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What to Do About the GSEs?

Matthew P. Richardson,[1,2] Stijn Van Nieuwerburgh,[1,2] and Lawrence J. White[1]

[1]Stern School of Business, New York University, New York, NY 10012; email: mrichar0@stern.nyu.edu

[2]National Bureau of Economic Research, Cambridge, Massachusetts 02138

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Abstract

Fannie Mae and Freddie Mac, the two large government-sponsored enterprises (GSEs) that are at the center of US residential mortgage finance, are "elephants in the room" that are being ignored as part of broad-brush financial sector reform. Neither the Dodd–Frank Act nor recently proposed overhauls of Dodd–Frank have addressed reform of the GSEs' structures, although the GSEs were placed in government conservatorships in early September 2008 and have remained in that state since then. In this article, we review what the GSEs do and how they got themselves into financial difficulties, and we provide an overview of some of the major proposals for reforming the US residential mortgage finance system. We conclude with our own ideas and suggestions for how housing finance, as well as housing policy more generally, should be reformed.

1. INTRODUCTION

Fannie Mae and Freddie Mac, the two large government-sponsored enterprises (GSEs) that are at the center of US residential mortgage finance,[1] are "elephants in the room" that are being ignored as part of broad-brush financial sector reform. Neither the Dodd–Frank Act nor recently proposed overhauls of Dodd–Frank, such as the House Republicans' Financial CHOICE Act, have addressed reform of the GSEs' structures, although the GSEs were placed in government conservatorships in early September 2008 and have remained in that state since then.

Nevertheless, as we argue in this article, reform of the GSEs is essential for a more efficient housing finance system. Accordingly, there are two central issues for financial reform with respect to the GSEs: first, the immediate issue of what should be done about the GSEs; and second, larger questions of how residential mortgages should be financed and how US public policy toward housing finance and toward housing in general should be structured.

2. WHAT THE GSES DO

Fannie Mae and Freddie Mac are large financial institutions that operate in the secondary mortgage market (for details, see Frame & White 2005, Acharya et al. 2011b; see also Jaffee et al. 2009, Acharya et al. 2011a). They buy residential mortgages[2] from mortgage originators, i.e., from banks (meaning commercial banks and other depository institutions, such as savings institutions and credit unions, unless otherwise indicated) and mortgage companies (sometimes called mortgage banks, these are companies that originate mortgages and immediately sell them in the secondary market), and bundle the mortgages into mortgage-backed securities (MBSs) that are sold in the capital markets; the MBSs can be structured as simple pass-through securities, or they can take more complex forms. These MBSs carry the GSEs' guarantees to MBS investors against losses resulting from credit risks on the underlying mortgages.[3] The GSEs charge a small fee to the mortgage originators for this guarantee and, at least in the past, were required to hold \$0.45 of capital for every \$100 of mortgage face value guaranteed.

In addition, both banks and the GSEs keep some of the mortgages on their own balance sheets, financing these retained mortgages with deposits (for banks) and debt (for the GSEs).[4] During the financial crisis, banks and GSEs purchased large amounts of both prime and nonprime (Alt-A and subprime) MBSs. Whereas the GSEs were required to hold just \$2.50 for every \$100, banks were required to hold an even smaller amount, \$1.60, if the MBSs were guaranteed by the GSEs.

[1]There is one additional large GSE, the Federal Home Loan Bank System (FHLBS), that we do not address. The FHLBS is a group of 11 large wholesale banks that collectively borrow in the capital markets and provide wholesale financing for banks and other depository institutions. As of year-end 2015, the FHLBS had \$969 billion in assets. Any legislative reform of Fannie Mae and Freddie Mac would likely—and should—include reform of the FHLBS. More detail on the FHLBS is provided by Frame & White (2011). We use the term GSEs to refer only to Fannie Mae and Freddie Mac, except where otherwise indicated.

[2]The mortgages that they buy must conform to specified standards and are thus described as conforming loans: There are limits on the size of the mortgage that can be bought, and the mortgage borrowers are expected to make a 20% down payment (unless they obtain private mortgage insurance or there is some other support for the mortgage) and to have credit scores that make them good credit risks.

[3]The GSEs charge an annual guarantee fee (g-fee) for that credit-risk guarantee. For a discussion of the mispricing of the GSEs' guarantees, see, for example, Lucas & McDonald (2006, 2010). Elenev, Landvoigt & Van Nieuwerburgh (2016) argue that an increase in g-fees would crowd in the private sector and lead to a system with a less fragile financial system and with fewer but safer mortgage loans and less leverage in the financial sector.

[4]The GSEs financed these asset purchases by issuing debt (so-called agency debt). Because of the implicit government guarantee (which has now become an explicit guarantee), the GSEs are able to borrow at below-market interest rates, i.e., rates below those that an otherwise similar company (but without the guarantee) would have to pay.

Coupled with the aforementioned \$0.45 capital requirement for GSE guarantees, the total capital required in the system was then a paltry \$2.05. This is approximately half of the \$4.00 per \$100 of mortgage assets that banks were required to hold on their balance sheets for the exact same mortgage loans without involvement of the GSEs.

With both the implicit guarantee of the US Government (resulting in a below-market cost for debt financing; see, e.g., Ambrose & Warga 2002) and favorable capital requirements, the GSEs grew rapidly for decades. From the last major GSE legislation in 1992, for example, Fannie Mae and Freddie Mac combined went from holding \$153 billion in mortgages and guaranteeing the credit risk of another \$714 billion to holding \$1.4 trillion and guaranteeing \$3.5 trillion, respectively, by the end of 2007.

The GSEs still play a major role in housing finance. During 2016, the GSEs' mortgage purchases accounted for 45.9% of all single-family mortgage originations; their outstanding MBS guarantees accounted for 59.2% of all single-family residential mortgages.[5]

To understand their outsize importance, note that the GSEs are hybrid organizations. They each have corporate structures, with private shareholders and boards of directors. But their charters come from Congressional legislation (and not, for example, from the state of Delaware, where many large corporations are chartered); the President had the power to appoint 5 of the 18 directors on their respective boards; and they have had special access to US Treasury financing and other special government-related privileges. This is why they are described as government-sponsored.

The problem with the GSEs is that capital markets have always treated them as special, with the strong expectation that the Federal Government would support their creditors if the GSEs had financial difficulties; thus, as mentioned above, the GSEs have been able to finance themselves at a lower cost than their financial structures would otherwise have warranted. In return for this special status, the GSEs' charters call for them to maintain liquidity in the mortgage markets and ensure access to the mortgage markets by borrowers. Since 1992, the GSEs have been expected to meet various housing affordability targets.

2.1. The Conservatorships

Although the GSEs initially operated conservatively (at least, with respect to credit risk; concerning the substantial questions as to their exposure to interest rate risk, see, e.g., Jaffee 2003) and profitably, this discipline broke down in the early 2000s: The private-label (i.e., non-GSE) MBS (PLMBS) sector grew rapidly, and, to protect their market shares, the GSEs expanded their operations into buying and securitizing riskier mortgages. However, the aforementioned levels of equity financing that they were required to maintain—only 0.45% against their MBS credit-risk guarantees and 2.5% against the mortgages that they held on their balance sheets—were not sufficient to protect them against the potential credit losses of these riskier mortgages.

