



Housing and American Recessions

By John H. Makin

A weak housing sector has accompanied every American recession since 1965, but not every episode of housing weakness has accompanied a recession. An annual drop in the growth rate of residential investment (a good measure of homebuilding activity) of more than 10 percent has coincided with a recession five of the seven times it has occurred since 1965. (In 1967 and in 1995, declines in residential investment occurred without a recession.) A significant drop in residential investment therefore appears to be a necessary condition, but not a sufficient condition, for a U.S. recession.

Housing slowdowns tend to lead recessions rather than result from them. During the second quarter of 2006, fixed residential investment fell at an 11.1 percent annual rate, followed by a 17.4 percent rate of decline in the third quarter. The intensity of the fall in U.S. residential investment during the middle two quarters of 2006 is approaching potential recession territory. The year-over-year drop reached nearly 8 percent during the third quarter. Moreover, moving into the fourth quarter, the housing slowdown is intensifying. Housing starts, another important measure, fell by nearly 15 percent during October, bringing the three-month (August through October) annualized rate of decline to nearly 50 percent.

Still, the chances of a recession in 2007 caused by housing weakness are probably only about one in two. Understanding how recessions result from a weaker housing sector helps to determine the odds of an upcoming recession.

Weakness in the U.S. housing sector poses the sternest test of the self-stabilizing capacity of the

John H. Makin (jmakin@aei.org) is a visiting scholar at AEI.

U.S. economy. That is the case because residential construction, although it is not a large part of the economy, can be volatile. Housing construction is like investment insofar as product must be built ahead of demand, which means that a slowdown in the demand for housing can create sharp disruptions in the housing construction industry. Because residential real estate is the major asset of most households, changes in its value can affect spending on all items. To begin with, spending on housing is tied to spending on home improvement and furnishings, so an abrupt slowdown in home building and home purchases spills over with extra intensity into those sectors of the economy.

A Primer on Housing

Spending on housing construction constitutes a small portion of gross domestic product. At \$573 billion, fixed real residential investment was 5 percent of GDP in the third quarter of 2006. However, spending on furniture and household equipment, which is closely related to sales of both new and existing homes, constitutes another 5 percent of GDP. Taken altogether, the housing sector represents about 10 percent of the economy.

The contribution of residential investment to GDP growth has been unusually large during the five years since the end of 2001. During that time, residential investment accounted, on average, for about 0.3 percentage points of an average total GDP growth rate of 3.1 percent. During the much longer period since 1947, residential investment accounted for only about 0.1 percentage points of growth out of a total average of 3.5 percent growth in GDP.

The potential for changes in residential investment to precipitate a recession results from the sharp volatility in residential construction that can occur at the end of a housing boom. I shall examine this volatility more closely below when I investigate the proximate sources of the recent slowdown in GDP growth.

The purchase of new and existing homes is accompanied by large purchases of furniture and household equipment. In fact, the official government statistics on housing outlays tend to understate the impact of residential construction on the economy by excluding kitchen and bathroom appliances as well as furniture and carpets fitted by house builders in new homes. Instead, these items are treated as part of personal consumption expenditure on durables. Therefore, it is important to remember that a large part of the \$553 billion spent annually on furniture and household amenities is really closely tied to expenditure on housing.

Another large potential effect of the housing sector on the overall economy comes from its significant role in household wealth. Between 2000 and 2006, the value of U.S. real estate rose by about \$10 trillion to a total of \$22 trillion. Over the last year alone, the value of real estate on household balance sheets rose by \$2 trillion. The total value of real estate at \$22 trillion constitutes nearly 40 percent of household net worth. Consequently, changes in the value of housing can have substantial effects on household wealth and, in turn, can affect consumption.

