

Identifying Booms and Busts in House Prices under Heterogeneous Expectations

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In a recent article, Olivier Blanchard argued that economies occasionally land in “dark corners”, situations in which the economy could badly malfunction. These are typically moments where variables react in very non-linear ways, such that even small, and otherwise innocuous, shocks produce very large and unpredictable effects. During the crisis economic systems were hit by such shocks and it was very difficult to predict how they were going to propagate in the system and with what effects. Mainstream models that had been traditionally used to that end did not, by and large, allow for such non-linear and abrupt corrections.

This paper attempts to take a step in the direction of understanding when systems may be subject to “sudden stops”, and importantly what policy can do to prevent them from happening. We investigate the housing market from the early 1970s to 2013, during which a number of countries bore witness to excessive house price increases and subsequent corrections. In particular this paper identifies conditions that would help conclude when housing markets are in such dark corners. These are places when the economic system becomes fundamentally unstable and therefore, sudden movements become increasingly likely. More importantly, these conditions are linked to policy variables (interest rates and potentially macro prudential tools) and therefore help identify how policy can help prevent countries from landing in such places.

The mechanism that drives instability is primarily self-fulfilling expectations. Agents in these types of models are allowed to have different views (or beliefs) about the evolution of house prices (Heterogeneous Agents Models, HAMs), which they are allowed to change every period. The data determines what these views are and how often they change. If a sufficiently high number of agents believe that prices will continue to move away (say up) from what equilibrium would justify, then the system is in an area of instability. We identify such positions as a “boom”, and small changes in economic variables and/or shocks may cause abrupt and unpredictable movements. Policy changes can help stabilize the system and ensure a close and manageable distance from the fundamental equilibrium. The paper looks at the US, UK, ES, NL, BE, SE, CH and JP. Our analysis provides a potential early warning tool that can support the monitoring and assessment of housing market developments.