

Economic Watch

United States

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Economic Analysis

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The Future of Financing America's Homes An Expanded Private Sector Role Can Reduce Systemic Risk

- **The U.S. housing finance system's core is currently publicly owned and operated, but government control has not made the system safer nor reduced taxpayer exposure to losses.**
- **Too much government influence to promote homeownership can heighten systemic risk.**
- **Reform proposals have emerged in Congress, but they add additional layers of complexity and create permanent government support for the entire housing finance market.**
- **There is no single optimal mortgage finance system; a new U.S. system should incorporate the best aspects of international systems.**
- **A fully private system can price risk appropriately and result in a more efficient allocation of resources to the housing sector.**

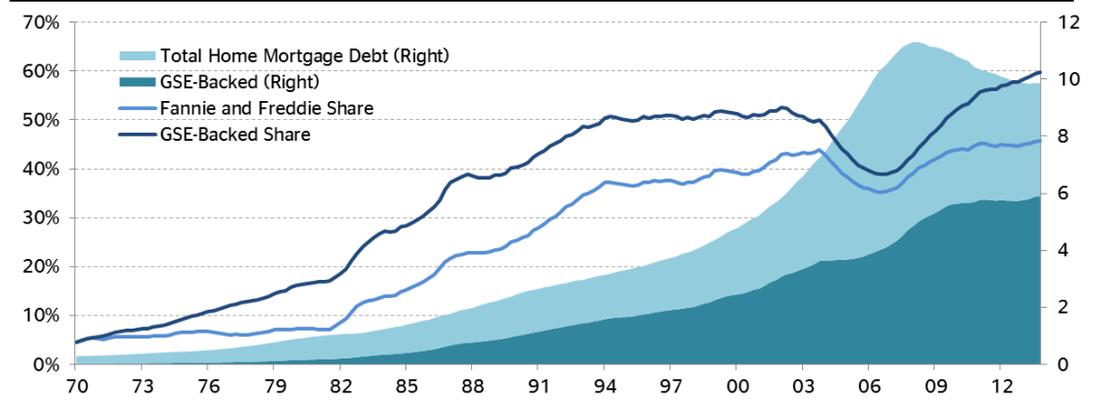
Throughout the last century, homeownership has been a central tenet of the American Dream, and the federal government has steadily increased its role in the housing finance market to promote universal homeownership. Policymakers continue to justify subsidies for housing based on the core belief that expanding homeownership has positive externalities. For example, owners are more likely to make repairs and improvements to their homes that not only enhance their property values but also those of neighbors. Additionally, homeowners are more involved in their communities, as they are less likely to move frequently. A stable base of residents contributes to higher high-school graduation rates and educational outcomes as measured by test scores.

Towards one objective of supporting homeownership for all eligible homebuyers, government involvement enables long-term, fixed-rate mortgage products and subsidizes borrowing costs to promote market access and stability. Towards another objective of explicitly promoting affordable housing and homeownership among preferred groups, government subsidies steer excessive credit towards the housing market and risky mortgage products. Taken together, these objectives can lead to unintended consequences, as we now know that excess housing credit and investment, and high default rates of subprime mortgage loans triggered the worst financial crisis since the Great Depression.

Ironically, the federal government's initial intervention in housing finance during the Great Depression is credited with stabilizing the housing market at that time, but its incremental involvement during the last seven decades produced a system that threatened to de-stabilize global financial markets. Nearly six years have passed since Fannie Mae and Freddie Mac were de facto nationalized, but the government's exposure to mortgage default risk has only increased. At present, the federal government currently owns or guarantees more than 60% of the balance of all outstanding home mortgages, a total that exceeds \$6.0 Trillion. Furthermore, the Federal Reserve now holds more than 25% of agency mortgage-backed securities (MBS).¹ Now that Fannie Mae and Freddie Mac are once again profitable and the Federal Reserve is reducing its asset purchases, pressure is mounting in Washington to reform the housing finance market. Legislative proposals are emerging to clarify the government's ongoing role, reduce risk to taxpayers and require private capital to absorb future losses related to mortgage defaults.

¹Agency MBS are issued by Fannie Mae, Freddie Mac and Ginnie Mae.

Chart 1
GSE-Backed Holdings of Mortgage Debt and Share, % and \$ Trillion



Source: Federal Reserve and BBVA Research

History of U.S. Housing Finance

Prior to the Great Depression, mortgage markets were inherently local, interest rates varied throughout the country, loan terms were shorter, and they often required large balloon payments after 10 years. During the Great Depression, as unemployment skyrocketed and borrowers ran into trouble with their mortgage payments, the U.S. was facing a wave of foreclosures and a shortage of bank liquidity. Thus, the government created the Federal Home Loan Bank System (FHLB), the Home Owner's Loan Corporation (HOLC) and the Federal Housing Administration (FHA) as part of New Deal legislation in the early 1930s to stabilize the housing market.

The HOLC was instrumental in refinancing borrowers into long-term, fixed-rate mortgages. The government's intervention made homeownership more accessible, because it eliminated regional variations in borrowing costs and insured lenders against the risk of mortgage default. This FHA insurance, however, only applied to long-term fixed-rate mortgages. Thus, the 30-year fixed-rate mortgage was born, and it is still the dominant product in the United States. To enhance liquidity for lenders, the Federal National Mortgage Association (Fannie Mae) was established as a federal agency in 1938 to support the secondary mortgage market and it financed purchases of FHA-insured loans with debt securities that it sold to the public and the Treasury. During World War II, Congress established the Veterans Administration (VA) mortgage insurance program in 1944 to offer long-term mortgages to veterans, and Fannie Mae started to purchase these mortgages in 1948 [1].

As the federal government stepped up its role in the secondary market policymakers insisted that government programs support affordable housing initiatives and promote homeownership among under-served households. Another piece of New Deal legislation, the Housing Act of 1937, authorized the U.S. government to directly subsidize housing for low-income families, but it was not until 1965 when these objectives breathed new life. President Lyndon Johnson's Great Society legislation created the cabinet-level Department of Housing and Urban Development (HUD) to promote affordable housing and placed the FHA under its supervision. Simultaneously, concerns were rising about Fannie Mae's debt and the government's potential liabilities, and thus, in 1968 Congress split Fannie Mae into two Government-Sponsored Enterprises (GSEs). Congress created Ginnie Mae as a federal agency to securitize FHA and VA-insured loans only, and it sold shares of Fannie Mae to private investors which reduced the federal deficit and removed Fannie Mae's debt from the government's books.

