Although historically housing only represents about 4 percent of the economy, it plays a disproportionate role in business cycles, unemployment and wages. Residential investment directly contributes to GDP, but housing also contributes to the wealth of households and thus consumer spending and the health of the financial system and in turn lending more broadly. We all saw what happened when housing went wrong and helped precipitate the Great Recession. And in the last several years, we have seen residential investment grow faster than any other component of GDP, helping to drive the recovery. In my remarks today I am going to focus on the role of housing in the downturn, the recovery, and its implications for policy going forward—focusing on the continued tightness in lending standards and housing finance reform.

The Role of the Housing Sector in the Great Recession and the Current Recovery

The housing sector has played a central role in both the economic downturn and the recovery.

The Great Recession

The role of the housing sector in the run-up to the Great Recession is widely appreciated. Beginning in the mid-1990s, house prices started to grow rapidly. At first, growth appeared to be localized in the coastal areas of the country but it soon spread to regions that had never witnessed significant booms or busts, and the acceleration in price growth, driven in part by loose mortgage underwriting, became unsustainable. Residential investment was pushed to a postwar historic high of 6½ percent of GDP by 2006 before plunging precipitously, as shown in Figure 1. As rising unemployment and falling house prices pushed millions of homeowners underwater and into default, the housing bust reverberated through the wider economy and financial system, contributing to the Great Recession, the implications of which we are still grappling with today.
Housing and the Economic Recovery

The Great Recession differed from the ones that came before not just in its severity but in its dynamics. Following the 1980-82 double dip recession, for example, the economy recovered rapidly driven by strong growth in housing, as shown in Figure 2. In this recovery, however, housing did not hit rock bottom for more than a year after the overall economy bottomed out in June 2009 and then muddled along the bottom for almost another year after that.

There are multiple reasons for the long delay in the housing recovery. First, the bursting of the housing bubble left many homeowners with mortgages exceeding the value of their home which, combined with high rates of unemployment, led to widespread foreclosures. Resolving the fate of the foreclosed properties postponed the normal reentrance of new construction. Second, as economists Carmen Reinhart and Kenneth Rogoff have stressed, it is more difficult to recover from a financial crisis as banks recapitalize and scale back on loans. Third, as I will discuss further in a moment, the persistently high rates of unemployment have suppressed normal household formation, so that the demand for housing has been restrained, despite very low mortgage rates for much of the recovery.
As housing held back the recovery in 2009 and 2010, fiscal policy played a central role in driving the overall economic recovery, with the combination of the Recovery Act, subsequent fiscal measures like the payroll tax cut, and automatic stabilizers both increasing Federal investment and supporting private consumption. After 2010 fiscal policy—especially on the spending side—flattened out and reversed, with reductions in government spending acting as a headwind for GDP but by this point residential investment started growing at double digit pace, on average, helping to buoy overall economic growth, as shown in Figure 3.

Indeed, 2012 and 2013, for the most part, saw a rebound in housing activity according to the indicators that had previously registered the collapse in activity in 2006. Residential investment has grown at a 9 percent annual rate over the last three years. The rebound in house prices, however, has generally lagged overall residential investment and only started in 2012, as shown in Figure 4. Similarly, well into 2012 distressed sales comprised a large portion of overalls sales and the number of foreclosed homes remained elevated. In 2013, housing construction and sales reached recovery highs. Moreover, over the last year, there has been considerable healing for those most impacted in the housing market: sales of distressed properties have declined dramatically and rising house prices across most communities have brought millions of Americans back above water. Zillow Real Estate and CoreLogic both estimate that roughly four million households were lifted out of negative equity in 2013 alone. Moreover, the number of seriously delinquent mortgages—a leading indicator of the number of mortgages likely to enter the foreclosure process—is at its lowest level since 2008.
All things considered, however, there remains significant upside potential for the housing sector as a whole within the economy. Residential investment in the recovery remains a smaller share of the economy than at any other time in the postwar period. Residential construction employment as a percent of total employment also remains near historic lows. Of course, the composition of the economy changes over time, so such metrics should be considered with caution.

