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Housing Finance Reform: Private Markets Versus Government Guarantees*

Dwight M. Jaffee
Booth Professor of Banking, Finance, and Real Estate
Haas School of Business, University of California, Berkeley
Jaffee@haas.berkeley.edu

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This paper evaluates the major alternative proposals for reforming the U.S. home mortgage market assuming that the government sponsored enterprises (GSEs), Fannie Mae and Freddie Mae, will be closed. The paper compares proposals that advocate primary reliance on private markets to take on the GSE functions with proposals that advocate government mortgage guarantees, including a discussion of how these plans differ in terms of duration, scope, and risk-sharing. The paper concludes with a discussion of current government attempts to expedite the modification or refinancing of existing mortgages, including a plan for the transition from the current situation to the long-term reforms.

Keywords: Mortgage market policy reform; government sponsored enterprises; loan modifications.

1. Introduction

There is now a widespread consensus that Fannie Mae and Freddie Mac, the large mortgage-based government sponsored enterprises (GSEs), should be closed as soon as practical. This was formally proposed in the US Treasury (2011), White Paper of February 2011, and even the most ardent historical supporters of the GSEs now appear to agree.[1] This is understandable since the performance of the GSEs during the subprime boom and crash clearly

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[1]For example, Representative Barney Frank has stated that — “I think they should be abolished”; see Huff Post Business (2010).

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confirmed, if there were any remaining doubt, that significant net social costs are intrinsic to institutions that combine a public mission with opportunities to expand expected profits through risk-taking.[2]

The Treasury White Paper also outlined options for reforming the U.S. home mortgage market in the absence of GSEs, and these options span the primary policy mechanisms currently proposed. On one side, the U.S. could allow private markets to take over all mortgage market services previously provided by the GSEs; for example, see (Jaffee, 2010, 2011). On the other side, the proposals generally recommend new government mortgage guarantees with a range of limitations in duration, scope, and risk-sharing; see for example, Acharya *et al.* (2011); Center for American Progress (2010); Ellen *et al.* (2010), and Hancock and Passmore (2010). Prior to the Treasury White Paper, a wider range of proposals were considered that focused on either recreating the GSEs or in designing institutions that would directly replace the GSEs (but presumably without the GSE flaws). Many of these plans are summarized in Bernanke (2008), Government Accountability Office (2009), and Congressional Budget Office (2010), but they no longer appear relevant and I will not discuss them in this paper.

The focus of this paper is to evaluate the merits of the major alternative proposals for reforming the U.S. home mortgage market in the absence of GSEs. Before turning to the evaluation of the current proposals, it is useful first to discuss a number of factors that necessarily frame such an evaluation:

(1) The proposals generally advocate continuing the current FHA and Housing and Urban Development (HUD) programs that facilitate home purchases by lower-income households. Similarly, most proposals contemplate continuing, in some form, the current GSE programs that support multifamily housing, for example, by moving them into HUD. Therefore, I take as given the existence and continuation of these FHA and HUD programs.
(2) The proposals generally recognize that the Federal Home Loan Bank System raises concerns that are similar to those of the GSEs. The proposals, however, generally advocate specific actions only with respect to the GSEs. The same approach is adopted here.
(3) All the proposals are consistent with measures, many that have already been enacted or are forthcoming, to preclude future "predatory lending" activities of the form that characterized a part of the subprime mortgage

[2] See Jaffee and Quigley (2012) for a benefit and cost analysis of the GSEs that concludes that the net effect is a high social cost.

market. For example, in July 2008, the Federal Reserve (2008) adopted strong additions to the Truth in Lending requirements, and HUD and other agencies are well along in creating parallel initiatives.[3] I take as given the continuing enforcement of strong prohibitions on predatory lending.

(4) Whatever the specific reforms adopted for the U.S. mortgage market, there will also be the question of transition — how to get from here to there. This is a major issue in itself given the dire conditions that currently exist in many of the U.S. residential mortgage and housing markets. I discuss a feasible transition plan in Section 4 of this paper.

(5) The current mortgage and housing market conditions also raise critical policy issues of their own, independent of future market reforms. For example, the government has had limited success with a range of programs that attempt to modify existing mortgages or to expedite the refinancing of these mortgages. I briefly discuss these issues and solutions in Section 5.

