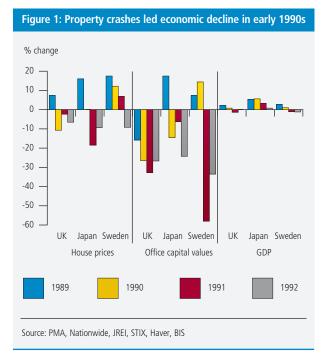
The UK Property Risk Indicator

The traditional approach to analysing and forecasting property performance has been to treat the economy as an exogenous driver of real estate performance. Almost all property forecasters thus adopt a consensus-oriented economic scenario to provide the inputs for their property models.

Using this approach, recessions and periods of financial market stress are typically seen as a result of economic over-heating and inflation, industrial re-structuring or commodity price shocks. Such factors would clearly help explain the 1980-81 and 1991 UK recessions for example.

However, the recent global economic slump cannot be explained purely in these terms. For, what is increasingly clear, is that this is a so-called 'financial crisis' or 'balance sheet' recession, similar to that experienced globally in the 1930s, or in the Nordics or Japan in the 1990s, and caused by an unsustainable asset price and credit boom. There is an increasing recognition that these kinds of recession are the deepest and longest lasting of all downturns, largely because of the de-leveraging they involve. There is also a significant risk of them evolving into full-scale depressions.

At the point where these asset price and credit bubbles collapse the consensus economic forecast is likely to be hugely overoptimistic, as most traditional economic models either effectively ignore asset prices or assume efficient asset markets, and treat the banking sector as an exogenous pool of liquidity. So in the UK in autumn 2007, for example, the consensus forecast was for GDP growth in 2008-09 of 2.5% p.a., accompanied by normal credit conditions. The outcome was a two-year GDP decline of around 6% and a huge banking and financial crisis. The PMA

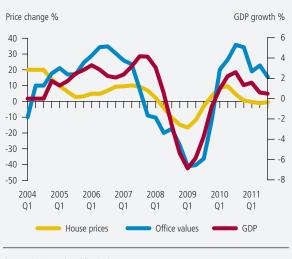


forecasts from autumn 2007, based on a consensus-style economic scenario, allowed for a significant outward yield shift, reflecting property over-pricing, but did not allow for a major recession or banking sector crisis.

Property's role in credit booms

Economists and policymakers¹ are directing an increasing amount of effort in trying to understand such periods and design warning signals to identify when there is a danger of them recurring. Much of this work understandably focuses on the growth of credit, which plays such a crucial role in the build-up of asset prices and of over-leveraging. What is increasingly apparent though is the key role which property markets tend to play in the unsustainable credit booms which precede these 'balance sheet recessions'. For whilst property rents and returns clearly suffer from the economic downswing, they also contribute to negative feedback effects as falling property prices increase banking distress and thus decrease economic growth. Additionally, and perhaps more controversially, we would argue that it is often the unsustainable property and credit boom which sets off the economic downturn in the first place, and the bursting of this bubble typically precedes economic decline by between six months and two years (see Figures 1-3). This was clearly the case in the UK and Japan in the early 1990s, and in many of the worst affected markets from 2007. Sweden in the early 1990s is the only case where the real estate decline was roughly simultaneous with that in GDP, and that may, in part, be due to the poor quality of real estate data available for that period.

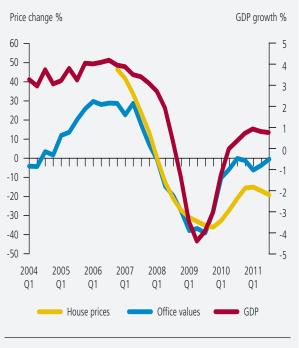
Figure 2: 2007 UK property crash preceded recession



Source: PMA, Nationwide, ONS

What is certainly clear is that the very worst recorded declines in property values have all followed unsustainable property and banking booms and have been associated with severe recessions (see Figure 4). Paul Clark, Managing Partner, UK National Forecasts and Global Investment Analysis, Property Market Analysis (PMA)

1 For example: The Bank of England (External MPC Unit), IMF, NIESR, Standard Chartered, DIW (German Institute for Economic Research).





Source: PMA, Chase Shiller, Haver

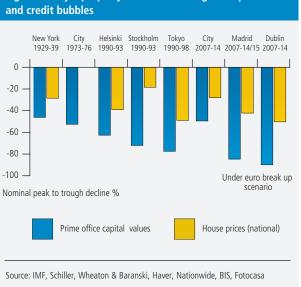


Figure 4: Major property crashes following asset price and credit bubbles

Linked patterns of bubble type behaviour

The most damaging of such bubbles have also included the residential as well as commercial property markets, and have involved excessive levels of lending and development activity, as well as an exuberant investment market. PMA has designed four inter-linked measures, designed to identify such linked patterns of bubble-type behaviour:

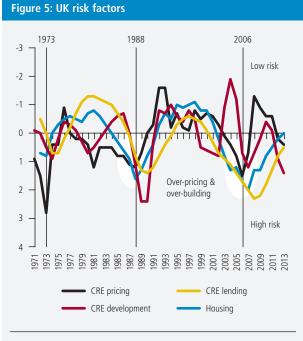
1. Property pricing: has a high-risk tolerance (and a belief that 'this time it is different') borne of recent strong performance, boosted capital values to unusually high levels and reduced risk premia to abnormally low levels?

2. Development activity: has aggressive pricing and increased risk tolerance boosted the volume of construction activity underway to unusually high levels?

