1. IMF'S LATEST HOUSING MARKET ASSESSMENTS

- **House Price Synchronization and Financial Openness: A Dynamic Factor Model Approach (Working Paper):** "This paper investigates the developments in house price synchronization across countries by a dynamic factor model using a country- and city-level dataset, and examines what drives the synchronization. The empirical results indicate that: (i) the degree of synchronization has been rising since the 1970s, and (ii) a large heterogeneity in the degree of synchronization exists across countries and cities. A panel and cross-sectional regression analysis show that the heterogeneity of synchronization is partly accounted for by the progress in financial and trade openness. Also, the city-level analysis implies that the international synchronization is mainly driven by the city-level connectivity between large and international cities", says the paper.

- **Norway (Selected Issues Paper):** "House prices in Norway have been growing rapidly in recent years. As of May 2018, nationwide house prices were 55 percent higher than in 2010. The national house price to income ratio remains historically and internationally high. Although house prices fell in 20172— particularly in Oslo, which saw nominal house price declines of 10.5 percent—the correction was short lived. House prices rose again by 7.5 percent during January to May of 2018 on a seasonally-adjusted basis", says IMF's latest report on Norway.

2. HOUSING AND MACROECONOMICS

**Below is a summary of a workshop prepared by Benjamin Larin (Leipzig University), Hans Torben Löfflad (Leipzig University), Konstantin Gantert (Leipzig University).*

What drives house price fluctuations? How do fluctuations in house prices and credit affect the real economy? What explains the long-run dynamics of house prices? How do house prices and rents affect wealth inequality and individual welfare? These are some of the questions that were discussed at a recent event.

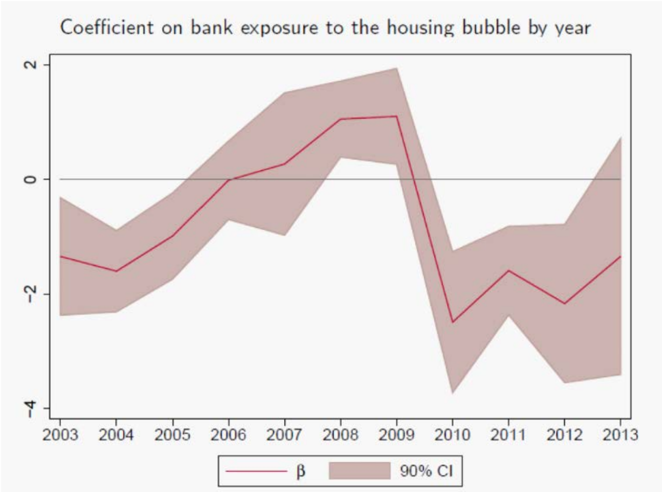
The *European Association of Young Economists* (EAYE), in collaboration with Leipzig University, organized the first *EAYE Workshop on Housing and Macroeconomics*. This newly established workshop will take place annually and will focus on a specific topic. The workshop is organized by young economists, and it is meant for young economists. This year's keynote lectures were Moritz Kuhn (University of Bonn, CEPR, IZA) and Alberto Martín (ECB, CREI, Barcelona GSE). What follows is a summary of this year's workshop.

Credit cycles, housing, and short-term fluctuations

How credit and the real side of the economy are linked, and how financial shocks translate to changes in GDP—this is one of the questions that was asked frequently at the workshop. One paper analyzed the effects of credit expansion on aggregate demand in Denmark. The authors find that additional demand due to credit expansion is mostly spend in the non-tradable sector. Employment increases, mostly at small firms, yet the average labor separation rate is found to be higher for those jobs. Another paper analyzed the supply side effects of housing on the macroeconomy. The authors found that housing supply elasticities have decreased over the course of the last two US housing boom-bust episodes, implying more volatile house prices.

In the first keynote lecture, Alberto Martin presented a theory of macroeconomics of rational bubbles with an application to housing bubbles. He showed that a housing bubble leads to investment into the housing sector, first crowding out investment in non-housing firms (see figure 1). As bank capital increases over time, credit to non-housing firms increases as well. As the housing bubble bursts, this development reverses as credit lines freeze.

Figure 1.



Note: Coefficient of housing credit exposure of banks on credit growth to non-financial firms in the U.S. from 2003 to 2013. A value below 0 indicates a fall in credit to non-housing firms as the exposure to housing credit of a bank increases.