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The agenda for the remainder of the paper is as follows. In Section 2, I summarize and discuss the proposal that advocates primary reliance on private markets. In Section 3, I summarize and discuss the proposals that advocate government mortgage guarantees, including a discussion of their variations in terms of duration, scope, and risk-sharing. Section 4 discusses a transition plan, while Section 5 discusses some related issues concerning current government attempts to expedite the modification or refinancing of existing mortgages.

2. Private Mortgage Markets to Replace the GSEs[4]

My research leads me to a strong endorsement of the private markets as the most effective mechanism to replace the GSEs, and I make the case for that position in this section. The case for private markets relies on two fundamental factors. First, there is strong evidence that the private markets are fully capable of carrying out all mortgage market functions to a standard that equals or exceeds that actually experienced under the GSE regime. Second, experience indicates that a program of government guarantees of

[3] The 2010 Dodd — Frank Act combines these various regulations under the authority of the new Consumer Financial Protection Bureau (CFPB). While there is a significant dissent with regard to the CFPB, this dissent seems not to be directed to the specific actions to protect mortgage borrowers.

[4] The discussion in this section is based in part on Jaffee (2010) and Jaffee (2011).

conforming home mortgages is likely to leave taxpayers, once again, to pay the high costs of defaulting mortgages. I take up the affirmative case for private markets in this section.

2.1. *Private markets have effectively operated the U.S. mortgage market*

The evidence that private mortgage markets have operated effectively in the U.S. economy can be summarized with three comments on the historical role of private markets within the U.S. mortgage market. First, private markets have always originated 100% of U.S. mortgages, and closing the GSEs would not affect this. Second, the GSEs have never held a significant share of the outstanding U.S. home mortgages. This is confirmed in Figure 1, which shows the final holders of all home mortgages — whether held as whole mortgages or as positions in mortgage-backed securities. The GSE share is 12% at year-end 2010 and through most of their history the share was a single-digit value. In contrast, the depository institutions and capital market investors together currently hold 88%. Thus, it would not require a substantial change for these institutions and investors to take on the GSE share, particularly assuming a gradual transition.

The third point concerns the GSE guarantees of MBS that are held by third-party investors. Figure 2 shows these GSE guaranteed MBS as a share

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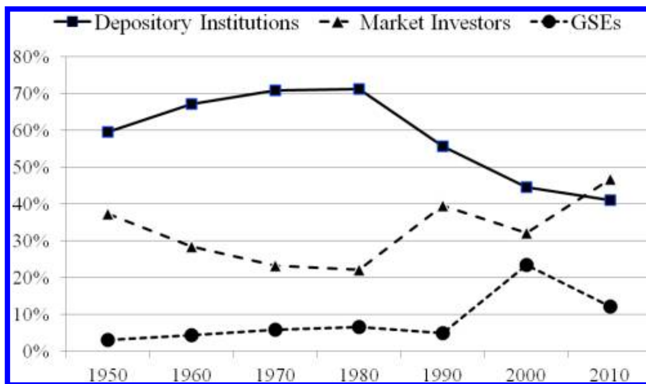

Fig. 1. U.S. Home Mortgage Holdings by Investor Class; Source: Federal Reserve Flow of Funds Data. The data are tabulated at the end of each decade and show the U.S. home mortgages held by investor class. The data combine mortgages held directly (whole mortgages) and mortgages held as an investment in a mortgage-backed security. Depository institutions include commercial banks, savings and loan associations, and credit unions. The GSE variable represents mortgage positions on the GSE balance sheet. Market investors are computed as a residual and represents pension funds, mutual funds, and similar institutional investors.