Furthermore, the 1968 Act authorized Fannie Mae to issue mortgage-backed securities (MBS) with funding from private capital markets, and it introduced the promotion of social policy into Fannie Mae's mission. HUD assumed regulatory authority over Fannie Mae and directed that the GSE purchase some mortgages to support low and moderate income families. Two years later in 1970, Congress created the Federal Home Loan Mortgage Corporation (Freddie Mac) as another GSE to increase liquidity for thrift banks. At the same time, this legislation expanded the types of mortgages that Fannie and Freddie could purchase beyond federally-insured mortgages. Initially, Freddie Mac was capitalized by the member institutions of the Federal Home Loan Banks, but in 1989, these thrifts were allowed "to sell their shares in Freddie Mac to the public as a way of injecting more capital into the thrift industry during the savings and loan crisis."^[2] Thus, Freddie Mac was privatized into a similar structure as Fannie Mae.

During the 1970s and early 1980s, Fannie Mae and Freddie Mac pursued different strategies, as the former held mortgages in a portfolio while the latter focused on securitizing mortgages. Fannie Mae profited from arbitrage opportunities by borrowing at low short-term rates and buying long-term mortgages; however, it ran into severe financial trouble in the late 70s and early 80s as short-term rates shot upward and its borrowing costs increased. In spite of losses, liquidity did not dry up and Fannie Mae was able to continue rolling over its debt due to its status as a GSE. In the early 1980s Fannie Mae began to diversify its operations and issue MBS, partly because its competitor, Freddie Mac, did not experience similar financial problems as a pass-through entity for securitization.^[2] The profitability of this yield-curve arbitrage, however, was too great for both GSEs to pass up, and thus leading up to the Great Recession, they both managed debt-funded portfolios in addition to their securitization business.

Beginning in 1992, the Clinton Administration directed HUD to set percentage targets for Fannie Mae and Freddie Mac to purchase mortgages for low and moderate income households. Ultimately, these requirements led both entities to purchase mortgages with poor underwriting standards and riskier mortgage products. As the yield curve flattened and mortgage defaults began to rise in 2006, the GSEs' losses threatened their solvency. Fannie Mae and Freddie Mac both purchased private-label MBS backed by subprime loans, and defaults on these securities contributed to a large portion of their losses. The prospect that Fannie Mae and Freddie Mac would not be able to roll over their debt or have sufficient liquidity for its guarantees forced the government to intervene.

The Housing Economic Recovery Act (HERA) of 2008 created a new regulatory agency, the Federal Housing and Finance Authority (FHFA) which placed Fannie Mae and Freddie Mac into conservatorship and allowed the U.S. Treasury to inject \$187.5 billion. HERA cemented the government's dominance in the housing finance market, as it converted the secondary mortgage market into a public system. The Act contained a host of other measures to boost government support for the housing market and affordable housing. It authorized the FHA to guarantee \$300 billion of new fixed-rate subprime mortgages and rose the GSEs' conforming loan limits in high-cost areas throughout the country. Prior to the crisis, the maximum size of a mortgage loan that the GSEs could purchase (conforming loan limit) was uniform across the country, and annual increases had allowed the GSEs to increase their market share. The Act scaled these limits by an area's median home price and raised the single family limit well above \$700,000 for many areas. Furthermore, the Act mandated that the FHFA set specific affordable housing goals for Fannie Mae and Freddie Mac for both single-family and multi-family mortgages.

Towards a New Housing Finance System

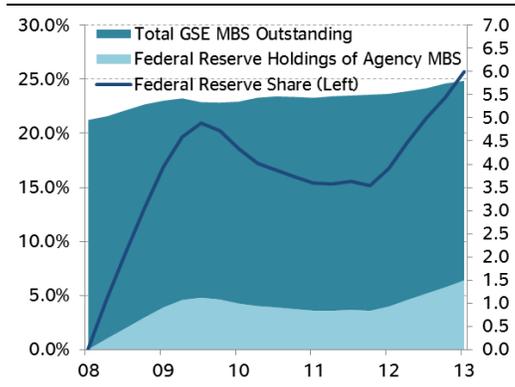
Despite all the challenges, certain aspects of the current housing finance system are efficient. The primary mortgage market is highly competitive with many private lenders that offer an array of products. Creditworthy prospective homebuyers can easily find a mortgage that fits their needs and budgets. Behind the scenes, a sophisticated secondary market supports this product variety, because lenders can buy and sell mortgage products to manage their liquidity needs and transfer the risks of individual mortgages to third parties. In the United States, these benefits are achieved primarily through the securitization of mortgage loans, and government-sponsored enterprises that issue agency mortgage-backed securities (MBS) are at the center of this process.

An issuer of an agency MBS buys mortgages, pools them into a security, guarantees the timely payment of principal and interest, and sells the resulting MBS to investors. With the guarantee, MBS resemble long-term government bonds but offer higher yields. Although the guarantor assumes the credit risk for the underlying mortgages, MBS are not risk-free products because investors are exposed to interest rate and prepayment risks that affect their duration. The secondary market and securitization process allow for greater specialization throughout the mortgage market, because lenders can focus on new originations, and investors with long horizons such as pension funds and insurance companies can hold MBS.

The GSEs Fannie Mae, Freddie Mac and Ginnie Mae are the largest issuers and guarantors of agency MBS, and legislation only allows them to purchase certain types of mortgages that meet strict underwriting standards and are below specified dollar and loan-to-value thresholds. Ginnie Mae's guarantees have always been explicitly backed by the federal government, because it only purchases and securitizes loans insured by the Federal Housing Administration (FHA) or Veterans Administration (VA). Fannie Mae and Freddie Mac began as federal agencies, but were converted into private, shareholder-owned companies to fund mortgages in the global capital market. They securitize mortgages that are not insured by a federal agency.