Broadly speaking, if the current housing downturn were to take house prices back to their values of mid-2005, representing a drop of about \$2 trillion or 10 percent of the current value of the housing stock, households would feel worse off and probably would consume less. The best estimates of the impact of housing wealth on consumption suggest that a 10 percent decline in the value of housing wealth would reduce consumption by about 0.6 percent. That, in turn, would translate to a drag of about 0.4 percentage points on overall GDP growth. The estimates of the impact of housing wealth on consumption are naturally subject to some error, but it is reasonable to assume that the impact on GDP growth from a loss of \$2 trillion in housing wealth would range from, say, 0.3 percentage points to 0.5 percentage points.

The direct impact of declining residential construction and associated spending on furniture and household

equipment typically subtracts about 1 percentage point from GDP growth for a number of quarters during a housing slowdown. If weaker residential investment imparts a drag on consumption through weaker spending on furniture and household equipment, weaker consumption growth can place a substantial additional drag on GDP growth, as it did during the 1990–91 recession. The loss of wealth that accompanies a housing slowdown and falling housing prices puts an additional drag on consumption—perhaps amounting to a half of a percentage point of GDP. Still, given that underlying U.S. growth averages just over 3 percent, a housing slowdown confined largely to the impact on residential construction and spending on household equipment would ordinarily lower growth by about 1.5 percentage points, but would not cause a recession.

The Fed's Role

A housing sector slowdown usually results from a combination of the effects of a rapid run-up in housing prices and the higher interest rates that result from the Federal Reserve's attempt to slow the potentially overheating economy that may be part of a housing boom. Between June 2004 and June 2006, the Fed raised short-term interest rates by 425 basis points, thereby boosting borrowing costs for prospective home buyers, although the continued low level of longer-term interest rates has helped to cushion the impact of the Fed's tightening on the housing sector.

Perhaps a more compelling reason for the recent slowdown in housing has been waning affordability. The cost of a typical home relative to disposable income per capita has gone from about 100 percent in 2000 to nearly about 140 percent today. This puts much of the housing stock out of reach for many households, despite the accommodating financing that has been available from the mortgage industry. As potential buyers hold back for lower prices, inventories of new and existing homes begin to rise and prices start to fall. The median sales price of single-family new homes fell 10 percent in the year ending September 2006. Meanwhile, median sales prices of existing single-family homes went from an annual increase of over 15 percent in 2005 to minus 4 percent in mid-2006. Clearly, a combination of higher borrowing

costs and a lack of affordability have caused a sharp drop in housing prices, a sharp slowdown in home building, and consequently a large build-up in inventories of unsold new and existing homes.

Prior to the release of third quarter GDP data, it was possible to suppose that the Fed's stance, holding the Fed funds rate at 5.25 percent, had produced financial conditions that would contain the slowdown in the housing sector and thereby stabilize GDP growth. However, the 1.1 percentage point subtraction from third-quarter growth attributable to a sharper-than-expected slowdown in residential construction, coupled with the continued reduction in prices of existing and new homes, rising inventories of unsold homes, and signs of more tepid investment growth, have raised the possibility that the Fed's current stance will cause a further slowdown in the housing sector and greater negative pressure on

overall growth. The sharp 14.6 percent drop in October housing starts, noted already, underscores the rising momentum of the housing construction slowdown.

It is still possible that the Fed's "wait and see" stance on the outlook for U.S. growth and inflation will be accompanied by self-stabilizing market moves that prevent a recession. U.S. markets are searching for the combination of financial conditions—specifically, interest rates, exchange rates, and equity prices—that will stabilize the housing sector, and with it overall growth at around 2.5 percent. These rates and prices are currently predicated on an expected Fed funds rate of about 5 percent by the middle of 2007.

The process of the adjustment of the economy to a new equilibrium is complicated by changes in the outlook for inflation that, if adverse, may delay Fed easing in the face of a slowing economy. Lower inflation increases the Fed's leeway to respond to weaker economic conditions. The Fed's "balance of risks" assessment after its Open Market Committee meetings underscores the interplay of growth and inflation prospects and suggests how this episode of weakness in housing and the economy as a whole could be problematic. If core inflation were now below 2 percent, the Fed's latitude to ease and support housing growth would be greater, so that weak economic data would produce a steeper yield curve with rates lower across all maturities. Alternatively, the

chance for core inflation persisting above 2 percent means that weaker economic data would flatten the yield curve based on the prospect that monetary easing will come with a delay, only after the appearance of lower growth and inflation.