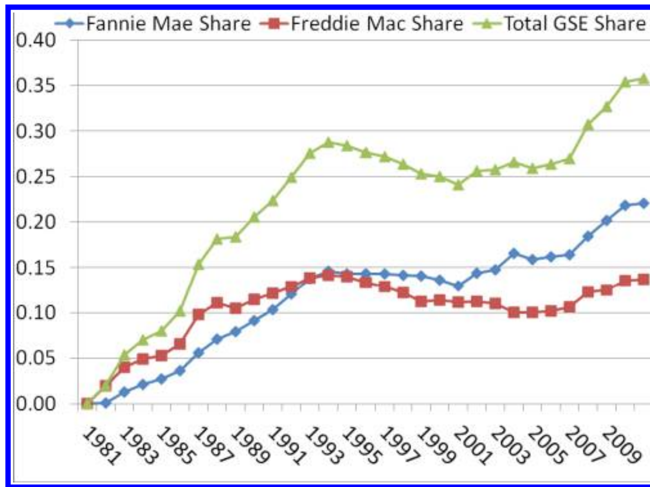

Fig. 2. GSE MBS Share of Total Home Mortgages Outstanding Source: Federal Housing Finance Agency Report to Congress 2010 and Flow of Funds, Federal Reserve. The GSE MBS share of total home mortgages outstanding grew rapidly during the 1980s, declined during the 1990s, and then expanded again after 2007.

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of total home mortgages outstanding. The GSE MBS share of total home mortgages first exceeded 30% only in 2007. This confirms that the private markets — depository institutions and capital market investors — are capable of holding or securitizing the large majority of U.S. mortgages. Of course, as Figure 2 shows, after 2007 the GSE MBS share exceeded 35% of the market, and this is sometimes presented as evidence of a limited private market capability. In my opinion, however, this reflects crowding out, whereby subsidized GSE MBS dominate the market for all mortgages up to the conforming loan limits — the maximum loan size allowed for GSE activity. It is also noteworthy that the market for jumbo mortgages — mortgages that exceed the conforming loan limit — has generally functioned effectively.[5]

My conclusion from the above three points is that the U.S. private markets have proven to be effective in carrying out all mortgage market functions as long as they have not been crowded out by the subsidized GSEs.

[5]I know of no instances of limited availability of mortgage funding for borrowers with loans above the corresponding loan limit. Furthermore, most empirical evidence places the rate differential between jumbo loans — loans above the conforming loan limit — and conforming loans at about 25 basis points. This reflects the GSE subsidy, although, in fact, it appears that only about half of the GSE subsidy was actually passed through to conforming loan borrowers. See Jaffee (2011) for more discussion of the available empirical evidence.

2.2. *Private markets effectively operate the mortgage markets of Western Europe*

The second set of evidence on the efficacy of private mortgage markets is the experience in other developed countries. I have recently carried out research that compares the mortgage and housing market performance of the U.S. with that of 15 major Western European countries. This is relevant because none of these European countries provides an amount of government assistance to their housing and mortgage markets close to that provided in the U.S., and, in particular, none has any institution comparable to our GSEs.[6] Nevertheless, the mortgage and housing markets of these countries have significantly outperformed the U.S. markets on all available measures.

Table 1 summarizes the data from my research. The first important fact is that the U.S. homeownership rate, 67.1% at year-end 2009, is actually below the average rate of the 15 European countries, with the home ownership rates of seven European countries actually exceeding that of the U.S. This is all the more remarkable because the population density of these countries far exceeds the U.S. and some of these countries — Austria and Germany for example — have longstanding social traditions to postpone the date of first home purchase.

Second, the U.S. volatility of both housing starts and home prices has exceeded the values for most Western European countries, with the U.S. ranking third out of 16 in construction volatility and fifth out of 16 in house price volatility. Finally, the average of U.S. mortgage interest rates has significantly exceeded the corresponding average for the 15 European countries. The lower European mortgage rates are mainly the result of the much lower default rates for European mortgages. Even with the current financial distress in Europe, their mortgage default rates have remained very low. The financial distress currently facing many European banks is mainly the result of losses on construction loans and sovereign debt, and not on home mortgages.

I expect private markets will deliver lower mortgage rates in the U.S. for the same reason as in Europe. That is, private investors will require the mortgage loans they purchase to be originated under high underwriting

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[6] Coales and Hardt (2000) confirm the limited government interventions into European mortgage markets. To be clear, many of these countries do have government programs that are similar to the existing U.S. FHA and HUD programs. Since it is anticipated that these existing U.S. programs would also continue, at least at their current scale if not larger, under a new private market regime, the evidence from European mortgage markets appears relevant.

