

## Can monetary policy really be used to stabilise asset prices?

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*Many observers have argued that central banks should use monetary policy to prevent the rise of asset price bubbles. Recent research shows that monetary policy is too costly and too slow to serve such a role.*

The subprime crisis and falling property prices in the US and elsewhere have put central banks back in the firing line.<sup>1</sup> Many commentators are noting that asset price booms, in particular those affecting residential property prices, have triggered many previous episodes of financial instability (Ahearne et al. 2005, Goodhart and Hofmann 2007). Thus, the argument goes, the most recent developments provide additional evidence that central banks should react proactively to asset prices movements, and do so “over and beyond” what these imply for aggregate demand and inflation (Borio and Lowe 2002, Cecchetti et al. 2000).

Of course, conducting monetary policy in this way is not easy. In addition to the fact that the central bank must form a view of whether a particular asset price increase is dangerous or not, it requires monetary policy to have predictable effects on asset prices. Furthermore, the size of interest rate movements required to prevent a bubble from developing must not be so large as to cause output and inflation to fall substantially below the central bank’s objectives for them (Bean 2004, Bernanke 2002, Kohn 2006). Finally, the effects of monetary policy on different asset prices must occur at about the same speed, since otherwise policy-makers will have to choose between which precise asset prices they wish to stabilise.

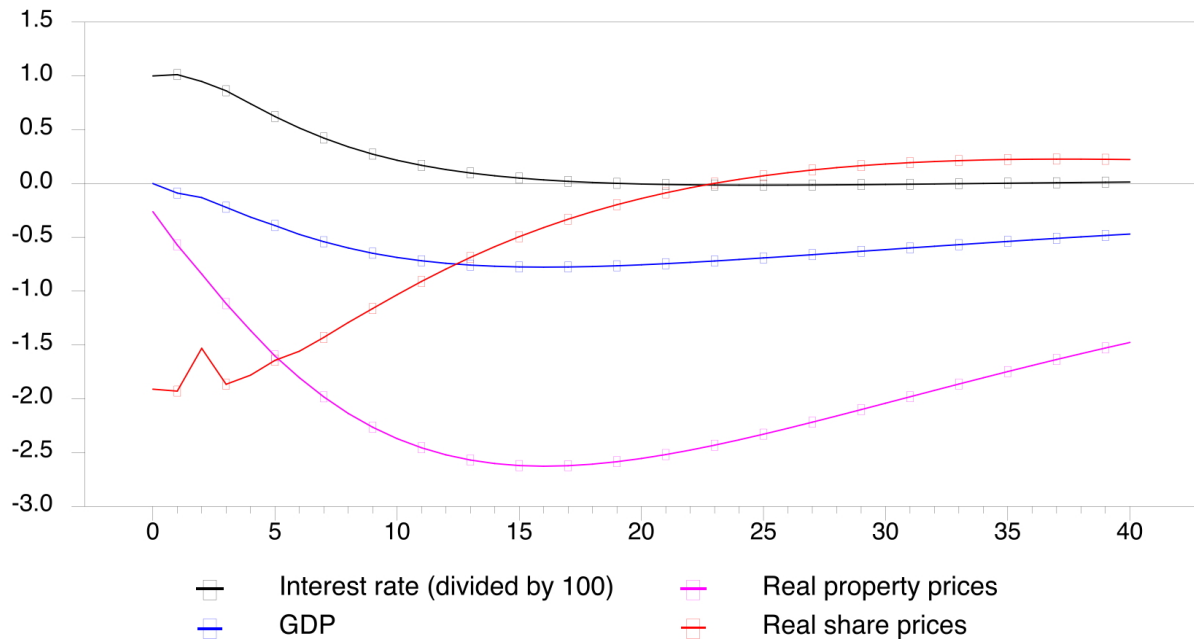
While these issues are all eminently empirical, somewhat surprisingly they do not appear to have a prominent role in policy discussions of this issue. In a forthcoming CEPR discussion paper, we seek to address them by studying the responses of real residential property prices and real equity prices, the price level and the level of real GDP to monetary policy shocks using a panel of 17 OECD countries – Australia, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, Norway, Spain, Sweden, Switzerland, the UK and the US – over the period 1986 - 2006. In our paper we disregard differences across countries and focus instead on the average responses of the economies to an unexpected tightening of monetary policy.<sup>2</sup>

