

Box 1.1. House Price Busts in Advanced Economies: Repercussions for Global Financial Markets

Financial booms and busts in the advanced economies can have profound effects on global financial markets and global economic activity. Most recently, a bust that started in a small segment of the U.S. housing market interacted with financial imbalances and vulnerabilities elsewhere, turning into the deepest global recession since the Great Depression. But house price busts are nothing new. This raises the questions of how and why this time was different from previous cycles and what we can learn from this episode.

This box addresses these questions by building on recent research by Claessens, Kose, and Terrones (2011 and forthcoming). The main findings are that recent house price busts in advanced economies had more severe implications for global financial markets because of (1) how widespread house price busts were this time around compared with earlier episodes and (2) the unusual synchronization and buoyancy of advanced and emerging market financial conditions in the run-up to the crisis. Global factors that drive financial cycles seem to have become stronger while country-specific factors have receded, including in house price cycles.

How Did This Cycle Differ from Previous Cycles?

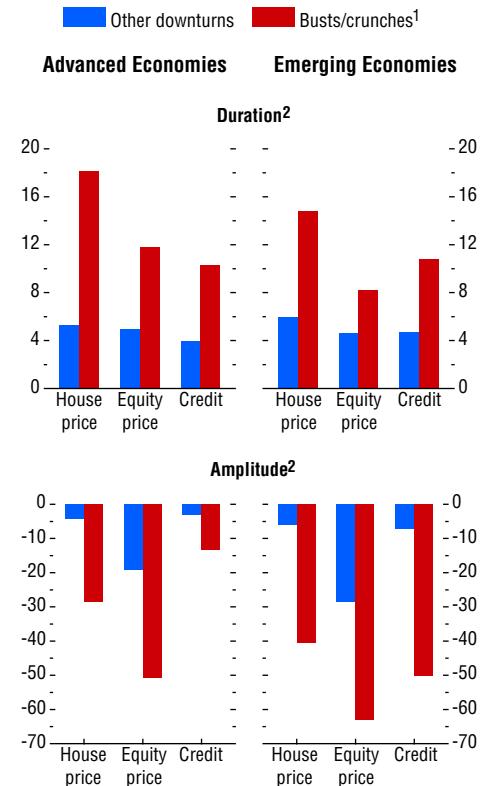
House price busts in advanced economies generally last 18 quarters and are associated with a 30 percent house price drop (Figure 1.1.1).¹ In emerging markets, busts last for 15 quarters and are associated with a 40 percent house price drop. A key difference from previous cycles is that the recent house price busts in the advanced economies were shorter and shallower, yet more violent—the average price decline per quarter was steeper than in the past.² Although some busts are ongoing, the

The main author of this box is Marco E. Terrones.

¹House price busts are defined as more intense forms of house price contractions. To be considered a bust, real house prices need to fall (from peak to trough) by more than 15 percent. House price busts are typically associated with sharp contractions in economic activity. Moreover, they are longer lasting and (by design) more severe than other downturns.

²Twenty-eight house price bust episodes were observed in the advanced economies during 1970:Q1–2007:Q4. The advanced economies that have experienced at least one such bust include Austria, Canada, Denmark, Finland, France, Ireland, Italy, Japan, Netherlands, New Zealand, Norway,

Figure 1.1.1. Financial Disruptions



Source: IMF staff estimates.

¹Busts refer to the bottom quartile of house and equity price drops, respectively. Crunches refer to the bottom quartile of credit contractions.

²Duration is the number of quarters between peak and trough. Amplitude is the decline during the downturn. Duration corresponds to sample means, whereas amplitude corresponds to sample medians. Disruptions refers to the bottom quartile of the downturn of each financial variable.

