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FROM BANK STREETS TO WALL STREET AND ONTO MAIN STREET: CURRENT GLOBAL ECONOMIC CRISIS AND ITS IMPACTS ON INDUSTRIES AND COMMUNITIES

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ABSTRACT

The present global economic debacle has its origin in the U.S. subprime mortgage housing crisis that began in 2006 and then spread full-blown into banking and credit liquidity crises, forcing Fannie Mae and Freddie Mac to be bailed out in July 2008 and taken over by the U.S. government on September 7, 2008. However, the filing of bankruptcy protection by Lehman Brothers, U.S. fourth largest investment bank, on September 15, 2008 marked a significant phase that U.S. real economy began to be affected. Barely two days later on September 17, 2008 the Fed's taking over of AIG evidenced the misfortune faced by many on Wall Street and other bourses as the twin integration of global finance and trade sent the impacts reverberated across the globe through the sophisticated risk taking activities of unregulated hedge funds straddling major global banks and bourses. The bankruptcy of Iceland in October 2008 marked global economy is impacted in full circle whose escape can be much longer than predicted. Export-dependent East Asian economies are not spared. However fluid the evolution of the crisis, the root cause can be blamed to the innovation and lax regulation in the derivative markets, beginning from the so-called interest-only loans banks eagerly provided to sub-prime borrowers to the re-packaged mortgage-back securities and further securitization in the secondary market and Wall Street of the collateral debt obligation with the credit default swaps. In essence, the present global economic crisis is different from that of the 1997/98 Asian financial crisis whereby it was then a run on currencies. Among the many lessons is to explore how we can better value and manage risks.

Keywords: credit and banking crisis; mortgage-back securities; interest-only loan; secondary market.

1. Introduction

September 15, 2008 marked the beginning, although not the origin, of the current global economic crisis. On that Monday morning, Lehman Brothers, the fourth largest investment bank in the U.S., filed for Chapter 11 bankruptcy protection. This event followed a failed weekend negotiation during which Bank of America (BofA) and British's bank Barclays walked out of a government-sponsored talk to buy the battered investment bank. More significantly it followed the statement on Sunday by then Treasury Secretary Paulson saying no to further bailouts by U.S. government after the Federal Reserve (the Fed) guaranteed $29 billion of Bear Stearns's assets on March 16, 20 for the purchase by JP Morgan Chase and barely one week after Treasury's take-over of Fannie Mae and Freddie Mac on September 7, 2007 that extended as much as $200 billion in support of the two government sponsored private mortgage companies' $5.4 trillion worth of home debt (half of the mortgage debt in the U.S.). The Economist.com reported on September 15, 2008 (headlined "Nightmare on Wall Street: A weekend of high drama reshapes American finance") that even by the standards of the worst financial crisis for at least a generation, the events of Sunday September 14 and the day before were extraordinary. The weekend began with hopes that a deal could be struck, with or without government backing, to save Lehman Brothers from its more than $613 billion of debt. Not only Lehman, other vulnerable financial giants scrambled to sell themselves or raise enough capital to stave off a similar fate. Merrill Lynch, the third-biggest investment bank, sold itself to BofA, an erstwhile Lehman suitor, in a $50 billion all-stock deal. American International Group (AIG) went to the Federal Reserve for help. In a very fluid situation investors pulled their money from Wall Street and stampeded towards the relative safety of American Treasury. In a crescendo, stock markets tumbled around the world (though some Asian bourses were closed) and the oil price plummeted to well under $100 a barrel. The dollar fell sharply, and the yield on two-year Treasury notes fell below 2% on hopes the Federal Reserve would cut interest rates at a scheduled meeting on Tuesday. With these developments the crisis is entering a new and extremely dangerous phase impacting on derivatives markets, particularly the giant one for credit-default swaps (CDSs). Lehman is a top-ten counterparty in CDSs, holding contracts with a notional value of almost $800 billion. Losses on Wall Street, in the values of derivatives especially those with mortgage-back securities (MBSs) and collateralised debt obligations (CDOs) sent ripples to investors from other parts of the world who bought those MBS and CDOs, thus what has been U.S. credit and banking crises ohas been transmitted into global economic crisis.