The GSEs' profitability fell in 2006, and they ran losses in 2007 and the first half of 2008. By late summer 2008, they were approaching insolvency, and on September 6, 2008, they were placed into government conservatorships. [The conservatorships were authorized by Congress through the Housing and Economic Recovery Act (HERA) of 2008. The conservatorship decision and

[5]The GSEs also operate in the secondary mortgage market for multifamily housing, but that is a far less important part of their operations; the mortgage market for multifamily housing is about one-tenth the size of the single-family mortgage market. In addition to the GSEs, Ginnie Mae (which is an agency within the US Department of Housing and Urban Development) securitizes mortgages that are insured by the Federal Housing Administration (FHA), the Department of Veterans Affairs (VA), and the Department of Agriculture. Banks also hold some residential mortgages—typically those that exceed the conforming loan value limit and/or that do not meet the documentation or other criteria of the GSEs—on their own balance sheets.

processes are discussed by Frame et al. 2015; see also Sorkin 2009, Paulson 2010, Morgenson & Rosner 2011, Hagerty 2012, Howard 2014, and McLean 2015.] In essence, they were placed under the direct control of their regulator, the Federal Housing Finance Agency (FHFA), where they remain today. As their majority shareholder, the Department of the Treasury also exerts substantial control over the functioning of the GSEs.[6]

The capital markets' expectations that the GSEs' creditors would remain whole in the event of financial difficulties proved to be accurate: The direct creditors (bondholders) to the GSEs, including subordinated debt holders, have not suffered losses as a consequence of the conservatorships, and the GSEs' guarantees to their MBS investors have been honored as well.

2.2. Important Changes During the Conservatorships

Prior to the conservatorships, the GSEs' critics worried that their on-balance sheet holdings of mortgages had ballooned because of their favorable financing from the capital markets (resulting from their GSE status) and because their equity financing requirement for these mortgages was only 2.5%. In essence, they worried that the GSEs had become very large, highly leveraged, and (possibly) maturity-mismatched hedge funds for the benefit of their shareholders. Subsequent to the conservatorship, there was the realization that their credit-risk guarantees on their MBSs also posed a risk to the Federal Government, again because of the GSEs' special status and the belief of the capital markets that the Federal Government would cover the GSEs' losses at a time of financial difficulties, as had actually happened in 2008 and would likely happen again.

The FHFA has taken actions, authorized by the HERA, to address both of these concerns. First, the size of the GSEs' balance sheets has shrunk. Whereas, at year-end 2008 (shortly after the onset of the conservatorships), Fannie Mae had on-balance sheet mortgage holdings of $768 billion and Freddie Mac had on-balance sheet mortgage holdings of $749 billion, as of the first quarter of 2017, their on-balance sheet mortgage holdings were $268 billion and $291 billion, respectively.

Second, the GSEs have been reducing the credit risks on the mortgages that they own and have guaranteed through two mechanisms: (*a*) They have been buying insurance against credit losses on the mortgages, and (*b*) they have issued the rough equivalent of catastrophe bonds, whereby the bond buyer is repaid less principal in the event of credit losses on the underlying mortgages. (For further discussion of these risk reduction processes, see FHFA 2016; for the most recent numbers, see Urban Inst. 2017.) In essence, the GSEs have privatized some credit risks through these front-end (insurance) and back-end [credit risk transfer (CRT)] transactions. As of May 2017, the risks on 29% of Fannie Mae's guarantees and 42% of Freddie Mac's guarantees have been privatized in this way. In addition, the annual guarantee fees on the GSEs' MBS, which had been in the range of 20–25 basis points, have more than doubled to 50–60 basis points. In conjunction with the privatization of some of the GSEs' risks (which, as we discuss below, we strongly endorse), these higher g-fees have meant that the GSEs may currently be earning more in compensation for default risk than they have been paying for insurance and paying to investors in catastrophe bonds.[7]

[6]Upon conservatorship, common equity shareholders were wiped out and preferred shareholders were diluted—with the US Treasury acquiring a 79.9% ownership—but not eliminated. The preferred shareholders, which are now largely hedge funds and private equity funds, are currently suing the Federal Government over the legality of the continued conservatorships and the Treasury's absorption of all of the current operating profits of the GSEs.

[7]A back-of-the-envelope calculation on the first Fannie Mae and Freddie Mac CRT deals from 2013 by Goodman (2014) reveals that the CRT bond yields imply a guarantee fee below 40 basis points, whereas the GSEs charged a 60-basis-point guarantee fee on the loans in this vintage. These calculations ignore that the government continues to bear the catastrophic

3. LITERATURE REVIEW

The collapse of the GSEs and the ensuing discussion on the redesign of the US housing finance system have prompted a growing academic literature. Several recent papers study the effects of a policy that would abolish the GSEs. Because of the large role the GSEs play in the overall mortgage and housing markets, such a counterfactual analysis requires a general equilibrium model. In addition to exploring the effects on house prices, mortgage credit provision, and mortgage interest rates, these studies emphasize the distributional implications of a GSE phase-out.

Jeske, Krueger & Mitman (2013) analyze mortgage guarantees in a model with heterogeneous agents and idiosyncratic risk. They model the GSEs as enjoying a funding subsidy that lowers the cost of mortgage credit to all households. They conclude that eliminating the mortgage default guarantees provided by the GSEs is a progressive policy that would hurt high-income, high-wealth households the most. After all, these households buy larger houses with larger mortgages and receive greater subsidies. Abolishing the GSEs reduces overall mortgage origination in the authors' model. The policy increases aggregate welfare by 0.5% in consumption equivalence units. The welfare gain arises from a reduced fiscal burden once the GSE subsidy no longer needs to be financed by taxpayers. Eliminating the GSEs reduces wealth inequality.

Gete & Zecchetto (2017) use a similar framework but instead model the GSEs as a credit risk subsidy. The risk of the borrower, rather than the size of the mortgage, determines the size of the subsidy. Low-income mortgage borrowers receive the largest GSE subsidies because they have the largest default risk. The distributional implications reverse: Poor, high-risk borrowers are hurt most by the elimination of the GSEs. The higher cost of mortgage credit for low-income households increases wealth inequality. Higher mortgage payments reduce these households' ability to accumulate wealth. Equilibrium safe interest rates fall to discourage the supply of savings in the wake of the fall in demand for mortgage credit. This further hampers the accumulation of wealth, especially for renters. The elimination of the GSEs reduces the home ownership rate. The equilibrium price of housing falls while rents rise. The higher rents and lower interest rates hurt poor renters. Rich households shift wealth from safe assets to housing, as the returns to becoming a landlord have increased. In this model, the majority of households oppose the removal of the GSEs, which may explain the observed resistance to change.