### Responses to monetary policy

Of course, it is important to be clear about what we mean by such a monetary policy shock. There is much agreement that in setting interest rates, central banks react to current inflation and the current state of the business cycle. By contrast, and barring exceptional circumstances, monetary policy responds to asset prices only over time if they are seen to diverge from the levels with which the central bank feels comfortable. We therefore view contemporaneous comovements between interest rates and the price level, and interest rates and real GDP, as reflecting reactions by the central bank to these variables, and contemporaneous comovements in interest rates and asset prices as reflecting market reactions to monetary policy news.

Figure 1 analyses the effects of a 100 basis points increase in interest rates. Note that after about 8 quarters, interest rates have declined but remain about 35 basis points above their initial level. After 12 quarters, they have fallen further to a level some 10 basis points above the starting point. Overall, the increase in interest rates will dissipate in about three years.

**Figure 1. Responses to a monetary policy shock**



Turning to real property prices, we note that these start to fall in response to the tightening of monetary policy. After 16 quarters, they reach a bottom of about 2.6% below the initial level and then start to return gradually to their starting level. Overall, property prices react quite slowly to monetary policy actions.

Next we consider the responses of real GDP.<sup>3</sup> The figure shows that it also reaches a trough after 16 quarters, when it is some 0.8% below its initial level.<sup>4</sup> Thus, the responses of real GDP are almost exactly 1/3 of those of real property prices.<sup>5</sup> This is an important finding. To see why, suppose that monetary policy makers come to believe that a real property price bubble of 15% has developed, and decide to tighten monetary policy in order to bring down asset prices. In doing so, the average central bank in the 17 countries we study should also expect to depress the level of real GDP by 5%, a truly massive amount.

Finally, we consider the responses of real equity prices. Interestingly, these fall by about 2% – or almost as much as real property prices – but do so immediately. After 16 quarters, when real property prices reach their trough, real equity prices are less than 0.5% below their initial level. The finding that property and equity prices react at very different speeds is important since it implies that central banks cannot stabilise both. This is yet another reason why we believe that the idea of using interest rate policy to forestall asset prices bubbles is not practicable.

## Conclusions

Whatever merits such a stabilisation policy has in theory, our research suggests that in practice, monetary policy is too blunt an instrument to be used to target asset prices – the effects on real property prices are too small, given the responses of real GDP, and they are too slow, given the responses of real equity prices. In particular, there is a risk that setting monetary policy in response to asset price movements will lead to large output losses that exceed by a wide margin those that would arise from a possible bubble burst.

## References

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## Footnotes

1 The views expressed are our own and are not necessarily shared by the Swiss National Bank.

2 Technically, we discuss the results from estimates of a panel VAR. The working paper contains information about the choice of data and the estimation approach.

3 We do not discuss the impact on policy on the level of prices (which is negative but small) since it is well known that the econometric technique we use is likely to underestimate the impact of policy on prices. This could occur because the way in which we "identify" monetary policy shocks, which is standard, neglects any reactions by central banks to forecasts of future inflation.

4 The responses of output are somewhat more persistent than those typically found in the literature but comparable to those obtained when estimating individual country VARs on the same data set. The higher persistence is likely due to the fact that panel estimates are less susceptible to idiosyncratic noise in the data.

5 We emphasise that the finding that real GDP responds 1/3 as much as real property prices does not depend on the exact assumptions we made about monetary policy when constructing the graph.

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