

The far-reaching effects of the mortgage crisis



Lehman Brothers: Brought down by the debt crisis

Part III. How the debt crisis spread globally and now weighs heavily on the world economy.

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The question that I hear asked the most about the current financial crisis that we are living through is: “Why has a mortgage crisis and real estate crash in the US affected the entire global economy?” The answer to that question is that the vast changes in attitude toward savings and indebtedness by western governments, corporations, and households over the last 30 years, caused the financial sector to experience enormous growth in demand for its services. That demand was global in scope.

Thus by the early 1980s finance, especially banking, had become the world's first globally connected enterprise model. Today the world's largest banks and finance companies operate 24/6, in every time zone and in every geographic jurisdiction. In other words, the globalisation of banking and finance made the contagion possible.

Finance 101

Financially speaking, there are two types of people in this world: people with incomes that produce a surplus against their expenses in any given year, and people with incomes that are insufficient to cover all of their expenses in any given year. The first group of persons is typically called “savers” and spending beyond one's annual income typically has to be financed in some way. This can range from using a credit card to taking out a mortgage.

The same holds true for populations in aggregate too; there are countries that are net savers, or net providers of capital to the global economy, and there are countries that are aggregate spenders, or borrowers of the world's capital, on a net basis, annually.

According to the CIA World Factbook, which analyses the economies of 197 countries, the United States had a current account deficit of \$470 billion in 2010; the world's largest current account deficit for that year. The US was not alone in the deficit column, and was followed in descending order by Italy, Spain, the UK, France and India. The CIA World Factbook lists China as having recorded a \$305.4 billion current account surplus in 2010, the world's largest, followed by Germany, Japan, Russia, Switzerland, Saudi Arabia, The Netherlands, and Singapore.

Countries with current account deficits cannot meet their annual consumption and investment needs out of their current income or from domestic savings/borrowings and thus have to borrow their net deficit from other surplus countries.

Financial intermediation is the business activity of accumulating the savings of all the savers and arranging to lend those funds to the net borrowers, either directly or via other financial intermediaries that act as secondary middlemen. Financial intermediation is performed by banks, money market funds, mutual funds, hedge funds, private equity funds, insurance companies, investment banks, credit unions, stock exchanges, commodities exchanges, clearing houses, pension plans, and even government agencies in some countries.

The financial sector in developed economies has grown tremendously over the last 30 years as the accumulated wealth (savings) and the annual consumption and investment needs, of the developed world has grown. That growth, in both savings and consumption, has been primarily driven by the initial coming of age, and then the maturing, of the post-world war II “baby boom” population, those born 1946 to 1965. This baby boom demographic grouping is the largest population grouping in the United States, Canada, the UK, Bermuda, and many other developed countries.

The baby boom population in all of these countries began forming households in the early 1970s. This increased the need for financial services. The financial sector responded to the increased demand (and more importantly, to the forecasted increases in future demand) with a 30 year period of growth accommodation via industry consolidation. Banks and other financial service providers began to merge and buy out rivals at an increasing pace through the 1980s, 1990s, and early 2000s.

To get an idea of the level of consolidation that has occurred consider the following: the FDIC, the US bank regulator, reports on its website that there were 7,436 regulated banks with \$13.8 trillion in assets operating in the US on September 30, 2011. This compares with a total of 13,853 banks with \$4.5 trillion in assets as at December 31, 1992. A large percentage of those assets have always been concentrated on the balance sheets of the 25 largest US banking institutions. The concentrations have increased since the early 1990s banking shakeout however. In 1985 for example, the 25 largest US banks held 28.08 percent of all bank assets (loans, of all sorts, to households, governments, and the business sector), in 2003 the largest 25 banks held 57.6 percent of total US banking assets, according to the FDIC.

This same consolidation trend has occurred in the other categories of financial intermediation as well, and in most other countries too. The five largest US and Japanese banking companies today, for example, represent no less than 30 separate banking companies that have been consolidated by merger or acquisition over the last three decades. The consolidating mergers and acquisitions were often financed with debt, or arranged by regulators after the failure of an institution.

This consolidation in the number of independently managed and operated banking institutions, as the overall industry was growing rapidly in asset size, is at the core of how the contagion from the US home mortgage crash was able spread worldwide. By 2006 there were fewer banks overall; a group of about 15 banks were dominating global finance. Those banks managed a far greater value of assets, operated in more countries than ever before, traded in more markets than ever before, all on much higher leverage ratios (debt to equity) than banks had dared operate on in the past.

A bank, regardless of its size, can only have one management team. Thus, as the size of the leading banks went from national to global in scale, decisions affecting millions of borrowers and entire economies were increasingly being made by a relatively smaller group of bankers.

Group thinking and the replication of the strategy of competitors was very common by the early 2000s. The largest banks were now competing globally to finance property developers, home builders, homeowners and consumers. Additionally, regulation and oversight in the US, the UK, and the EU could not keep up with the increased scale, volumes, leverage, and innovation in the industry. The bankers saw no end to the economic expansion, even as interest rates began rising after 2004. Underwriting standards and risk management standards were static and failed to take note of the changing economic environment, and the potential correlations in many of the risks on their balance sheets.