However dramatic the weekend events and the Monday September 15, 2007 panic on Wall Street, the question that has been answered by now is to the origin of the current global economic crisis. Many analysts (too many to list, among them Nobel prize winner Krugman and About.com U.S economy blogger Kimberly Amadeo) have pointed to the 2006-2007 U.S. subprime home loan crisis coupled with unregulated activities of hedge funds on the mortgage secondary markets. The more controversial question is that could the credit, banking, and global economic crises been avoided?

This paper briefly traces the origin of the present global economic crisis and elaborating on its impacts on industries and communities mainly in the developed economies. This paper has five sections. Following this introduction, the section two traces the origin of the present global economic. Section three elaborates on the spread or transmission of the credit and banking crises originating in the U.S. to global credit crunch. Section four adds to the paper with elaboration on impacts global economy, industries and communities. Section five concludes this paper.

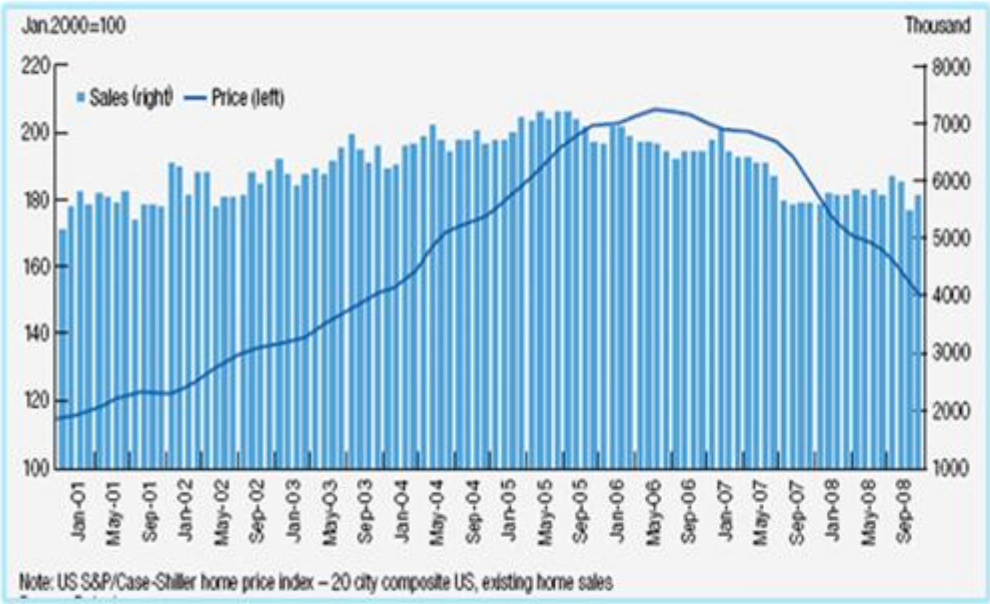
2. U.S. Subprime Crisis and the Origin of Present Global Economic Crisis

Most economists now attribute the financial crisis to financial innovation, including new financial products and risk management techniques (Hull 2008 as quoted by Kim K.W. & Kim H.N. 2009). The foregone conclusion by now is the present global economic crisis began with the burst of the housing bubble in the U.S. into the so-called subprime crisis of 2006/7. Sub-prime refers to the home loans given to borrowers who could not qualify for such loans in the normal housing market condition through innovations in that works only in rosy housing market in the form of so-called interest-only loans – paying interest only for a stipulated period before the loan is converted to paying both interest and capital, say after one, three or five years to help first home owners or investors to make profits in the hope that the home can be re-sold quickly at a higher price.

According to Kim K.W. & Kim H.N. (2009), the root of the global financial crisis was the US housing bubble, which developed for three reasons: (i) long lasting low interest rates since the early 2000s, (ii) loose mortgage loan evaluations due to high competition among mortgage companies, and (iii) lack of government supervision on innovative financial products, especially mortgage-related derivatives.

