

Comment on: “Monetary Policy and the Global Housing
Bubble” by Jane Dokko, Brian Doyle, Michael Kiley, Jinill Kim,
Shane Sherlund, Jae Sim and Skander Van Den Heuvel

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February 2011

This paper addresses a crucial question in economic policy: has monetary policy been (at least partly) responsible for the housing prices bubble that appeared in the 2000s in US and in other countries? And, since the boom and bust in housing prices has been one of the key determinants of the 2008-2009 recession and financial crisis, has monetary policy ultimately being responsible for the crisis? The answer it gives is a pretty clear no. The main argument for the answer is an empirical one. The authors estimate (for many countries and up to 2002) an unrestricted VAR that includes, among other variables, house prices and an index of monetary policy. The results from the VAR estimation suggest that for most countries shocks to monetary policy have a very small effect on housing prices. Moreover after 2002 house prices for the US and for other countries are way off their predicted (using the estimated VAR) path but monetary policy is very little off its predicted path. This evidence is the main argument for two conclusions:

- i) Monetary policy is not the main cause of the housing prices bubble
- ii) Even if monetary authorities had followed a significantly tighter monetary policies, housing prices bubbles would have still happened.

In this comment I will touch on three issues. First I will discuss potential problems with the empirical methodology used here and point to an alternative empirical approach that could

*The views expressed herein are those of the author and not necessarily those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System.

lead to a possibly different answer. Second I will briefly review some of the literature on the connection between monetary policy and asset/housing prices and conclude with some considerations on the importance of this question in the current policy debate.

1 On the empirical methodology

The main exercise of the paper is to estimate the impact of a monetary policy shock on housing prices. This is achieved by estimating a country by country VAR. Although the VAR is estimated for many countries the estimation is done country by country separately and it does not use the cross country evidence as an identifying factor i.e it does not relate the frequency and the severity of housing prices bubbles across different countries with different monetary policy stances across countries. Also the VAR, by construction, imposes a linear structure, i.e. it assumes monetary policy affects housing prices in a linear fashion. Linearity might not be a good approximation if bubbles are rare and large phenomena that can triggered by small changes in policies. An alternative methodology which does not suffer from the shortcomings discussed above is the one used by Agnello and Shucknect (2009) who first put together a panel of 18 countries for the period 2001-2007, then identify several episodes of housing prices booms or busts and finally estimate a regime switching model in which monetary policy (through short term rates) affects, independently from other variables such us GDP or growth or credit growth, the probability of entering a regime of housing prices boom or bust. With respect to monetary policy their key finding is that a one percent decline in the short term rates increase the probability of entering a boom of about 5%. How does this probability compare with the empirical findings of this paper? Certainly 5% is a fairly small number and hence it does not suggest that monetary policy is the main determinant of housing prices bubbles. On the other hand the number is statistically different from 0, suggesting that monetary policy can have a role in the emergence housing prices bubbles.

2 Should monetary policy target and/or respond to asset prices?

The empirical evidence reviewed above suggests that indeed monetary policy can have an independent effect on housing/asset prices. This finding leads naturally to the question of whether monetary policy should target and/or respond to asset prices. This question has been widely studied and Bernanke and Gertler (1999) articulate very well the terms of the relation between

monetary policy and asset prices. They first argue that monetary policy should respond to asset prices if two conditions are met. The first is that equilibrium asset prices, due to market imperfections, should deviate from their fundamental/efficient value. The second is that these deviations of asset prices from their fundamental/efficient value should have an effect, usually due to a financial frictions, on economic activity. These two conditions are obviously quite plausible. But Bernanke and Gertler argue that when these two conditions are met, usually the effect of asset prices on economic activity manifests itself on variables such as GDP or inflation and so the monetary authority should react to those variables directly and not to asset prices per-se. Interestingly Assemacher-Wesche and Gerlach (2010) provide evidence for exactly this argument, showing that various measures of asset prices and financial imbalances do not help forecast future output gap and inflation, once current output gap and inflation are included in the forecasting equation. So even though asset prices can affect economic activity they do not convey any, above and beyond current economic activity, information on future economic activity and so monetary policy should not react to those.

