

# RESEARCH NEWSLETER 3/2009

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### **Editorial**

The recent turmoil in the US residential housing markets has had significant international financial, macroeconomic and in particular housing market repercussions. In the latter market, the turmoil has affected mainly the market for owner-occupied housing in various countries. A distinctive characteristic of this market is that most owners have less than a complete equity share in their home, so that they typically obtain a mortgage and borrow against the collateral value of their home. It is generally thought that financial innovations during the last 20-30 years have made it easier for households to borrow against the collateral value of their homes. Such borrowing needs may derive from households trading activity in the housing market per se or from the desire to finance consumption through mortgage equity withdrawals. An implication from the improved borrowing opportunities is an increase in the demand for housing and house prices. Higher house prices will, in turn, boost up the collateral value of houses. Higher consumption demand will consequently be supported by potential wealth effects which will tend to put upward pressure on inflation.

This is the often quoted transmission mechanism of shocks to house prices, and more generally shocks to asset prices, to aggregate inflation that a number of researchers and policy makers have used to motivate closer monitoring of asset price development by central banks in their pursuit of monetary policy aimed at price stability. But how strong are these wealth effects and, maybe more fundamentally, what do we know about the effects of changes in collateral constraints on house prices? Standard theories of residential housing markets do not actually predict significant house price effects from changes in collateral constraints. Moreover, these theories have the more general difficulty in accounting for the observed sustained positive trend in house prices. Consequently, before studying the effects of financial frictions on the housing market, we should ascertain that our theory of the demand and supply in the housing market is able to capture the salient features of observed house price dynamics.

The two components of the market for single family housing - the market for existing and new homes, respectively - affect the aggregate economy in different ways. Moreover, evidence suggests that these markets have in the past behaved very differently. More specifically, the supply of existing homes in mature neighbourhoods is less elastic than that of new homes in new neighbourhoods. Consequently, changes in the demand for housing should mainly show up in the relative price of existing homes and the construction of new homes. Evidence does indeed indicate that the relative price of existing homes has increased significantly over the past years relative to new ones. Increased construction of new homes, on the other hand, has directly contributed to gross domestic product through its contribution to investment in residential structures. Higher relative prices of existing homes affect gross domestic product only indirectly, as indicated above, through wealth redistribution between current owners and potential future owners.

Infrequently observed house price collapses have not shied households away from investing in the housing market. In many countries a large share of households' wealth portfolio is still in the form of housing wealth. The return on housing wealth has been relatively high and stable probably suggesting that housing is an attractive investment opportunity to households. In this respect the housing market can be viewed as shelter against various shocks. The recent turmoil, however, warns against being too confident about the outcomes in the housing market, ie. the turmoil seems to suggest that the housing market can, infrequently, if not otherwise, also be a major source of shocks. The joint conference organized by the Bank of Finland and SUERF on June 4-5 explored these two aspects of the housing market more thoroughly. The summary below indicates not only the various behavioural and structural features of the housing market that impinges upon the market outcomes but also the potential importance of housing market developments to monetary policy and central banking more generally.

Jouko Vilmunen

### Housing markets – a shelter from the storm of cause of the storm?<sup>1</sup>

Almost eighty participants from Europe, the United States and Asia took part in this conference which was jointly organized by SUERF and the Bank of Finland. This was the fourth of their joint conferences taking place every second year.

In their welcoming words and opening address Catherine Lubochinsky, President of SUERF, and Sinikka Salo, Member of the Board of the Bank of Finland, respectively, both noted that asset prices are back on the agenda of central banks' policy discussions. Dr. Salo also reminded us of the important role played by well functioning structures and institutions of housing markets in providing cost-effective and quality housing to society. She took a closer look at Finland and pointed out that, notwithstanding the country's plentiful supply of land, the market for land <u>development does</u> not function well. This has 1 Appeared also in the SUERF newsletter, June 2009. implications both for the supply of housing and house prices in Finland.

In her keynote speech Loretta Mester, Director of Research at the Federal Reserve Bank of Philadelphia, further examined arguments for and against the view that asset prices should be given a more central role in monetary policy. She concluded that differences between the two views are mainly at the level of nuances. It is important to monitor developments in financial imbalances and acknowledge more explicitly that these have an impact on the outlook for economic output and inflation in the longer term. When taking questions from the floor she also added that much more research is needed to develop current macro models in order to better understand crisis episodes and the developments leading up to them.

In Session 1, two presentations, one empirical and the other theoretical, dealt with credit constraints in modelling and understanding house prices. Anthony Murphy of Oxford University, in a joint work with John Duca and John Muellbauer, used data on first-time home buyers from the American Housing Survey to demonstrate the effect of credit constraints on house prices. He argued that the rise in loan-to-value ratios which indicates easing of credit constraints likely reflects two financial innovations: the adoption of credit scoring technologies to sort and price nonprime mortgages and securitizations to fund them. With a theoretical model Essi Eerola of University of Helsinki, jointly with Niku Määttänen, showed that the effect of credit constraints on house prices depends on whether house price changes are driven by income or interest rate shocks. Moreover, because of credit constraints house prices may react asymmetrically to large positive and large negative income shocks.