Availability of Credit

The availability of credit has been a significant constraint on the recovery of the housing market, particularly for first-time homebuyers. Moreover, tight lending standards make it more difficult for current homeowners with positive equity to take cash out of their homes with a second mortgage or refinance into lower rates. While credit conditions were too lax in the immediate run-up to the crisis, financial institutions appear to have overcorrected and today credit conditions are tighter than appear justified by economic fundamentals. The share of mortgages originated to high-credit score individuals has actually continued to increase in 2013 and credit availability for borrowers with less than pristine credit histories remains tight with virtually no originations for those with credit scores less than 620, as shown in Figure 5. In addition, capacity constraints at lenders reportedly lead them to prioritize the processing of easier-to-complete or more profitable loan applications over those of lower credit-quality borrowers. During periods characterized by low mortgage rates and significant refinancing activity, these capacity constraints can crowd out lenders’ purchase origination activity, leaving less credit available for potential homebuyers with less than pristine credit. Accordingly, the median FICO score at origination for prime borrowers has edged up from 720 in 2004 to 750 as of last year.
Tight credit conditions appear to be dampening mortgage originations, which are at a level consistent with that seen in the mid-1990s. A recent analysis from Goldman Sachs used cross-state variations in unemployment and credit conditions to estimate that half of the decline in housing turnover from 2001 through 2012 was a result of tighter lending standards. These econometric results were consistent with the broader pattern of larger reductions in credit for younger and lower-income borrowers. This would weigh down the annual pace of new home sales by about 10 to 15 percent. Lending standards for home purchase loans have not improved since 2012 suggesting that this factor is still holding us back, a point that has implications for policy that I will return to below.

Recent Developments in Housing Markets

The housing recovery slowed and in some respects reversed in the second half of 2013, including metrics like home purchases, home construction and mortgage refinancing. In part this was due to the 100 basis point rise in mortgage rates starting in May 2013, although mortgage rates remain historically low as shown in Figures 6a and 6b and housing affordability measures remain encouraging—but still neither of these indicators remained at their unusual, historically low levels.
Part of the recent developments reflect temporary dynamics around the adjustment to higher, but still low, interest rates. Part of the dynamics are also due to the continued tightness of credit conditions, a topic I will return to below. Fundamentally, however, these underscore how much potential there still is in housing to help speed the economic recovery by driving above-potential growth as housing continues to return towards more historically normal levels. And it is to these issues around the outlook for the housing recovery that I turn next.

The Fundamentals of the Housing Demand

Although the quarter-to-quarter and even year-to-year fluctuations in housing markets are significantly affected by credit conditions and home prices, in the longer run housing demand is the key fundamental driving residential construction. Housing supply typically adjusts in the long run to accommodate changes in demand. And housing demand itself is driven by underlying demographics forces.

The most important component of housing demand is the number of new households created each year, otherwise known as “household formation.” While these estimates can be erratic from year to year, general trends are observable over longer time-horizons as shown in Table 1. Since 2000, the average rate of household formation appears to have been relatively weak at roughly 0.91 million new households per year, below the average rate of 1.1 million households observed in the 1990s and far below the rate of 1.6 million a year observed in the 1970s.

<table>
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</thead>
<tbody>
<tr>
<td>Household Formation</td>
<td>1.56</td>
<td>1.34</td>
<td>1.11</td>
<td>0.91</td>
<td>1.23</td>
<td>1.29</td>
<td>1.34</td>
</tr>
<tr>
<td>Change in Vacancies</td>
<td>0.10</td>
<td>0.34</td>
<td>0.19</td>
<td>0.32</td>
<td>0.15</td>
<td>0.15</td>
<td>0.15</td>
</tr>
<tr>
<td>Net Removals (Residual)</td>
<td>0.46</td>
<td>0.06</td>
<td>0.35</td>
<td>0.23</td>
<td>0.33</td>
<td>0.33</td>
<td>0.33</td>
</tr>
<tr>
<td>Total Demand</td>
<td>2.13</td>
<td>1.75</td>
<td>1.65</td>
<td>1.46</td>
<td>1.71</td>
<td>1.77</td>
<td>1.82</td>
</tr>
<tr>
<td>Single-Family</td>
<td>1.14</td>
<td>0.99</td>
<td>1.10</td>
<td>1.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-Family</td>
<td>0.62</td>
<td>0.51</td>
<td>0.27</td>
<td>0.29</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Mobile Homes</td>
<td>0.37</td>
<td>0.25</td>
<td>0.28</td>
<td>0.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Supply</td>
<td>2.13</td>
<td>1.75</td>
<td>1.65</td>
<td>1.46</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Household formation is the product of two factors: the size of the adult population and the fraction of adults who are heads of households, or the “headship rate.” Over longer periods the first term is key and it is depends on the underlying demographics and is little affected by the economy. The latest Census projections (“middle series”) suggest that the adult population will grow by 2.2 million people per year for the next five years on average. The headship rate,
particularly among young adults, can be much more cyclically sensitive and it declined sharply in the Great Recession as, for example, children stayed with their parents longer before moving out and forming their own household, as shown in Figure 7. Data from the Current Population Survey suggests that the headship rate among adults has averaged about 50 percent over the last decade. Assuming the headship rate remains constant moving forward, we can expect at least 1.1 million new households to form each year, which is well above the 0.9 million estimate observed over the last ten years and well above the 0.6 million estimate observed over the last five years.