Elenev, Landvoigt & Van Nieuwerburgh (2016) emphasize the effect of the underpriced government mortgage guarantee on the fragility of the mortgage banking sector. They study a general equilibrium model with aggregate shocks and an explicit role for the financial sector, but without heterogeneity among borrowers or rental markets. Their model features borrowers, depositors, bankers, and a government that, in addition to subsidizing mortgage credit risk, provides a bailout guarantee to the banks. Phasing out the GSEs is modeled as an increase in the g-fee that banks have to pay the government in return for the mortgage guarantee. Raising the cost of the insurance induces banks to reduce their purchases of the guarantee. As the private sector is crowded in, the cost of mortgage credit starts to accurately reflect the default risk. Banks make fewer and less risky loans. Equilibrium mortgage defaults are lower, as are the associated deadweight losses. The reduction in foreclosure risk lowers the fragility of the banking system and reduces macroeconomic risk (aggregate consumption growth volatility). Risk-free interest rates go up, which is consistent with a weakened precautionary savings motive. The overall effect of phasing out the

default risk. Also, it may be prudent to build up some reserves in good times for future states of the world in which private CRT investors demand much higher compensation for bearing mortgage default risk.

GSEs is a reduction in house prices, a reduction in mortgage credit outstanding, a small reduction in the mortgage interest rate, and similarly stable mortgage credit provision as under the status quo. There is an increase in economy-wide welfare of 0.63% in consumption equivalence units. Borrower welfare increases only marginally (+0.04%), whereas depositors (+1.30%) and intermediaries (+1.69%) gain substantially. Although this is a Kaldor–Hicks potential Pareto improvement, the abolition of the GSEs would increase wealth inequality. Allen et al. (2017) also study the moral hazard implications of government guarantees in a model with bank runs.

A closely related literature quantifies the effect of the mortgage interest rate deduction (MID) with respect to personal income taxes and the tax exemption of imputed rental income of owner-occupied housing. Examples include the work of Gervais (2002); Chambers, Garriga & Schlagenhauf (2009b, 2014); Floetotto, Kirker & Stroebel (2016); and Sommer and Sullivan (2016). When house and rental prices are determined endogenously, abolishing the MID lowers house prices and price–rent ratios. This would cause an increase in home ownership rates. This literature generally finds that abolishing the favorable tax treatment of owner-occupied housing is good for society. The reduced tax expenditures allow for a reduction in distortionary labor income taxation, which increases economic output.

Although the GSEs adjust the g-fee for differences in borrower characteristics, such as loan-to-value (LTV) ratio, debt-to-income (DTI) ratio, and FICO score, they do not account for regional variation in labor income or unemployment risk. Hurst et al. (2016) focus on the redistributive implications of this policy. Exploiting discontinuities around the conforming loan limit, they provide empirical evidence that borrowers in regions with below-average default risk pay higher mortgage rates, which cross-subsidizes borrowers in regions with above-average default risk. The fiscal implications of this policy are on the same order of magnitude as the Bush tax cuts in 2008.

Fieldhouse & Mertens (2017a) use a narrative approach to identify regulatory shocks to the supply of mortgage credit, similar to approaches used to classify monetary and fiscal policy shocks. These shocks pick up changes in GSE policies and other housing policy changes, whose effects on the rest of the macroeconomy are studied by Fieldhouse & Mertens (2017b).

This literature fits in a broader literature that explores the causes and consequences of the housing boom and bust. Examples of quantitative papers include those of Chambers, Garriga & Schlagenhauf (2009a); Arslan, Guler & Taskin (2015); Chatterjee & Eyigungor (2015); Corbae & Quintin (2015); Landvoigt, Piazzesi & Schneider (2015); Hedlund (2016); Kaplan, Mitman & Violante (2016); Favilukis, Ludvigson & Van Nieuwerburgh (2017); and Landvoigt (2017). For a recent review of this literature, see Davis & Van Nieuwerburgh (2015). Greenwald (2016) and Elenev (2016) investigate the implications for conventional and unconventional monetary policy.

In addition, a large empirical literature has studied the role of changes in mortgage credit supply, including those caused by the GSEs, in the housing boom and bust. Examples include the work of Gerardi et al. (2008); Foote et al. (2008); Mian & Sufi (2009, 2011); Foote, Gerardi & Willen (2012); Keys, Seru & Vig (2012); Mian, Rao & Sufi (2013); Mian, Sufi & Trebbi (2013); Ghent, Hernandez-Murillo & Owyang (2015); and Adelino, Schoar & Severino (2016). Related empirical work studies the effects of housing policies enacted after the financial crisis, e.g., Agarwal et al. (2017) and Di Maggio et al. (2017). Several of these policies relied on the GSEs for implementation. Campbell (2013) discusses broader implications for mortgage market design.[8]

[8]Relevant policy analyses can also be found in studies that have been done by the Congressional Budget Office (CBO 2014) and by the Urban Institute (2016).

4. THE GSES: WHAT DODD–FRANK DID AND WHAT THE CHOICE ACT PROPOSES TO DO

As mentioned above, Dodd–Frank did nothing substantive with respect to the GSEs. Section 1074 of Dodd–Frank mandated a report by the Treasury on what should be done about the GSEs. The Obama Administration delivered its report in February 2011 (see US Department of the Treasury & Department of Housing and Urban Development 2011). That report provided a range of choices as to possible actions, but did not indicate what course of action the Obama Administration endorsed. Dodd–Frank devoted a considerable amount of attention to regulation with respect to residential mortgages, which has some indirect consequences, mostly favorable, for the GSEs.

The proposed Financial CHOICE Act, which has recently been put forward to roll back many of the provisions of Dodd–Frank, similarly avoids any substantive action with respect to the GSEs. Like Dodd–Frank, it requires the Treasury to report to Congress; however, Section 336 of the CHOICE Act requires annual reports rather than the single report specified in Dodd–Frank.

5. WHY HAVE THE GSES BEEN THE "ELEPHANTS IN THE ROOM"?

Before we offer our recommendations for the disposition of the GSEs and for housing finance and housing policy more generally, it is worth considering why the GSEs were ignored by Dodd–Frank and seem likely to be ignored by reforms of Dodd–Frank such as the proposed CHOICE Act.

First, the crisis that precipitated the conservatorships of the GSEs has passed. The GSEs are not currently in the risky position that brought them to the brink of insolvency in 2008. Although the GSEs in conservatorships jointly had to draw on the Treasury for $188 billion to avoid insolvency, they have subsequently produced positive earnings and are currently making payments to the Treasury.[9] That the GSEs are currently making positive contributions to the Treasury is no small thing when the overall federal budget continues to run substantial annual deficits.

In addition, as discussed above, the FHFA (as authorized by the HERA) has required the GSEs to take actions—shrink their balance sheets, offload some of their risks to the private sector, double their annual guarantee fees—that have reduced the Federal Government's exposure to the downside risks of the GSEs' actions. Again, the crisis has passed.

Second, broadly encouraging and subsidizing home ownership (and also rental housing, which the GSEs also finance) has been a politically popular activity. It is even more popular when the subsidy is implicit and off-budget, as has been true because of the special status of the two GSEs. (It is worth remembering, however, that the charters of the GSEs do not mention subsidy; instead, the goals of the GSEs should be to maintain liquidity in mortgage markets and to ensure access. Even the housing affordability goals that have been present since 1992 do not mention subsidy.) Lobbying and campaign contributions by companies and their trade associations that are directly or indirectly involved in housing, such as real estate agents, mortgage companies, home builders, appliance manufacturers, etc., enhances the political popularity of subsidizing housing.

