of the structures is obviously dominant.

The GSE structure has been criticized as being unworkable because of its dual role as a private company but with a public purpose. However, that is not especially unusual; in particular banks via the Community Reinvestment Act (CRA) are in much the same position. Public purpose regulation is not that unusual. Nor is it the case that much of FF problems can be attributed to mission goals. It is the case that mission goals increased in the late 1990s, but the main thing that

got them into trouble was Alt-A (and interest only) lending, which is by and large to the same sort of borrowers, by down payment, income and credit history, as the general mix. The purchases of senior (seemingly AAA) subprime securities did have mission content. It remains to be seen how these will pan out after the subordinated tranches have taken their hits.

The public choice problem is messy. As a long run matter, in terms of resource allocation, the smaller the guarantee and the more competitive the market the better, probably,⁶ but that may not help with systemic risk. Large institutions have incentives to preserve their franchise, and guarantees have been the only thing that has kept the mortgage market open. Woodward and Hall (2009) provide an argument for returning FF to something like previous status, albeit changed in terms of capital and risk. The main argument is a combination of dueling charters—there already are guarantees and the question is what sort do we want, and the preference for FF to support long term fixed rate mortgages because of their liquidity and information advantages—providing a low cost and elastic supply of funds via big and seemingly homogenous pools of mortgages with credit guarantees, so that they can trade efficiently. They argue for making the guarantee explicit (and charging for it). My recommendations are similar to theirs.

Recommendations

We really don't know enough about what to make of the housing finance system over the past few years. No one has done well, and incentives appear to have been out of whack both for guaranteed institutions (commercial banks, savings and loans and GSEs) and institutions that had no reason to expect guarantees (investment banks and insurance companies) but ended up with them anyway. There is mounting evidence of fraudulent behavior of loan originators, in the subprime and Alt-A markets especially, which is hard to attribute to any sort of guarantee. The private label market is more or less disappeared and will not play a big role any time soon. So the question is what to do with the two remaining dueling charters. We have little evidence to support arguments for or against either of the two.

⁶ The probably refers to “second best” dimensions of the problem. Given other methods of subsidizing mortgage markets and probable external benefits from homeownership, subsidies delivered by GSEs might be welfare improving. See Van Order (2000).

There is a good deal of overlap between solutions provided by the two charters. For instance, covered bonds by banks have been proposed as an alternative to FF. These are essentially on balance sheet securitization in a senior/subordinated structure, and the excess collateral used for the capital in the deal comes at the expense of assets to protect the deposit insurer. Similarly, banks holding mortgages and funding with deposits and debt is not different from the FF portfolios. That banks have an advantage controlling agency costs is true, but they lose that advantage to the extent that funding, e.g., via covered bonds, requires consolidation to produce GSE-like liquidity, to the extent that it requires buying loans from other lenders and using other servicers (and there is no inherent reason for FF not being allowed to originate and service loans).

In the short run there is little choice; Fannie and Freddie, along with Ginnie, are virtually the only source of funds for mortgages. It is unlikely that a government owned version like GNMA/FHA can come close to covering the market. It will either lose market share to banks, who will take on the risk, or it will have too much risk dumped on it.

I propose that FF be reformed along lines similar to what they were and we let the two charters duel. Here are the GSE proposals:

Capital

Capital provides a cushion that protects investors and guarantors, and it provides incentives to control risk-taking. For structured private label deals capital is important both at the level of origination (for instance to assure that promises to buy back early default loans will be honored) and by banks putting together the deals. Similarly, for insured banks and GSEs capital limits risk taking and protects against bankruptcy. More broadly it brings pricing more in line with social cost and improves resource allocation. Fannie and Freddie despite more sophisticated capital requirements than most other institutions in the market (because of being subject to stress tests) were undercapitalized relative to their risk.

New capital rules will have to be stronger, but not just by increasing minimum capital levels. FF had two capital rules applied to them: one was a series of stress tests and the other a minimum if

they passed the stress tests. Clearly the minimum was too low, but simply raising it is not enough. Both companies managed their risks so as to keep stress test capital below the minimum because the minimum is less volatile and easier to manage. Raising the minimum alone will probably not change risk because the incentive will be to increase stress test risk to match the higher minimum. A suggestion is to make the two tests additive rather than substitutes (with some allowance for time to adjust to more volatile capital requirements).

Also there needs to be more flexibility and astuteness by both the regulators and the companies to risks of new things like Alt-A loans, especially if the business line is to be expanded rapidly. There needs to be account taken of the probability of the stressful event happening; passing the stress test in 2007 was not the same thing as passing it in 2001. Also less costly (e.g., for tax reasons) forms of capital, like subordinated debt that is credibly subordinated by automatically converting it into preferred stock if common stock falls below some preset level, should be considered. Such debt could have been sold relatively easily a few years ago and could have prevented the capital meltdown later.