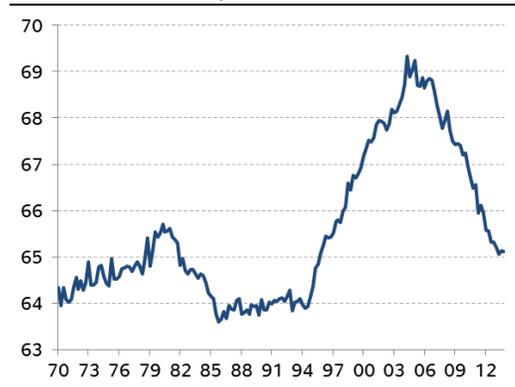
Fannie Mae and Freddie Mac grew to dominate the secondary market as policymakers continually authorized their expansion, because investors assumed that their guarantees and debt securities were implicitly backed by the federal government if they were ever unable to meet their financial obligations. Indeed, with Fannie Mae and Freddie Mac still in the FHFA's conservatorship, the federal government now explicitly backs their liabilities. Thus, today, the secondary market is effectively a public system, as the federal government currently backs more than 85% of mortgage originations, and during the past six years, the GSEs' combined MBS issuance has ranged from 95% to 99% of total MBS issuance [3]. Furthermore, the Federal Reserve continues to support liquidity in the MBS market through its extraordinary asset purchases, and currently holds more than \$1.5 Trillion of agency MBS.

Chart 2
**Federal Reserve Holdings of Agency MBS,
% and \$ Trillion**



Source: Federal Reserve and BBVA Research

Chart 3
U.S. Homeownership Rate, % SA



Source: Census and BBVA Research

Housing finance reform proponents argue that legislators should act now clarify the government's ongoing role in the secondary market, because taxpayers' exposure to mortgage credit risk is even higher than before the crisis. Furthermore, the Federal Reserve has begun to taper its asset purchases and thus private investors must be willing to purchase MBS. Moving forward, proposals will attempt to balance the roles of the public and private sectors.

Supporters of consolidating the securitization process within a federal agency argue that maintaining explicit government guarantees against default would preserve the most popular product, the 30-year fixed-rate mortgage (FRM), and keep mortgage rates low for all prospective borrowers. Second, direct government support would preserve the "To-Be-Announced" (TBA) market that enables borrowers to lock-in mortgage rates in advance of funding the loan. Third, they claim that government control would best serve policymakers' affordable housing objectives, as guarantee fees could fund new initiatives. Fourth, they note that the GSEs and the FHFA have made substantial progress toward creating a Common Securitization Platform and comprehensive mortgage database that could be finished and opened to all qualified lenders. Fifth, they cite the massive losses incurred by private-label MBS during the crisis as evidence that a fully private market could de-stabilize housing finance.

Supporters of increasing the role of the private sector argue that government involvement leads to an inefficient allocation of capital to the housing sector due to misaligned incentives that create distortions. First, they are concerned that explicit government guarantees leave taxpayers on the hook for system-wide losses and government entities may under-price credit risk. Market participants have no incentive to manage risks if private capital does not bear any future losses. For example, lenders may originate poor quality mortgages as long as they can obtain government guarantees against default. Second, they argue that mortgage lending must remain free from politics, because lawmakers encourage excessive risk-taking when they expand lending to their preferred groups.

Third, they cite the portfolio-related losses of Fannie Mae and Freddie Mac as evidence that implicit government guarantees can lead to an increase in systemic risk. Fourth, they note that the financial system has evolved substantially since the Great Depression and auto, credit card and other loan products are successfully securitized every day without the need for government guarantees. Fifth, they note that private-label MBS losses should not discredit a private secondary market because only a subset of the riskiest loans backed those securities. Historically, the GSEs purchase the highest quality mortgages below specified amounts and crowd out private capital, and thus, there is no relevant historical benchmark in the U.S. to evaluate the impact on the mortgage market of removing government support.

International Comparison of Mortgage Finance and Outcomes

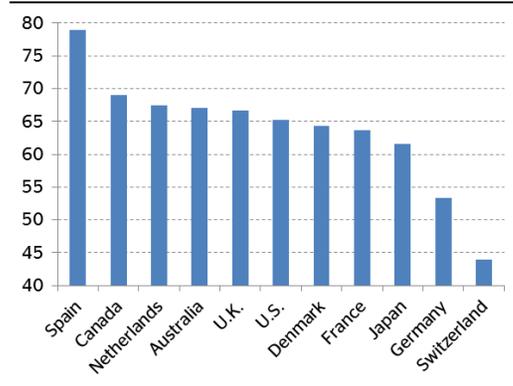
Nevertheless, a comparison of mortgage finance across developed countries with similar homeownership rates reveals that government support of the housing finance market is not necessary to achieve high homeownership rates.² A 2010 Research Institute for Housing America report by Dr. Michael Lea notes that a country's homeownership rate is an outcome of its overall housing policy [10]. For example, countries that have elevated public support for rental housing such as Germany or a more transient population such as Switzerland tend to have lower homeownership rates.

A Single Optimal Mortgage Contract Does Not Exist

Furthermore, comparative analysis reveals that fully private housing finance systems support a variety of mortgage products that are incentive compatible for both borrowers and lenders; however, there is no universal mortgage product that is optimal for both. Importantly, Lea notes that a country's laws, regulations, consumer preferences and funding mechanisms all underlie its predominant mortgage product [10]. Even if one mortgage type is dominant in a country, there are often multiple products that have different down payments, maturities, prepayment penalties, yield maintenance fees, amortization schedules, interest-only options and fixed versus variable mortgage rates.

² Countries in the study: Australia, Canada, Denmark, Ireland, Japan, Germany, Netherlands, Spain, Switzerland, U.K. and the U.S.

Chart 4
Homeownership Rate



Source: Lea 2010, BBVA Research and Wikipedia

Chart 5
Government Mortgage Market Support

Country	Government Mortgage Insurer	Government Security Guarantees	Government Sponsored Enterprises
Denmark	No	No	No
Germany	No	No	No
Ireland	No	No	No
Netherlands	Yes	No	No
Spain	No	No	No
U.K.	No	No	No
Australia	No	No	No
Canada	Yes	Yes	No
Japan	No	Yes	Possible
South Korea	No	No	Yes
Switzerland	No	No	No
U.S.	Yes	Yes	Yes

Source: Lea 2010 and BBVA Research

The best mortgage for one borrower may not be the best choice for another borrower because each product offers distinct benefits and disadvantages. Literature that examines the mortgage choices of borrowers concludes that households that are older or faced with income uncertainty or high debt-to-income ratios would be better off with a long-term fixed-rate product, particularly when inflation is positively correlated with real interest rates. In contrast, if a borrower's income risks are less extreme and inflation and real interest rates are not positively correlated, mortgages with a series of short fixed-rate periods are more favorable contracts" [10].