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Table 1. The Performance of European Mortgage Markets in Comparison With the US[1].

Statistical Measures Computed with annual data by country for the years 1998 to 2009	(1) Rate of Owner Occupancy 2009	(2) Coefficient of Covariation Housing Starts[2]	(3) Standard Deviation of House Price Inflation	(4) Mortgage Adjustable Rate Average Level	(5) Mortgage Interest Rate Average Spread[3]	(6) Mortgage to GDP Ratio 2009
Western Europe						
Austria	56.2%	6.8%	2.5%	5.00%	1.79%	26.2%
Belgium	78.0%	15.9%	4.1%	5.75%	2.54%	43.3%
Denmark	54.0%	57.4%	8.7%	5.90%	2.46%	103.8%
Finland	59.0%	14.4%	4.0%	4.34%	1.12%	58.0%
France	57.4%	18.2%	6.4%	4.90%	1.69%	38.0%
Germany	43.2%	29.5%	1.7%	5.19%	1.98%	47.6%
Ireland	74.5%	84.2%	13.8%	4.43%	1.07%	90.3%
Italy	80.0%	25.7%	3.1%	4.96%	1.63%	21.7%
Luxembourg	75.0%	19.2%	4.8%	4.26%	1.05%	42.0%
Netherlands	57.2%	12.3%	6.6%	5.13%	1.93%	105.6%
Norway	76.7%	24.3%	5.2%	6.28%	1.43%	70.8%
Portugal	76.0%	27.2%	4.1%	4.91%	1.64%	67.5%
Spain	85.0%	60.5%	7.7%	4.29%	1.03%	64.6%
Sweden	66.3%	61.7%	3.4%	3.83%	0.80%	82.0%
United Kingdom	69.5%	13.9%	7.1%	5.24%	0.75%	87.6%
EU Average	67.2%	31.4%	5.6%	4.96%	1.53%	63.3%
US	67.2%	40.0%	7.5%	5.16%	2.10%	81.4%
US Rank	8th of 16	5th of 16	4th of 16	6th of 16	3rd of 16	5th of 16

Notes: (1) Unless noted otherwise, the data are all from European Mortgage Federation (2009), an annual fact book that contains comprehensive mortgage and housing market data for the years 1998 to 2009 for 15 Western European countries and the United States. (2) Computation based on housing starts where available; all other countries use housing permits. (3) The mortgage interest rate spread equals the mortgage interest rate (column 4) relative to the each country's 3-month Treasury Bill rate; Source OECD Economic Outlook Database.

standards. The decline in U.S. mortgage rates that will result from greater safety will offset the pressure toward higher mortgage rates that will result as the GSE subsidies are eliminated. Equally importantly, the switch to safer mortgages will preclude any future replay of the huge economic and social costs we are currently facing from high foreclosure rates on risky mortgages.

3. A New Government Mortgage Guarantee Program to Replace the GSEs

New government mortgage guarantee programs are at the core of the primary proposals that advocate a significant and continuing government interventions into the U.S. mortgage markets. Advocates of such government interventions believe that, at least in the short-run, private markets are unable to carry out the fundamental mortgage market functions previously carried out by the GSEs. Advocates of these proposals also believe that government mortgage guarantee programs can be efficiently structured and operated. I now comment on both of these positions.

3.1. *The critique of private markets by advocates of government intervention*

The position that private markets are insufficient for the U.S. mortgage sector is generally based on one or more of the following three points:

(1) It is pointed out that the private mortgage markets are currently moribund, and that they see no mechanism through which the private markets can replace the current dominant role of the GSEs. In contrast, as I already noted, I believe the current dominant position of the GSEs is simply the result of crowding out. In my view, a private market revival will follow rapidly once we remove the current GSE subsidies.

(2) It is claimed that the 30-year, fixed-rate, mortgage can exist only with a government guarantee program.[7] In my view, this is in error for two reasons. First, the primary risk on long-term, fixed-rate, mortgages is interest rate risk, and neither the GSEs nor any of the proposed government guarantee programs provide any protection against this risk. Second, without even considering government guarantees, the credit risk on long-term mortgages is actually lower than on, say, adjustable rate

[7] See Green and Wachter (2005) for a historical review of the U.S. mortgage contract.

