The Heritage Foundation
LEADERSHIP FOR AMERICA

ISSUE BRIEF

No. 3824 | JANUARY 11, 2013

The Role of GSEs in the Housing Market

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The Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), the major housing government-sponsored enterprises (GSEs), hold dominant positions in the U.S. mortgage market. They have likely passed a mortgage interest rate subsidy of 25–50 basis points to homebuyers through their interventions in the housing market, especially by easing loans to those who could not afford to buy a house. Therefore, any policy reform that eliminates Fannie Mae and Freddie Mac from the U.S. mortgage market, all else equal, would have the likely effect of eliminating this interest rate subsidy on mortgages.

The results highlighted in this report are based on a series of studies examining the static and dynamic effects of eliminating GSEs on the U.S. housing market and the overall economy.

The Impact of Eliminating Fannie Mae and Freddie Mac on Housing Prices, Housing Starts, and Homeownership. This line of time-series econometric analyses can be thought of as examining how the phasing out of the GSEs would affect demand for housing, supply of housing, and the demographics of homeownership.

Effect on Housing Prices. This line of research tries to capture the effects of GSE interventions in the housing market through subsidized interest rates and down payments on median single-family home prices at the national level using quarterly data from 1980 to 2010.[1] The results indicate that:

- The conventional mortgage interest rate has a very small negative impact on home prices.
- A 25-basis-point increase in the conventional mortgage interest rate, holding other things equal, leads to a 2.25 percent reduction in home prices.
- Home prices are influenced more by mortgage interest rates than by down payments. This has important policy implications for financial institutions, because changing the down payments compared to the mortgage interest rates would have less impact on home prices.
- The overall results indicate that home prices are influenced mainly by such fundamentals as household assets, personal income, and effective tax rates and not by mortgage interest rate.

Effect on Housing Starts. This line of research attempts to capture the effects of interventions by the GSEs on housing starts by creating a hypothetical scenario in which one could see what would happen to housing starts without Fannie Mae and Freddie Mac.[2] Housing starts are not only an important indicator of overall strength in the housing sector; they are also a great contributor to economic growth. Shutting down Fannie and Freddie during the test period of 1980–2010 would have slightly affected housing starts at the national and regional levels. The analysis uses time series regression models with quarterly data across a 30-year period to examine the effects of changes in conventional mortgage interest rates on housing starts both

This paper, in its entirety, can be found at **http://report.heritage.org/ib3824**

Produced by the Center for Data Analysis

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at the national and census regional levels. The results indicate that:

- A higher conventional mortgage interest rate would have had a minor negative impact on housing starts at both the national and regional levels, all other things being equal. Based on the assumption that Fannie Mae and Freddie Mac did not exist across the test period of 1980–2010, the econometric results of this study suggest that housing starts would have been lower by a mere 0.05 percent at the national level over this period.

- The South and West seem to be more sensitive to changes in mortgage interest rates because, as discussed by many scholars, they are more land-regulated and have higher density of population.

In sum, the results indicate that fundamentals such as real output, consumer price index (CPI), family income, total value of household assets, price-to-rent ratio, and level of household debt are the most important factors shaping housing starts both at the national and census regional levels. Contrary to expectations, the conventional mortgage interest rate plays a minor role in shaping housing starts.

The results of this study are in accordance with those of Christian Pierdzioch, Jan-Christoph Rulke, and Georg Stadtmann, who found that expected housing starts are affected mainly by macroeconomic fundamentals, such as real GDP, CPI, and expected inflation, not by mortgage interest rates.[3]

Effect on Homeownership. This line of research uses three series of regression models to gain insight into the determinants of homeownership rates.[4] The first regression model analyzes aggregate national-level data for 1980–2010. The second regression model analyzes factors that influence the homeownership rate by race/ethnic group for 1994–2010, where historical data are available. The third model analyzes homeownership by census region for 1992–2010, where regional homeownership data are available. The major results of these econometric regressions indicate that:

- Eliminating GSEs could lead to very small changes in the homeownership rate. Indeed, a 1 percent increase in mortgage interest rate is associated with 0.1 percent lower homeownership at the national level.

- Household assets, expectations of future home price appreciation, personal saving rate, effective tax rate, vacancy rate, housing starts, and the Wilshire index (a metric of stock market prices) are the most important factors in shaping the homeownership rate at the aggregate national level.

- Blacks are more sensitive to changes in mortgage interest rates than whites and Latinos. However, the responsiveness of homeownership to interest rates is at a very low level for all ethnic groups: A 1 percent increase in mortgage interest rates is associated with a 0.02 percent decrease in homeownership for whites and Hispanics and a 0.05 percent decrease in homeownership for blacks. The results indicate that shutting down the GSEs would reduce the homeownership rates for whites and Hispanics by as little as 0.5 percent and for blacks by almost 1.2 percent.

