Financial Shock

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Introduction

This book by Mark Zandi, a leading economist with Moddy's gives an insightful account of the various factors that combined to fuel the sub prime crisis. How did it start? What went wrong? How did the crisis get so bad? Several factors contributed to the biggest financial meltdown we have seen in decades. A ballooning US trade deficit put too many dollars in the hands of the trade surplus countries. These dollars, needing an outlet for investment, went into mortgage securities. Securitisation ensured that the risks inherent in mortgage lending were so widely dispersed that the different market participants thought that someone else would preserve the integrity of the process. Regulators believed that the flaws in the financial system would correct themselves. They assumed that market forces on their own, would impose the necessary discipline. Newly designed global capital standards and credit rating agencies would substitute for the discipline of regulators. To top it all, there was hubris. People started to believe that the ordinary rules of economics and finance no longer applied. The boom would go on forever!

The build up

At the heart of the sub prime crisis lay financial innovation. Low interest rates, surging global investor demand and the Internet fuelled innovation. As liquidity increased, global investors started looking for higher yields. But thanks to investor demand, prices of bonds increased and yields fell. Eventually, a sub prime mortgage security fetched little more yield than a US treasury bond. To boost returns, investors started to use leverage. As funds poured into mortgage rated securities, home loan lenders started to aggressively sell their products to home buyers. Meanwhile, the Internet transformed the mortgage industry by cutting transaction costs and increasing competition.

As the housing boom came to an end in spring 2005, lenders looked for various ways to keep the boom going. Adjustable rate mortgage loans that minimized initial monthly payments and smaller down payments were two of the ways to make loans attractive to borrowers. This served to keep the boom going. But rising home prices and further interest rate tightening by the Fed undermined home affordability even more. Lenders began to offer loans without the need for any documentation. These loans came to be known as stated income loans or more popularly liars' loans.

There were other innovations too. Many banks had set up structured investment vehicles (SIVs) to invest in sub prime mortgage securities. This way the banks could get around capital requirements. When interest rates were low and credit was easy to get, SIVs could easily issue short term commercial paper to fund longer term instruments. But when money market funds and other investors began to withdraw, the SIVs collapsed.

Another innovation was the credit default swap, that served as an insurance against bond default. Insurance companies which had been guaranteeing municipal bonds had expanded the business and started to sell credit default swaps. When rating agencies started issuing warnings to bond insurers, worries about the financial strength of the insurers mounted. Soon the municipal market went into turmoil. Even municipalities with traditionally high credit rating, had to pay very high interest rates normally applicable to high risk borrowers.

The financial markets hit a new low in spring 2008 when concerns increased about the liquidity problems of broker dealers. Bear Stearns, one of the Wall Street Big Five had put big bets on the residential mortgage market. On the verge of bankruptcy, Bear had no option but to sell out to JP Morgan, with the support of the Fed.

How things went astray

It would be simplistic to attribute the subprime crisis to some new instruments. Not all the ininovations which fuelled the sub prime crisis are new. For example, ARMs have existed for decades. But traditionally, they have been used with great restraint. Indeed, they have only been available to home buyers with good credit and stable incomes. ARMs have also come with bigger down payments. But during the sub prime boom, ARMs were offered recklessly. Features were added to make it easier to attract borrowers. For example, some ARMs came with a teaser rate, i.e., a low initial interest rate. Interest only loans exempted borrowers from principal payments for some time. Option ARMs allowed borrowers to pay less than the contracted amount with the unpaid amount being added back to the loan principal. Ordinarily, lenders insisted that mortgages with low down payments be insured. But since insurance was costly, lenders came up with another idea. They sold two loans, one equal to 80% of the home price and the remaining that made up 20%. This way by reducing the size of the mortgage, they could avoid insurance. (Insurance is usually needed only for very large loans).

Owning a home is an integral part of the American dream. Indeed, a home is the largest budget item for most American households. The average family devotes a third of its spending to the house. Collectively, American homeowners owned $20 trillion in residential real estate at the peak of the housing boom in 2006, $10 trillion being home equity, and the balance debt.

Investment in housing took off in the early 2000s thanks to speculation. Housing yielded much bigger returns than stocks, bonds or cash. The stock market had become unattractive following the dotcom bust. Returns on housing were also good because the investment was heavily leveraged. Home equity borrowing also took off. This happened when a home owner took out a larger mortgage, paid off the previous one and pocketed the difference. By the middle of the decade, a large number of Americans had become housing speculators. Few even considered the possibility of home prices falling.

Fed Chairman Alan Greenspan too believed that while stocks might be prone to bubbles, housing was immune. He argued that the costs involved in buying and selling homes were too high for speculation to take root. And even if parts of the country became overheated, the danger to the wider economy was limited as housing remained an inherently local market. Greenspan also subscribed to the philosophy that policy makers could not accurately identify bubbles until after they had burst. So it was not appropriate to try in advance to deflate them.