3. Lending: has the buoyant investment market and wider economy encouraged rapid rates of bank lending growth to real estate, and is this reaching abnormally high levels compared to overall lending?

4. Housing: Are the same factors observed in the residential market? And is this having a positive feedback on consumer spending and borrowing?

Effectively quantifying such measures is clearly a challenge, but, the data which is available to us in the UK, allows us to do so in a fashion that clearly identifies the danger points, as shown in Figure 5.

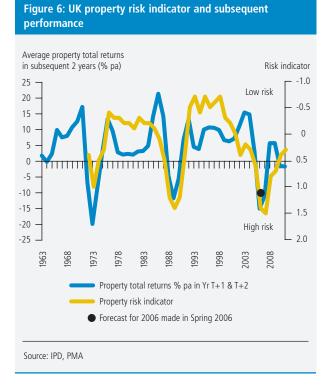


Source: Bank of England, De Montfort University, ,PMA, Nationwide, IPD, ONS, HM Treasury, CML $\,$

Over the last 40 years, there are a number of occasions where one or two of the risk factors have moved into boom territory, such as the over-pricing and over-building in the early 80s... but without a booming housing market or bank lending, and thus without a serious risk to wider economic activity. There are, however, three points where all four indicators have risen to dangerous levels. These were 1972-73, 1988 and 2006, just preceding the last three major property crashes and three of the last four recessions.

Overall risk indicator

Given that we are looking for moments where there is a pattern of linked boom-type behaviours in the market, we have combined these four individual risk factors into an overall risk indicator. This identifies three clear moments of grave danger: 1973, 1988 and 2006. There was a modest dip just after September 11, but apart from that there are no false signals from the indicator, which predicts major downswings in property returns one to two years ahead (see Figure 6).



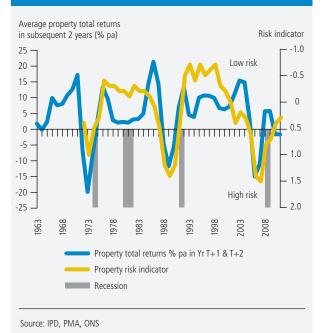
Two further points should be noted here:

1. Investors or lenders might argue that a warning at the end of 2006 was too late. However, PMA forecasts from early 2006 were suggesting that the indicator was likely to hit very dangerous levels by the year end.

2. What the indicator does not do is to predict whether returns are going to be say +5%, +10% or +15%, nor whether a boom is likely... it merely indicates when there is a bubble, which is likely to burst and inflict major damage on the property market, and also the real economy. For what is increasingly clear is that asset price bubbles (often focusing on real estate) accompanied by credit booms are often the (at least partial) causes of major recessions (see Figure 7).

So, whilst the 1980 UK recession was clearly caused by other factors, the post-2007 slump has largely been a result of the overheated property sector, and related credit boom, which preceded it. The 1973-74 recession was largely due to the oil

Figure 7: UK property risk indicator and UK recessions



price spike, and the 1991 recession was spurred by higher interest rates to control economic over-heating, but in both cases these contractionary forces hit an economy which was exposed by a property and credit boom.

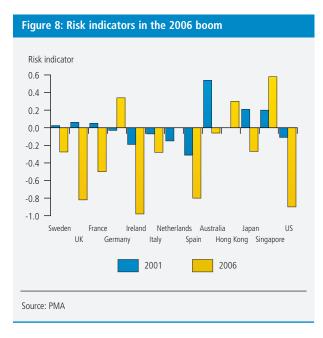
Outlook for the UK

The property risk indicator for the UK is unlikely to dip into dangerous territory in the short term because of the severe and lengthy de-leveraging which is likely in both the commercial and residential real estate markets. The almost total absence of speculative lending is also likely to constrain development. It is quite likely though that we shall face a period of aggressive pricing and low prospective returns on prime/institutional real estate, reflecting the risk aversion apparent in capital markets at present.

Whilst the UK property market and banking sector are unlikely to over-heat in the short to medium term, there are clearly other major risks to UK property returns, largely stemming from the eurozone sovereign debt crisis and fragility of the banking system.

International outlook

Our view that the importance of property and credit bubbles has generally been understated, that these have played key roles in causing major recessions in the UK, is supported by our analysis of international property markets. For what is very apparent is that it is those markets which were enjoying the strongest real estate and credit bubbles in 2006-07 that have since had the most severe property market slumps and economic recessions. Figure 8 highlights the high levels of risk apparent in the US, Spain and Ireland in 2006, compared to the relative safety of the core eurozone economies and much of Asia-Pacific at that point. Since that date though, some of these other markets, having experienced major policy boosts aimed at counter-acting global recession, have started to overheat. This is particularly noticeable in France and Hong Kong, although it seems likely that if reliable data were available for China, this market would also appear high risk.



Another market where the risk of a property and credit bubble developing has remained high is Sweden (see Figure 9), which, despite resilient export performance and a relatively confident consumer climate, has benefitted from low interest rates to counter the effects of global recession. This helped to boost lending until 2009, but this has now been constrained under pressure from government. Commercial pricing and development are moving into slightly risky territory though, and the housing market has been in a full-scale boom (see Figure 10). It may be that this can be constrained by policy measures, but this represents a risk that has most probably not been factored into consensus forecasts for this market.

So, the property risk indicator can be utilised to identify periods when changes in government or investor/lender policy may be necessary to avoid full-scale overheating, as well as identifying when these bubbles have occurred, and highlighting the risk of a major property and economic recession at a time when the consensus may still be optimistic.

Figure 9: Swedish property risk indicator



Figure 10: Swedish risk indicator components