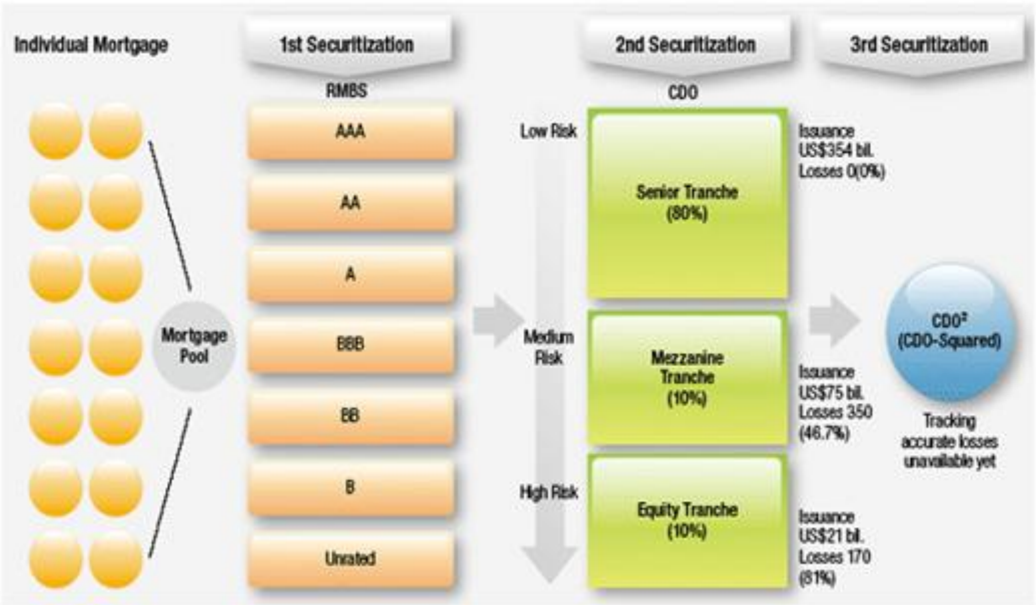
Since 2002, the Fed maintained a negative real interest rate for about three years to ease the financial shock post IT bubble. With low interest rates, the competition between mortgage companies increased and companies applied loose credit standards to low credit rated borrowers. Borrowers' loan payment burdens became heavy as the federal interest rate gradually went up to 5.25% in July 2006 from 1% in July 2003, and the US housing bubble started to burst as housing prices declined and the delinquency rate went up (Kim K.W. & Kim H.N. 2009).

As shown in Figure 1, U.S. home prices climbed steadily from January 2001 to a peak in May 2006 and began a moderate decline until it was temporarily kept afloat between January-March 2007 by the low interest rates. The bubble burst in the open since August 2007 when banks stop lending to each other for fear of getting caught with bad subprime mortgages.



Source: Datastream, adapted from Kim K.W. and Kim H.N. 2009.
Figure 1: U.S. Home Price and Sales

The credit and banking crises that emerged in August 2007 has been popularly named as the subprime crisis due to its origin in the defaults by borrowers who obtained housing loans at much easier terms because banks wanted to reap profits from loans re-packaged as MBS sold on the secondary markets and investors buying these as CDOs. Figure 2 depicts how home loans are securitised.



Source: Yu, Jung-Suk. 2008, adopted from Kim K.W. & Kim H.N. 2009.
Figure 2: Securitisation process of mortgage and losses

In the first securitization stage, mortgage loans are converted into MBS and securitized to CDOs, which are then expanded into CDO squared in the third stage, the size of losses of which are uncertain. These complicated securitisation processes allowed subprime mortgage delinquency to spread to all financial industries around the world. Because these derivatives were sold globally, the problems arose not only in the U.S. but also in other countries. In August 2007, BNP Paribas SA, France's biggest bank, halted withdrawals from three investment funds because it could not fairly value their holdings after U.S. subprime mortgage losses agitated credit markets (Kim K.W. & Kim H.N. 2009). Although global financial markets have benefitted substantially from the productivity of financial innovations, the misuse and abuse of such innovations can cause regulatory vacuums, as authorities are usually slow to respond with new and appropriate regulatory measures. Securitisation allowed mortgage loans to be traded in financial markets, and its complexity has made it difficult to detect the incidence of losses. About 55% of total mortgage loans, amounting to about US$6.3 trillion, was securitised as of 2007 (Kim K.W. & Kim H.N. 2009).

Thus, criticism regarding the lack of government monitoring and regulation is difficult to avoid (Restoy, 2008). The US regulatory structure is complicated – the Fed and Office of the Comptroller of the Currency(OCC) for commercial banks, Securities and Exchange Commission(SEC) for investment banks, and Commodity Futures Trading Commission (CFTC) for derivative markets. This complicated nature caused the financial regulatory system to be inefficient in catching up with various abusive practices. Due to their slow learning curve, regulators were slow to recognize the real cause of the crisis. Consequently, ineffective prudential regulation failed to control the excessive risk-taking by investment banks, and allowed the latter to create various distortions. Finally, credit rating companies such as Moody's, S&P, and Fitch should also share the blame, as they downgraded troubled assets and companies long after the subprime crisis arose, and should have acted well in advance before the crisis took hold.