Greenspan was, however, quite ready to step in with lower rates only after a bubble burst and appeared to threaten the economy. Greenspan's "put" was a promise to step in and cut rates enough to cushion a fall. This explains why Greenspan cut interest rates sharply from early 2001 and kept rates very low at 1% for quite sometime. Supporting the Greenspan put was the flood of cheap Chinese goods that helped to control inflation. With minimal concerns about prices going out of control, the Fed could keep interest rates lower than what they otherwise might have been.

Lenders lowered the lending standards because if they did not give out the loan, competitors would. The Internet had brought mortgage lending to the masses. A loan was only a click away. Many players entered mortgage lending. Under the circumstances, if any lender imposed strict old fashioned credit standards, someone else might have taken away the business.

The prevailing pro-market orientation of the political leadership also provided support to the boom. For example, the Bush administration did not support the government sponsored enterprises such as Fannie Mae and Freddie Mac. The administration believed that private players could provide all the mortgage loans that were needed. So private lending took off at the expense of Fannie Mae and Freddie Mac.

From originate-to-hold to originate-to-distribute

The originate-to-hold model gave way to the originate-to-distribute model. Loans were securitized and sold to investors. Regulators were happy that banks were spreading the risk around. But the risks did not go away. They simply shifted to other investors or in other words to the broader financial system.

Banks picked up the most senior rated tranches of CDOs. Returns on these instruments were slightly higher than deposit rates. Regulators insisted on less capital as this tranche had a high credit rating. Insurance companies and various asset managers bought the bulk of the mezzanine tranches. The mezzanine tranches had A rating and the chance of default was thought to be relatively low. The equity tranche was dominated by hedge funds which were prepared to take more risk to generate greater returns for their investors.

Traditionally, highly rated residential mortgage backed securities, CDOs and similar securities were assigned relatively low risk weights. Regulators thought they were safe. So banks preferred to hold such instruments rather than loans on their balance sheet. Indeed, banks were happy to originate loans but less interested in funding them. Funding for loans increasingly came from non bank institutions – investment banks, hedge funds, money market funds, finance companies, asset backed conduits and structured investment vehicles (SIVs). By the second quarter of 2007, the shadow banking system provided $6 trillion in credit and had almost caught up with the formal banking system.

As mentioned earlier, SIVs were set up to take assets off the balance sheet and thereby reduce the capital requirements. Banks generated good fees from SIVs. SIVs funded their risky long term maturity instruments with short term money. The problem started when money markets withdrew and liquidity dried up. So the SIVs turned back to the banks that had created them. At one point in late 2007, nearly all the SIVs were about to fail. When the big banks bailed out their SIVs, the investments came back to their balance sheets. Clearly, the shadow banking system had not spread risk as widely or as efficiently as it had been thought they would.

CDOs had claimed they were diversifying risk by mixing mortgage securities from different parts of the country. But what was overlooked was that it was a national housing bubble. It quickly became clear that CDOs had not really diversified risk. All that they had done was to concentrate risk in highly leveraged investments.

A bank that makes and holds a loan has a strong incentive to be responsible against excesses. But the originate-to-distribute model severely undermined this incentive. No one player had enough skin in the game to care about whether a loan was good or not. Each player passed the buck. The mortgage lender counted on the investment banker who depended on the CDO manager who relied on the credit rating agency or regulator. Everyone assumed that someone else could be counted on to monitor and apply the brakes if the system got out of control.

Housing booms and busts can be extraordinarily severe. During the boom periods, investments have gone up by over 50%. In nine housing busts since World War II, residential investment dropped by nearly 25% on average. During the booms, inventory builds up till one day when it becomes difficult to get rid of the inventory. In the first half of the 2000s, there was unsold inventory of about 1.25 million homes but by early 2008, the inventory level had increased to 2.25 million homes.

At various times, Congress had asked the Fed to address the excesses in the mortgage market. In 1994, the Home ownership and Equity Protection Act authorized the Fed to prohibit unfair or deceptive mortgage lending. The Fed used these powers only sparingly. While it is true that regulators did not cause the sub prime crisis, it is also clear that they did nothing to prevent it. Regulators believed that the markets and market participants would effectively police themselves. At the same time, the regulatory framework was fragmented with different regulators overseeing different aspects or regions. It was only in late 2006, well after the housing bubble had started to burst, that regulators issued their first guidance on non traditional mortgage products and asked lenders not to indiscriminately offer low teaser rates. Also, lenders had to ascertain whether borrowers had enough income to pay higher interest rates down the road. Unfortunately, the guidance came very late in the day.

