The Idea Of Securitisation And Special Purpose Vehicles In 2008 Financial Crisis

Background

It has been over ten years since one of the most serious financial crises in history had occurred and nowadays it is clearer to understand what exactly happened in the US in 2007 and 2008. The crisis has affected most of the developed countries economically all around the world and had a massive negative impact on those developing at that time. It played a significant role in the failure of key businesses and a decline in economic activity leading to the Great Recession and contributing to the European sovereign-debt crisis. Effects of the financial crisis was global, and millions of individuals were negatively affected by it. In the long term, the impact of the crash has been huge: low wages leading to major unemployment levels, austerity and deep political uncertainty. Ten years on, we're still living with the consequences. Securitisation had an important part in the financial crisis, it is said that the crisis has illuminated the 'dark side' of securitisation. Yet, financial instruments also played a major role in the crisis, one crucial instrument is the Asset-Backed Securities (ABS). Asset-Backed Securities will be discussed based on subprime mortgages and how the whole system was affected. Special purpose vehicles (SPV) are, on the other hand, designed to help firms limit exposure to financial risk and avoid bankruptcy. The aim of this survey is to present the idea of securitisation and of special purpose vehicles in the 2008 Financial Crisis. The entire coursework is mainly based on the David Murphy's book: 'Unravelling the Credit Crunch', which was published in 2009 explaining in depth about the Credit Crises 2007-2009 in the US. Yet, there are other resources also used and are recorded in the bibliography section below.

Financial Crisis 2007-2008

A financial crisis occurs when the value of financial organisations or assets drop speedily. It often overlaps with stock markets crashing and banks panicking, in which investors sell off assets or withdraw money from savings accounts. In simple terms, when the supply of money is outpaced by the demand for money. A banks liquidity will quickly disappear, forcing the bank to either sell other reserves to make up for the shortfall or to collapse.

The 2008 Financial Crisis is known to be the greatest shock to the global financial system after the Wall Street Crash of 1929. It occurred regardless of the Federal Reserve (Fed) and Treasury Department's hard work to avoid it. The crisis led to the Great Recession, where housing prices fell more. Two years later the recession ended, unemployment was still at one of its highest level of 9%. It all began in 2007 with a crisis in the subprime mortgage in the US, however when the Lehman Brothers in September 2008 filed for bankruptcy, the crises effects became apparent to the world. The Financial Crisis had long roots until it burst with the collapse of the Lehman Brothers. Arguably, it is believed by many that it was predicted. In 2004, US homeownership had peaked at 70%. Then, during the last quarter of 2005, home prices started to drop, which led to a 40% failure in the US Home Construction Index during 2006. Between 2006 – 2008, as the interest rates rose, the housing prices continued to fall rapidly and those financial instruments that depended on them. By 2008 the average housing prices had fallen

back to roughly 170% of their 2000 level (David Murphy: ‘Unravelling the Credit Crunch’, Chapter 1).

The primary cause of the financial crisis was deregulation, which then led to further problems such as, securitisation. Deregulation in the financial industry allowed banks to occupy in hedge fund in exchange with derivatives. These mortgage-backed securities needed home loans as insurance. The derivatives created a greedy demand for more and more mortgages. Hedge funds and other financial organisations around the world owned the mortgage-backed securities. Therefore, the banks had separated the original mortgages into sections and resold them in tranches, making the derivatives impossible to price. Thus, banks stopped loaning to each other, as they feared receiving more defaulting derivatives as security.

Before the crisis occurred, over-the-counter derivatives markets were mostly unregulated. Due to the crisis, this has changed. Now, there are requirements that standardized over-the-counter derivatives be cleared through central counterparties (CCPs). This means that they are treated similarly to derivatives, such as: futures that trade on exchanges (Hull, J. (2015): ‘Options, futures and other derivatives’, Chapter 8). Banks are usually associating of one or more CCPs. Furthermore, when trading standardized derivatives, it is required to post initial margin and variation margin with the CCP, and it is also essential to contribute to a default fund. For transactions that remain cleared, collateral arrangements will be established.