[9]Their payments to the Treasury have totaled over $250 billion. This fact, however, deserves two comments: First, these are nominal sums and do not take into account the time value of money. Whether one believes that the GSEs have completely paid back their original draws on the Federal Government depends on what one thinks the appropriate interest rate on the government investment in the GSEs should be. It is worth recalling that at the time of the conservatorships, the GSEs were unable to raise funds in the capital markets—i.e., private investors were unwilling to lend to them. Second, these earnings do not incorporate potential losses from future mortgage defaults that may arise if another widespread housing collapse occurs. Since the financial crisis of 2007–2009, housing prices have mostly recovered, and therefore there have been far fewer defaults. Extensive defaults take place only during periods when housing prices fall, so earnings of the GSEs will tend to be asymmetric.

Any proposed reform of the GSEs would likely reduce the extent of government backing for them and thereby raise mortgage costs for their future borrowers. A substantial fraction of Congress (encouraged, of course, by the lobbyists mentioned above) would immediately object.

Third, any proposals to reform Fannie Mae and Freddie Mac would raise the question of whether the other large GSE, the FHLBS, should also be reformed. That prospect adds an extra set of issues and controversies.

In consequence of all of this, in addition to the silence of Dodd–Frank and the CHOICE Act with respect to the reform of the GSEs, there have been very few specific legislative proposals aimed at addressing the GSEs. During 2013 and 2014, there were a few exceptions, such as the Corker–Warner Act, the Johnson–Crapo Act, and the Protecting American Taxpayers and Homeowners (PATH) Act,[10] that gained some media attention but then lost momentum without being passed by Congress. We comment on these proposals in Section 7.

6. WHAT SHOULD BE DONE?

The consequences of the financial crisis of 2007–2009 put into question the housing finance system of the United States and the role the GSEs played in its development. Though not unanimous in its thinking, the aforementioned literature generally finds welfare gains from phasing out the GSEs.

In earlier writings we laid out the principles that should guide a system of housing finance (see, for example, Jaffee et al. 2009; Acharya et al. 2011a,b). In essence, the goal of reforming housing finance should be to ensure an efficient mortgage market, both in primary (origination) as well as in secondary mortgage markets, while maintaining financial stability. We have in mind an efficient housing finance system that corrects any government and market failures if they exist, notably, in this case: (*a*) unpriced government guarantees that destroy market discipline and lead to below-market borrowing rates, encouraging excess leverage and risk taking; and (*b*) the externality from undertaking too much credit and interest rate risk, as this risk is inherently systemic in nature.[11]

Moreover, the bulk of the mortgage finance system should not have national housing policy injected into it, as mortgage finance generally is an inefficient way of addressing the affordability and income-redistribution goals that are usually at the center of housing policies.[12]

As a general matter, given the difficulties in pricing government guarantees and maintaining a level playing field between the different financial players in the mortgage market to limit a concentrated buildup of systemic risk, the mortgage finance system should be one that is primarily private in nature. In this regard, there are two important questions. The current US mortgage finance system is heavily based on capital market financing implemented through securitization. Is such a system efficient relative to bank-financed systems that exist nearly everywhere else in the world? Is the system consistent with the goal of financial stability?

[10] For detailed summaries of all three bills, see **http://www.housingwire.com/ext/resources/files/Editorial/GSELegislativeProposalsComparison.pdf**.

[11] The negative externality arises when individual firms acting optimally in their own self-interest choose leverage and risk-taking activities that, in aggregate, can lead to capital shortfalls during severe downturns, leading to aggregate financial disintermediation and therefore knock-on effects to the real economy. Note that although government guarantees amplify this externality, it still exists even if guarantees are correctly priced or nonexistent.

[12] As we discuss below, we believe that any subsidy that does remain for housing finance should be on-budget and transparent, e.g., through FHA and VA. For an early essay that shows the GSEs' lack of achievement in addressing affordability, see Brown (2001).

Specifically, we argue below that at the center should be the securitization of mortgages that conform to reasonable credit quality and are standardized,[13] with the underlying credit risk being borne by investors, perhaps with some support from private guarantors—in other words, with few guarantees (if any) from the government. We maintain the view that the system can be based on the capital markets (i.e., relying on securitization), instead of on banks. The institutions involved in this endeavor should not be housed in government; also, to the extent that securitization requires government guarantees of tail credit risk, these guarantees must be priced by the market.

6.1. An Efficient Housing Finance System

In comparing the bank financing model for housing versus the securitization model, the discussion is appropriately framed as a trade-off between better aligned incentives associated with banking versus greater cost efficiencies and superior risk allocation using capital markets.

For example, there is some evidence, primarily focused on the financial crisis, that banks are better than lenders and servicers in the residential MBS process at screening borrowers, structuring bespoke mortgages, and modifying mortgages in default (see, for example, Loutskina & Strahan 2009; Keys et al. 2010; Piskorski, Seru & Vig 2010; Loutskina 2011; Purnanandam 2011; Dell'Ariccia, Igan & Laeven 2012). Some of this evidence, however, is contested by Adelino, Gerardi & Willen (2010, 2013) and Black, Krainer & Nichols (2014).

To this point about bank financing, in mortgage finance systems in countries outside the United States, lenders retain the risk of mortgages (skin in the game). In particular, the cross-section of mortgage funding models across various developed countries shows that few countries have any entities that resemble Fannie Mae or Freddie Mac (see, e.g., Campbell 2013). The majority of countries rely on a bank-based system in which mortgage lenders retain the mortgage loans on their books. These institutions are subject to prudential regulation just like any other bank. And the argument cannot be that this has a major negative impact on homeownership rates. Of the 25 most developed countries, the United States ranks 17th in homeownership rate. What is unique about US mortgage finance is that almost two-thirds of all mortgages are securitized, whereas, for the next largest securitizers abroad—Australia and Canada—this figure is only about 20%.[14]

Yet there are reasonable economic grounds for preferring the US mortgage finance system of securitization. Securitization truly can "turn lead into gold": Securitization takes illiquid mortgage loans and pools them to form liquid MBSs that trade on the secondary market. Because illiquidity commands a risk premium, the more liquid mortgage assets from securitization command better prices and thus a reduced mortgage rate. An additional benefit is that the credit risk gets transferred out of the systemically risky banking sector to the capital markets at large. In other words, if securitization works the way it is supposed to, the banking sector can better share its mortgage risks with rest of the economy. Finally, MBSs provide banks with access to investors worldwide, which diversifies their funding base.

Although the debate continues as to whether a bank-financed mortgage finance system is preferred to one based on capital markets, it should be noted that the US securitization framework, with its broad-based groups of investors, has developed over the past 30 years. The costs of turning

[13]Without mispriced government guarantees, good-quality, standardized mortgages should constitute the bulk of securitizations. Banks, with soft information about borrowers, are likely to be the natural home for apparently lesser-quality mortgages; we are agnostic as to whether a securitization market for lesser-quality mortgages can be revived.

