When the international financial crisis began in late summer 2007, real house prices (deflated by the CPI) had been rising steeply for about a decade. In Iceland, real house prices rose by about 120% from the trough in 1997 to the peak in 2007, an increase of 8% per year on average. Similar developments could be seen around the world. In the US, for example, real house prices rose 81% from trough to peak (1997-2006), or an average of 7.2% per year. As Chart 1 shows, the rise in Iceland and the US was far larger than could be explained by increases in construction costs.[1]

A number of other countries saw similar trends. Of the countries compared in Chart 2, Iceland experienced the smallest price increases in the early part of the last decade. In 2005, however, real prices in Iceland rose by one-fourth, the largest increase by far. It is logical to link this surge in house prices to the structural changes in the market at the time: the Housing Financing Fund (HFF) raised its loan-to-value (LTV) ratio to 90% in late 2004, real mortgage rates fell from 5.1% to 4.15% at the same time, and the banks began competing with the HFF and in a short period of time acquired a sizable share of the mortgage lending market.[2] At the same time, loan terms were also very attractive in the US and other countries, output growth was strong, unemployment low, wages on the rise, and equities and real estate values soaring, all of which fuelled optimism and demand. As Chart 2 shows, the downturn was a global phenomenon as well. Of the countries in Chart 2, the US was first, with prices beginning to fall in early 2006. However, prices continued to rise until end-2007 in the UK and Iceland, which were last to see their housing markets collapse.

Can bubbles be prevented?

Economists generally agree that asset price bubbles are harmful.[3] They disagree, however, on whether bubbles can be prevented and what tools are best suited to the job. The disagreement centres in part on whether it is possible to identify price bubbles. It is usually easy to pinpoint bubbles after the fact. The question is, however, whether it is possible to identify them during the upswing, and well before they burst. Although it is desirable that action be taken in order to prevent severe imbalances in asset markets, it is also important to prevent bubbles from bursting with a bang; i.e., to ensure that the actions taken do not lead to a steep, abrupt decline in prices, with the associated implications for the entire economy. It is also important to bear in mind that attempts to contain price developments driven by fundamentals could be costly. The soaring house prices in the US after World War II are an obvious example of rising prices that did not reflect a housing bubble.

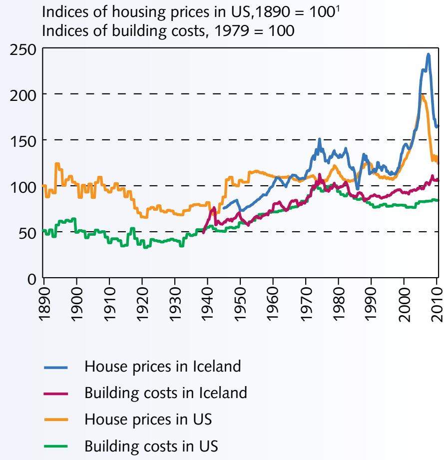
1. Robert Shiller's index of real US house prices is used in the United States, while the Icelandic index is compiled using data from Statistics Iceland. The real building cost index for the US is also obtained from Shiller, whereas the Statistics Iceland building cost index and the CPI are used for Iceland. The Shiller Home Price Index for the US is assigned a value of 100 for the year 1890. The Icelandic index was assigned a value of 107.9 as of Q1/1970, aligning it with the Shiller index value for that period. The Icelandic building cost index is assigned a value of 100 for 1979, aligning it with the Shiller index for the US.
2. See, for example, Lúdvík Elíasson and Thórarinn G. Pétursson (2009), "The residential housing market in Iceland: Analysing the effects of mortgage market restructuring", *Housing Studies*, 24, 25-45, which analyses the impact of these factors on house prices in Iceland. According to their findings, the reduction in mortgage lending rates and increased access to credit through laxer lending requirements led house prices to rise by 25% more than they would have otherwise and prompted a similar increase in residential investment. They found these effects to reverse over a period of 3-5 years, over which time house prices fell again and residential investment contracted.
3. This is discussed in the report compiled by the Central Bank of Iceland for the Minister of Economic Affairs, "Monetary policy in Iceland after capital controls," Central Bank of Iceland, *Special Publication* no. 4., pp 29-30.