This assumed headship rate of 50 percent underlying the 1.1 million projection may be a conservative estimate to the degree that the headship rate improves from its post-recession lows and there is any catch up from the pent up reductions in household formation in recent years. This may explain why the Joint Center for Housing Studies (JCHS) of Harvard University has an even more optimistic outlook for the rest of the decade, projecting 1.2 million to 1.3 million new households per year. On the other hand, preferences for homeownership may have changed since the advent of the Great Recession. Moreover, housing demand depends not just on demography but also on interest rates and financial conditions more broadly, both of which will continue to evolve.

To understand how housing flows are likely to evolve we need to not just project future demand but also understand how the current stock of housing stands. Taking one extreme and assuming that the suppressed levels of household formation during the Great Recession will be fully made up, then the housing overhang that built up during bubble years has been more than worked off—and we have a significant housing shortfall, as shown in Figure 8a. At the other extreme, assuming that recent history is indicative of a persistent demographic preference shift and will not be undone going forward shows that the construction glut from the bubble years has been largely worked off, as shown in Figure 8b, but still remains a challenge. This too is an extreme assumption, however, given that there is no doubt that a key factor in headship has been unemployment and as it continues to fall the headship rate should rise. The truth is likely to lie in between these pictures—but in either case there is no evidence of a housing overhang and more likely too few houses.
A reasonable and potentially even conservative estimate is that the demographically-driven level of demand will total about 1.6 million units per year, as shown in Figure 9, which is lower than the implied JCHS estimates for all three scenarios. While it is difficult to predict the timing or pace of such a return, over time it has the potential to cumulatively add 2 percent to GDP growth above potential, helping to create jobs in the construction sector and drive down the unemployment rate. But further work is needed to study the degree to which the change in household formation has a changed preferences component, in which case the potential growth could be somewhat smaller.

**Figure 9. Building Permits for New Residential Units**

Thousands, seasonally adjusted annual rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimate of Current Annual Average Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>0</td>
</tr>
<tr>
<td>1965</td>
<td>500</td>
</tr>
<tr>
<td>1970</td>
<td>1,000</td>
</tr>
<tr>
<td>1975</td>
<td>1,500</td>
</tr>
<tr>
<td>1980</td>
<td>2,000</td>
</tr>
<tr>
<td>1985</td>
<td>2,500</td>
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</table>

**Implications for Housing Policy**

I want to talk about two broad implications these developments have for housing policy, one of them shorter run and the other longer run.
Lending Standards

First, as I discussed earlier, tighter lending standards appear to be playing a significant role in restraining the full recovery of the housing sector. One of the important drivers of this restraint on government-guaranteed loans is put-back risk. Because lenders are uncertain when and why the government will rescind their guarantee, they manage their risk by lending only to the lowest-risk borrowers. According to estimates from the Federal Reserve, about 40 percent of lenders are not even offering quotes on 30-year fixed-rate mortgages to borrowers with credit scores less than 620. The Government-sponsored Enterprises (GSEs) and the Federal Housing Administration (FHA) have been engaging with the industry to determine a framework to provide clarity on which material errors will result in the GSEs and FHA requiring the lender to buy back the loan. Additional certainty would lessen the drag on mortgage credit availability and encourage lenders to extend credit to the whole credit box, not just the most pristine borrowers.

Housing Finance Reform

Second, to ensure the long-term strength of the housing market and economy, it is necessary to reform the housing finance system so that private capital bears the risk and reward in mortgage lending and taxpayers are no longer on the hook for bad business decisions and bailouts. While Wall Street Reform addressed many of the causes of the crisis, housing finance reform is the key piece of unfinished business to ensure a safer, sounder and more resilient financial system.