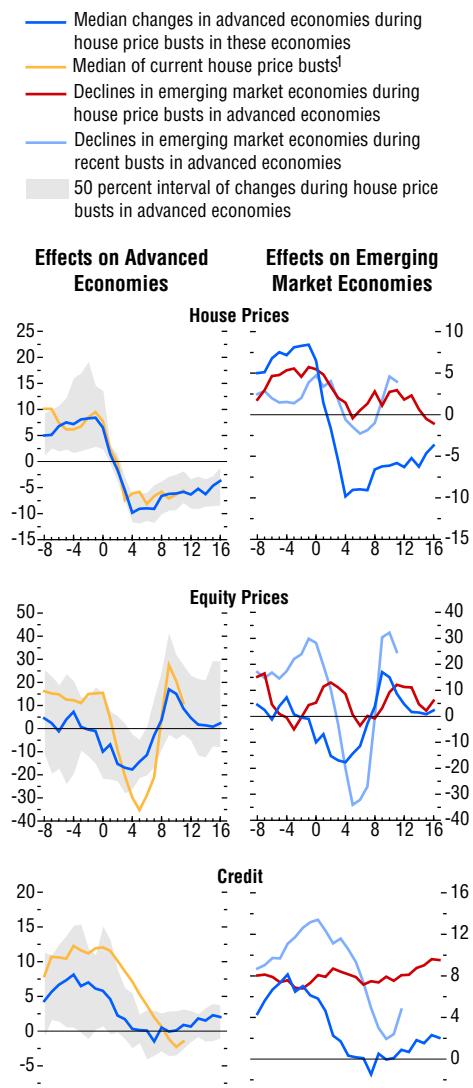
duration of completed house price busts was only 40 percent of the historical average, and the drop in house prices was only 60 percent of the norm.³

Spain, Sweden, Switzerland, and United Kingdom. House price series are mostly from the Organization for Economic Cooperation and Development and correspond to various measures of indices of house or land prices, depending on the source country.

³Among ongoing house price busts, depth and duration are similarly less than what was typically observed in previous busts at comparable stages.

Box 1.1 (continued)

Figure 1.1.2. Effect of Advanced Economy House Price Busts
(Percent change from one year earlier; t = 0 denotes peak; quarters on the x-axis)



Source: IMF staff calculations.
 1Including ongoing busts in the United States and Spain.

Financial markets in advanced and emerging market economies also experienced sharper swings in this cycle compared with previous cycles. Figure

1.1.2 plots median growth rates for house prices, equity prices, and real credit for advanced economies that experienced a house price bust and, in the panels on the right, for all emerging market economies at about the time of these busts. Overlaid on this figure are data on current house price busts (left panels) and financial effects in emerging markets (right panels). Note that during house price busts in advanced economies, house prices decline for an extended period, typically about four years. In contrast, house price growth rates in emerging market economies slow down somewhat during the first year of the event and then accelerate slightly.

Figure 1.1.2 also shows that recent house price busts were accompanied by a sharp drop in equity prices and a slowdown in credit. Credit and housing markets in many advanced economies remain weak: households are highly leveraged and banks are restructuring their balance sheets. Unlike in the past, however, the drop and recovery in equity prices have been rapid and steep. Also in contrast with past experience, the effects of the recent price busts in emerging markets have been more severe:

- House and equity prices in emerging market economies have been more responsive to financial developments in advanced economies; however, they have recovered rapidly. In some economies, house and equity prices are already reaching very high levels, which in some cases exceed precrisis levels.
- The rate of credit expansion in emerging markets slowed significantly in the aftermath of the house price busts. In part, this is because a number of emerging market economies experienced a credit boom in the run-up to the financial turmoil.⁴ Credit growth in most emerging markets has started to accelerate recently, and in one group of economies credit is very buoyant once again.

⁴Following Mendoza and Terrones (2008), credit booms are defined as excessive real credit expansions above trend. Some of the economies that experienced a boom during 2007–08 include India, South Africa, and Venezuela. Hong Kong SAR is currently experiencing a credit boom, and China is near boom territory. (There is also evidence that several eastern European economies and Nigeria, which are not included in the sample of emerging market economies, also experienced a credit boom.)