2. U.S. Credit and Banking Crises

End of 2006 saw a downturn in U.S. housing market. According to the *November 17 (2006) Commerce Department Real Estate Report*, new home permits were at 1.535 million, 28% below the October 2005 rate. In December of 2006, it was already apparent that the real estate market could depress the U.S. economy. However, what analysts did not know at that time was the cause - subprime mortgages - and how far subprime mortgages had extended into the stock market and the overall economy. Amadeo (2009a) noted that experts said it would be restricted to the U.S. housing industry.

The decline of the U.S. housing market spread to the subprime mortgage (also known as interest-only housing loan which provides lower monthly payment) taken out by homeowners who couldn't afford conventional mortgages. As home prices declined, many found their homes were no longer worth what they paid for. At the same time, interest rates rose along with the Fed Fund rates, the rate that banks charge each other for overnight loans of reserve balances. As a result, these homeowners cannot pay the mortgage, nor sell the home for a profit, and so they default.

By March 2007, it became apparent that the housing slump was spreading to the stock markets via hedge fund investments. Hedge funds are privately owned investment funds not, and are not regulated by the Securities Exchange Commission like mutual funds whose owners are public corporations. It appears that hedge funds have invested an unknown amount in mortgage-backed securities (MBS). *BusinessWeek* (March 7, 2007 "The Mortgage Mess Spreads" by Mara Der Hovanesian and Matthew Goldstein) reported that after years of easy profits, the $1.3 trillion subprime mortgage industry has taken a violent turn: At least 25 subprime lenders, which issue mortgages to borrowers with poor credit histories, have exited the business, declared bankruptcy, announced significant losses, or put themselves up for sale. And that's just in the past few months. Since hedge funds use sophisticated derivatives, the impact of any downturn would be magnified. This is because derivatives allow hedge funds to essentially borrow money to make investments, creating higher returns in a good market, and greater losses in a bad one. Fear of such a downturn caused the Dow Jones Industrial Average to plummet 2% on March 6, 2007, the second largest drop in two years.

By August 2007 the Fed realized that banks were slowing down in lending. They stopped lending to each other because they were afraid of getting caught with bad subprime mortgages. The Fed began expansive monetary policies to add liquidity to the economy. What it didn't realize, though, was that the problem was one of credibility, since the banks had stopped lending because they didn't trust each other (Amadeo 2009a). Over the week leading to Friday August 10, 2007, the Fed pumped $24 billion into the economy to bail out the secondary market, doing so in its role as the central bank to restore confidence in the nation's banking system. The Fed's press release on August 10 states that "The Federal Reserve will provide reserves as necessary through open market operations to promote trading in the federal funds market at rates close to the Federal Open Market Committee's target rate of 5-1/4 percent." The money used was from its portfolio of Treasury Department securities, which it keeps on hand to maintain its own prudent reserves. It was supposed to be a short-term measure to keep the system functioning, not as a bail-out. Ideally, the money will be returned to the Fed once confidence is restored.

The fact that in August 2007, banks became fearful of loaning each other funds caused the overnight rate to rise. The Fed initially tried to calm this panic by adding funds to the discount window, hoping that this would restore liquidity and confidence in financial markets. When it did not work, the Fed realized it needed to lower the Fed Funds rate. The following is what took place.

On Friday August 17, 2007, the Fed lowered its discount rate, the rate that it charges banks to borrow at its discount window, from 6.25% to 5.75%. (This not to be confused with the Fed Funds Rate, the rate that banks charge each other for overnight loans of reserve balances; it is the most watched rate because it directly affects other short-term interest rates. The discount rate is usually a percentage point above the Fed Funds rate, because the Fed usually wants to discourage excessive borrowing). The Fed lowered the rate to restore confidence in the financial markets battered by the ongoing 2007 banking liquidity crisis; lowering the rate to make it easier for banks to borrow funds needed to maintain their reserve requirement. Normally, banks would borrow from each other, rather than go to the Fed's discount window. However, losses from subprime mortgages motivated banks to charge ever-higher rates to compensate for the risk. The Fed lowered the discount rate to make sure funds were available, especially to smaller banks who could not afford the higher inter-bank lending rates.

