The Sub Prime Solution

By Robert Shiller,
Princeton University Press, 2008

Introduction

In this book, Professor Robert Shiller of Yale University, author of the well known book, "Irrational Exuberance," argues that the sub prime crisis ultimately grew so big because modern society did not know how to deal with speculative bubbles. Irrational public enthusiasm for housing investments lay at the core of the problem. Many people tried to buy homes, misled by lenders and without a careful consideration of their ability to repay the loan. Shiller argues that the need of the hour is to structurally reform the housing sector and the financial system. The reforms should attempt to inhibit the development of bubbles, stabilize the housing and financial markets and provide greater financial security to households and businesses and at the same time provide space for innovation.

Historical perspective

The last major housing crisis in the US took place during 1925-33. Home prices fell over 30% and the peak unemployment rate hit 25%. This crisis resulted in several important policy measures. A new Federal Home Loan Bank System was set up. In 1933, President Roosevelt created the Home Loan Owners' Corporation which lent to local home financing institutions, taking risky home mortgages as collateral and thereby providing a government subsidy to home mortgages. In 1934, the Federal Housing Administration (FHA) was set up to promote home ownership among those who could not then afford homes. In 1934, Congress also created the Federal Deposit Insurance Corporation (FDIC) to insure bank deposits and prevent bank runs. In the same year, the Securities and Exchange Commission (SEC) was set up to regulate the financial markets. In 1938, the Federal National Mortgage Association, Fannie Mae was set up to support the mortgage industry and later encourage securitization.

Unlike the 1930s, the response to the present crisis has been inadequate. Shiller argues that the steps taken so far have been ad hoc. And his views are being echoed in the financial press. Unlike the 1930s, few fundamental, structural measures have been introduced.

Real home prices for the US as a whole increased by 85% between 1997 and the peak in 2006. There were no fundamental changes in construction costs, population or long term interest rates at the time of the boom. What was the cause? The speculative boom was fuelled by social contagion. In such a contagion, people start believing that the boom will continue indefinitely. They rationally but mistakenly judge the information that others have, due to a phenomenon called information cascade[1]. An information cascade

[1] Developed by Sushil Bikhchandani, David Hirshleifer and Ivo Welch.

occurs when those in a group disregard their own independent, individual collected information because they feel that everyone else simply cannot be wrong. By disregarding their own information and concealing it from the public, they ensure that the quality of the information held by the group declines over time.

Various other factors though cited as causing the bubble were actually products of the bubble. Take low interest rates. The Fed held the funds rate at 1% from mid-2003 to mid-2004, to prevent recession. The Fed did this because it sincerely believed the home price increases would continue indefinitely.

The impact of the loose monetary policy was amplified by the large number of adjustable rate mortgages issued after 2000, particularly to sub prime borrowers. These mortgages were more responsive than fixed rate mortgages to the cuts that the Fed had made. People who bought ARMs realized that interest payments would go up after some time. But they were not deterred because they thought they would be compensated by rapidly increasing home prices and would be able to refinance their mortgages at a lower rate.

The lenders too believed in the bubble. That is why loans with little or no documentation became common.

The rating agencies that awarded AAA ratings to mortgage securities too believed that the bubble would not burnt. That is why they were so liberal in giving top ratings to senior CDO tranches.

Regulators failed to rein in aggressive lending. In fact the regulatory framework encouraged this trend even if unintentionally. The Depository Institutions Deregulation and Monetary control Act of 1980 effectively ended state usury laws. Originators could make a profit with sub prime lending by charging a high enough interest rate to offset the costs of inevitable defaults and foreclosures.

The stock market boom of the 1990s transformed people's mindset. People started thinking that they could make a lot of money by investing. The Protestant work ethic was replaced by the desire to become a smart investor. This change in thinking may have been the deepest cause of the bubble. A life as an investor became an end in itself!

Bubble thinking means thinking that the trend in prices will continue. Such thinking is mostly irrational for stock markets, since price trends are usually not consistent. But many think it is quite rational for the housing market, as house prices are considered more predictable. People believe they can make a lot of money simply buying and leveraging property in a housing boom and selling it off a year or so later. During the sub prime crisis, people did not accept that they could only ride the wave for a while but had to exit before the market reversed course. Instead, they started to believe that the bubble would never end.

Questioning Myths

There has been a long standing myth that because of population growth and economic development, combined with the limited availability of land resources, the price of real estate must invariably increase over time. Shiller points out the fallacy in this argument. The fraction of incomes that is spent on housing in the US national income accounts has been fairly constant over the decades. If the real prices of homes had risen at just 3%, a year over the century, Americans could generally not afford houses that are any better or bigger today than they could then. But homes have got much larger and better over time. Clearly the statement that home prices increase relentlessly over time is a myth.

The demand for housing is nothing but a demand for shelter, a space to have a family and raise children that is close to a job and schools, a place to eat and sleep in privacy. When one resource becomes scarce, people will find substitutes for it. Let us look at the various resources that go into the making of a house. Construction materials are not really in short supply. If one becomes expensive, substitutes usually emerge. There is a perceived scarcity of urban centres. But new urban centres can be built from scratch. For centuries we have seen the development of more and more land while migration has exploited the availability of land in other areas and countries. So the supply may not be as limited as it looks like.

Shiller also questions the merit in the argument that rising homeprices are good for the economy. The fact is that if home prices go down, it will be good for future generations. In the short run, a sudden drop in home prices may indeed disrupt the economy, producing undesirable systemic effects. But in the long run, the home price drops are clearly a good thing. Instead of supporting housing prices, government must increase the supply of urban centres and bring down prices.

