

Taking a fall

Kevin Dowd raises concerns about banks' vulnerability to a steep decline in house prices, fearing that they may not be adequately capitalised

In 2007, University College Dublin economist Morgan Kelly predicted a heavy fall in Irish house prices. "Looking at house price cycles across the OECD since 1970, we find a strong relationship between the size of the initial rise in price and its subsequent fall," he said. "Were this relationship to hold for Ireland, it would predict falls of real house prices of 40 to 60 per cent over a period of eight to nine years."

It was a good prediction. According to recent Dallas Fed data, Irish house prices peaked in the second quarter of 2007 and then fell 53 per cent over the next six years before bottoming out in the second quarter of 2013.

Kelly went on to examine nearly 40 cases of house price boom and bust in OECD countries since 1970 and found that the size of the initial boom was a strong predictor of the size and duration of the subsequent bust. These house price busts were typically associated with serious banking problems too – the recent Irish experience being a case in point.

I am not predicting a similar fall in UK house prices, as I do not believe I have superior information or superior intuition on the likely course of the market. But, as Robert Shiller, the Nobel prize-winning US economist, points out, the long-run value of a house is the construction cost of new housing. Shiller argues that, if a city becomes too expensive, people will eventually start new cities. In a UK, rather than US, context, the idea of a new city may not hold – even if building on green belts were allowed. But what is of concern here is whether UK banks would be able to withstand a substantial fall in house prices and still be solvent, given that large falls in house prices have happened before in other countries.

It is probably worth noting that analysts at the Bank of England, in a recent staff working paper called *Tiger by the Tail*, have argued that their "results suggest that policymakers should be less sanguine about the developments in the UK mortgage market in recent years".

A fairly small fall in real estate prices is not likely to inflict big losses on lenders because the initial losses are taken mainly by borrowers: loan-to-value (LTV) ratios are typically 70 per cent or less. Bankers would suggest that even a 30 per cent fall in house prices would have only a small impact,

given existing LTV ratios. But, a fall of, say, 40 per cent could increase banks' losses greatly. This is because there is a very non-linear quality to banks' exposure – small real estate falls will inflict few losses on banks but larger falls could inflict crippling losses on them – and we have seen such losses in some European countries over the past decade. The reason for the potentially large non-linear exposure is that a mortgage is a form of short, real-estate put option to the lender and such positions are notoriously risky.

To investigate the vulnerability of some of the bigger UK lenders I carried out a simple stress test. By my projections, a fall of 35 per cent in real estate alone, with no other adverse impacts, would be enough to blow out the common tier 1 equity (CET1) capital of the Nationwide Building Society.



The size of the initial boom is a strong predictor of the size and duration of the bust

Property falls of about 39 per cent and 49 per cent would be enough to blow out the CET1 capital of Lloyds and Royal Bank of Scotland (RBS), respectively. Some of the bigger institutions, therefore, would appear to be vulnerable.

I should add that, in practice, we would not expect a dramatic fall in house prices to occur on its own, without other adverse events such as, for example, a sudden tapering of quantitative easing or a sharp rise in interest rates. UK lenders might then be more vulnerable than my stress test results would suggest.

Why are banks potentially vulnerable, 10 years after the financial crisis? I would argue that the Basel capital regime appears to be inadequate and to have contributed to UK banks' vulnerability.

Under Basel 1, mortgage assets were risk-weighted at 50 per cent. By 2007, they were down to about 25 per cent and they are now about half that. These risk weights are woefully low. The banks' aggressive risk-weighting arises because they wish to minimise their capital requirements (to help boost returns on equity) and gaming their mortgage risk weights is one of the most convenient ways to do so.

It is possible because Basel allows large banks and building societies to use their own internal risk-based (IRB) models to risk-weight their mortgage portfolios, and IRB risk weights are based on estimates of probabilities of default and loss given default, both of which are gameable and distorted by QE and low interest rates.

“ *The real danger is not so much a single huge drop in house prices but a series of falls over an extended period* ”

Consider Lloyds. Its 2017 Pillar 3 half-year report indicates that its retail mortgage risk exposure is £335.7bn or 41 per cent of total assets. Yet the Basel-blessed risk model used to determine the minimum regulatory capital requirement on this portfolio gives us a minimum capital requirement of 8 per cent of risk-weighted assets. Those risk-weighted assets total £39.6bn, so that the final minimum capital requirement boils down to just £3.2bn. The minimum required regulatory capital ratio is then £3.2bn divided by £335.7bn, or 0.95 per cent. If the Basel approach is correct, then £3.2bn provides ample capital to cover more than £300bn in exposure because the probability of this portfolio making a loss of more than 0.95 per cent of regulatory capital is one in a 1,000. Personally, I do not believe it.

Lloyds is not untypical. One gets similar minimum required capital ratios for other big financial institutions. For example, the minimum required regulatory capital ratios for their property portfolios are 1.2 per cent for Barclays, 0.6 per cent for Nationwide and 1.1 per cent for RBS. Minimum capital standards are nowhere near high enough.

What is happening is that incentives to minimise risk-weighted assets, combined with the IRB methodology that gives banks the ready means to do so, create a race to the bottom that has pushed minimum regulatory capital standards to the point where they are way too low to retain any credibility as a buffer.

Such once-off-shock exercises also miss the main point. As Kelly's work demonstrates, the danger is not so much of a single huge fall in the property market in any given year, but of a series of falls over an extended period that gradually wipes out the capital of the banking system. It has happened before. ■



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