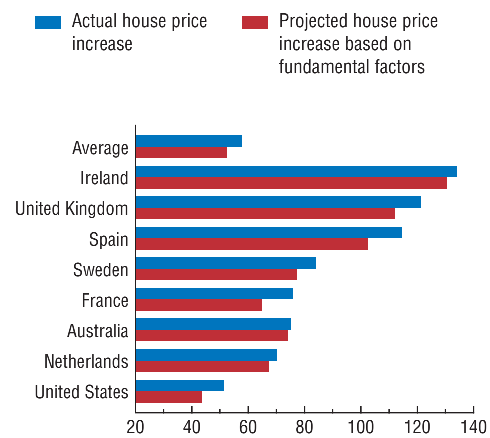
Box 1.2. The Impact of Recent Housing Market Adjustments in Industrial Countries

House prices in many industrial countries have been increasing at unprecedented rates in recent years, providing a boost to economic growth. An analysis in the September 2004 *World Economic Outlook*, however, found that this increase in house prices had significantly exceeded the amount justified by fundamentals—such as population and income growth and interest rates—in a number of countries, raising the prospect that house prices would need to adjust in the period ahead. Further, the analysis also found that the correlation of house prices across countries was surprisingly high—particularly given that housing is a nontraded asset—raising the possibility that such a weakening in prices could be synchronized across countries, magnifying the impact on global growth.

Over the past year, house price growth has slowed in many countries, consistent with the historical cross-country synchronization in these prices. In Australia and the United Kingdom, house price inflation has declined from 20 percent a year in late 2003 (middle of 2004 for the United Kingdom) to zero to 5 percent currently, while in Ireland prices slowed through mid-2005, but appear to have accelerated more recently. In France, Spain, and the United States, house price appreciation has also slowed to some degree, although it remains in double digits on a year-on-year basis. In the Netherlands, the downturn in the housing market started much earlier—in 2000—than in other industrial countries, and price appreciation has remained subdued in recent years. The slowing in price appreciation in Australia, Ireland, and the United Kingdom has brought house prices in these countries closer to current estimates of fundamental value, although the United Kingdom still appears quite richly valued (first figure). On the other hand, house prices in the United States and Spain appear to have moved further away from estimated fundamentals over the past year.

Note: The main authors of this box are Tim Callen and Marco Terrones.

Assessing the Global House Price Boom
(1997–2005; cumulative percent change; constant prices)



Sources: Haver Analytics; IMF, *International Financial Statistics;* national authorities; and IMF staff calculations.

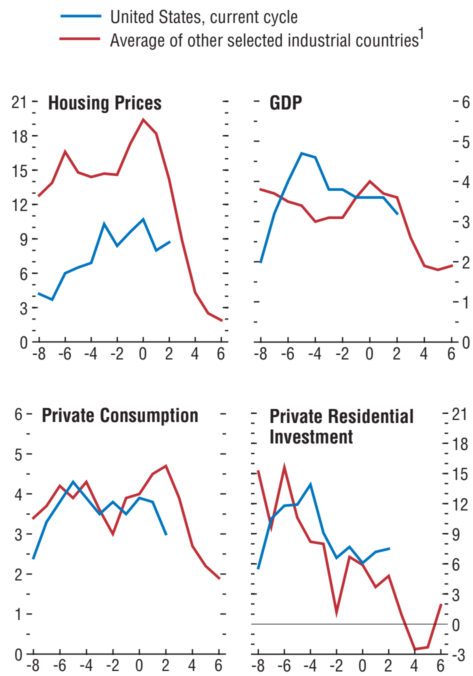
There are now growing signs that housing activity in the United States has peaked. A key question for both the United States and the global economy is to what extent slowing house price appreciation will affect growth going forward. There are several channels through which house price movements affect aggregate demand and output. First, house prices affect households' net wealth and capacity to borrow and spend. Bayoumi and Edison (2003), for example, find that a dollar increase in housing wealth in industrial countries raises consumption by around 5 cents, with the impact being larger in countries with market-based financial systems (such as Australia, the Netherlands, the United Kingdom, and the United States) than in those with bank-based financial systems (such as France and Spain). As discussed in the main text, this would suggest that a 10 percentage point slowing in real house price appreciation would reduce consumption growth in the United States by some ½–1 percentage point in the first year. Second, house prices alter the incentives for residential construction, although this relationship has been hard to pin down empirically. Lastly, strong housing markets generate employment in the real estate and related sectors, boosting incomes and consumption. Combining these effects and allowing for the cross-country comovement of house prices, estimates for the United States by Otrok and Terrones (forthcoming) suggest that a 10 percent slowing in the rate of real house price appreciation could slow real GDP growth by as much as 2 percentage points after one year in that country. The recent experiences in the Netherlands, Australia, and the United Kingdom also suggest that a sharp slowing in the pace of house price appreciation could put a significant dent in the growth of private consumption, residential investment, and real GDP in the United States (see the second figure).

A more abrupt adjustment in house prices would of course have more serious consequences for growth. The April 2003 *World Economic Outlook* found that 40 percent of house price booms ended in busts, and that these "busts"—defined as a peak-to-trough decline in real house prices that falls into the top quartile of all such price declines—are associated with a substantial slowing in real GDP growth (for the average "bust" episode, real GDP growth was 3 percent before the "bust," but modestly negative two years after).[1] Nearly all such "bust" episodes were preceded by a significant monetary policy tightening (generally short-term interest rates increased by 400 to 500 basis points). A key question for housing markets going forward, therefore, is the extent to which interest rates increase in the period ahead.

A slowing U.S housing market would have important implications for the world economy given that the U.S. economy has been a key engine of global growth in recent years. Should U.S. growth and imports slow, trading partners—particularly significant exporters of consumption goods to the United States—would be adversely affected (over the past 25 years, the correlation between output growth in the United States and the rest of the world has been 0.5). Through its likely impact on household saving and residential investment, a slowing in the rate of house price appreciation in the United States would, however, contribute to a needed rebalancing of global growth and a reduction in existing current account imbalances.

The Recent Slowdown in Housing Prices

(Percent change from a year earlier, constant prices; x-axis in quarters where zero denotes the quarter in which housing price growth reached its highest level)



Sources: Haver Analytics; Bank for International Settlements; national authorities; and IMF staff calculations.
[1]Simple average of Australia's, the Netherlands', and the United Kingdom's recent booms and subsequent slowdowns.

[1]The analysis in the September 2005 *World Economic Outlook* suggested that at least 18 states, accounting for more than 40 percent of U.S. GDP, are currently experiencing housing booms.