The evidence reviewed above though suggests a third condition under which monetary policy makers should explicitly consider asset prices; the condition is that monetary policy can actually increase the probability that a given economy enters an asset/housing price bubble. Note that a change in probability might not necessary cause change in current economic activity (such as GDP or inflation) nor a change in asset prices themselves; yet, if the first two conditions are met, it can have an important welfare effect as it affects the probability of undesirable future macroeconomic outcomes and so monetary policy should take it into account. I believe this is potentially a very important effect of monetary policy but in order to fully evaluate it more structural models are needed. In particular policy makers would need models of the economy in which bubbles in housing prices can emerge (see for example Piazzesi and Schneider 2009), introduce monetary policy in such a contexts and then, i) assess how monetary policy affects the probability of entering the bubble and ii) evaluate how does the emergence of a bubble affects welfare and macroeconomic outcomes. Such models would be useful policy tools, as they would give policy makers a better sense of what are the potential costs of, say, keeping the short term interest rate low for a long period of time. Right now most policy analysts worry about future inflation, but the increase in probability of a new asset bubble could also be an important cost.

3 Conclusions

This paper addresses a fundamental question in monetary policy. The question is not only important from an historical perspective, as it helps us assess the role of monetary policy in the 2008-2009 financial crisis, but it is also crucial in the post crisis policy debate in the US and in other countries. As the solid line in figure 1 below shows the US federal funds rate has been basically at 0 over the past two years. In the mean time the dashed line shows that the sp500 cyclically adjusted price to earnings ratio (as computed by Shiller, 2005) is growing and well above its long run average. Is the long period of 0 Federal Funds rates increasing the probability that a new bubble in stock prices will emerge? This is obviously a very hard question to answer but the picture suggests that it is at least a possibility, and since this possibility might increase the risk of undesirable future macroeconomic outcomes, the policy makers should consider all the tools that allow them to evaluate it seriously.

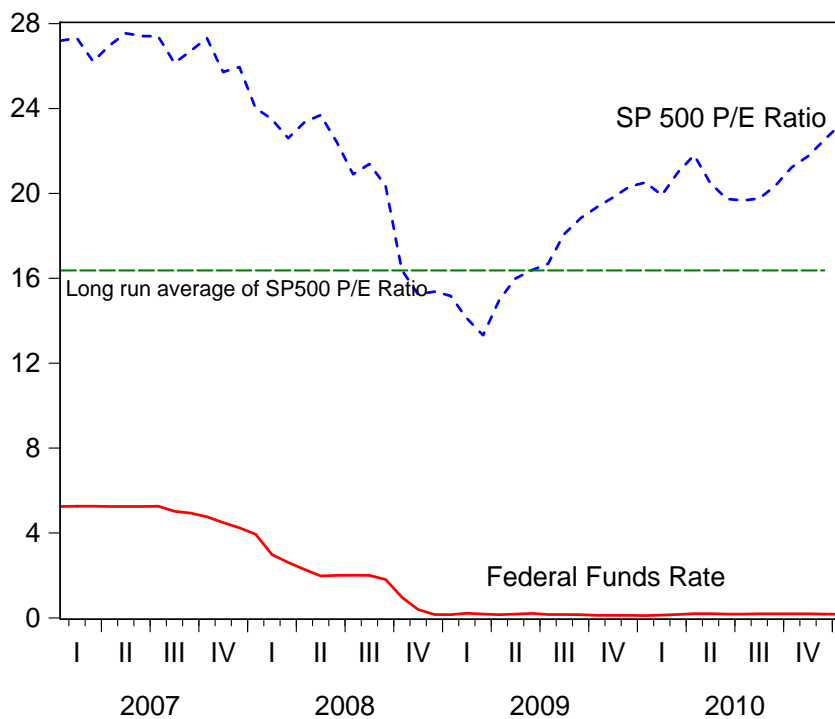


Figure 1: Monetary policy and asset prices in US after the crisis

References

Agnello L. and L. Shucknect, 2009, “Booms and Busts in Housing Markets - Determinants and Implications”, European Central Bank Working Paper 1071

Assenmacher-Wesche K and S. Gerlach, 2010, “Monetary policy and financial imbalances: facts and fiction” *Economic Policy*, 25,437-482

Bernanke B. and M. Gertler, 1999, “Monetary policy and asset price volatility”, *Federal Reserve Bank of Kansas City Economic Review*

Piazzesi M. and M. Schneider, 2009, “Momentum Traders in the Housing Market: Survey Evidence and a Search Model” *American Economic Review: Papers and Proceedings*, 99:2, 406-411

Shiller R., 2005, “Irrational Exuberance”, Princeton University Press