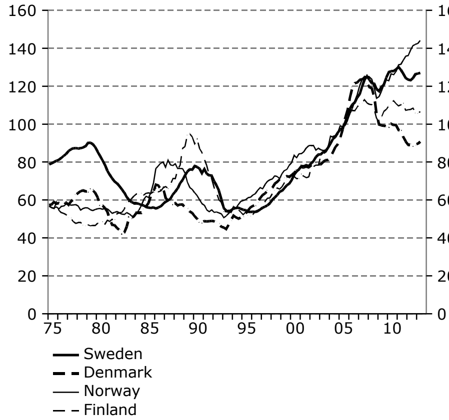
SPECIAL ANALYSIS

House Prices and Home-building – an International Perspective

House prices are influenced by many different, and often country-specific, factors. This analysis explores developments in the supply of housing in the form of housing investment in a number of countries. The analysis concentrates on the recent financial crisis but also looks at other serious crises with falling house prices. More specifically, it studies the extent to which large drops in house prices have been preceded by a period of high home-building activity. In theory, housing investment will increase when house prices are climbing and the production of new housing is considered a good investment. This rise in investment will then be an important part of the process of reining in prices through an increase in the supply of housing. If, for some reason, housing investment has been excessively high, there is a risk of the increase in supply leading to sharp price drops, with serious consequences for the economy.

Diagram 39 Real House Prices
Index 2005=100, quarterly values

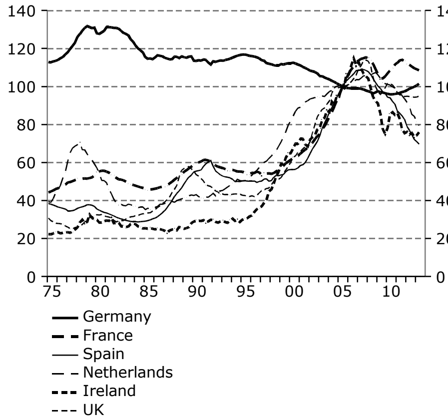


Source: Federal Reserve Bank of Dallas.

INTERNATIONAL HOUSE PRICE DEVELOPMENTS[37]

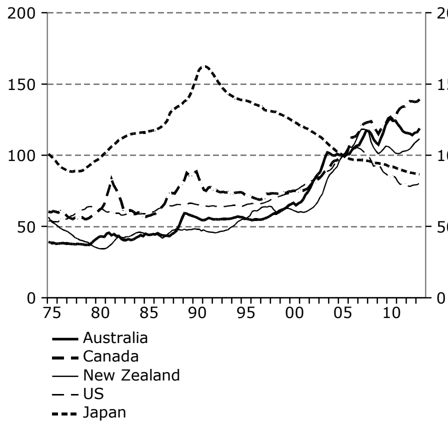
In the decade preceding the financial crisis, from 1997 to 2007, house prices rose rapidly in many OECD countries. Two exceptions were Germany and Japan, where real house prices instead fell continuously (see Diagrams 40 and 41). After the financial crisis erupted, many countries saw a sharp decrease in house prices. Real house prices in the US fell around 25 per cent before bottoming out in 2012 (see Diagram 41). Prices also dropped just over 25 per cent in real terms in Denmark and the Netherlands, and tumbled even further in Ireland and Spain. In the UK, real house prices declined just over 15 per cent from their peak (see Diagram 40). In other countries, prices fell relatively little and then recovered. These include Sweden, Norway, Australia and Canada. Real house prices in Canada and Norway are now 20 per cent higher than at the beginning of 2007, while Swedish and Australian real house prices have increased around 10 per cent over the same period (see Diagrams 39 and 41).

Diagram 40 Real House Prices
Index 2005=100, quarterly values



Source: Federal Reserve Bank of Dallas.

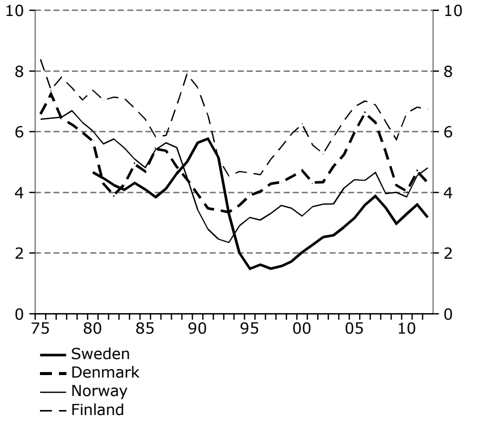
Diagram 41 Real House Prices
Index 2005=100, quarterly values



Source: Federal Reserve Bank of Dallas.