[14]Denmark's mortgage market relies, for 90% of financing, on covered bonds, which are a close cousin of MBSs, but which provide investors with full recourse not only to the mortgage loans but also to the bank's capital. Several other European countries, such as Germany, the United Kingdom, and Spain, have substantial covered bond market shares.

back on such a system would be substantial. Moreover, although bank-financed mortgages are still important in the United States, the strong American preference for long-term (e.g., 30-year) fixed-rate mortgages means that a bank-centered system would involve substantial interest rate risk (as the savings and loan industry and Fannie Mae and Freddie Mac themselves experienced 30–40 years ago). These risks can have systemic consequences.[15]

6.2. Government Guarantees and Private Securitization

The question is: How does one effectively get to a model of securitization without government guarantees, given the current state of mortgage finance? We call this the "genie in the bottle" problem. Twenty-five years ago, the proverbial genie was let out of the bottle when mortgage markets were exposed to wider market forces, yet the government guarantees and special treatment of Fannie Mae and Freddie Mac were left in place.[16] Capital markets over the past 25 years have come to rely on these ever-growing guarantees. To wean the system off these guarantees—to put the genie back in the bottle—we need to transition away from a government-backed system to a private-based one. The problem is that the transitional process will succeed only if private markets are not crowded out, regulatory capital arbitrage by private guarantors is averted, and the systemic risk that is inherent in mortgage credit and interest rate risks is managed.

There has been some limited success at moving in this direction. Although the GSEs remain at the front and center of the mortgage market, they have been shrinking their portfolio of mortgages, effectively reducing their footprint. Also, the GSEs' guarantee fees were increased after the crisis, thus reducing the market subsidy and, in theory, increasing market discipline. Moreover, a report by the FHFA (2015) argued that the guarantee fees were consistent with the pricing implied by the GSEs' CRT transactions. Nevertheless, these GSE reforms do not seem to have led to a significant re-emergence of PLMBSs.

In the aftermath of the 2006 collapse of the housing market and the concomitant collapse of the PLMBS market, there has been no revival of significant PLMBS activity. The reasons for this absence are not entirely clear. Among the possibilities are: fears of a renewal of moral hazard behavior by mortgage originators and securities packagers; continued uncertainty over the legal liabilities of private issuers and originators (with respect to their representations and warranties); distrust of the credit rating agencies' ratings for PLMBSs; continued favorable capital treatment (a 1.6% equity financing requirement) that applies to the GSEs' MBSs when they are bought by banks; g-fees by the GSEs that may still be too low (e.g., Lucas & MacDonald 2010); and a lack of comfort and familiarity on the part of insurance companies and pension funds (who would be the natural buyers of long-lived MBSs that are based on 30-year fixed-rate mortgages) for PLMBSs.

However, because mortgage default guarantees were an essential element of the development and liquidity of the mortgage securitization market, it seems likely that investors would continue

[15] Of course, this interest rate risk, if acted on, can be hedged out using interest rate swaps. Nevertheless, hedging prepayment risk is more difficult and costly than hedging duration risk. Moreover, there is the risk that banks will choose not to hedge fully to take advantage of the interest rate carry. In the most recent financial crisis, banks engaged in a related carry trade centered on small credit risk by holding large amounts of AAA-rated asset-backed securities which suffered large losses, leading to capital shortfalls in the sector (see, e.g., Acharya et al. 2010).

[16] Government involvement in housing finance, of course, extends much farther back in history, at least to the early 1930s: The FHLBS was established in 1932; federal deposit insurance was extended to the (mortgage-financing) savings and loan industry in 1934; the FHA was created in 1935; and Fannie Mae was created (within the FHA) in 1936. Indeed, one could argue that government guarantees of some sort, both in the United States and bank-financed systems abroad, have been part of mortgage finance for many years because of bank deposit insurance.

to demand mortgage default insurance in some form (at least in the short term).[17] A particular reason is the efficacy of the highly successful "to be announced (TBA)" market for forward trading of MBSs issued by the GSEs. The TBA market allows mortgage lenders to hedge and substantially reduce risks inherent in the origination process. Because TBA securities are governed by a set of specific characteristics, their pricing is standardized with high liquidity, leading to broad investor participation. There is a widespread belief that this market cannot exist without guarantees of the cash flows of mortgage principal and interest (see, for example, Vickery & Wright 2010). The problem is that the private sector cannot be the sole provider of these guarantees, as this insurance is systemic because of its dependence on macroeconomic events, resulting in mispriced negative externalities. This argues for some form of governmental intervention.[18] Given the strong political considerations discussed above, however, there is a high likelihood that any government guarantees will be mispriced so as to subsidize housing (as was clearly the case for the GSEs).

Acharya et al. (2011b) argue for a public–private partnership in which the private sector prices the mortgage guarantees and insures a small X% fraction, whereas the government is a silent partner, insuring the majority of the remainder (100 − X%) and receiving the corresponding premiums.[19] Market pricing of the guarantees would ensure that: (*a*) a competing private-sector mortgage market (without guarantees) would not be crowded out; and (*b*) market discipline would return to the mortgage market. Interestingly, a similar proposal, the Partnership to Strengthen Homeownership Act, was offered in 2014 by Congressmen John Carney, John Delaney, and Jim Himes, along with a number of bipartisan cosponsors (for the text of the bill, see **https://delaney.house.gov/sites/delaney.house.gov/files/Partnership%20to%20Strengthen%20Homeownership.pdf**).

6.3. Transitioning the GSEs

We argue above that the initial phase of a transition to a new mortgage finance system would preserve mortgage default insurance via the aforementioned public–private partnership, primarily because such guarantees have been essential for the way that the securitization market for mortgages has developed. This way, the private sector would be encouraged to shrug off any regulatory uncertainty and allowed to flourish. Financial innovation in these markets could return. New investors focused on the credit risk of mortgage pools would emerge. As a result, mortgages would likely become more standardized, and underwriting standards would improve.

What would be the role for the existing GSEs? To help the transition process, reliance on the GSEs' guarantees should be mandated to end, and their mortgage portfolios should continue to shrink. One example of such a mandate would be a gradual reduction of the size limit for conforming mortgages; another would be an increase in the fees that the GSEs charge for their

[17]This statement is controversial. There are other parts of the capital markets, albeit smaller and less liquid, that function without guarantees of the underlying credit risk. Two examples include corporate bonds and commercial MBSs.

[18]Scharfstein & Sunderam (2011) offer a novel solution in which government guarantees of newly issued MBSs are provided during crisis times to keep the market going, but no such government support is provided for MBSs during normal periods. Importantly, previously issued MBSs are not supported during crisis times. The question of whether such a regulatory approach would negatively impact the TBA market remains.