On September 18, 2007 the Fed lowered the Fund Rate by 0.5 point to 4.75%, the first since 2003, a dramatic move (after the lowering of the discount rate August 17 to 5.75% did not work) meant to forestall further economic decline by restoring confidence in the financial markets.

In October 2007, it became apparent that credit crisis spread beyond mortgages so that other debt packages, called CDOs were also at risk. On October 31, 2007 the Fed lowered the Fund Rate further by 0.25 point to 4.5%. The stock market went up 130 points in approval. In addition, the Fed added $41 billion in liquidity to its reserves, the largest infusion since 9/11. The housing market was declining and subprime mortgage mess had the Fed worried about a possible recession. The Fed's actions signal a temporary return to expansionary monetary policy.

By the fourth quarter of 2007, the U.S. GDP growth rate had turned negative. The U.S. was in a recession (but experts didn't realize it until the third quarter of 2008, when growth turned negative again) (Amadeo 2009a).

On November 21, 2007, a $75 billion superfund was created by the top three U.S. banks, Citibank, BofA and JPMorgan Chase with backing from the U.S. Treasury to buy assets from cash-strapped structured investment vehicles to head off the threat of firesales (Robinson, 2007). The three banks hired Blackrock Investments (49% owned by Merril Lynch) as the manager of the superfund. Amadeo (2009b) noted that this fund was supposed to buy distressed portfolios of defunct subprime mortgages but no one was interested, and we know today that $75 billion was not nearly enough.

On December 11, 2007 the Fed lowered the Fund Rate 0.25 point to 4.25%, and lowered the discount rate 1/4 point as well. The stock market dropped 294 points in disappointment that the Fed did not react more aggressively and drop the discount rate 0.5 point (Amadeo 2007a).

In December 2007 also the Fed created the Term Auction Facility and auctioned $40 billion in short-term credit (in two $20 billion action, each on December 11 and December 20) to bail out banks who could not get these loans from other banks.

On January 22, 2008 the Fed made large cut in its Fund Rate, by .75 point to 3.5% and on January 30 another cut by .5 point to 3.0%

By March 2008, the credit and banking crises worsen. On March 11 the Fed announced it would loan $200 billion in Treasury notes to bail out bond dealers who were stuck with MBS and other CDOs that they could not resell on the secondary market. According to the March 11, 2008 FT.com editorial, Fed's move was different from December 2007 when it began offering $20 billion of 28-day loans twice a month, then it increased that to $30 billion in January 2008, had upped it to $50 billion, and on March 7, 2008 it announced another $100 billion of term liquidity, so there would soon be a total of $200 billion in longer-term Fed finance that was not on offer three months ago. The Fed would now not offer to lend cash in exchange for bonds, instead it was offering to lend up to $200 billion of Treasury bonds in exchange for triple-A mortgage-backed bonds. Unlike mortgage bonds, Treasuries were still easy to borrow against in the private markets, so making it possible to exchange one for the other was a sensible attempt to ease the short-term pressure on leveraged investors. Amadeo (2008a) commented that the problem was not just one of liquidity, but also of solvency. The Fed was trying to buy time by temporarily taking on the bad debt itself. It was protecting itself by only holding the debt for 28 days and only accepting AAA rated debt. The Fed might only be prolonging the inevitable, because the situation would not be resolved in 28 days. That was because, ultimately, financial institutions would have to continue to write down the bad debt and take their losses. The Fed's actions might only be buying time, unless the Fed itself got stuck with the bad debt.

Sunday March 16 2008 is another significant day whereby the Fed held its first emergency meeting in 30 years to try to save investment bank Bear Stearns. The failure of Bear Stearns could have spread to other over-leveraged investment banks, including Merrill Lynch, Lehman and Citigroup. On Friday, Bear Stearns was worth $3.5 billion even after the announcement that it was to be bought by JP Morgan Chase. The rescue of Bear Stearns was necessary after Moody's downgraded its subprime mortgage debt. However, over the weekend JP Morgan Chase realized Bear Stearns was only worth $236 million - 1/5 the value of its headquarters building. In effect, the company is worthless. However, thanks to its over-leveraged position, the value of its outstanding trades is $10 trillion. Therefore, JP Morgan Chase needed a $30 billion loan guarantee from the Fed before it would agree to the deal. In its weekend meeting the Fed also lowered the discount rate to 3.25%.