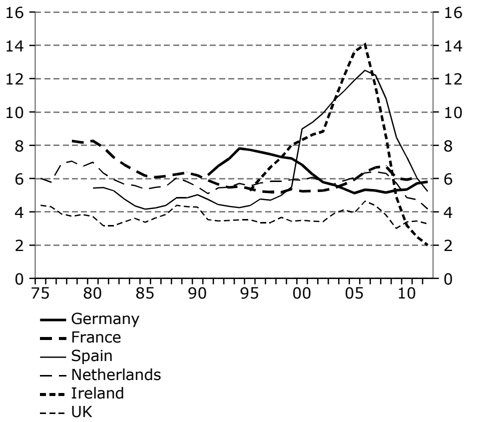
[37] The house prices used here are from the Federal Reserve Bank of Dallas. A representative house price index, generally for single-family dwellings, was chosen for each country and deflated by the consumption deflator for that country to obtain a real price index. See Mack, A. and E. Martínez-García (2011), "A Cross-Country Quarterly Database of Real House Prices: A Methodological Note", Working Paper No. 99, Federal Reserve Bank of Dallas, 2011.

Diagram 42 Housing Investment
Per cent of GDP, annual values



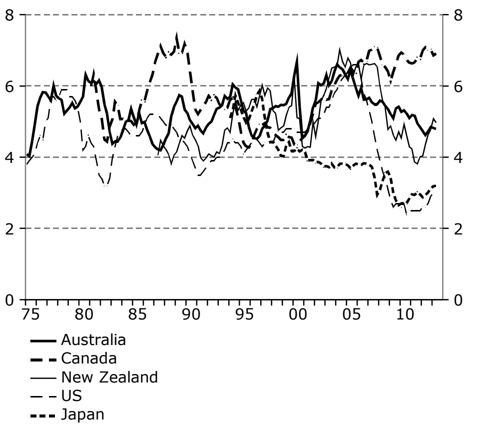
Sources: Eurostat and NIER.

Diagram 43 Housing Investment
Per cent of GDP, annual values



Sources: Eurostat and NIER.

Diagram 44 Housing Investment
Per cent of GDP, quarterly values



Sources: OECD, Bureau of Economic Analysis and NIER.

DEVELOPMENTS IN HOUSING INVESTMENT

Housing investment is needed to address demographic needs and the deterioration of older housing. Demand for housing can also rise with household income. The average level of housing investment as a share of GDP varies considerably between countries. This may, for example, be due to differences in demographics and household formation, but also to differences in construction costs, taxes, subsidies and rent regulation.

Diagrams 42 to 44 show how housing investment as a share of GDP has developed in the countries above. In the US, housing investment climbed from 4.7 per cent in 1999 to a historically high 6.6 per cent of GDP at the beginning of 2006 before falling back to 2.5 per cent in 2010 (see Diagram 42). In Spain, developments have been more dramatic, with investment soaring from 5.5 per cent of GDP in 1999 to more than 12 per cent in 2006, and then dropping back to 5 per cent in 2012 (see Diagram 43). In Ireland too, there was a big increase before the crisis, from 8 per cent of GDP in 1999 to 14 per cent in 2006, followed by a dive to 2 per cent in 2012 (see Diagram 43).

In Denmark, housing investment's share of GDP climbed continuously in the years before the crisis but then dropped back again (see Diagram 42). In Norway and Sweden, too, housing investment increased in the decade before the crisis, but here this was from historically low levels, and investment does not seem to have been especially high when the crisis struck (see Diagram 42). Housing investment also rose in some other European countries prior to the crisis, albeit not as far. It did not increase notably in the Netherlands, however.

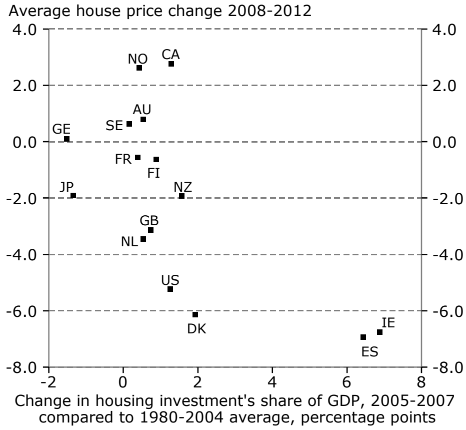
In Japan and Germany, where real house prices fell during the decade before the crisis, housing investment continued to decline as a share of GDP.

INCREASE IN HOUSING INVESTMENT PRECEDED PRICE FALLS IN MANY COUNTRIES

Diagram 45 illustrates the relationship between rising housing investment in the years before the financial crisis and how house prices fared after the crisis. The horizontal axis shows the difference between average housing investment as a percentage of GDP in 2005–2007 and 1980–2004, while the vertical axis shows average real price developments in 2008–2012. Home-building activity in the pre-crisis years was well above the average for 1980–2004 in some countries, most notably Spain and Ireland. It also seems to have been above the historical average in the US, New Zealand, Canada and Denmark, all of which, with the exception of Canada, were then hit hard by falling house prices. In Canada, real house prices rose on average in 2008–2012. In the Netherlands and the UK, meanwhile, real house prices fell significantly without housing investment having been especially high even before the crisis.