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mortgages. The final proof is that private markets in the U.S. and Europe have long provided long-term, fixed-rate, mortgages and at accessible interest rates.

(3) It is claimed that government guarantees are essential to the so-called TBA forward market for mortgage securitization. This is also in error for two reasons. First, as long as the existing FHA and GNMA programs exist, and most likely they will expand, the TBA market can continue to exist. Second, and more fundamentally, the private markets for hedging interest rate risk have proven highly satisfactory for controlling the pipeline risk that arises in private label securitization in the U.S. and covered bond issuance in Europe. It seems to put the cart before the horse to advocate government mortgage guarantee programs so that the forward market for government guaranteed mortgages can continue to operate.

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3.2. *A critique of government mortgage guarantee programs*

Other researchers do not share my confidence in the private markets and they have proposed a variety of government mortgage guarantee plans to replace the GSEs. The most modest of these plans proposes a temporary government program of catastrophe insurance, to allow the markets more time to stabilize, before reverting to a fully private system. Other plans propose continuing government guarantees. As it happens, the U.S. Federal government and several state governments have long experience with government-provided catastrophe insurance, and it is useful to review the successes and failures of several of these government insurance programs.

The Terrorism Risk Reinsurance Act (TRIA) is arguably the most successful of all the current government insurance programs; see Jaffee and Russell (2010). TRIA provides reinsurance against the catastrophic losses that an insurer may suffer from providing terrorism insurance on commercial buildings. It was enacted, following 9/11, to provide insurers with reinsurance to offset the losses they would face from claims created by a terrorist attack. TRIA has been successful in ensuring that the private market for terrorism insurance is now active and efficient, with private insurers taking the first-loss position for all events. Furthermore, taxpayer payments arise only for the most extreme events where the insured losses would substantially exceed the insured losses realized from 9/11. If a catastrophe backstop for the U.S. mortgage market is considered critical, a TRIA-like plan could work well. However, even here, it is worth noting that the original

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TRIA Act had a five-year sunset provision, but it is has been renewed twice since then, and it is unlikely to be allowed to expire in the near future. As Milton Friedman put it, "Nothing is so permanent as a temporary government program."

Unfortunately, the actual implementation of a new government mortgage guarantee programs is likely to require the U.S. government itself to take the first-loss position, quite the opposite of providing reinsurance against only catastrophic losses. This is the experience with the National Flood Insurance Program on the federal level and with the Florida Hurricane Fund on the state level. While the authorizations for these programs used the right words — no subsidies, risk-based premium, sound capital, etc. — in practice, they have proven costly or ineffective. Specifically, following Katrina, the National Flood Insurance Program required more than a $18 billion bailout to cover the losses that were in excess of its insurance reserves; see Michel-Kerjan and Kunreuther (2011). The Florida Hurricane fund is similarly a ward of the state of Florida.[8]

The common problem of these government insurance programs is the inability to maintain premiums at a true actuarial level. Instead, the underwriting standards and premiums are both reduced, and sooner or later the insurance reserves prove inadequate, leading to taxpayer costs. I fear a new government mortgage guarantee plan will follow this path, ultimately leading to further taxpayer losses.

4. The Transition From the GSEs to a Private Mortgage Market

The U.S. housing and mortgage markets are currently in a highly distressed state, and rapidly closing down the GSEs would be inadvisable. There is, however, a safe and dependable mechanism to close down the GSEs, namely to reduce the conforming loan limits in a steady sequence. For example, a reduction in the conforming loan limits by $100,000 annually would basically close down the GSEs in seven years. This also has several additional desirable features:

- The GSE subsidies would remain on the smaller sized mortgages for as long as possible.

[8] The California Earthquake Authority (CEA) is an exception in that the premiums it charges are a direct pass-through of the cost of reinsurance that it purchases from private market providers. To date, the CEA has also has had the good luck of no major earthquakes. But it is still not successful. Remarkably few California homeowners purchase the coverage due to its high cost.

- The private market would anticipate the annual opening of each new tier of the market.
- The process could be stopped if it appeared the private markets were not responding.