March 18, 2008 the Fed made a dramatic cut in the Fund Rate by .75 point to 2.25% from January 30’s rate of 3%, the largest cut in 20 years. The Fed also reduced the discount rate by .75 point to 2.5%. Inflation was no longer a threat. The concern was to forestall recession.

March 19, 2008, the Fed and the Treasury prevailed upon Office of Federal Housing Enterprise Oversight, the regulator of Fannie and Freddie, to release some of Fannie and Freddie's pent-up capacity, a combined reserve of $82 billion. It was reducing that extra cushion by $5.8 billion. The newly freed-up money would leverage the purchase and securitization of up to $200 billion in home loans (Washington Post March 21, 2008).

On March 24, 2008, the U.S. government made its latest effort to support the stricken housing market on with a plan to give regional home loan banks authority to boost their holdings of MBS temporarily by more than $100 billion. The Federal Home Loan Banks were given permission to increase for two years their purchases of MBS guaranteed by Fannie Mae and Freddie Mac. The decision by the Federal Housing Finance Board, the banks’ regulator, came as policymakers sought ways to support the mortgage-linked securities market (Robinson 2008 in Financial Times Alphaville March 25). Recall that on March 19, Fannie and Freddie were allowed to take on an additional $200 billion in subprime mortgage debt.

So far the U.S. government had guaranteed a total of $730 billion in subprime mortgages, of which $200 billion in loans the Fed made through its Term Auction Facility (TAF) (there were eight auctions held between December 20, 2007 and March 24, 2008), $200 billion loan from the Fed in Treasury Bills (March 11, 2008), $30 billion from the Fed to JP Morgan Chase (on March 16, 2008) for its rescue of Bear Stearns, and $200 billion from Fannie and Freddie (March 19, 2008).

On March 28, 2008 the Fed scheduled two more $50 billion auctions for April - one on April 7 and one on April 21. This is under its TAF which provides 28-day loans to banks who may not want other banks to know they need to use the Fed's discount window. This could be seen by the banking community as a sign that they have a lot of subprime mortgage debt on their books. This would bring the total to $830 billion that the Federal government had pumped into the financial markets (Amadeo 2008b).

On May 19, 2008 the Fed pumped another $75 billion into the financial markets through its TAF. This brought the total to $980 billion that the Federal government had pumped into the financial markets.

In June 2008 the Fed would lend more $225 billion through its TAF. The TAF would auction off $75 billion worth of 28-days each on June 2, June 16 and June 30. The loans were auctioned so that banks themselves set the interest rate for the loans, not the Fed. Through the auction, banks could avoid using the Fed's discount window. So far this would bring the total to $1.2 trillion that the Federal government had pumped into the financial markets (Amadeo 2008c).

Situation got worsen affecting Fannie and Freddie. In July 2008 Treasury Secretary Paulson was pushing a bailout plan of Fannie and Freddie. The plan would allow the Treasury to guarantee as much as $25 billion in loans held by the two corporations, who held or guaranteed more than $5 trillion, or half, of the nation's mortgages. Amadeo (2008d) elaborated that the plan also included:

- $3.9 billion in CDBG grants to help homeowners in poor neighbourhoods.
- Approval for the Treasury Department to buy shares of Fannie and Freddie's stock to support stock price levels and allow the two to continue to raise capital on the private market.
- Approval for the Federal Housing Administration (FHA) to guarantee $300 billion in new loans to keep 400,000 homeowners out of foreclosure.
- About $15 billion in housing tax breaks, including a credit of up to $7,500 for first-time buyers.
- An increase in the statutory limit on the national debt by $800 billion, to $10.6 trillion.
- A new regulatory agency to oversee Fannie and Freddie, including executive pay levels.

The plan was approved by the House by the week's end (July 25, 2008).

By late August the rates on a 30-year mortgage were 6.52%, up 30% since March and the same as a year ago. This was despite mortgage purchases by Fannie and Freddie, injection of liquidity by the Fed and the passage of a bail out plan for the entire housing market. Fixed rates have risen despite a decline in U.S. Treasury bond yields, which have fallen as investors have fled to the relative safety of these Government-backed investments. (Bond yields fall when demand for the underlying bond rises, since the government can afford to pay less in interest on products that are in high demand.) Hence, mortgage rates are higher, and Treasury yields are lower. This could force the Treasury to nationalise both Fannie and Freddie because they could not sell the MBS (Amadeo 2008e).