Box 1.1 (continued)***Why Did This Cycle Differ from Previous Cycles?***

Two main factors contributed to the difference between this cycle and previous cycles. First, in this cycle, an unusually large number of countries experienced either a house price contraction or bust at the same time. Data through the third quarter of 2010 indicate that virtually all 21 advanced economies experienced a price contraction⁵ and that five economies have experienced (Denmark, New Zealand, United Kingdom) or are experiencing (Spain, United States) a house price bust. The closest historical episode to the current one was observed in the early 1990s. A key difference from the past, however, is that this is the first time the United States, which accounts for the lion's share of global financial transactions, has experienced a house price bust.

Second, the degree of financial market synchronization across countries was higher this time. The cross-country synchronization for a financial variable can be measured with a concordance index, which shows the fraction of time the variable is in the same cyclical phase in two economies. The historical analysis examines the nature and interaction of financial cycles for 21 advanced economies and 23 emerging market economies using quarterly data over 1960–2007. The results are set out in Table 1.1.1.

As shown, house prices, equity prices, and credit are in the same cyclical phase at least half the time.

⁵A few of these house price contractions, including in Canada, Greece, and Japan, are ongoing and are short of being categorized as price busts.

⁶These results are not driven by the experience in emerging Europe, which is highly financially integrated with western Europe, because these economies are not included in the sample due to a lack of data.

In the run-up to the global financial crisis (that is, 2003–07), however, financial cycles were more synchronized across economies, particularly in credit and equity markets.⁶ This could reflect a variety of factors, including the growing importance of global factors in determining financial fluctuations, the growing role of large international financial institutions, and increased international financial integration.

These are some additional key findings:

- Equity markets in advanced and emerging market economies are highly synchronized, but housing markets are less so. These findings are consistent with the notion that equity markets are more closely integrated internationally and housing markets are less integrated but not independent of each other. The latter reflects the fact that, even though housing is the quintessential nontradable asset, the key determinants of house prices (such as income and interest rates) do tend to move together internationally.
- Credit markets are strongly synchronized across advanced economies and between advanced and emerging market economies. However, they are less synchronized between emerging market economies. This may reflect the strong cross-border linkages of banks in advanced economies and their important role in emerging market economies. In addition, credit shocks originating in large advanced economies, such as the United States, have a significant effect on credit conditions in emerging markets. In the run-up to the financial crisis, credit markets across advanced and emerging market economies were particularly synchronized, reflecting in part

Table 1.1.1. Cross-Country Financial Market Synchronization

	Advanced Economies	Emerging Market Economies	Advanced and Emerging Market Economies
House Prices 2003–07	0.59 0.74	0.49 0.49	0.50 0.60
Equity Prices 2003–07	0.71 0.90	0.62 0.80	0.61 0.81
Credit 2003–07	0.74 0.92	0.48 0.83	0.65 0.87

Source: IMF staff estimates.

Note: The reported statistics correspond to the median of the country averages.

Box 1.1 (continued)

accommodative monetary conditions, including low interest rates in advanced economies.

Implications for Policy

In the past, macroeconomic and prudential policies were based primarily on domestic considerations. The much greater synchronization of financial and housing markets evident in this cycle means that surveillance and domestic policies need to take much greater account of international developments than in the past. It may not be sufficient to ensure that loans made to residents by domestic financial institutions are prudently managed and that the domestic housing market is sound. In the future, policymakers may need to be aware of developments in geographically distant financial markets and take action to protect their financial institutions from risks emanating from these markets.

More immediately, financial markets in emerging market economies have rapidly recovered from the adverse impact of the recent house price busts in advanced economies. Fueled by accommodative macroeconomic policies and strong capital inflows, house and equity prices in these economies are buoyant and, in some cases, have already surpassed precrisis levels. The authorities need to carefully monitor these developments, consider tightening macroeconomic policy, and strengthen macroprudential regulation.

In contrast, credit and housing markets in advanced economies are still weak, which is typical following house price busts. Action to accelerate mending of household balance sheets and bank restructuring would help end the ongoing house price downturns and busts and improve credit conditions.