In Session 2, two papers presented clientlevel evidence on mortgage decisions in the US housing market. In the first paper, aptly titled *Where's the smoking gun?*, Rajdeep Sengupta of Federal Research Bank of St. Louis (jointly

with Geeteesh Bhardwaj) argued that, contrary to popular belief, underwriting standards of the subprime mortgages did not weaken post-2004 meaning that this deterioration could not explain the collapse of the subprime market. The weapon that brought down the financial system may thus be missing still, but the authors point to the 'bridge-finance' nature of subprime mortgages, which they have studied in more detail in their subsequent research. On the other hand, the second paper by a group of US based authors, presented by Souphala Chomsisengphet, analysed the consequences of mandatory third-party review of high-risk mortgage applications, applied in the State of Illinois. They found that such increased oversight led to improved screening by lender institutions which further showed up in lower default and foreclosure rates.

In the panel on political economy of housing markets, ending the first day of the conference and chaired by professor Heikki Loikkanen of the University of Helsinki, Yannis Ioannides (Tufts University) recapped the recent housing price development in the US market. He pointed out big regional differences within the US, and emphasized that there had been clear political encouragement of homeownership in the US. He also noted the deeply rooted belief in the United States in houses as a safe store of value. His remarks were followed by Peter Englund of Stockholm School of Economics who gave an historical perspective on the Nordic housing booms and busts in connection with the Nordic banking crises of the early 1900s. Referring to the full-recourse nature of the Nordic mortgages he noted that mortgage losses to banks were ultimately not very big in comparison to losses from corporate credit. Raymond Duch of Oxford University had explored the connection between political sentiment and expectations concerning housing markets but concluded that the link is not as strong as with other key macroeconomic variables; such as the link between political sentiment and inflation

expectations. Risto Murto of Varma Mutual Pension Insurance Fund represented views of the asset management industry. He described the challenging investment environment of the past year and reminded the audience of the break in diversification benefits during extreme market events. He concluded that although cyclical factors seem to be currently easing, structural factors related e.g. to high government debt levels remain demanding. In Q&A the issue came up of what triggered the house price decline in the US. The panel's view was that we may not know yet. A comment from the floor referred to evidence from the implications of a change in the US bankruptcy law which may have had a bearing on the reversal of house prices.

The second day opened with an invited speech delivered by Antonio Cortina, Deputy Head of Research at Banco Santander. Both he and the chairman of this session, Juan Ayuso of the Bank of Spain and SUERF, emphasized the specific structural factors that contributed to the Spanish housing market boom together with cyclical factors. These structural factors included immigration as well as increasing demand by retired Northern Europeans for second homes in Spain. Mr. Cortina also alluded to shortcomings in the rental market.

In Session 3 Carmen Martinez of the Bank of Spain empirically demonstrated the strong long-run interaction between house prices and housing loans. Studying the Spanish housing market, she provided insights into how overvalued house prices may lead to a false sense of there being no overindebtedness among individuals who have taken housing loans. In the discussion it was brought up that also the distribution of indebtedness among individuals may matter for financial stability.

In Session 4 the general topic was monetary policy and house prices. Using a two-country macro model of the US and the euro area, Alessandro Notarpietro of Bocconi University and the Bank of Italy (jointly with Matthieu Darracq) argued that monetary

policy has reacted to housing-related shocks and that, according to additional normative analysis, monetary policy that takes house price movements into account is indeed optimal. Finally, Jean-Stéphane Mésonnier (and Sébastian Frappa) of the Bank of France provided evidence that inflation targeting has contributed to higher levels and volatilities of house prices in a group of 17 industrial countries, 9 of which have been involved with inflation targeting over the period 1980-2006. These results support the often-heard criticism that inflation targeting may contribute to a build-up of financial imbalances. A comment from the floor pointed out the importance of checking whether single country observations may affect the results. Also, other evidence was referred to, which suggests that a lowinflation environment goes together with a lower probability of banking crises.

Guido Wolswijk of the ECB, in his invited speech, presented the ECB structural issues report 2009: Housing finance in the euro area. The main findings of the report suggest that although there has been a decrease in mortgage spreads within the euro area, perhaps as a result of increased competition, considerable differences in levels remain, which point to institutional differences between countries. The originateand-distribute model, one of the central background factors of the current global crisis, has been less developed in the euro area compared to the US and the UK. This may be one reason why euro area housing finance markets have appeared more resilient to shocks.

The second keynote speech, Housing markets and the financial crisis of 2007–2008: lessons for the future, was delivered by John Duca, Vice President at the Federal Reserve Bank of Dallas. He said that the current US financial crisis shared most of the standard features of earlier financial crises but that it also points to two key flaws in standard economic frameworks. These are 1) the omission of credit standards and financial innovations from macroeconomic models, and 2) the oversimplification of treating housing as being as liquid as standard financial assets. Among lessons for the future, he noted that perhaps the policy approach of promoting homeownership by easing credit supply should not be the only approach, and that measures to improve housing supply should also be considered.