A long-term fixed-rate mortgage (CFRM) provides lenders with more interest income relative to a shorter-term FRM because mortgage payments are stretched over a longer horizon and the interest rate is higher to compensate lenders for additional risk. A long-term FRM, however, exposes lenders to significant interest rate and prepayment risks, because if rates rise, mortgage prepayments slow and funding costs increase. If rates decline, mortgage prepayments accelerate as borrowers rush to refinance, and lenders lose their stream of interest income. Prepayment risk is particularly acute in the U.S. because the traditional 30-year fixed-rate mortgage does not include a prepayment penalty to offset the lender's losses. The 30-year FRM, however, expands the borrowing capacity of prospective homebuyers and allows them to take on the most leverage. Furthermore, because it fixes a monthly payment for entire term, it allows the borrower to hedge against changes in interest rates while building home equity. For homeowners, this fixed payment is also a hedge against rising rental costs. The inflation risk premium, however, that raises the mortgage's fixed-rate adversely affects initial affordability for borrowers.

Variable and adjustable rate mortgages (ARMs) expand affordability because initial mortgage rates are lower than a long-term fixed-rate contract. Even if the initial rate is fixed for a defined period, as in many ARMs, there is no long-term inflation risk premium that adds to the cost. These products protect lenders against interest rate risk, because rates reset at periodic intervals; however, they expose lenders to potential default risk if rates jump and mortgage payments end up consuming too much of a borrower's income. Researchers have concluded that it is not wise to qualify borrowers for a long-term adjustable rate debt obligation based on his initial year's payment-to-income ratio [1]. But, if interest rates remain stable and a borrower's income climbs, rate adjustments should not adversely affect the affordability of the mortgage.

Dominant Products Across the World

The U.S. is unique among the aforementioned set of countries because most mortgages are backed by a 30-year, fixed-rate loan with no prepayment penalty. In 2011, the value-share of fixed-rate loans was 82% and those with a 30-year term and no prepayment penalty comprised 66% of total outstanding mortgage debt. In recent years, the shares of long-term fixed-rate mortgages have only increased as interest rates declined. Of loans originated during 2009-2011, 93% were fixed-rate and 76% had a term of at least 30 years and no prepayment penalty [6]. Somewhat similar to the U.S., the majority of French mortgages have long-terms and fixed-rates, but they include a capped prepayment penalty.

Thus, in contrast with the U.S., variable or shorter term fixed-rate mortgages are predominant in many other countries, and the principal funding mechanisms are behind this outcome. If commercial banks originate the bulk of mortgage loans in a country and hold them on their balance sheet, they fund these loans with short-term deposits. This maturity mismatch between the bank's assets and liabilities leads them to prefer short-term adjustable rate mortgages to minimize interest-rate risk. The evolution of the Danish mortgage system confirms this outcome.

The bulk of Denmark's mortgages are originated through a network of mortgage banks that serve as pass through entities to match borrowers with funds. These mortgage banks do not take deposits; rather they obtain funds from the capital market by issuing bonds of a matching duration. Long-term 30-year fixed-rate mortgages are backed by individual 30-year bonds that can be prepaid anytime at their market value or at par. Historically, these 30-year FRMs were the dominant mortgage product; however, in recent years the majority of Denmark's mortgages have transitioned to ARMs with shorter-term fixed rates (71% from 38% in 2004). This shift began in 1996 when ARMs were introduced, however, it really accelerated after 2007 when legislation opened the door for commercial banks to fund mortgages directly with covered bonds. Furthermore, the legislation also removed the match funding principle for commercial banks and allowed them to fund loans with bonds that need to be periodically rolled over. Although the system survived the global recession in 2009, recent news articles in the Economist (April 19) and Financial Times (May 4) have cited the potential for a crisis because household leverage is high and 57% of mortgages are now Interest-Only - up from 10% in 2004. Furthermore, the articles warn of a sharp decrease in the liquidity of these covered bonds if the European Banking Authority modifies its capital rules to make holding mortgage bonds more costly for commercial banks.

Government Support of Housing Finance

Among these countries, the United States housing finance system has the most intensive government control that established the path for long-term fixed-rate mortgages. Indeed, the origins of that product stem from the federal government's intervention during the Great Depression. The current popularity of the 30-year FRM still derives from its eligibility for government-backed guarantees, as these loans can be sold to Fannie Mae and Freddie Mac. In most of the other countries, government involvement is limited or non-existent.

Given that observation, transitioning the U.S. housing finance system into fully private entities would appear to cause the long-term fixed-rate mortgage to disappear; however, research indicates that this product can survive without extensive government support. Indeed, it has survived for nearly 200 years in Denmark. In the U.S., securitization activities can preserve the fixed rate mortgage, according to Andreas Fuster and James Vickery [6]. Although nearly all newly-issued MBS are currently backed by government guarantees against default, the authors study the pre-crisis private label securitization market and they find that both the private securitization and GSE securitization markets performed similarly to support the long-term fixed-rate mortgage. They find, however, that this result holds only as long as the markets remain liquid. They conclude that the U.S. "share of FRMs is 20 to 30 percentage points higher when lenders are able to easily securitize newly-originated mortgages."

Key Provisions and Objectives of Current Legislative Proposals

In all current legislative proposals, however, the government maintains a significant (if not dominant) role. Two major proposals have been introduced in Congress, and another was recently unveiled. The Republican-led PATH (Protecting American Taxpayers and Homeowners) Act of 2013 (H.R. 2767) has been introduced in the House while House Democrats recently revealed their proposed Housing Opportunities Move the Economy (HOME) Forward Act of 2014 in late March. In the Senate, the Housing Finance Reform and Taxpayer Protection Act of 2013 (S.1217) or Corker-Warner bill has been introduced, and a variant of that legislation known as the Johnson-Crapo proposal uses S.1217 as its base [8]. On May 15, the Senate Banking, Housing and Urban Affairs Committee passed the Johnson-Crapo proposal; however it must enlist more bipartisan support before it can move to the Senate floor for a full vote.