[19]The private sector firm/subsidiaries would be well-capitalized and, if large enough, would be subject to the nonbank SIFI (systemically important financial institution) designation. An example of one such private–public program is the Terrorism Risk Insurance Act (TRIA) of 2007. Note that, given the aforementioned development of the market for mortgage credit risk sold off by the GSEs, it is possible that the public–private partnership is required only for tail or catastrophe risk. Also, over time, as the private sector's comfort with this arrangement grew, the X% could well expand, which would concomitantly reduce the government's role.

guarantees (as was done after the financial crisis).[20] Keeping the GSEs in conservatorships and thereby as wards of the Federal Government is concerning because of the way g-fees are set. If there are efficiency gains and/or innovation possibilities that would accompany their operation as private, for-profit companies, these advantages are forgone by their continued operation as government wards.

Further, their continued operation as government wards makes them prime candidates for mission creep and the diversion of their revenues and activities to other purposes. For example, within the past few years, 4.2 basis points of their annual guarantee fees has been earmarked for an affordable housing fund, and 10 basis points has been earmarked for transfers to the Social Security Trust Fund to offset reduced payroll taxes. In addition, affordable housing goals for their securitization activities remain likely.[21]

A reasonable question is whether the two GSEs have significant going-concern value, e.g., whether their brand names have worth and/or whether their organizations and technologies have value if kept intact. It may be a waste, therefore, to shutter them, and instead the GSEs should be privatized. Indeed, given that they currently securitize large chunks of the mortgage market, guarantee the mortgage payments, and sell off an increasing fraction of the credit risk to private investors, the GSEs might be good candidate firms to handle the residual catastrophe risk guarantees of the aforementioned public–private partnership.

If this is the case, then the Federal Government's 79.9% stake in the companies should be sold to the public in an initial public offering (IPO), and the companies should be structured (to the greatest extent possible) as normal companies (i.e., not as GSEs) with normal charters (e.g., from the state of Delaware) and normal bylaws, etc. The Federal Government's IPO of Conrail in 1987 could serve as an example. In the IPO of the GSEs, however, the Federal Government should be clear that the resulting private-sector entities will be required to be well financed with equity and that they (along with other residential mortgage securitizers) would be subject to bank-like rigorous prudential regulation, so that the likelihood that they would (again) require bailouts from the Federal Government would be quite small.

If the two GSEs were privatized, or even if they were wound down and replaced by other securitizers, it is clear that the maintenance of adequate levels of equity financing for private residential mortgage securitizers (relative to the risks of the mortgages that are securitized) would be a key feature. It was clear in 2008 that the two GSEs were systemic and could not be allowed to simply fail and cause their creditors to suffer losses. The same would continue to be true if the two organizations were privatized and maintained roughly their current sizes, or even if they were wound down and replaced by somewhat smaller organizations.

For such systemic organizations, any ex ante government statements about refusals to bail out the organizations (or, in reality, their creditors) are likely to lack credibility ex post at times of financial difficulties. (It is worth recalling that all of the GSE debt securities explicitly stated that these were not obligations of the US Government; nevertheless, in September 2008, those securities did become obligations of the US Government.) It follows, then, that to reduce the likelihood of such situations arising, the organizations should be required to maintain adequate

[20] From 2006–2016, the conforming loan limit for most parts of the United States was $417,000, with higher amounts allowed in high–housing price areas. For 2017, however, the conforming loan limit has been raised to $424,100, which is the opposite direction from what we believe is appropriate.

[21] Of course, even before the conservatorships, the GSEs (starting in 1992) were subject to explicit (and rising) affordable housing goals, and commercial banks and savings institutions have been subject to obligations to support their local communities by the Community Reinvestment Act of 1977. Nevertheless, the temptations and likelihoods of mission creep and diversions are surely greater when an organization is the direct ward of the government.

levels of equity financing relative to the risk characteristics of the mortgages that they are securitizing. They would therefore have adequate loss-absorbing capacities (i.e., equity) that would allow them to continue to operate and (until the equity is wholly depleted) avoid the disruptions and uncertainties of insolvency.[22] In the determination of appropriate levels of equity financing for these organizations, the same kind of stress testing that is conducted for banks should be applied to these organizations, as well.

In addition, whatever resolution authority is in place—i.e., the orderly liquidation authority (OLA) in Dodd–Frank or a revised bankruptcy code for systemically important financial institutions (SIFIs) in the Financial CHOICE Act—the GSEs or the next generation of GSEs should be subject to this authority. One of the important features of the OLA or bankruptcy is that it eliminates the existing shareholder-owners, which was not true of the conservatorships of the GSEs. Neither the OLA nor bankruptcy necessarily implies liquidation of the insolvent entity: As is true for banks, if there is sufficient going-concern value (which would disappear in a liquidation), the OLA or bankruptcy judge can try to find new owners quickly, or even operate the entity for an interim period while finding those new owners.

GSEs aside, even if PLMBSs return to pre-crisis levels, given that the tranching/subordination structure was supposed to—but did not—provide safety for the holders of the safe PLMBS tranches, the provision of guarantees (similar to those that have been offered by the GSEs) may be necessary. (Indeed, if privatization of the GSEs occurs along the lines that we have described above, then their MBSs ought to be considered as PLMBSs.) Whether those guarantees are offered by the securitizers themselves (as was true for the GSEs) or by a set of third-party guarantors seems less important than the issue of who will back up the guarantors.

Rigorous prudential regulation of the guarantors is surely part of the answer. But the provision of a government backstop for the guarantors—in essence, government coverage of catastrophic risk, much like the role that government-provided deposit insurance plays for bank depositors—may be important as well. (Once the government enters the role of a backstop for the guarantors, the system of prudential regulation can be seen as protection for the government and, ultimately, taxpayers.) But the pricing of the risk to which the government is thereby exposed is a difficult problem by itself; there will always be intense political pressures to underprice that risk and thereby provide an implicit subsidy for mortgage finance. As described above, to address these problems, we propose a system of guarantees whereby the Federal Government would provide PLMBS guarantees that would stand side by side with those of private guarantors. The Federal Government could thereby price its guarantees on a par with the pricing of the private guarantors.

7. OTHER PROPOSALS

Despite the absence of successful legislation—or, perhaps, because of that absence—there have been a plethora of policy papers and blueprints for GSE reform and more general reform of the residential mortgage finance system that have been offered by individuals and policy think tanks.[23]

[22] Equivalently, adequate equity financing will mean that the equity holders/owners of these organizations will bear most of the losses, as well as enjoy all of the gains. The pre-2008 GSE structure, with inadequate equity financing, meant that the GSEs' gains were privatized, while their losses were socialized.

[23] For a recent effort under the auspices of the Urban Institute that offers a diversity of proposals, see: **http://www.urban.org/policy-centers/housing-finance-policy-center/projects/housing-finance-reform-incubator**. The New York University Center for Real Estate Finance Research hosted a discussion of recent reform proposals, a summary of which can be found here: **http://www.stern.nyu.edu/experience-stern/about/departments-centers-initiatives/centers-of-research/center-real-estate-finance-research/research/gse-reform-will-it-happen-and-what-form-will-it-take**.

As mentioned above, various bills have also been proposed over the past several years. Scharfstein & Swagel (2016) provide a detailed analysis of various legislative approaches to GSE reform.