The capital rule must be risk based, and stress tests are likely to be the best single measure. Accounting capital is likely to be too slow to catch some risks, but in some cases marking to market will over state losses to long term investors when the market evaporates and trading is based on the “lemonness” of assets rather than long run value.⁷

Running a Portfolio

FF portfolios have been a source of considerable controversy. To a large extent the criticism has been misplaced. What is on or off balance sheet is an accounting rather than economic distinction, which is not obviously related to risk. For instance credit risk, which has been the source of recent problems, is accepted by FF in largely the same way whether the loans are “sold” (with a put back to FF) or debt-funded.⁸ The portfolio issue is mostly interest rate risk, which is serious and was a major source of problems for Fannie Mae in the early 1980s as well as the genesis of the problem for the S and Ls. However, the size of the portfolio is not a good

⁷ See Akerlof (1970).

⁸ For instance, subprime securities have been held in portfolio, but they could have been (and to some extent were) as easily re-securitized in some sort of CMO format with the same amount of credit risk.

measure of the risk for two reasons: a very large part of the risk can be hedged by selling long term callable debt or using other forms of debt and forward and option contracts, and second, on the other side, a large amount of risk can be hidden in a small portfolio by holding nasty CMO tranches.

An element of risk we found out about recently was liquidity risk. One would expect that a real guarantee would keep the market for FF debt liquid. The uncertainty about the guarantee produced a liquidity problem. A way of hedging interest rate risk is to fund with short term debt and use futures and options to produce synthetic MBSs. A problem is that the short term debt needs to be rolled over, and in a crisis that may be at much higher rates, producing something akin to a bank run even for a supposedly hedged portfolio. This problem can be solved by real matched funding, funding long term mortgages with long term callable bonds.

There are two ways of handling the portfolio: eliminate it all together (probably with some exceptions for things too small or too new) or run stress tests that take account of on and off balance sheet activities in the same way. The latter has been the tool used so far. It has arguably been the best part of the FF regulatory structure, but interest rates have been relatively stable lately, so it's hard to tell. The liquidity problem can be managed by requiring much higher capital levels for short funding even if it is hedged (and passes the stress tests) and giving advantages to long term callable debt. Debt funding has the advantage of providing the least information requirement for investors and the most homogeneity and liquidity.

Carrots, Sticks and Market Power

A part of the balancing act for any structure will be market power and concentration. Concentration has benefits in the sense that it allows for scale economies and provides a franchise value that offsets some of the risk-taking incentive (There is a case that the S and L problem in the 1980s had a lot to do with entry and competition taking away franchise value and leaving risk-taking as the only vehicle for making money). From the standpoint of resource allocation there is a second best case to be made for market power as an offset to excessively low mortgage rates directing too much money to housing, but that is probably not the most effective way of equating private and social costs. Woodward and Hall argue for two being the right

number because one would eliminate more or less all competition. On the other hand market power and concentration do increase political power and limit some useful forms of competition.

Modifying the Mission Requirements

Subsidizing the cost of homeownership and housing can come from a variety of more direct subsidy programs, such as vouchers and the tax system. The role of GSEs (or banks) is much less essential along this dimension and is easily replaceable by more direct and better targeted subsidies. The major problem facing lower-income households is lack of income, not lack of access to credit.

There is not a lot of evidence that the affordable mission was a major cause of FF's troubles. Rather, the main problem has been declines in property values and poor performance of Alt-A and interest-only loans, which are not "mission-intensive" mortgages. Nonetheless, lowering down-payments and other standards has not proven to be a particularly efficient way of helping low income families, and the nature of the regulatory structure, which requires that particular shares of business⁹ be to targeted groups can impair the central liquidity function of F&F by forcing them to buy fewer mortgages if they cannot find enough mission intensive mortgages to meet their ratios.

A reasonable approach going forward is to charge an explicit user fee directed toward providing housing vouchers. This can kill two birds with one stone, by providing the subsidy to housing in a more efficient way and by making FF (and in turn, borrowers) pay for the risks they take.¹⁰

Dueling Charters

Clearly a part of the solution for the GSEs, or anyone else doing mortgages, is going to be more capital and better measures of risk, but there will need to be a broader concern about misaligned incentives as they vary by institutional structure. Banks have advantages in managing agency costs, and GSEs have advantages in funding fixed rate mortgages, but neither advantage is absolute. Results will depend crucially on the details. The solution is to try to set regulations that

⁹ E.g., a bit over half, by number of loans, must go to families with below median income.

¹⁰ For more on this see Sanders and Van Order (2009)

convey the same subsidy (perhaps zero) to the two and let the charters duel. This will require addressing weaknesses of the banks and bank regulation along lines parallel to those of the GSEs. The dueling charter model is imperfect, even with updated capital rules, but alternatives, like relying on banks alone (and shifting the risk to them) or pretending we have a stable, unguaranteed private sector, are worse bets.

Finally, the guarantees should be explicit, and their user fee should be risk-based. The division of labor should be to use the certainty of the guarantee to control systemic risk and to continue to provide an elastic supply of funds, and use pricing and capital to control resource misallocation. We can get to our two targets with two (or more) instruments.

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