Restore the Flow of Private Capital to the Mortgage Market

Today, the government is the sole provider of liquidity to the housing finance system. The government's position is the result of several recent decisions. First, in 2008, it authorized the Federal Housing Authority's (FHA) to guarantee new mortgages for low and moderate income borrowers and thus increase the securitization activities of Ginnie Mae. Second, it increased the mortgage loan limits that the GSEs could purchase, guarantee and securitize. Third, the Federal Reserve's Large Scale Asset Purchase Program has purchased more than \$1.5 Trillion of agency-backed MBS. Fourth, the Federal Reserve's actions pushed down mortgage rates to historic lows, and government programs stimulated a wave of refinancing. Consequently, the GSEs acquired these mortgages and effectively shut out the private market. As the Federal Reserve begins to ease its asset purchases, reform must ensure that private capital fills any void.

Wind Down Fannie and Freddie

Each of the current legislative proposals includes a mechanism to wind down the operations of Fannie Mae and Freddie Mac over the next 5-7 years. Once new legislation is put into place, these entities would be able to operate their guarantee business in a limited fashion until the new system is fully functional. Furthermore, the proposals mandate that Fannie Mae and Freddie Mac decrease their mortgage portfolio holdings, and charges the FHFA with implementation.

Preserve Stability in the Housing Market and Long-Term Mortgage Products

The Johnson-Crapo and HOME Forward proposals explicitly seek to preserve the 30-year fixed-rate mortgage. They formalize the government's current role in the housing finance market by creating new federal agencies to oversee MBS issuance and explicitly guarantee those securities against default. They rely on this single-entity guarantee to preserve the function of the "To-Be-Announced" (TBA) market that enables borrowers to lock mortgage rates well in advance of closing on their loan. Green and Wachter note that the TBA market "is only possible because Fannie and Freddie do not face the same disclosure requirements for the debt securities as fully private firms." [7] Thus, the proposals maintain the government-backed guarantee and reduced disclosure requirements for agency MBS. With this TBA market, the 30-year fixed-rate mortgage will likely remain the most popular product.

In contrast, the PATH Act does not explicitly support the 30-year FRM, as it removes explicit government guarantees and establishes a role for private entities in the secondary market. Any guarantors of MBS and insurers of mortgages would also be private. For the long-term FRM to be preserved, the system must have access to ample liquidity in both good and bad times.

Expand Regulatory Oversight

Each of the different legislative proposals expands the government's authority to oversee the mortgage market, and they either add responsibilities to current federal agencies or create new regulators. The PATH Act maintains the FHFA and expands its authority to regulate the securitization utility. The Johnson-Crapo proposal creates the Federal Mortgage Insurance Commission (FMIC) as an independent agency and the new top regulator of housing finance. The FHFA and its current functions would be placed under the FMIC. Finally, the HOME Act creates the National Mortgage Finance Administration (NMFA) to collect MBS fees for guarantees and affordable housing.

Promote a Common Securitization Platform

The GSEs and the FHFA are currently developing a Common Securitization Platform along with a comprehensive mortgage database that qualified lenders would be able to access. Legislative proposals attempt to preserve the functions that worked well at Fannie Mae and Freddie Mac such as their securitization business. They emphasize that a standardized, open-access securitization platform can improve efficiency and transparency for all market participants. This platform is comparable to Android or iOS as a diverse set of developers create apps that consumers can purchase on those mobile operating systems. In this case, a variety of lenders would be able to sell loans to the platform where they could be turned into securities, and buyers of MBS could sort through them and easily purchase their preferred securities.

The PATH Act establishes a privately managed non-profit National Mortgage Market Utility to operate the Common Securitization Platform. The Johnson-Crapo proposal charges the FMIC with managing the Common Securitization Platform. Finally, the HOME Act establishes a Mortgage Securities Cooperative (MSC) to run the Common Securitization Platform and serve as the sole issuer of government-guaranteed securities. Both the Johnson-Crapo proposal and the HOME Act increase the government's role in the securitization process; the PATH Act seeks to limit the influence of government in the securitization process.

Reduce the Federal Role as Sole Guarantor and Taxpayer Liabilities; Require Private Capital to Bear Losses

Because most investors in MBS did not originate the underlying mortgages, and they neither directly own nor service them, the securities include a guarantee of timely payment of the principal and interest. Thus, the guarantor assumes the credit risk of the mortgage pool because it makes payments on the MBS in full regardless of the actual income it receives from borrowers.

Any government-backed guarantee ultimately means that all taxpayers are on the hook for a sharp rise in mortgage defaults. The incidence of this policy is highly inefficient because not all taxpayers have mortgages and not all mortgages are owed by taxpayers. It creates perverse incentives such as moral hazard because homeowners who do not default must indirectly pay for those homeowners who do default through their taxes. Currently, the system poses no less risk as a result of federal intervention: the outcome of the Federal Reserve's April 30 stress tests of Fannie Mae and Freddie Mac indicated that they would need as much as \$190 billion in additional capital in a severely adverse scenario - tax dollars that would again have to flow directly from the U.S. Treasury and ultimately taxpayer funds. This number is only \$2.5 billion greater than the U.S. Treasury's injection in 2008. Furthermore, this estimate does not include the potential losses of the government housing agencies such as the FHA and VA.

For private entities to appropriately price risk, reform would ideally shift the risk of mortgage guarantees away from taxpayers and into the private market so that private capital bears all losses if mortgage defaults rise. The PATH Act eliminates broad government guarantees on mortgages and MBS, while the Johnson-Crapo proposal and the HOME Act maintain a system of government guarantees. The latter two legislative proposals differ from the status quo because they would require a loss-sharing agreement with private entities.