What we want is a system that serves a number of objectives. It should not put taxpayers at risk, as Fannie Mae and Freddie Mac did in 2008 when the federal government provided a total of $188 billion in support to prevent their collapse and ensure mortgage credit continued to flow to prevent a more severe downturn. Some argue that this goal is most effectively accomplished by spinning off the GSEs and privatizing the housing system. However, so long as the housing finance system is dominated by two institutions that new entrants are unable to compete with, the system will be susceptible to future bailouts. Moreover, a government guarantee is necessary to ensure the continued widespread availability of consumer-friendly products such as the 30 year fixed rate mortgage and a deep and liquid TBA market, which allows borrowers to lock in interest rates prior to closing. A stable long-term housing finance system that preserves the aspects of the current system that we like requires a limited, transparent role for government—similar to what it plays in the banking system. This role is also incredibly important in providing liquidity during periods of economic stress when credit markets seize up, such as in the painful downturns we just witnessed. Finally, a third key objective of housing finance reform is to facilitate the availability of affordable housing, but to do it in an explicit and transparent manner.

The Senate Banking Committee has made promising bipartisan progress on the difficult, but crucial task of reforming our housing finance system. The Administration looks forward to continuing to work with Congress, the industry, and consumer groups to improve and advance bipartisan legislation to forge a housing-finance system that better serves current and future generations of Americans. Some of the key elements of this reform include:
• Establishing catastrophic government guarantee for single family and multifamily mortgage-backed securities that will only be triggered once first loss private capital has been depleted

• Establishing a new regulatory agency – the Federal Mortgage Insurance Corporation (FMIC) – charged with facilitating a liquid mortgage credit market for all creditworthy borrowers and oversight of the new system.

• Establishing a securitization platform that is mutually owned by its members and regulated by FMIC. This will facilitate a liquid market for agency-backed securities and lower the barriers of entry for new entrants. Importantly, the platform will not take credit risk as it does in today’s system, allowing market participants to fail without risking bringing down the system infrastructure.

• In times of countercyclical stress, the government will have the authority to temporarily expand and reduce first-loss private capital requirements to ensure liquidity and continued access to credit during severe downturns.

• The affordable housing goals will be repealed and replaced with a mandate to serve all communities. This mandate will be paired with an explicit and transparent market-based incentive to facilitate broad access to the system for underserved communities.

One of the important and sometimes underappreciated aspects of this reform is the important countercyclical role the government can play in moderating the impact and magnitude of severe downturns by ensuring continued access to mortgage credit when private capital flees, as we saw in the recent Great Recession. The basic idea of cyclical resilience is straightforward: even if the economy is in a downturn and even if there are disruptions to financial markets, the housing finance system should still provide reasonably-priced mortgages to creditworthy borrowers which will help prevent an even more severe downturn. As you know and have directly experienced, the housing market is one of the most cyclically volatile sectors of our economy, a point illustrated by Figure 10. Some of this is unavoidable—housing, after all, is a durable good, but there is no reason that this sensitivity should be exacerbated by financial market failures that result in cyclical illiquidity during periods of economic stress. For this reason, it is critical that the housing finance system provide a mechanism by which mortgage credit continues to flow to creditworthy borrowers at reasonable rates in good times and bad.
Ensuring cyclical resilience entails facilitating competition so market participants that take excessive risk can fail without threatening the entire system. It also requires that we eliminate institutional dependence on market participants by separating the system infrastructure of mortgage securitization from the balance sheet of these participants. Importantly, the Federal government must also be able to act quickly and effectively in the event of a financial market disruption or economic downturn when private capital flees. Only through comprehensive housing finance reform can we complete the last missing piece of post-Recession financial reform to facilitate a safer, sounder and more resilient financial system for future generations. With the housing market beginning to recover, we must not take these positive indicators as an excuse to become complacent and leave the system susceptible to future crises and taxpayer bailouts.

**Conclusion**

Homeownership remains critical to American families and critical to the economy. Although it will always have its ups and downs, there remains good reason to believe that over the coming years the sector will continue its process of healing and continue to contribute to the economy’s return to its full potential. There is still substantial potential in the housing contribution to the economic recovery.

But we could aid this process if we addressed the two interrelated issues I have been discussing—working on some of the issues that have contributed to tighter credit and also putting the overall housing finance system on a more sustainable footing going forward.

Housing-finance reform is a key unfinished piece of business from the financial crisis, and putting all the parts together is a complex undertaking. But the current period of relative economic calm is exactly the right time to do so.

Ultimately, housing has a profound importance that goes well beyond its impact on the business cycle—it is a necessary component of a dignified life and for many owning a home is a central
element of the American Dream. That is why it remains so critical that we work together to address these issues.