The real effects of housing credit on the macroeconomy are driven by changes in the credit side of the economy. A paper presented preliminary evidence that there is again a housing bubble in the U.S. and in other OECD economies. The housing bubbles in the U.S. seem to be geographically clustered, yet county specific factors cannot explain this. Bubbles do in general induce investment and growth through collateral feedback loops, yet they also create significant costs when they burst. When a bubble bursts feedback loops amplify the effects on the real economy. One channel is the excessively volatile risk premium that has to be paid. Another channel is the fluctuation in housing liquidity due to a change in the average time-to-sell margin. When everybody wants to sell their house, there is a supply side overhang and the liquidity of houses decreases strongly. This leads to a decrease in the value of houses.

Policy applications

As volatility of risk and house prices is high and its economic costs are large, the question arises whether policy can smooth this cycle and increase welfare. Two papers discussed different policy measures.

First, is macroprudential policy useful as an aggregate policy tool or should it take regional heterogeneity into account? A model-based analysis shows that taking the regional heterogeneity of house prices into account has potential benefits over classical monetary policy targeting inflation and one-size-fits-it-all macroprudential policy.

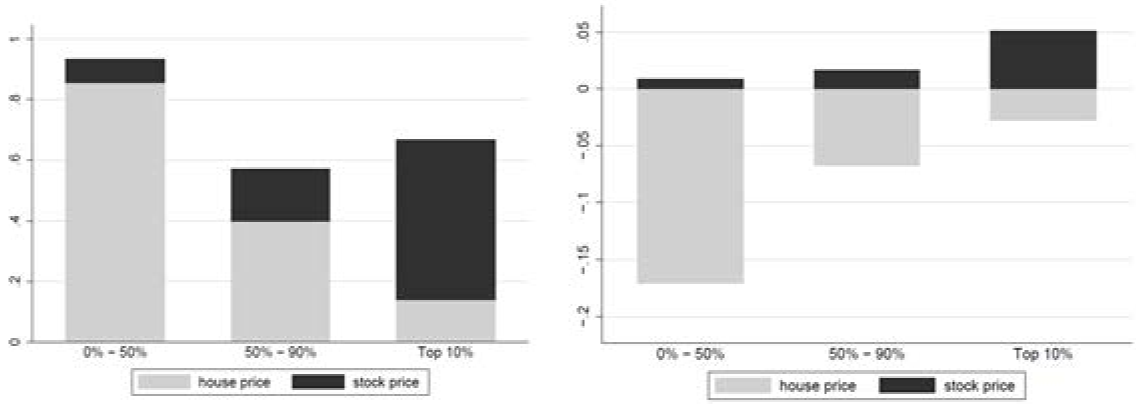
The second paper asked whether monetary policy effectiveness changes depending on the leverage cycle. The authors show that monetary policy is very effective when households deleverage, and credit constraints are binding, while it has only small effects when household leverage is increasing.

A third paper took a completely different angle on housing and studied the effect of the recent refugee inflow on rents in Germany. The authors find, very surprisingly, that local rents decrease as refugees move in. A possible explanation is the crowding out of the original population to different places in response to the inflow of refugees in their neighborhood.

Growth and wealth distribution

Some presentations at the workshop studied the relevance of the portfolio composition and house prices on the dynamics of wealth inequality. As the bottom 90 percent of the U.S. wealth distribution have a very large housing portfolio share, and hold only a small fraction of equity, it is paramount to wealth distribution how the two assets develop relatively to each other. Moritz Kuhn emphasized that the evolution of wealth inequality is the result of a race between housing and equity performance (see figure 2). When housing does relatively better, wealth inequality decreases. When equity does relatively better, wealth inequality increases.

Figure 2.



Note: The left figure indicates the wealth growth of different groups of the wealth distribution in the U.S. separated for housing and equity between 1998 and 2007. The right figure shows the impact on wealth growth from 2008 to 2016.

The significance of this statement has further been shown by a presentation on wealth inequality in Spain. There, wealth inequality did not increased significantly as rich households held a relatively high share of housing in their portfolio. Moritz Kuhn further emphasized the importance of data on the joint distribution of income and wealth for better understanding the dynamics of income and wealth inequality.

Takeaways from the workshop

Housing and Macroeconomics is an increasingly important topic. And as the many high-quality presentations have showed, young economists are aware of the importance of this topic. Housing has both short and long-run effects on the macroeconomy and the two dimensions might be connected. The financialization of housing drives both the business cycle and long-run wealth inequality. Therefore, housing is an important determinant for welfare and the economy in general.

Note: Photo on the left: Alberto Martin, center photo: participants at the workshop, right photo: Moritz Kuhn.

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The Global Housing Watch Newsletter aims to present a snapshot of the month's news and research on global housing markets. If you have suggestions on new material that could be included or ideas to improve this newsletter, you can send it to Hites Ahir (hahir@imf.org).

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