Specifically, in the Johnson-Crapo proposal, the government guarantee would only kick in after private capital bears the first losses. This proposal relies on a network of private, approved guarantors who issue FMIC-backed securities. In the event of losses on those MBS, investors in FMIC-backed securities would have to agree to either 1) absorb 10% of any losses or 2) receive payments first from an approved guarantor until that guarantor is insolvent before the government's guarantee takes effect. In the HOME Act, the government guarantee is explicit and applies in full to all securities issued by the Mortgage Securities Cooperative (MSC). The MSC is the sole-issuer of government-backed securities, but it is capitalized by members and this capital will assume a first-loss position. Finally, both the Johnson-Crapo proposal and the HOME Act also establish a Mortgage Insurance Fund (MIF) to buffer the public's exposure to losses. This MIF will be funded by guarantee fees.

Increase Lender Oversight

Unfortunately, even in spite of new regulations, the existence of government guarantees can encourage unscrupulous lender behavior. If lenders in the primary mortgage market know that all losses will be absorbed by taxpayers, they may choose to originate poor-quality mortgages. Federal agencies may end up purchasing loans of questionable value that turn out to have higher-than-expected default rates. In the wake of the recent crisis, these moral hazard issues are evident, because poor underwriting standards and falsified documentation or the lack thereof were behind high default rates.

To mitigate these moral hazard risks, current legislative proposals seek to expand lender oversight, particularly for mortgages that are insured by the FHA. They seek to force lenders to reimburse the federal agency or repurchase the mortgage in the event of default if the mortgage did not meet its standards.

Forbid Entities Backed by the Federal Government from Managing Their Own Mortgage Portfolio

The PATH Act forbids the mortgage finance utility from originating mortgages or holding its own portfolio of mortgage products. As a federal agency, the FMIC in the Johnson-Crapo proposal would not have the authority to manage a mortgage portfolio, and the HOME Act explicitly forbids the lender-owned MSC from holding mortgages directly in a portfolio.

Repeal the Affordable Housing Goals of Fannie and Freddie

The proposals would also wisely repeal the affordable housing goals that the Clinton Administration put in place for Fannie Mae and Freddie Mac in 1992. These mandates to purchase mortgages of low and moderate income borrowers took effect in 1995 in the form of percentage targets. Not coincidentally, the homeownership rate rose 1 percentage point in 1995 after remaining stable near 64% since 1985. With subsequent increases in these targets, the homeownership rate rose to a new peak of 69% by the end of 2004, and the Bush Administration further promoted this same policy as late as 2005.

Although saddling subprime borrowers with mortgage debt increases homeownership statistics, these borrowers have higher default risk. The system's aggregate risk increased beyond a sustainable limit partly because Fannie Mae and Freddie Mac were directly competing with the FHA, VA and Ginnie Mae to expand subprime lending, because each agency had its own directives.

Concentrate Affordable Housing Initiatives Among the FHFA, FHA, VA and Ginnie Mae

Historically, the FHA, VA and Ginnie Mae were primarily responsible for promoting homeownership among low and moderate income households through the FHA's and VA's mortgage insurance programs and Ginnie Mae's role as guarantor and issuer of Agency MBS. As federal agencies, they expose the taxpayer to losses if their insured or guaranteed mortgages default.

Confining the government's affordable housing initiatives to budgeted federal agencies would force Congress and Administrations to delineate all spending for subsidies, mortgage guarantees and agency funds during the annual appropriations process. This would enhance transparency and the democratic process, as lawmakers would be forced to ask their constituents for funds. Without such safeguards, unaccountable spending can explode as total entitlement spending has in recent decades. Furthermore, because members of Congress are often unwilling to make substantial changes to reduce mandatory and automatic spending measures, then a new housing finance system must be able to adapt to changing public priorities and needs. The most effective way to do that and increase accountability for spending is through the annual appropriations process.

As an example, policymakers were able to promote homeownership objectives off-budget and apart from the appropriations process through Fannie Mae and Freddie Mac's mortgage purchase targets. Had policymakers instead been forced to seek Congressional approval to authorize the FHA, VA and Ginnie Mae to expand lending to low and moderate income borrowers, the agencies would have been accountable for any losses.

Current legislative proposals largely preserve the roles of the FHA, VA and Ginnie Mae, and consolidate finance initiatives for affordable housing under these agencies. The PATH Act, however, includes an FHA reform provision that establishes the FHA as independent from the Department of Housing and Urban Development (HUD). It scales back the role of the FHA and seeks to establish a risk-sharing mechanism with the private sector, because it reduces the maximum share of mortgages that the FHA could insure to 50% and increases the agency's capital requirements. The Johnson-Crapo proposal and HOME Act make no mention of changes to the FHA; however, a companion bill to the Johnson-Crapo proposal (FHA Solvency Act of 2013, S.1376) discusses FHA reform, but it mainly focuses on stronger lender oversight and higher capital ratio requirements.

Obtain More Funds for Affordable Housing Initiatives and Increase the Transparency of Housing Market Subsidies

By maintaining the government's position at the center of the secondary mortgage market, the Johnson-Crapo and HOME proposals seek to raise additional funds for affordable housing initiatives by levying a fee on each securitized mortgage. These proposals direct funds to multiple affordable housing initiatives (the Housing Trust Fund and the Capital Magnet Fund, created in 2008, and a new Market Access Fund for ultra-low income borrowers). An average 10-basis point fee would apply to the principal balance of securitized mortgages; however, it appears that legislators could reduce the fee for mortgages of low and moderate income borrowers. The PATH act removes this distortion, because it separates the owner and operator of the securitization utility from the federal government. Furthermore, it repeals the Housing Trust Fund that was setup to increase the supply of housing for low income households.

The net result of an additional fee would end up raising borrowing costs, because these mandatory fees would be borne by the borrower through either higher origination fees or mortgage rates. Thus, applying a fee to all mortgage products works against Congress' intent to reduce homeownership costs for everyone. One benefit, however, of a well-defined fee structure for affordable housing funds would be to increase the accountability of housing subsidies; however, raising the funds through taxation would also increase transparency, because legislators would have to ask their constituents for additional taxes to supply desired funds. Unfortunately, the Johnson-Crapo and HOME proposals preserve the government's dominant role in the secondary market to secure a stable source of funds from the majority of new mortgages.