The problems arising out of home price declines lie elsewhere. The loss of trust and belief in the economic system can have consequences not only for the economy but also for the social fabric. In an attention cascade, economic problems come to dominate public thinking. A fall in home values by itself will not have a real significance as a home will continue to offer the same services even if its price is lower. But if GDP falls, there will a real loss. And that is exactly we are seeing now.

The road ahead

The key to preventing future crises is democratizing finance. We must extend the application of sound financial principles to a larger and larger segment of society and leverage technology in this context. Information Technology (IT) is key to the sub prime solution. Information that is freely available is a public good and tends to be undersupplied by the private sector.

Comprehensive financial advice must be available for everyone, not just wealthy individuals. People must be able to get elementary financial advice from knowledgeable and trustworthy sources. Unfortunately only wealthy people can afford such advice. The poor are often left with only biased sources of advice like salesmen and brokers. No wonder that many mortgage buyers were misled by real estate agents and mortgage brokers. The government needs to subsidize comprehensive, independent, financial advice for everyone. There should be a financial product safety commission to protect the financial customer and serve as an ombudsman. It should provide information on the safety of financial products and impose regulations to ensure such safety.

We also need to put in place standardized default option financial plans that operate well when people are inattentive and fail to act. A default option is the choice that is automatically made if an individual fails to make an intentional choice among available options.

Another step should be to enhance the information infrastructure to improve the disclosure of information that is relevant to people. Despite the insistence by SEC on various disclosures, people find it difficult to evaluate the risk of securities.

The government must subsidise the creation of large economic databases on both individuals and firms. This information can be used to develop risk management contracts without in any way violating privacy norms.

Many people find it difficult to understand and track economic indicators. The government must set up a new system of economic units of measurement. For example, the government could adopt an inflation indexed unit of account. Traditional currency units are a poor measure of value. This is necessary to prevent human error in economic thinking which lies at the heart of the subprime crisis.

An interesting suggestion from Shiller is for governments to issue debt linked to their GDP. Each share may pay a trillionth of a year's GDP as dividend. The dividends will go up or down over time depending on the performance of the economy. The price of the debt would move depending on the information flowing into the markets about the prospects for the economy. In an economic slowdown, the burden of interest on national debt will fall. The government would have more resources available to deal with the crisis. In other words, a market for trills would allow countries to hedge their national economic risks.

We need to create a truly liquid market for real estate. One way to do this is to set up suitable derivative markets, that can tame speculative bubbles by allowing short selling of real estate. A skeptical investor who is worried that a bubble is in progress cannot express his opinion without taking a drastic step, i.e., actually getting out of the market by selling the home.

Retail risk management products are also needed. Shiller proposes a new type of home mortgage called continuous workout mortgage. The terms of this mortgage would be adjusted continuously in response to the changing ability to pay and changing market conditions. Such contracts would schedule an automatic workout every month, unlike a one-time-only mortgage workouts offered to defaulting homeowners. Continuous workout mortgages would achieve what bankruptcy courts do on an emergency basis after the fact, i.e., adjust the terms of a loan to the borrower's ability to pay. Continuous work out mortgages respond to the problem on an ongoing basis without allowing the problem to assume the dimensions of a crisis. If people pay in advance, in a free market, for the right to a bailout, it is no longer a bailout. It is an insurance policy.

Home equity insurance contracts can also help. Such contracts can protect homeowners against declines in the value of their homes. Such insurance would eliminate the risky, often highly leveraged positions in which many homeowners find themselves today and help reduce the panic selling that sometimes sharply erodes housing values.

Another suggestion from Shiller is livelihood insurance, to address the consequences of job losses. Such an insurance scheme would go beyond medical risks to take into account economic risks too. Occupational income indices appropriate to an individual's like of work can be used to define an insured loss without inducing moral hazard.

These risk management products would ensure that we handle risk in the most optimal way. Without such products, people may shift to risk avoidance. There would be depressing uniformity and lack of adventure in society. Insurable risks need not be avoided as they can be spread efficiently across large segments of the population. Without reasonable risk taking, society would be drained of much of its creativity and vitality.

Concluding notes

The US financial sector grew from 2.3% of GDP in 1950 to 7.7% of GDP in 2005. Some of this rapid growth is due to booms in stock, housing, oil and other commodities markets over the years. In the 1970s, financial workers received only slightly higher wages than other workers. Since then the skill intensity and remuneration of employees in the financial sector has grown much faster than the economy at large. This change reflects advances in mathematical and financial modeling and use of information technology. So the next step is to ensure that this technology becomes available for the benefit of everyone.

In the short term, bailouts may be unavoidable. Indeed, they may be desirable. When necessary insurance has not been taken, bailout, provided it is properly structured, implies a welcome concern for humanity. But we must set up systematic procedures to deal in advance with potential future crises. This would call for innovative risk management and insurance products. We must also be clear about the purpose of a bailout. This should not be to maintain high values in the housing market. Instead, it should be to prevent a fundamental loss of economic confidence. The bailouts should focus on preventing distress among people of modest means.

We should not blame finance and banking for the crisis that prevails today. Some unscrupulous individuals took things too far. They have been and continue to be punished. But as Shiller mentions, we should not punish the technology that has created affluence. Financial technology can help us in managing risks which have been difficult to manage so far. Expanding and developing the financial markets may not be the top priority of the American politicians today. But that is exactly what is needed to solve the sub prime crisis and prevent a recurrence of a similar economic crisis in future.