Box III-1

Housing bubbles

Chart 1

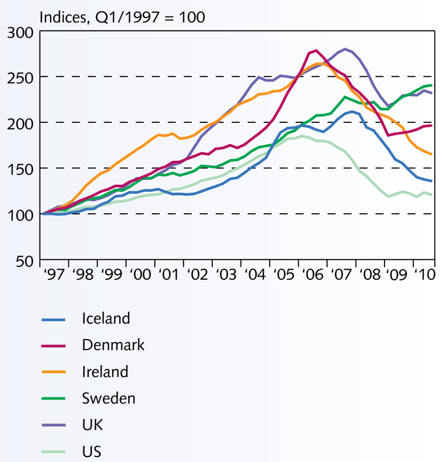
Real house prices and building costs in the US 1890-2010 and Iceland 1945-2010



1. The Icelandic index was assigned a value of 107.9 as of Q1/1970, aligning it with the housing price index in the US.
Sources: Roberts J. Shiller's webpage, http://www.econ.yale.edu/~shiller/data.htm, Statistics Iceland, Central Bank of Iceland.

Chart 2

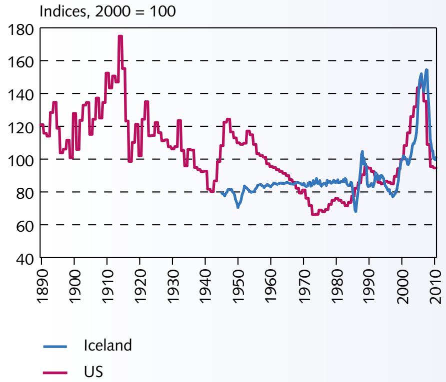
Real house prices in selected countries
Q1/1997 - Q3/2010



Sources: Macrobond, Statistics Iceland.

Chart 3

The ratio of real house prices and building costs in the US 1890-2010 and Iceland 1945-2010

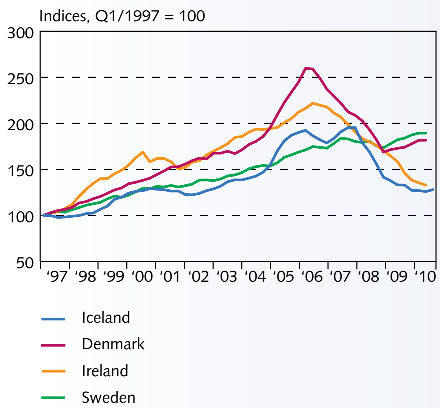


Sources: Roberts J. Shiller's webpage, www.econ.yale.edu/~shiller/data.htm, Statistics Iceland, Central Bank of Iceland.

Chart 4

The ratio of house prices to building costs in selected countries

Q1/1997 - Q4/2010



Sources: Macrobond, Statistics Iceland.

Measures to combat asset price bubbles – whether these include interest rate hikes, reduction of LTV ratios, or actions to reduce the credit system's lending capacity – all have a direct effect on lending and demand, but they also make an indirect impact by affecting expectations of house price developments and other economic variables in the future. Once an asset price bubble is well established, strong faith in its longevity begins to take hold – until the bubble bursts and the market collapses. It appears that this belief is not limited to the general public but extends as well to market analysts, brokers, and financial institution staff. After the bubble bursts, it usually appears obvious in retrospect that different decisions would have been more beneficial to investors trading in the market shortly before the collapse. It is often extremely uncertain when bubbles will burst, but an examination of Charts 1 and 2 shows clearly that it would have been appropriate to warn of a potential housing bubble well before the financial crisis struck.

Many economists are of the opinion that central bank interest rates are a blunt tool in the fight to contain housing bubbles. When annual house price increases are as large as they were in many markets before the current crisis, modest interest rate hikes are of limited use. Consequently, in order to control bubbles, it is necessary to use policy instruments that affect banks' lending capacity and/or borrowers' ability to borrow. The success of such measures depends to a large degree on individuals' and analysts' understanding of the measures and the authorities' ability to apply the correct tools in a timely manner. If the authorities apply policy incorrectly and/or the general public does not understand the measures used, the public could become convinced that the authorities are keeping prices low with restrictive measures in order to prevent a bubble that never developed.

Has the housing market normalised?

Chart 1 shows that, even though house prices have fallen sharply from their peak, real prices are still much higher than in 1997, when the upswing began, and well above historical averages. Chart 2 reveals that real house prices have fallen farther towards equilibrium in Iceland and the US than in the other countries included in the chart.

One way to gain a more accurate view of whether house prices are approaching equilibrium is to compare them with construction costs. If house prices are low relative to building costs, construction will not be overly profitable and investment in the sector will be limited. When house prices are high relative to building costs, however, profitability is considerable. According to Chart 3, the ratio of house prices to building costs is still above the long-term average in both the US and Iceland. Chart 4, which illustrates developments in Iceland, Ireland, Denmark, and Sweden from 1997 onward, indicates that this ratio is still dozens of percentage points above 1997 levels, in spite of the recent plunge in house prices. The chart shows that prices are now rising again in Denmark and Sweden. They rose in the UK as well, as can be seen in Chart 2. In Sweden they dropped slightly during the financial crisis but have already risen above pre-crisis levels.