In his concluding remarks, Jouko Vilmunen, Head of Research at the Bank of Finland, noted that beside the demand factors mainly dealt with in the conference presentations, future challenges also concern supply side factors, as emphasized by Sinikka Salo in her Opening Address and echoed in the second Keynote speech.

Esa Jokivuolle

### Oil price affects the economies of oil-producing countries in many ways

The price of oil has fluctuated greatly in recent years. Gyrations in the prices of oil and other commodities have traditionally had major impacts on the economies of both the developed industrial countries and countries that produce commodities. According to Hamilton (2009), higher oil prices have made a significant contribution for example to the recent economic difficulties of the United States by reducing consumers' disposable income. On the other hand, Blanchard and Galí (2007) suggested that the sensitivity of Western industrialised countries to oil price movements clearly diminished since the first oil crisis, due to both higher energy efficiency in those countries and better economic policy responses to oil shocks.

Most international research is focused on the impacts of oil prices in countries that must import most of their energy. The Institute for Economies in Transition has however conducted several studies on the impacts of changes in oil prices on the economies of oil-producing countries. Iikka

Korhonen and Aaron Mehrotra (BOFIT DP 6/2009) look at the impacts of changes in real oil prices on the economies of Russia, Kazakhstan, Iran and Venezuela. For all these countries, oil and other energy products are clearly the largest single export category and source of government income. Naturally, higher oil prices lead to a higher level of gross domestic product. However, it must be noted that according to the structural vector autoregressive model used in the estimation, oil price explains surprisingly little of GDP changes in these countries - Russia in particular. Structural supply shocks, such as an increase in productivity, can much better explain output growth. Oil price has also had a surprisingly minor impact on the real exchange rates of Russia and Kazakhstan, the relationship between these two variables has been much clearer in Iran and Venezuela. It seems clear that Russia and Kazakhstan have successfully used fiscal policy to reduce the impact of oil revenues, which has prevented economic overheating.

# Scientific workshop on Chinese financial markets

On 12 June the Bank of Finland's Institute for Economies in Transition hosted a scientific workshop on the Chinese financial markets. The workshop was arranged in cooperation with Westfälische Wilhelms University and Wilfrid Laurier University. Seven scientific studies were presented on the Chinese banking system and on the equity markets, and a total of about 20 interested researchers participated in the workshop. Some of the workshop studies will be published in the BOFIT Discussion Paper series.

#### References

Blanchard, Olivier J., Galí, Jordi (2008) The macroeconomic effects of oil price shocks: Why are the 2000s so different from the 1970s? NBER Working Paper 13368. Hamilton, James D. (2009) Causes and consequences of the oil shock of 2007-08. NBER Working Paper 15002.

Iikka Korhonen

# Recent Bank of Finland research publications

#### Scientific monograph

Harry Leinonen (ed.): Simulation analyses and stress testing of payment networks, E:42, 2009.

### **Bank of Finland Discussion Papers**

Juha-Pekka Niinimäki – Ville Mälkönen: Blanket guarantee and restructuring decisions for multinational banks in a bargaining model, BOF DP 16/2009.

Juha Kilponen – Juuso Vanhala: Productivity and job flows: Heterogeneity of new hires and continuing jobs in the business cycle, BOF DP 15/2009.

Markus Haavio – Heikki Kauppi: House price fluctuations and residential sorting, BOF DP 14/2009.

### **BOFIT Discussion Papers**

Ying Fang – Yang Zhao: Do institutions matter? Estimating the effect of institutions on economic performance in China, BOFIT DP 9/2009.

Tuuli Juurikkala – Alexei Karas – Laura Solanko: The role of banks in monetary policy transmission: Empirical evidence from Russia, BOFIT DP 8/2009.

Zuzana Fungácová – Christophe J. Godlewski –Laurent Weill: Asymmetric information and loan spreads in Russia: Evidence from syndicated loans, BOFIT DP 7/2009.

### **RESEARCH NEWSLETTER**

Iikka Korhonen – Aaron Mehrotra: Real exchange rate, output and oil: Case of four large energy producers, BOFIT DP 6/2009. Rajeev K. Goel – Iikka Korhonen: Composition of exports and cross-country corruption, BOFIT DP 5/2009.

## **Forthcoming publications**

### **Bank of Finland Discussion Papers**

Martin T Bohl – David G Mayes – Pierre L Siklos: The quality of monetary policy and inflation performance: globalization and its aftermath.

Leonardo Becchetti – Andrea Carpentieri – Iftekhar Hasan: The determinants of option adjusted delta credit spreads: A comparative analysis on US, UK and the Eurozone. David G Mayes: Early intervention and prompt corrective action in Europe Markku Lanne – Pentti Saikkonen: Noncausal vector autoregression.

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