Defaults increase

The pace of defaults rose from 775,000 per year at the end of 2005 to nearly 1 million by the end of 2006. A second wave of defaults and foreclosures began in the spring of 2007. At the start of 2007, new and existing home sales were running close to a 7.5 million units a year but by the end of 2006, the pace had fallen below 5.5 million. The national average price which had dropped by about 5% between the spring 2006 selling season and the summer of 2007, dropped by another 10% by spring 2008. The free fall in house prices resulted in a third wave of mortgage loan defaults and foreclosures. This time, the main driving factor was negative home equity. Homeowners owed more than their home was worth. They had little incentive to continue with the mortgage. By spring 2008, an estimated 8.5 million homeowners (or 1/7th of all those with a first mortgage) had negative home equity, compared to 3.5 million a year earlier and 2.5 million the year before that.

From summer 2007 to spring 2008, first mortgage loan defaults increased from 1.5 million to 2.2 million. By spring 2008, 2% of the nation's households were in default on their mortgages. More than 2.25 million homes were vacant and for sale.

Unprecedented magnitude

Zandy points out that the sub prime crisis is far more severe than other financial crises in living memory. The S&L crisis cost $250 billion while Japan's banking crisis of the 1990s cost $750 billion. In the current meltdown, the cost to the economy is running into trillions of dollars.

The sub prime meltdown has challenged some basic assumptions. It has become a catalyst for reevaluation of risk. Investors have come around to the opinion that they are not being compensated for the risks they were taking. As a result, spreads have started to shoot up. As the shock has spread, investors who borrowed money to increase returns, have come under pressure to reduce their leverage. The problem of the banks has been aggravated by the fact that even as losses eroded their capital, their assets were growing rapidly. This is because many banks have had to prop up conduits, SIVs and broker dealers when they needed funds.

The problems of broker dealers have had an additional complication. Unlike commercial banks which raise funds through deposits, broker dealers depend on other financial institutions to access money. If these institutions start to lose faith and begin to withdraw the money, the broker dealers have no option but to sell out or file a bankruptcy suit. Indeed, this is what happened to Bear Stearns in March 2008.

Policy responses

Zandy makes various recommendations to the policy makers.

- *Adopt a voluntary mortgage write down plan:* Many troubled mortgages can be salvaged if lenders agree to reduce the principal.

- *Establish clear mortgage lending rules:* Lenders must consider the ability of the borrower to repay and also verify the borrower's income and assets.

- *License mortgage brokers:* Registration is important. Unregistered brokers were among the most unscrupulous during the housing boom.

- *Expand data collection:* A lack of timely and accurate information impeded the ability of policy makers to respond to the sub prime shock.

- *Reform the fractured foreclosure process:* The current mortgage foreclosure process is cumbersome and time consuming. The time between mortgage loan default and auction could be set as one year.

- *Invest in financial literacy:* Financial illiteracy was a fundamental cause of the sub prime crisis.

- *Modify mark-to-market accounting:* Mark-to-market accounting puts pressure on financial institutions to quickly adjust the book value of the assets to reflect market prices. When the price discovery mechanism is not working or when the market prices reflect temporary panic, this can cause problems. Instead of marking an asset to the price that prevailed last quarter, institutions could use the average market price of the asset over the past 4 quarters.

- *Raise financial transparency and accountability:* Transparency implies that timely, meaningful, reliable and complete information is available regarding financial products, institutions and markets. In transparent markets, financial players borrow, lend, buy and sell aggressively. In opaque markets, on the other hand, players are uncertain. They tend to panic in times of trouble. Accountability means someone is ultimately responsible if mistakes are made. No one took the responsibility for the performance of mortgage loans during the sub prime crisis.

- *Overhaul financial regulation:* Ensuring transparency and accountability calls for confident, regulatory oversight. Also regulatory oversight is currently pro cyclical. When the times are good, and lenders are aggressive, regulators find it difficult to impose discipline. When the times are bad and lenders are tightening, regulators tighten the screws. Lenders find it much easier to keep regulators at bay when credit conditions appear robust though this is when increased oversight would be most beneficial. The fragmented regulatory structure must also be consolidated.

- *Pay attention to asset bubbles:* Contrary to Greenspan's claims, asset bubbles can be identified. Bubbles are characterized by rapidly rising prices, increased leverage, surging trading volumes and the arrival of less sophisticated and inexperienced buyers. Bubbles need lots of credit and regulators have many ways to affect the flow of credit.

Conclusion

If there is one lesson we can learn from the global financial meltdown, it is that the animal spirits cannot be kept down for long. Future generations will start to believe that this time things are different and will ultimately overstep and get around regulations. Individuals will also have to be cautious and be on their guard. They will have to save more and be more careful about how they invest. Instead of joining the herd or getting carried away by the hype and euphoria, people must diversify away from whatever is appreciating quickly. These simple common sense, bedrock principles were obviously forgotten in the frenzy of the sub prime crisis.