Special Purpose Vehicles

A special purpose vehicle (SPV) is an entity created by an organisation to isolate financial risk. Its legal status as a separate company makes its obligations safe even if the business goes bankrupt.

In a narrower sense, non-liquid assets are divided off within the balance sheet then the transfer of ownership or rights to secure the benefits from these assets are passed to a special purpose vehicle. Off-balance sheet financing is when an institution does not include a liability on their balance sheet. This includes transferring assets to SPVs, which decreases the level of assets that are subject to bankruptcy costs, since SPVs are intended to avoid bankruptcy. Hence, this is beneficial for firms that are risky or face big insolvency costs.

Securitisation is one of the more noticeable forms of the use of off-balance sheet SPVs, this is because it uses qualified SPVs and contains selling registered, rated securities in the capital markets. Assume a bank sets up a SPV to use for their projects. One project will be financed on-balance sheet, and one will be financed off-balance sheet. The SPV has no bankruptcy costs, as discussed above, and its debt has no tax advantage. As previously, the effort choice is made at the bank level determining the potentials of both projects, even though the results are independent. When calculations are done, it is proven that with or without securitisation the bank still fails if the realised state is at a certain point. However, some amount of the bankruptcy cost will be affected by securitisation since the on-balance sheet assets have been decreased to one project (Gary Gorton and Nicholas S. Souleles: Special Purpose Vehicles and Securitization).

Furthermore, the special purpose vehicles contributions to the financial crisis began with investment banks securitising billions of dollars of subprime mortgages, selling them in tranches

to investors through SPVs. In 2007, property prices started falling and as a result many subprime borrowers could not meet their mortgage payments. SPVs were, therefore, unable to pay the specified return to investors. Majority of these investors were large pension funds who took massive losses. Investment banks took heavy losses and in many cases were forced to bail-out the bad debts accrued in allied SPVs. The result was a sharp fall in credit and affected the solvency of several large financial institutions.

Securitisation

As mentioned above, everything has started with the subprime mortgages problem however it was only the first stage of the bigger problem caused by securitisations. Securitisation is a process where an institution merges group of assets/debts, such as: mortgage-backed securities, and transforms them into a consolidated financial instrument. This is then issued to investors and in return, the investors in such securities get interest. This procedure is to enhance liquidity within the market. When the housing bubble burst, investors suffered substantial losses, therefore lost confidence and interest in securitisation.

The idea of an Asset-Backed Security (ABS) is created when combining loans, other than prime mortgage loans and commercial mortgage loans. Securities backed by subprime mortgage loans are also classified as mortgage-related ABS. The two types of assets that can be used as collateral for an asset-backed securitisation are: existing assets/existing receivables or assets/receivables to arise in the future (Fabozzi, Frank J, Bond Markets, Analysis and Strategies Global Edition, pg.: 340-342). For better and clearer understanding, an example is as follows: assuming Company X is in the business of making car loans. When a loan is made, it gives cash to the borrower and the borrower approves to repay that amount with interest. However, if Company X wishes to produce more car loans, it will need more cash to do so. Thus, Company X will sell its loans to Y Investment. Therefore, Company X takes cash from the other institution to make further loans, and it transfers those loans from its balance sheet to Y Investment's balance sheet. Then, Y Investment can group these car loans into tranches. Tranches are sets of loans whom share common characteristics, such as: maturity or risk level. Different investors have different attitudes to risk. Some want a low risk investment and are pleased to have a low return; others want a higher return in exchange for taking extra risk. By tranching securities, many requirements can be satisfied. Tranches are set out with a structure that outlines the process: cash paid by the collateral falls first to the most senior tranche, then down through the mezzanine and eventually to the junior. The structure of the tranches is sometimes known as the ‘waterfall’ (David Murphy: ‘Unravelling the Credit Crunch’, Chapter 6, Figure 6.3). One way to reduce the risk of any given tranche is that, the SPV can buy protection on the performance of the collateral. For instance, it could find an insurance company which is keen to make good any losses, and thus eliminate the risk of the mezzanine tranche.