In the majority of countries that saw a sharp decline in house prices after the financial crisis, this was preceded by several years of high housing investment. Statistically, it is difficult to say anything general about the role of housing investment in price movements following the financial crisis, although the relationship is strong in some countries.[38]

Diagram 45 Real House Prices and Housing Investment



Note. The first observations in the data set are 1992 for Germany and 1987 for New Zealand.

Sources: European Commission, Eurostat, Federal Reserve Bank of Dallas, OECD, World Bank and NIER.

SOME HISTORICAL COMPARISONS

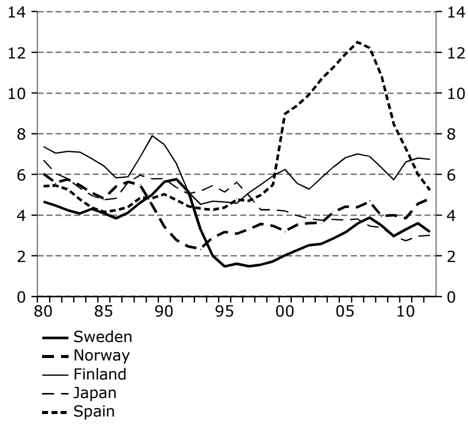
To compare developments in real house prices following the recent financial crisis, Reinhart and Rogoff have documented house price movements in connection with banking crises in developed countries since the Second World War with a special focus on five main crises, namely Spain 1977, Norway 1987, Finland 1991, Sweden 1991 and Japan 1992.[39] Laeven and Valencia (2012)[40] identify systemic banking crises occurring between 1970 and 2011. They too use these five crises, as well as the recent financial crisis, as their selection for developed countries.[41] The present analysis looks at how home-building activity and house prices developed at these times.

Finland was hit hard by the crisis at the beginning of the 1990s, with real house prices plummeting 45 per cent from the end of 1989 to the end of 1995 (see Diagram 39). In the years before the crash, housing investment climbed 2 percentage points to around 8 per cent of GDP (see Diagram 46).

In Sweden, real house prices dropped around 30 per cent from the beginning of 1990 to the end of 1995 (see Diagram 39). Housing investment rose from around 4 per cent of GDP in 1986 to 6 per cent in 1991 (see Diagram 46).

Diagram 46 Housing Investment

Per cent of GDP



Sources: European Commission, Eurostat, OECD, Central Statistics Office Ireland and NIER.

[38] There seems to be a negative relationship when comparing the countries considered here, but the results are heavily influenced by developments in Ireland and Spain. The explanatory power as measured by R-squared is in this case 0.4 per cent. The relationship has also been tested for other time intervals and seems to hold, although the explanatory power does generally decrease somewhat.

[39] See Reinhart, C. and K. Rogoff, "Is the 2007 U.S. Sub-Prime Financial Crisis So Different? An International Historical Comparison", *American Economic Review* 98(2) 339-344, and *This Time is Different*, Princeton University Press, 2009.

[40] See Laeven, L. and F. Valencia, "Systemic Banking Crises Database: An Update", IMF Working Paper No. 12/163.

[41] They do, however, date the crises differently in Norway (1991) and Japan (1997). Those who date the Japanese crisis to 1997 probably do so because it escalated at this time with the failure of a major bank.

Norwegian real house prices plunged almost 40 per cent from mid-1987 to the beginning of 1993 (see Diagram 39). Housing investment climbed from 4.8 per cent of GDP in 1985 to 5.6 per cent in 1987, before falling dramatically to just under 2.5 per cent in 1993 (see Diagram 46).

In Spain, the crisis is dated to 1977. Real house prices did not fall at all in the first years after the crisis, but dropped almost 25 per cent from mid-1979 to 1984 (see Diagram 40). Data for housing investment as a share of GDP are available only from 1980 onwards; it fell from 5.5 per cent in 1980 to just over 4 per cent in 1985 (see Diagram 46).

Japanese real house prices peaked at the beginning of 1991 and have fallen more or less continuously since (see Diagram 41). Housing investment as a share of GDP was, on average, 0.7 percentage points higher in 1988–1991 than in 1984–1987 (see Diagram 46).

All in all, housing investment as a share of GDP seems to have risen to varying degrees ahead of the aforementioned serious crises. In Sweden and Finland, the crises were preceded by accelerated home-building activity, as measured by the ratio of housing investment to GDP.

CONCLUSION

The survey above reveals that increased housing investment preceded the sharp drop in house prices in many countries following the recent financial crisis. Housing investment was historically high in the US, Spain, Denmark and Ireland, which all saw steep falls in house prices. This does not apply to all countries, however, and so it is difficult to draw any general conclusions. A strong rise in housing investment can, however, be interpreted as a symptom of unsustainable developments and therefore serve as a warning sign of an increased risk of house prices collapsing. Housing investment in Sweden has been low for a long period, unlike in many of the countries where house prices tumbled in the wake of the financial crisis. When housing investment is low, this may, other things being equal, indicate that the risk of a substantial downturn in house prices is reduced.