It is also noteworthy that the mortgage portfolio current held on the balance sheet of the GSE could also be allowed to roll off in an orderly fashion. Assuming the effective duration of most U.S. mortgages is about seven years, the balance sheet portfolios would disappear in tandem with the steady reductions in the conforming loan limits.

An important first step occurred on October 1, 2011, as the conforming loan limits were automatically reduced by approximately $100,000, as a previous temporary increase expired. It will be instructive to observe whether private mortgage market activity will, or will not, be successful in replacing the previous GSE activity in the range of loan sizes that are no longer available to GSE activity.

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5. The Role of GSE Mortgage Market Activity Under the Conservatorship

In concluding, it is relevant to comment on the role of GSE mortgage market activity since the two firms were placed under a government Conservatorship in September 2008. Relevant data on the home mortgage acquisitions of the GSEs and for the total home mortgage market are shown in Table 2 for 2009

Table 2. Home Mortgage Activity, 2009 and 2010.

Home Mortgage Activity in $ Billions	2009	2010	Total
Fannie Mae Mortgage Acquisitions	700	608	1,308
Freddie Mac Mortgage Acquisitions	475	386	861
Total GSE Mortgage Acquisitions	1,175	994	2,169
Total Home Mortgage Originations	1,840	1,630	3,470
Share of Total Home Mortgage Originations			
GSE Share of Total Originations	64%	61%	63%
FHA and VA Share of Total Originations	24%	23%	24%
GSE, FHA, and VA Share of Total Originations	88%	84%	87%
Total GSE Refinanced Acquisitions	80%	79%	80%
Total Home Mortgage Refinancings	69%	67%	68%

Sources: Federal Housing Finance Agency 2010 Annual Report to Congress, Inside Mortgage Finance (for total and refinanced mortgage originations), and Fannie Mae and Freddie Mac 2010 Annual Reports (for GSE refinancings).

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and 2010. The raw numbers suggest a significant GSE and overall government role. For 2009 and 2010, annual GSE mortgage acquisitions as a percentage of total home originations was 63%. FHA and VA activity averaged 24% of total home originations over the same period, so government programs participated in an average of 87% of all mortgage originations for 2009 and 2010.

The high GSE market share under the Conservatorship, however, can be misleading. First, 80% of all GSE mortgage acquisitions were refinanced loans, so only 20% of the GSE activity represented loans for home purchase. The GSE refinancing activity includes the refinancings that occurred under the Home Affordable Refinance Program (HARP). In comparison, for the overall mortgage market, home refinancings represented 68% of total mortgage originations, leaving 32% of the originations for home purchase activity. The conclusion is that, while the GSEs dominated U.S. mortgage market activity in 2009 and 2010, most of this activity was simply the refinancing of mortgage loans that had already been guaranteed by the GSEs. To be clear, refinancing activities are certainly beneficial to the borrowers, and generally so for the GSEs as well (since they reduce the likelihood of default on these loans for which the GSEs are already at risk). On the other hand, refinancing is a zero-sum game, since the investors who are holding the higher rate mortgages will have to reinvest their money at the now lower market rates. Indeed, the Federal Reserve, U.S. Treasury, and GSEs are major holders of these GSE mortgage securities, so the HARP program is far from cost-free for the government itself.[9]

The GSEs also participate in the Home Affordable Modification Program (HAMP), along with servicers for non-GSE home mortgages. As of September 2011, the GSE share of total HAMP modifications was 52%, only slightly above the GSE share of all outstanding home mortgages. This suggests that the participation rate in HAMP modifications was about the same for GSE and non-GSE mortgages. Perhaps more importantly, the HAMP program is widely considered to be a disappointment. As of September 2011, just over 800 thousand loans had been modified, compared to the earlier hopes of three to four million loans.

My overall conclusion is that, while it has been appropriate policy to maintain the GSEs under the government Conservatorship through 2011, the primary quantitative benefit has been provided through the refinancing

[9] See Remy *et al.* (2011) for a Congressional Budget Office analysis of the most recent changes in the HARP program.

of existing mortgages. In terms of funding for home purchase loans, private market lenders have actually been more active than the GSEs, even without the benefit of a government guarantee.

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