The months of late 2006 and early 2007 constitute a critical period for the U.S. economy. The sharp drag from residential investment, falling prices of existing and new homes, and weaker capital spending put the focus squarely on equity markets to gauge the self-stabilizing capacity of the U.S. economy. Stubborn core inflation raises the risk that the Fed will be less able to cut rates as growth slows. Still, the Fed has indicated a willingness to take a benign view of inflation above its "comfort zone" of 1 to 2 percent. That patience with inflation is tied to the Fed's confidence that slower growth will eventually bring core inflation readings back into the comfort zone. The drop in the annual core inflation

rate from 2.9 percent to 2.7 percent reported for October was supportive of the Fed's view.

The Two Previous Housing Slides

The last two housing slowdowns provide a useful backdrop against which to gauge the intensity of the current one. The 1994 housing slowdown was not accompanied by a recession, while the 1990–91 slowdown was. During the 1994–95 mid-cycle slowdown (between the third quarter of 1994 and third quarter of 1995), the cumulative drag on GDP growth from weaker residential construction was 1.3 percentage points. That amounts to just over 0.3 percentage points per quarter spread over four quarters. At the end of that period, during the second quarter of 1995, GDP growth bottomed out at 0.7 percent. Consumption growth bottomed out in the first quarter of 1995 with a growth contribution of just 0.4 percentage points related, in part, to some negative spillover from weaker housing activity. That said, the moderate 1994–95 decline in residential construction produced neither a negative reading on consumption growth nor a recession.

The downturn in residential construction leading up to the 1990–91 recession was more severe, although it is important to bear in mind that the first Gulf War began on August 2, 1990, and probably contributed to the onset

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of recession. Leading into that recession, residential investment had been weak during all of 1989, subtracting a total of 1.2 percentage points from growth over four quarters, close to the four-quarter drag in 1994–95. Nevertheless, growth averaged 2.65 percent with consumption holding up reasonably well.

The first quarter of 1990 saw solid growth at 4.7 percent. Thereafter, however, the housing slowdown intensified. During the second and third quarters of that year, the cumulative total drag on growth from residential investment was 1.7 percentage points, a handicap on the economy more than twice as severe as the housing drags in 1989 and 1994–95, each of which was spread over four quarters. That, together with an inventory drag of 0.8 percentage points during the third quarter (and disruptions tied to the first Gulf War), produced zero third-quarter growth—even as consumption contributed 1.1 percentage points to growth, about half its normal pace.

Recession followed in the fourth quarter of 1990 and the first quarter of 1991 with negative annualized growth rates of 3 percent and 2 percent respectively. Residential investment subtracted another total cumulative 1.7 percentage points from growth during the recession, while consumption fell sharply, subtracting a cumulative total over two quarters of 3.1 percentage points from overall growth. (During the 2001 mini-recession, consumption supported overall growth. In fact, consumption has not declined in any quarter since the fourth quarter of 1991.)

In 2006, the release of weak third-quarter residential investment data indicated a housing slowdown comparable in intensity to the slowdown that preceded the 1990–91 recession. During the second and third quarters of 2006, the cumulative drag on GDP growth from falling residential investment was 1.8 percentage points (an average of 0.9 percentage points per quarter), marking the most intense two-quarter drag since 1981. (During the 1990–91 recession, the drag was close, at an average of 0.85 percentage points per quarter.) Were the 1990–91 pattern to be repeated, consumption would fall sharply in the fourth quarter of 2006. Slower consumption growth may be delayed into 2007 or may not occur at all, however. The result depends on how much the sharp housing construction slowdown spills into consumption through the two routes of reduced spending on furniture and

household equipment and the impact of lower household wealth on consumption.