Set Consistent Lending Standards Independent of Political Agendas

All three proposals require clear and consistent standards for loans that can be securitized through the Common Securitization Platform, but the PATH Act is the only proposal that states that these standards should be determined in the private market. The Johnson-Crapo and HOME proposals allow federal agencies to set the lending standards for the securitization platform. Thus, the risk remains that policymakers could use the housing finance platform to promote homeownership among preferred groups. The recent crisis confirms that lowering lending standards to deepen homeownership rates can result in severe losses if the economy falters, borrowers default and housing prices decline.

Any final version of legislation should ensure that lending standards remain independent of political agendas, as an international comparison of homeownership rates indicates that they can be high and similar across countries even without government support.

Expand Eligibility Requirements for Government-Backed Mortgages

In 2008, Congress increased conforming loan limits throughout the country to allow the GSEs to purchase additional mortgages. The lower limit of \$417,000 is more than twice the median existing home price and it has held steady throughout the crisis despite substantial declines in home prices. Furthermore, it applied a formula to differentiate this limit across metropolitan areas, and thus the GSEs can now purchase a single-unit mortgage loan in excess of \$700,000 in so-called "high-cost" areas. These new limits were intended to be temporary, but as expected, legislators and interest groups have resisted the FHFA proposals to lower those limits in any area or return them to pre-crisis levels. Now, current proposals are seeking to make these limits permanent, although they may provide for additional studies to determine optimal amounts.

The Johnson-Crapo and HOME Act proposals further seek to expand the eligibility of loans to receive government guarantees with down-payment requirements as low as 3.5% for first-time homebuyers and 5% for all others. These percentages appear similar to the existing floors of the FHA; however, the proposals fall well short of ensuring that their low down-payment requirements do not lead to an increase in systemic risk. Although a lower down-payment would presumably require a borrower to pay a higher insurance premium for a longer period of time, this premium adds to a monthly mortgage payment. Thus, mortgage insurance may actually increase the default risk for borrowers whose incomes are volatile. Certainly, lower down-payments are associated with higher default risk, because even a small decline in home value could leave a borrower under-water. If that borrower is ever struggling to pay his mortgage and has little equity in his home, he may choose to default. Literature has found this relationship to hold. Conversely, higher equity is associated with lower default risk, as those borrowers work harder to keep making their mortgage payments [5].

Nevertheless, any final legislation that maintains a significant government role will likely permit the bulk of new mortgages to flow through the Common Securitization Platform, as the government will collect a greater amount of fees to fund the system. Thus, in these environments, down-payment requirements for government guarantees are likely to be reduced, and the lowest national conforming loan limit and geography-specific limits are expected to remain well above the median home price.

Introduce Covered Bonds to the U.S. Market

Covered bonds should be explored as an alternative to the securitization system. These financial instruments are used in other countries, particularly in Europe, to achieve the liquidity and risk diversification objectives of securitization. Similar to MBS, these corporate bonds are backed by a pool of mortgages and investors are afforded protection against credit risk. The originator (for example a bank) retains the bond on its balance sheet and may be required to replace defaulted mortgages in the bond with new mortgages. The PATH Act explicitly authorizes federal agencies to design applicable regulations to allow a market for covered bonds in the United States. These bonds may become the least costly way of financing long-term home mortgages if higher capital requirements, guarantee fees and affordable housing fees increase the costs of securitization in the secondary market.

Preserve Liquidity and Platform Access for Small Lenders

Current proposals maintain the Federal Home Loan Bank system that aids small lenders with their liquidity needs in the primary mortgage market. Johnson-Crapo and the HOME Act, however, seek to improve the accessibility of the secondary mortgage market for small lenders, because they argue these entities may be the only institutions to offer credit to rural and low-to-moderate income borrowers. The idea of the Small Lender Mutual originated in the Corker-Warner bill, and depository institutions with less than \$15 billion in assets were going to be allowed to join; however, the Johnson-Crapo proposal raised that limit to \$500 billion in assets (essentially all but the largest eight). In addition to banks, certain non-depository institutions, Community Development Financial Institutions, State Housing Finance Agencies and the Federal Home Loan Banks would also be invited to join as members. This organization would be funded by its members.

The idea of Small Lender Mutuals seems unnecessary and duplicitous if the Common Securitization Platform is truly open access and available to all qualified lenders. Efforts should concentrate on building that high-quality platform.

Support Multifamily Housing

The Johnson-Crapo proposal and the HOME Act specifically authorize the federal government expand its insurance programs for multifamily mortgages. Interestingly, although the Johnson-Crapo proposal backed away from purchase targets for low and moderate income single-family mortgages, it states that approved guarantors could issue government-backed securities as long as 60% or more of the units financed met affordable housing objectives for low-income renters.

Indeed, GSE securitization activities of multifamily properties have recently ramped up. But, the establishment of purchase target thresholds helped to push aggregate risk in the single-family mortgage market past an unsustainable point. Those targets also supported the origination of the infamous NINJA loans, or No Income, No Job Application. Certainly, maintaining purchase targets for the GSEs risks a return to the politicization of lending standards and the flow of too much credit into an already over-heating multi-family commercial real estate market.

Elements of Optimal Policy

Ideally, the U.S. housing finance system would function to allocate an efficient amount of capital investment to the housing sector and risk should be appropriately priced and understood. Mortgage products would be tailored to individual borrowers based on their credit quality. Competitive lenders should have appropriate incentives to originate quality mortgages that they can either hold on their books or sell in the secondary market. Capital rules should not allow banks to increase leverage by selling mortgages in the secondary market and buying securities backed by the same mortgages. The secondary mortgage market would be comprised of private entities that buy, sell, pool and securitize loans. These same entities or others could guarantee the payments on those securities, or provide some other credit enhancement to induce buyers.

Unlike the "private" Fannie Mae and Freddie Mac, new private entities must be completely separate from the federal government, as their investors must not believe that they would be bailed out by taxpayers in the event that they ran into trouble. Furthermore, the composition of purchased mortgages must be solely determined by the private market. That is, the federal government must not be able to mandate that these private entities purchase certain types of mortgages. Government subsidies in the housing market should be confined to on-budget federal agencies such as the current FHA, VA and Ginnie Mae. Certainly, no entity with links to the federal government should be able to issue debt securities to fund its own mortgage portfolio and attempt to profit from fixed-income arbitrage opportunities. Finally, limits must be put on maturity transformation to reduce system-wide liquidity and interest-rate risks.