- The responsiveness of homeownership rate to down payment is trivial compared to economic fundamentals, such as GDP per capita, effective tax rates (an average of state and local tax burden), and socio-demographic features.

- Homeownership for race and ethnic groups is driven mainly by fundamentals, such as GDP per capita, the effective tax rate, and socio-demographic features such as household size, income distribution, marital status, female participation in the labor market, and education. Therefore, GSEs' intervention to raise the homeownership rate among race and ethnic groups by subsidizing

1. Nahid Anaraki, "A Housing Market Without Fannie Mae and Freddie Mac: Effect on Home Prices," Heritage Foundation *Special Report* No. 105, April 18, 2012, http://www.heritage.org/research/reports/2012/04/a-housing-market-without-fannie-mae-and-freddie-mac-effect-on-home-prices.
2. Nahid Anaraki, "A Housing Market Without Fannie Mae and Freddie Mac: The Effect on Housing Starts," Heritage Foundation *Special Report* No. 120, October 4, 2012, http://www.heritage.org/research/reports/2012/10/a-housing-market-without-fannie-mae-and-freddie-mac-effect-on-housing-starts.
3. Christian Pierdzioch, Jan-Christoph Rulke, and Georg Stadtmann, "Housing Starts in Canada, Japan, and the United States: Do Forecasters Herd?" Campus for Finance, July 2010, p. 18, table 2, http://campus-for-finance.com/filebrowser/files/Papers/49a40606437_name.pdf (accessed August 28, 2012).
4. Nahid Anaraki, "A Housing Market Without Fannie Mae and Freddie Mac: Effect on the Homeownership Rate," Heritage Foundation *Special Report* No. 109, June 11, 2012, http://www.heritage.org/research/reports/2012/06/a-housing-market-without-fannie-mae-and-freddie-mac-effect-on-the-homeownership-rate.

mortgage interest rates seems inconsequential.

- The homeownership rates are more responsive to changes in mortgage interest rate in the West and Midwest than in the Northeast and South. Put differently, the Northeast region is the least responsive to changes in conventional mortgage interest rates.

The implication of these results for policy is straightforward: Once housing and financial markets recover from the recent turmoil, shutting down Fannie and Freddie would have at most a slight impact on housing starts nationally.

The Macroeconomic Effects of Eliminating Fannie Mae and Freddie Mac. CDA analysts used a structural model of the U.S. economy to investigate the likely macroeconomic effects of eliminating Fannie Mae and Freddie Mac agency activity.[5] We simulated an economic forecast where Fannie Mae and Freddie Mac agency activity ceases, ending the likely mortgage interest rate subsidy passed to market borrowers. This economic forecast is compared to a baseline economic forecast reflecting no changes in Fannie Mae and Freddie Mac agency activity.

The simulation results indicate that as the economy and labor markets stabilize over the 10-year forecast period, real household disposable incomes and consumption increase relative to baseline levels by 0.08 percent and 0.03 percent, respectively.[6] Moreover, borrowing costs related to mortgages rise over the forecast period, leading to decreases of 2 percent in home mortgage acquisitions and 0.75 percent in the level of household liability holdings. The deleveraging by households over the forecast period offsets some decrease in the changes in household holdings of financial assets.

Opponents argue that eliminating these institutions would likely lead to a serious deterioration in the U.S. mortgage market, which would leave the economy significantly worse off. We find, however, that eliminating Fannie Mae and Freddie Mac agency activity would have minimal impact on these markets and the overall economy. The average annual decline in real output over the 10-year forecast period is 0.04 percent, or a $6 billion average difference from baseline levels.

Eliminate Fannie and Freddie. The estimated results in recent Heritage studies provide additional insight and evidence that GSEs should not be part of the path to a new mortgage market. Eliminating Fannie Mae and Freddie Mac could save billions of taxpayer dollars in the U.S. mortgage market through eliminating the subsidy that has induced U.S. households to take on more debt-related consumption, ending up underwater.

Indeed, many households were never in a position to handle such debt; therefore, subsidizing them to become homeowners is not only inconsequential in raising homeownership but also detrimental to the financial market. More important, the results of our studies suggest that the effects of removing these subsidies would be minimal and predictable both on the U.S. housing market and on the overall economy.

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5. John L. Ligon and William W. Beach, "A Housing Market Free of Fannie Mae and Freddie Mac: The Economic Effects of Eliminating Government-Sponsored Enterprises in Housing," Heritage Foundation *Special Report* No. 127, January 8, 2013, http://www.heritage.org/research/reports/2013/01/a-housing-market-free-of-fannie-mae-freddie-mac.
6. The results, unless otherwise indicated, reflect the difference between a counterfactual forecast of the U.S. economy without Fannie Mae and Freddie Mac and a baseline economic forecast with Fannie Mae and Freddie Mac.