Prospects for a Recession

So far, in the fourth quarter, there are only tentative signs of a sharp drop in consumption. Spending on furniture and household equipment slowed in September and October. While markets are not expecting a recession in 2007, there are as yet no signs of an end to the drag on the economy from falling residential construction. As already noted, housing starts (as well as permits) fell sharply in October. With starts at the lowest level since December 1997, we can expect at least another quarter in which home building retards GDP growth by more than a percentage point. That outcome would take a three-quarter cumulative drag on growth close to 3 percentage points, a level that in the past has been accompanied by a spillover into weaker consumption growth and an elevated chance of recession.

Containment of the economic drag emanating from sharply falling residential construction will depend largely on how rapidly financial market conditions adjust to cushion the negative impact on demand growth and upon how the Fed responds, or is expected to respond, to a weakening housing sector. During the two episodes in 1967 and 1995 when a residential construction slowdown was not associated with a recession, the behavior of the labor markets was unique. In both episodes, the unemployment rate did not rise. In the current cycle, the unemployment rate, currently at 4.4 percent, is at a cycle low and has, as yet, given no sign of rising. Therefore, it is possible to suppose that markets, and with them the Fed, will be skeptical that this housing slowdown can result in a recession.

The last point to remember about housing and American recessions is that no two cycles are ever the same. For example, part of the reason for the persistent drop in the unemployment rate during this cycle is the fact that labor force participation rates have dropped, so that the growth of the labor force has slowed to a point at which fewer jobs need to be found in order to maintain a stable rate of unemployment. The economy is, in effect, slowing along with growth of the labor force, so the attendant rise in the unemployment rate is muted.

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The arithmetic of the relationship between a housing slowdown and an American recession is useful to bear in mind. Currently, residential construction alone is subtracting 1.1 percentage points from U.S. growth. If slowing sales of new and existing homes translate into slower sales of household equipment and furniture, the contribution of consumption to GDP growth could drop from 2.2 percentage points to 1.2 percentage points. If negative wealth effects operate on consumption, another half a percentage point drop in the contribution of consumption to GDP growth could occur. That would take the total drag on GDP growth from slower consumption to 1.5 percentage points. Adding that drag to a 1.1 percentage point drag from residential construction takes a total of 2.6 percentage points from GDP growth. If GDP growth averages between 2.8 and 3 percentage points, the current estimate of the trend (that is, sustainable and noninflationary) growth rate, the total housing drag moves the economy perilously close to recession. It puts a heavy burden on government spending and net exports to keep U.S. growth safely in positive territory, yet neither is expected to rise strongly.

The path of consumption growth over the next two quarters will determine whether the housing slowdown creates a recession or just a growth pause at around 1.5 percent, about the growth rate already recorded during the

third quarter. The Fed's judgment will play a critical role in the final outcome. As already stated, one wishes that inflation growth were in the Fed's comfort zone so that the Fed could move quickly to cut rates given any signs that the weakness in housing was depressing consumption growth. That said, the prospect of a real housing-led recession is probably frightening enough to cause the Fed to ease aggressively should the housing slowdown threaten to create a recession, notwithstanding the level of inflation. The Fed's rationale would be simple. If the economy is heading for recession, even with core inflation at nearly 3 percent, sharply slower growth should quickly eliminate the inflation problem.

Inflation at current levels presents the Fed with a dilemma. If it moves aggressively enough by cutting rates to revive growth promptly, then the U.S. economy would exit the current slowdown with core inflation well above the "comfort zone." In view of that possible outcome, it is difficult to escape the conclusion that the economy needs to grow at a below-trend rate for several quarters in order to bring inflation down gradually. The Fed needs a weaker housing sector, but it cannot be too weak or recession will result.

No one ever said that avoiding recession after a housing bubble would be easy. It is not.