Based on all of the above analysis, concerns about the demise of the 30-year fixed-rate mortgage without government support appear overblown. Winding down the GSEs and allowing the private sector to take over securitization activities would maintain the long-term fixed-rate mortgage if the fully private system can ensure sufficient liquidity in times of stress. Furthermore, historical experience and an element of path dependence will help to maintain this product in the U.S., because borrowers are accustomed to it and lenders are already knowledgeable about its risks. Without government guarantees, the cost of the 30-year FRM would rise slightly, as studies have found that the federal government's guarantees reduce mortgage rates on 30-year FRMs near the conforming loan limit by an estimated 8-12 basis points [9]. Thus, rates would rise, and other mortgage products such as ARMs may increase their market share. To date, there is no evidence that ARMs increase systemic risk.

More important than the mortgage product, however, are underwriting standards, as defaults on subprime mortgage loans initiated the crisis and revealed lax underwriting operations. Several changes can help to push the system in this direction. First, the reliance on the "originate-to-sell" model should be reduced. For example, at the time of origination, banks should be indifferent between holding that mortgage on their balance sheet and selling it in the secondary market and then buying the resulting MBS. Regulatory arbitrage of capital rules perpetuates an originate-to-sell model, because banks had to hold more capital for mortgages that they retain versus purchasing MBS backed by that same mortgage. Ultimately, the underlying collateral is the same. Second, an open access Common Securitization Platform and centralized mortgage database could help to maintain high underwriting standards. Research has shown that the presence of Fannie Mae and Freddie Mac "modestly [decreased] the prevalence of adjustable-rate mortgages, low documentation loans, and loans originated through a broker" because they only purchased mortgages to securitize that were originated with consistent underwriting standards [9].

The maturities of loans and their sources of funding should match to support the safety and stability of a mortgage finance system. Throughout history, financial crises arise from a mismatch of maturities of the short-term debt securities that fund long-term mortgages. When the yields on those short-term securities rise above the yields on the mortgages that back them, debt issuers incur losses when they roll over those securities. Yields on short-term debt can rise as a central bank raises benchmark lending rates or they can spike due to a sharp drop in the liquidity of those debt securities. Certainly, if debt issuer begins to experience losses, demand for its new debt securities will drop sharply and further accelerate the problem. A private mortgage insurance fund could help to buffer these losses in the event of widespread mortgage defaults.

U.S. rules and regulations that apply to mortgage products should be revisited, particularly some of the provisions in the recent Dodd-Frank Act. For example, the prohibition of prepayment penalties should be revisited, because requiring borrowers to pay a fee to refinance their mortgage early would help to reduce the risks to lenders and preserve long-term fixed-rate mortgages in the private market. A prepayment penalty may also reduce the upfront origination costs for borrowers that are often paid as "points."

Alternative means of financing U.S. mortgages must also be studied. For example, covered bonds in the U.S. have been a success in limited cases. For example, Washington Mutual's covered mortgage bonds paid out in full despite the failure of the lender. U.S. regulators need to further examine the risks and benefits of this vehicle, as it continues to be used successfully throughout the world. Currently, policymakers have little incentives to allow these instruments as long as the government is controlling the housing finance system.

Ultimately, removing the role of government as the nation's mortgage guarantor must be a priority to reduce risk to taxpayers and ensure that sufficient funds remain available for other government spending needs during stress periods. A private mortgage finance system would ensure that risk is appropriately priced and private capital would bear losses. Given that the link between government support and homeownership rates is at best tenuous, removing government support will not negatively affect homeownership, but it may increase overall economic efficiency and resource allocation.

Bottom Line

During the past seven decades, the government has intervened heavily in the housing sector. And while there have been some successes, the failures have been catastrophic, as evidenced by the housing bubble that ignited the Great Recession. Moreover, considering that homeownership at the end of 2013 was 65.2%, only 1.4 percentage points higher than in 1968 when Fannie Mae became a GSE, and given the costs of the crisis, one must question whether the result of this intervention has been a net drag rather than a boost to long-term economic growth.

Of all the current reform proposals, the PATH Act moves the system closer to an ideal in which private entities operate a Common Securitization Platform and participate in the origination and guarantee of mortgage-backed securities. Furthermore, it addresses the risks of the Federal Housing Administration and attempts to implement a risk-sharing program between the public and private sectors. However, this proposal has not engendered sufficient support, as the Administration has put its weight behind the Johnson-Crapo proposal that keeps the government at the center of housing finance. Notably, the current draft legislation proposes to collect fees for affordable housing initiatives from all mortgages that flow through a new securitization platform.

Going forward, all of the current proposals appear to have lost momentum at least until after the 2014 election cycle, which highlights the close link between housing policy and the political cycle, rather than the pursuit of economic efficiency for the greater good. In response, the Administration's new Director of the Federal Housing Finance Authority (FHFA) Melvin Watts has stated that he intends to revive Fannie Mae and Freddie Mac's securitization activities and review lending standards in case they need to be eased to once again promote homeownership, as he inferred that the new Qualified Mortgage and Ability to Repay standards that took effect in January as a result of Dodd-Frank may be too restrictive. On May 13 during an appearance in Washington, Watts stated "I don't think it's the FHFA's role to contract the footprint of Fannie and Freddie."

Due to the lack of fresh thinking and careful identification of the problems in the current system, the GSEs are once again rising like a phoenix from the ashes. John Campbell notes that "mortgage market design must proceed in a more ad hoc and flexible fashion, learning from international experience and integrating insights from different fields including urban economics, asset pricing, behavioral finance, financial intermediation, and macroeconomics" [4]. A Commission on Housing Reform made up of experts from a range of these disciplines would be a good start to gain new insights.

Reform should aim at creating a system that generates incentives for responsible and financially prudent homeownership, and not one that elected officials use to push mortgages on millions of borrowers that cannot afford them. Holding onto the notion that it is the government's responsibility to raise homeownership to high but potentially unsustainable levels increases systemic risk; when the eventual collapse occurs, it costs billions of dollars to taxpayers and homeowners.

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