We discuss some of these legislative bills and think tank proposals below. Before we provide this discussion, however, note that these proposals describe specific mechanisms whereby government catastrophic risk insurance is provided in conjunction with securitization and first-loss private-sector guarantee processes. Regardless of the details, we reiterate that rigorous prudential regulation of the securitizers and guarantors—with adequate levels of equity financing, so as to provide private-sector first-loss and second-loss capacity that will protect the ultimate government (and thus taxpayer) guarantor—is an essential first step for any such plan.

7.1. The Johnson–Crapo Act

Building on an earlier proposal by Senators Bob Corker and Mark Warner, Senators Tim Johnson and Mike Crapo put forth a bill, the Johnson–Crapo Act, that passed the Senate Banking Committee in 2014 but never came up for vote on the Senate floor. The Act essentially created a government insurance program for MBSs for qualified mortgages, with first losses to be borne by new mortgage securitization companies. The Act had several notable features: First, the existing GSEs would be wound down. Second, these new mortgage securitization companies would bundle together the mortgages, securitize them, and guarantee the principal. The firms themselves would receive no government guarantees, but the government would instead guarantee the MBSs for a fee. The firms would have to hold capital equal to 10% of the underlying MBS value. The government would step in only after the mortgage firm's capital was fully depleted. The new government entity would be called the FMIC (Federal Mortgage Insurance Corporation) and would be akin to the FDIC (Federal Deposit Insurance Corporation). Some government fees would be earmarked for affordable housing.

The Johnson–Crapo Act provides a major contribution to the GSE debate because, in contrast to the current formulation of the GSEs, the Act requires a much higher level of capital (10%) to be held by these firms. Whether 10% is the right level is up for debate, but, regardless, the capital requirement should be consistent with capital requirements required elsewhere in the financial system for such risks. This condition would allow for a more competitive market to develop and presumably encourage greater amounts of innovation.

However, the Johnson–Crapo Act has some unfortunate similarities with the existing system: (*a*) The government provides guarantees (now explicit) for MBS principal repayment without market pricing (and without the side-by-side sharing that, as we argued above, could encourage market pricing); (*b*) housing policy is still injected into the system, enabling possible future mission creep; and (*c*) because of all this, the proposed legislation likely leads to an unlevel playing field and a buildup of systemic risk at the new mortgage securitization institutions that would replace the GSEs.

7.2. The PATH Act

The Protecting American Taxpayers and Homeowners (PATH) Act put forth by Congressman Jeb Hensarling also passed its House committee (in 2013) but failed to be voted on in the full House of Representatives. [This should not be confused with the Protecting Americans from Tax Hikes (PATH) Act of 2015, which was passed by both houses of Congress and signed into law.] The bill proposed to eliminate Fannie Mae and Freddie Mac entirely, yet leave the FHA/GNMA (Ginnie Mae) combination in place as guarantors of mortgages of low-income families and first-time buyers. Two additional provisions, however, limit the amount of government support. The first was a generally lower maximum on the size of the loans insured by the FHA relative to current limits on Fannie Mae and Freddie Mac. The second was that 10% of new loans should be held privately.

As discussed above, any legislative reform of Fannie Mae and Freddie Mac should include the FHLBS. The PATH Act essentially leaves only Ginnie Mae in place as the government securitizer of residential mortgages. From the perspective of the discussion in Section 5, the PATH Act certainly reduces the amount of mispriced government guarantees and resulting moral hazard, assuming appropriate levels of regulation of financial firms that issue PLMBSs or directly carry mortgage loans. As posed in Section 5, the question is whether mortgage default guarantees are essential to the operation of the mortgage securitization market and whether these guarantees are credible without some government backing. To the extent there is government involvement, we call for these guarantees to be market priced.

7.3. The Bright–DeMarco Plan (Milken Institute Center for Financial Markets) (2016)

The basic idea behind the proposal of Michael Bright and Edward DeMarco is to simply amend the charters of the GSEs (Fannie Mae, Freddie Mac, and Ginnie Mae) to restructure the housing finance system. In their plan, Fannie Mae and Freddie Mac would become lender-owned mutuals, providing credit enhancement much as they do now and continuing to build out the CRT transactions discussed in Section 2. Other than being approved by the FHFA as a credit enhancer, these GSEs would no longer have any government role. Ginnie Mae would become a standalone government corporation akin to the FDIC, providing guarantees on MBSs with credit enhancement from either government programs (such as the FHA) or approved credit enhancers (such as the newly reconstituted GSEs).

On the positive side, the GSEs would no longer have government backing and would essentially be selling credit support for MBSs through the mutual ownership. Presumably, this credit risk would be priced by the market. A major concern, however, is whether such a mutual ownership of potentially systemic financial institutions can survive a severe downturn. There is a history of failures of such institutions in the banking system prior to the creation of the Federal Reserve. Moreover, on the negative side, there is the question of how the government guarantees are priced by Ginnie Mae and the extent to which Ginnie Mae takes on increasing amounts of risk, looking increasingly like the previous GSEs. The PATH Act, through its loan limits, provides some control over Ginnie Mae's growth. The devil would be in the details.

7.4. Dechario–Mosser–Tracy–Vickery–Wright Plan (New York Federal Reserve) (2010)

Similar to the above plan from the Milken Institute, the one proposed by economists at the New York Federal Reserve also calls for Fannie Mae and Freddie Mac to be replaced by a mutual owned by lenders, albeit with a different structure. In this plan, the private mutual is called a financial market utility (FMU). The FMU securitizes standardized residential mortgages, forming typical MBSs and guaranteeing their credit risk. The FMU prices and manages the risk of the MBSs, subject to prudential capital regulation, and buys catastrophic reinsurance from the government. The success of the CRT transactions, albeit so far only in normal times, suggests that the FMU can sell off substantial parts of the credit risk to the marketplace.[24]

[24]As implied by Scharfstein & Sunderam (2011), there is a question of whether the market for CRT transactions will be viable during a crisis period. Presumably, the prices of credit risk inherent in the CRT transactions will map closely with the offered mortgage rates in the market.

Like the Milken Institute plan, the New York Fed proposal has the nice feature of removing the GSEs from government's reach. The incentive to innovate and be efficient remains. However, depending on the degree of financial regulation, the question is whether the FMU produces systemic risk or not. Does the mutual form lead to more or less systemic risk? On a positive note, the FMU aligns incentives across mortgage lenders. On a negative note is a question of whether the government can credibly commit to not bailing out the FMU and its members. And, of course, the pricing issue underlying the government guarantee persists.

7.5. Parrot–Ranieri–Sperling–Zandi–Zigas Plan (Promising Road Proposal) (2015)

The Promising Road proposal would combine Fannie Mae and Freddie Mac into a single government corporation called the National Mortgage Reinsurance Corporation (NMRC). The NMRC would essentially be run similarly to how the current GSEs are run: The NMRC would: (*a*) purchase mortgage loans from lenders; (*b*) issue securities backed by these loans; (*c*) guarantee the payment of interest and principal of these securities; and (*d*) sell off noncatastrophic credit risk, like the aforementioned CRT transactions, to the market. Like the previous mandates of the GSEs, the NMRC would ensure access to credit in compliance with housing policy goals.

