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Mortgages and a housing market crash – lessons from a crisis

The causes and consequences of the financial crisis that began in the United States in 2008 and led to what is now called the Great Recession have been analysed from various perspectives in recent years. Atif Mian and Amir Sufi, professors at Princeton University and the University of Chicago, respectively, have published several studies with other authors on the factors behind the crisis, what happened during the crisis and how the aftermath was handled. Their research is also compiled in House of Debt – a stormy account of debt build-up and the events that inevitably led to a collapse.

The key message of the book is based on the following idea: Most of the wealth of the US households is in housing. If a household has a large mortgage relative to the value of the house, even a small decline in housing prices will markedly erode the household’s net wealth. For example, if a household has a mortgage of EUR 80,000 and the value of the house is EUR 100,000, net wealth is EUR 20,000. If housing prices decline 10%, the value of the house falls to EUR 90,000. As the amount of debt does not change, the net wealth is now EUR 10,000. Hence, a decline of 10% in housing prices reduced the household’s wealth by half.

If a household’s wealth suddenly decreases, the household’s consumption opportunities shrink. The household may also want to save more: maybe the housing wealth was meant for a ‘rainy day’ and the household begins to build up a new buffer to replace the one that was lost. The end result is a sharp pull-back in household spending.

The same logic applies to any asset item, but from the perspective of the aggregate effects the distribution of debt matters: if a decline in asset values concerns especially indebted households with high propensity to consume, it will cause a larger decrease in consumer demand. This is why a crash in housing prices, in particular, can be very detrimental for the overall economy.

In principle, there should be corrective mechanisms in the economy which prevent weaker spending due to a collapse of asset values from leading to large-scale unemployment. One such mechanism is a decline in interest rates: when indebted households save more, interest rates fall, which increases lending and investments by firms and spending by those that are less-indebted. Certainly, various rigidities can prevent this from happening. One such rigidity is the zero lower bound, i.e. that nominal interest rates cannot drop far below zero. That nominal wages tend not to adjust downwards is another key rigidity. Nor is it always easy for workers to switch sectors.

In the US, before the financial crisis, there were large regional differences in the level of household debt. When housing prices crashed, spending declined particularly in regions where households were heavily indebted. Unemployment increased, especially in local services. As the crisis advanced, job losses increased also in the sectors producing goods to be shipped outside of the local economy. These job losses increased also in regions which did not experience the housing bust. This development is consistent with the theory according to which spending first weakens in regions where household net wealth collapses, and through various rigidities the negative demand shock spreads to other parts of the economy.

Why were households overly indebted in some regions but not in others? Mian and Sufi begin their investigation of this issue by stating the following: “As we will argue, debt not only amplifies the crash. But it also fuels the bubble that makes the crash inevitable.”

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Mortgage lending expanded in 2002–2005, especially in regions where mortgage-application denial rates had traditionally been high. In this period, the denial rates declined from 43% to 30% in regions with high denial rates. This was the case despite the fact that the number of applications soared and a larger fraction than before was classified as subprime.

The fall in the denial rate could have resulted from the expected improvement in subprime borrowers’ economic circumstances. That is, they could have been borrowing against higher future earnings. But in the period 2002–2005, credit was expanding in low credit-score areas that were experiencing declining income growth. This suggests that the decline in the denial rates was not driven by improved earnings prospects.

Another possible explanation is that banks were willing to lend because of expectations of future house price appreciation. If house prices continued to rise, households could cope with their debt burden even with stagnant incomes. The third possibility is that mortgages were granted to households for which owner-housing had previously been unaffordable. This boosted the demand for housing and fuelled housing prices.

It is not easy to distinguish between the latter two explanations because household debt growth occurred at the same time as housing-price increases. So, what was the direction of causality? Here, Mian and Sufi make use of an index depicting housing supply elasticities in US cities. When housing demand increases, the price level rises more readily in areas where housing supply is inelastic. Indeed, when credit was expanding in 2001–2006, housing prices rose 40% in elastic cities and 100% in inelastic cities. If higher housing prices caused the debt build-up, debt accumulation should have been more extensive in inelastic cities. This was not the case, however. Instead, lending expanded in elastic and inelastic cities alike and especially in zip code areas with a large portion of subprime households. For this reason, Mian and Sufi conclude that the rise in housing prices was caused by the lending boom, not vice versa.

But why did subprime customers get loans more easily than before? The answer has its origins in the 1970s, when local banks started to sell off their mortgages to government-sponsored enterprises which would pool the mortgages and sell financial claims against the pool. In the 1990s, this securitisation of mortgages spread into the private markets, and the private-label securitization grew sharply in 2002–2006, particularly in zip code areas with large portions of subprime customers. Securitisation reduced local banks’ incentives to screen customers, and they expanded lending to new customers until they began to default almost immediately after the loan originated. When defaults turned up, the house of cards started to collapse.

The book describes this whole chain of events convincingly and analyses the cause–effect relationships in a plausible manner. When the authors shift to an assessment of policy responses to the crisis in the United States, the text becomes more speculative and begins to show signs of annoyance. According to the authors, the reaction to the crisis was a horrendous mistake because the focus was on bailing out the banks rather than the over-indebted households. The situation was aggravated by the fact that there was no understanding of how the crisis spreads, e.g. due to labour market rigidities, to the whole economy.

Mian and Sufi seem to consider the choices made in the management of the crisis as incomprehensible. They argue that the US economy would have recovered much faster if the focus had been on saving homeowners instead of banks. Here the authors do not offer any actual counterfactual analysis but instead focus on how the crisis evolved gradually, along with the build-up of debt and subsequent rise in housing prices.

How can such disasters be prevented in future? If the root cause of the crisis was the large run-up in household debt, the obvious remedy would seem to be in restricting debt build-up. Mian and Sufi mention that the tax system favours debt at the expense of equity and that owner-housing is favoured over other assets, but they only briefly discuss potential tax-related measures. Nor do they go deeply into the ways of limiting household credit growth, e.g. by implementing maximum loan-to-value or debt-to-income ratios. Instead, they discuss how the entire financial system could be renovated so as to enable more efficient risk-sharing. Investments in businesses, homes and education involve risks that, if realised, may be unreasonable from the perspective of a single person. Debt contracts are too inflexible for sharing these risks: the lender gets a fixed return, which is independent of the success or failure of the investment project, except for the unlikely situation that the borrower cannot repay the debt.

It is easy to agree in principle that more efficient risk-sharing could potentially be beneficial for everyone. On the other hand, securitisation was also meant to mitigate individual banks’ housing loan risks. As Mian and Sufi’s book powerfully demonstrates, securitisation – in the end – also had other very negative effects.