The Shadow Banking Sector

Banks, and other lenders, can only add risk to their balance sheets (ie provide loans, or mortgages, or issue new credit cards) if they have enough capital (and risk appetite) to support the long-term risk of the asset. When they don't have enough capital, banks typically will issue the credit cards or make the loans anyway. But instead of putting the risk on their balance sheets, they simply take a fee for issuing the credit cards or making the loans (those fees are called "underwriting fees") and put the asset into a special purpose vehicle (SPV).

The bank will then underwrite, or arrange for another bank to underwrite, a bond issue to fund the SPV. The bonds issued by the SPV are typically sold to other investors such as money market funds, bond funds, insurance companies, hedge funds, pension plans, or other banks. This is known as securitisation and is essentially the creation of a dedicated, single-purpose "bank", or financing structure, to finance the assets placed in the SPV. The bonds issued to finance the assets in the SPV are known as asset-backed securities or mortgage-backed securities, where only mortgages are involved.

The SPV typically has the legal structure of a trust, or some form of special purpose corporate vehicle. The assets placed into the SPV can all be of a similar class, such as credit card receivables, merchant receivables from a department store's own credit card system, automobile loan receivables, equipment leases (such as for jet engines), or first or second lien mortgages. The assets can also be a blended portfolio of combinations of all the above classes of loans.

At the height of the US mortgage refinancing boom (as discussed previously, beginning in 2002, in the aftermath the "Dotcom" stocks collapse and the 9/11 attacks, when short-term interest rates fell to one percent) many US banks maxed out their risk capital and/or their appetite for taking the glut of new mortgages and home equity loans being produced at the record low rates on to their balance sheets. However, the securitisation market allowed banks and other finance companies, especially mortgage brokers, to continue to "underwrite" huge volumes of mortgages and home equity loans to generate fee income without having to take on any additional balance sheet risk.

That was possible because, despite being out of additional risk capital to support more lending, the US financial system was able to find eager buyers of US debt, including debt issued by mortgage securitisation SPVs, in the form of non-US banks and financial intermediaries. Many of these institutions were domiciled in those current account surplus countries discussed above, while others were banks from deficit countries where private borrowing demand may not have been as strong, or as lucrative, at the time.

Thus from 2002, and up to the beginning of the spikes in interest arrears and defaults in 2006, mortgage originators had less and less skin (risk capital) in the game. The majority of new mortgages and refinancings were being securitised rapidly, almost immediately after issue; and increasingly the marginal buyer of the new mortgage-backed securities being issued was a non-US bank or fund. This all contributed to underwriting standards for US mortgage loans declining.

Mortgage brokers, specialty housing lenders, and other "fee churners" began to cut corners, to lower their operating costs, and reduced or eliminated the underwriting process in making a loan. In many cases the US mortgage brokers, banks, and housing lenders completely abandoned arranging traditional fixed mortgages and switched to arranging only floating rate, "sub-prime" mortgages. Sub-prime lending was especially common in middle to lower income bracket and "blue collar" zip codes.

Sub-prime borrowers were increasingly herded into inappropriate floating rate mortgages with initial low fixed teaser rates that would explode into very expensive mortgages costing over eight percent per annum, or higher, once interest rates rose. Sub-prime mortgages often required little or no equity down payment, little or no documentation of the borrower's employment history, or verification of the borrower's income (essentially assessing the ability of the borrower to repay the loan). Thus, the loans also had high LTVs (loan to value ratios) making them vulnerable to a decline in property values. Mortgage fraud also increased. The market discipline of the US mortgage market had essentially collapsed.

Endgame

The full understanding of the complex dynamics that I have described here and the implications for both the US financial markets, and the global economy, arrived in the fall of 2007 when a small British bank called Northern Rock collapsed. The bank had been an aggressive mortgage lender in the UK, and had also set up offshore SPVs in the Channel Islands to buy and finance mortgages from other mortgage originators in the UK and the US.

The debt markets were fully apprised of the fact that housing prices on both sides of the Atlantic had stopped rising by early 2007, they were also in possession of data which indicated that last quarter of 2006 had seen a spike in loan payment arrears and loan defaults in the US.

Access to financing markets by Northern Rock was quickly cut off from late summer 2007 to mid-September of that year, as the markets understood how leveraged the bank was to mortgages and real estate, and the bank collapsed.

This financial drama was played out several times more from early 2008 through to October 2008 claiming, among others, Bear Stearns, Washington Mutual, Wachovia Bank, Lehman Brothers, Fannie Mae, and Freddie Mac in the US, and many banks and finance companies worldwide. Well over 100 US mortgage lenders, banks and finance companies went bankrupt due to the collapse of the global financing market for mortgages. The financing for real estate development and home purchases dried up worldwide as property prices plunged and borrower defaults skyrocketed. The liquidity shock put further downward pressure on the stock and bond prices of companies directly connected to the real estate complex in any way, especially lenders, insurers, hedge funds, and mutual funds. This in turn pressured all other stocks and bonds traded globally causing the financial markets crash.

Next: Part four. Conclusion. The “Great Work Out”.

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