Although it is in many ways similar to the New York Federal Reserve plan, the Promising Road proposal offers one major difference: The utility would be housed in government, as opposed to in a mutual owned by a collection of lenders. Government ownership can lead to mission creep; indeed, the plan calls for explicit attention to housing policy goals. This would seem to increase the likelihood of larger losses down the road. Moreover, innovation and efficiency are unlikely to occur in these government-supported markets. Of course, a counterargument is that, without adequate regulation, the more market-oriented proposals increase the systemic risk in the financial sector by again creating large private mortgage insurers. To a first approximation, these new entities would resemble the old GSEs, albeit without the government's special status.

8. HOUSING FINANCE REFORM IN GENERAL

Any discussion of reform of the GSEs should acknowledge the larger policy context in which the GSEs are embedded: Public policy in the United States broadly favors housing—encouraging the construction, financing, and consumption of housing—through a broad range of explicit and (all too often) implicit policy tools at all levels of government. In addition to the GSEs,[25] the FHA, VA, and USDA provide government-backed mortgage insurance, and the mortgages that are insured by these three agencies are securitized by another government agency: Ginnie Mae. With respect to personal income taxes, the Federal Government and the states encourage housing through the MID and the exemption of most capital gains on housing from reported income; the Federal Government also allows deductions for the state and local property taxes that home owners pay. The Federal Government and the states provide subsidies to builders to build multifamily housing; the Federal Government provides rental vouchers to low-income households; and public housing continues to be provided to low-income households by various levels of government.

[25] Also, the FHLBS was established in 1932 as a wholesale bank for savings institutions, which at that time were focused almost entirely on making residential mortgages. Although the FHLBS has broadened in terms of its institutional members and the kinds of lending that it supports, the support of residential mortgage lending is still an important part of its mission.

United States public policy is heavily embedded in the housing market. In that context, then, along with the above suggestions for reforming the GSEs, we discuss changes in mortgage finance and housing policy more generally.

8.1. Subsidies for Home Ownership Should Not Be Done Through a Revived Private-Label Mortgage-Backed Securities Market

Whether the GSEs survive and are privatized or instead are wound down and replaced, Acharya et al. (2011b) argue that the resulting PLMBS market should not be the vehicle for subsidies for home ownership and/or for income redistribution that favors lower-income households, for three reasons.

First, any subsidies should be transparent, explicit, and on-budget; none of those characteristics apply to the cross-subsidies that would occur through a distorted PLMBS market. The FHA and Ginnie Mae, as on-budget entities of the Federal Government, are arguably better vehicles for such subsidies.

Second, it can be argued that home ownership is an overvalued feature of US housing policy. A house is a large, illiquid asset with large transaction costs for buying and selling. Home ownership, with its accompanying mortgage finance, is not for everyone; it requires a relatively steady (and adequate) income and budgetary discipline on the part of the owning household. Those large transaction costs can impede job mobility when better employment opportunities would require moving to a different community. Also, given the experience of the steep decline in house prices after their 2006 peak, the idea that home ownership is a sure road to building household wealth should have been dispelled.[26]

Any de-emphasis of home ownership should reasonably include a de-emphasis of the importance of national home ownership rates. In essence, renting should be promoted in respectability.

Third, trying to redistribute income through housing policy, whether explicitly (e.g., through rent vouchers) or implicitly (e.g., through the GSEs), is a distinctly inferior method compared with direct income transfers (e.g., through refundable tax credits for low-income households).[27]

There may well be some modest positive externalities from home ownership and from encouraging low-income households to move to better neighborhoods through vouchers; for a recent study on the benefits of home ownership, see Sodini et al. (2016) and the references therein. Again, these goals should be pursued through transparent, explicit, on-budget means and vehicles.

8.2. Reforming Housing Policies More Generally

Not unlike other economists, we have argued elsewhere that US public policy has encouraged too much investment in housing. Concomitantly, other forms of investment—whether in physical production capital, such as plants and machinery; in community capital, such as schools, hospitals, roads, airports, etc.; or in human capital, such as more and better education and skill development for children and adults alike—have been neglected. Similarly, US GDP has surely suffered. The

[26]To the extent that the paying off of mortgage principal is a form of forced saving for a household, there may be some wealth building. But, again, the transactions costs of buying and selling are large, and the variance in house prices can also wipe out the forced saving.

[27]If one thinks of the GSEs as providing a subsidy for borrowing, they encourage greater leverage by home-owning households. And, to the extent that lower-income households are more leveraged, there may be income-distribution consequences from the termination of subsidies through the GSEs; see Gete & Zecchetto (2017). As they point out, and as we discuss below, a ready offset would be the termination of the income tax deduction for residential mortgage interest.

specific tools that are used to encourage investment in housing are often inefficient and have perverse consequences for income distribution.

The personal income tax deduction for mortgage interest is a prime example. Notionally, it is intended to encourage home ownership by reducing the personal cost of a mortgage that is used to purchase a house. But it is explicitly a subsidy for borrowing, which encourages households to become more leveraged than would otherwise be the case. Next, it is far more likely to provide benefits to high-income households, who are more likely to itemize on their income tax filing and who are far more likely to take out a larger mortgage on a more expensive house and thereby get a larger deduction, than to low-income households (see, e.g., Poterba & Sinai 2008). Because high-income households are more likely to buy even in the absence of a mortgage subsidy, the MID largely encourages those who would buy anyway to buy a larger and better-appointed house. We fail to see the social value of such outcomes. Finally, we question the goal of broadly encouraging home ownership, even if the mortgage interest deduction were effective in doing so, which it largely is not.

8.3. Better Ways to Reduce the Cost of Housing

There are likely better ways to reduce the cost of housing. They involve attacking the issue from the supply side, instead of through the demand side, through subsidies; builder subsidies for multifamily housing appear to be the sole existing policy that operates through the supply side. There are at least three such ways:

First, the Federal and state governments could limit the ability of local (suburban) communities to restrict the supply of land for rental housing and for smaller houses (that tend to be on smaller lots) through those communities' restrictive zoning ordinances. Second, the Federal Government could undo protectionist trade measures that have limited supplies of building materials, such as cement and lumber. Third, the Federal and state governments could limit the ability of local communities generally to impose local building codes that raise costs without providing commensurate benefits. In sum, there are ways of reducing the cost of housing that are consistent with improved efficiency—and with improved social equity.

9. CONCLUSION

It has been more than 8 years since Fannie Mae and Freddie Mac were put into government conservatorships. The Dodd–Frank Act largely ignored them. The proposed Financial CHOICE Act does the same. Thus, the GSEs remain in those conservatorships. The US system of financing residential housing is badly in need of reform. Keeping the GSEs in conservatorships is surely not an element of any sensible reform.

In this article, we have laid out some ideas for moving the system of financing residential housing in the direction of greater efficiency and greater equity. Because current efforts at financial reform are still at the stage of proposed legislation, there is plenty of time for its drafters to address the GSEs and develop a blueprint for a better financial system for residential housing. We hope that this analysis can be useful in that process.

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