By 2006, securitisation had become a huge business amongst organisations. In one year three trillion dollars of ABS were issued; this was a massive increase in comparison to a billion between 2002-2003. Structures had developed more complex, with more tranches and a spreading variety of securities. The investors did not understand what they were truly purchasing at the time, instead they depended on the credit ratings. As they got offered complicated instruments with an offer of a good return, they refused to comprehend what was really occurring and took the comfort instead in a high credit rating. Therefore, many financial institutions brought assets which were very risky and became very toxic when the crisis started

in 2008. The truth was totally different and credit rating agencies were grading asset-backed securities only because banks paid firms to do so. Hence, even the risky assets could have been rated AAA. The investors took all the risk of default, but they did not worry about the danger since they had protection, named credit default swaps. Credit default swaps are also known as credit derivatives (David Murphy: ‘Unravelling the Credit Crunch’, Chapter 6). These were traded by solid insurance companies for example, the American International Group. In time, everyone owned them, as well as pension funds, large banks, hedge funds, and individual investors. Yet, the major owners were Bear Stearns, Citibank, and Lehman Brothers. Consequently, the collapse of Lehman Brothers was significant. Moreover, it was not only mortgages that offer the fundamental value for derivatives. Other forms of loans and assets can also. For instance, if the underlying value is corporate debt, credit card debt or auto loans, formerly the derivative is termed as collateralized debt obligations (CDO). A type of CDO is asset-backed commercial paper, which is debt that has one-year maturity.

Securitisation was the greatest important method of funding subprime lending; it is statistically proven that over three quarters of subprime loans were securitised between the years 2005-2006. The procedures followed to transfer to an SPV and the use of a waterfall to produce tranched securities are the same as other securitisations. Yet, there are some structural aspects of subprime-backed ABS which make the value of the tranches very sensitive to house prices (David Murphy: ‘Unravelling the Credit Crunch’, Chapter 6).

As investors had been regulated to a period of rising house prices: modellers literally had no idea what would occur if house prices started to drop. This unseen risk factor, which would intensely increase default rates, was not considered. The type of credit enhancement in subprime ABS made this worse; excess spread and tranching only protected the more senior securities. Thus, the senior tranches of subprime ABS transactions were only AAA when house prices were rising. However, when they started to fall, a wave of defaults hit the structure, and the credit enhancement obtainable was not enough to save the senior tranche. Investors suddenly realised that the models used to measure subprime ABS were lacking and rushed to sell the securities. Both the price and the credit quality of subprime ABS fell, with only 25% of tranches issued in 2005-2007 and originally rated AAA recalling that rating by 2008 (David Murphy: ‘Unravelling the Credit Crunch’, Chapter 6).

Summary

Within the concept of securitisation, the securities were sold to investors eliminating the loans from a bank’s balance sheets allowing the banks to enlarge their lending faster than usual. The initial loans to be securitised were mortgages in the US and investors who accepted the mortgage-backed securities were not exposed to the risk of borrowers defaulting. As, tranches were created from subprime mortgages, new tranches were further formed from those tranches. The roots of the crisis can be found in the US housing market. Moreover, mortgage brokers and mortgage lenders found it useful to do more business by comforting their lending standards. Securitisation intended that investors bearing the credit risk were not always the same as the original lenders. Rating agencies gave AAA ratings to the senior tranches that were made.

After the crisis, it was statistically recorded that 8.8 million jobs were lost as the unemployment levels continued to increase to 10 percent by October 2010 in the US. Home prices declines of 40 percent on average and as delinquency rates for Adjustable rate Mortgages climbed to

nearly 30 percent by 2010. As for the UK, in 2009 the interest rates set by the Monetary Policy Committee of the Bank of England was at its lowest levels ever. Also, the unemployment level in the UK was increased to 7.6 percent by 2009.

There were major lessons learnt from the financial crisis. Even until now, banks are still paying a price for the crisis. New legislations and regulations were made after the crisis, however this led to a reduction in their profitability. For example, capital requirements are being improved, liquidity regulations are being announced, and derivatives are extra securely regulated