The fluidity of the events took another significant development when Fannie and Freddie had to be bailed out. Treasury Secretary Paulson together with James Lockhart, director of the Federal Housing Finance Agency (FHFA) on Sunday September 7, 2008 unveiled an extraordinary takeover of Fannie Mae and Freddie Mac, putting the government in charge of the twin mortgage giants and the $5 trillion in home loans they backed. The move, which extended as much as $200 billion in Treasury support to the two companies, marked U.S. government's most dramatic attempt yet to shore up the housing market, which was suffering from record foreclosures and falling prices. The sweeping plan placed the two companies into a "conservatorship" to be overseen by the FHFA. Under conservatorship, the government would temporarily run Fannie and Freddie until they would be on stronger footing (Ellis 2008 in CNNMoney.com).

The most significant event as mentioned in the introduction was the collapse of Lehman Brothers on Monday September 15, 2008, after over the weekend Treasury Secretary Paulson said no to further U.S. government bailout. As a result, investment bank Lehman Brothers filed for bankruptcy, Merrill Lynch sold itself to BofA, and AIG turned to the Federal Reserve for emergency funding. The Dow dropped nearly 350 points in morning trading. Economist.com reported on September 15 that worldwide credit-related losses by financial institutions topped $500 billion, of which only $350 billion of equity had been replenished. This $150 billion gap, leveraged 14.5 times (the average gearing for the industry), translated to a $2 trillion reduction in liquidity. Hence, the severe shortage of credit and predictions of worse to come. Indeed, most analysts thought that the deleveraging still had far to go. Some question how much had taken place. Bianco Research noted that while the credit positions of the 20 largest banks had fallen by $300 billion, to $1.3 trillion, since the Fed started its special lending facilities, the same amount had been financed by the Fed itself through these windows. In other words, instead of deleveraging, the banks had just shifted a chunk of their risk to the central bank.

Just barely two days after Treasury Secretary saying no to Lehman Brothers bailout, one week after the government took over Fannie and Freddie and six months after the Fed bailed out Bear Stearns, on September 16, 2008 the Fed decided that AIG would get an $85 billion loan from the federal government in exchange for a 79.9% stake of the insurance giant. The deal called for the U.S. Fed to lend up to $85 billion to AIG for two years in exchange for that 79.9% equity stake. AIG would pay interest at a steep 8.5 percentage points above the three-month London Interbank Offered Rate, making the rate equal to about 11.4% (CNBC News.com). Amadeo (2008f) notes that the plan was to break up AIG and sell off the pieces to repay the loan. If the plan works, the loan would be repaid through sales of the assets. If the plan works really well, then the stock price will go up.

The bailouts had restricted access to U.S. dollars for banks around the world. In response, on September 17, 2008 the Fed boosted its currency-swap lines -- through which it gives foreign central banks access to U.S. dollars -- by $180 billion, to allow central banks to meet fierce dollar demand from commercial banks outside the U.S. As noted by Amadeo (2008g), other central banks followed:

- The European Central Bank increased its dollar swap line to $110 billion, and an extra €25 billion into its funds available for euro lending.
- The Swiss National Bank swap line got boosted to $27 billion.
- The Bank of England offered an extra £25 billion in local money markets.
- The Bank of Japan injected the equivalent of $24 billion into the local yen money market.
- The Central Bank of China dropped interest rates for the first time in six years.

In effect, the central banks of the world are providing the overnight lending capability that is usually provided by private banks. This is a stop-gap measure designed to keep financial markets operating until private banks start to trust one another again.

September 17, 2007 saw a record $140 billion was pulled out of money-market accounts, usually considered the safest of investments. That was because investors were moving the funds to U.S. Treasuries, causing yields to drop to zero. Amadeo (2008h) notes that, investors were so panicked that they no longer cared if they got any return on their investment; they just didn't want to lose capital.

On September 19, the Fed established the Asset Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF), which had loaned $122.8 billion to banks to buy commercial paper from money market funds. There was $122.8 billion of such loans outstanding as of Oct. 15. On September 21, the Treasury guaranteed $50 billion worth of money market funds.

Solomon et al. reported in the *Wall Street Journal* (September 20, 2008) in three days (September 15, 16, 17) the Fed had pumped hundreds of billions of additional cash into the financial system. But instead of calming markets and helping to suppress interest rates, short-term interest rates had gone haywire. Most strikingly to some Fed staff, its own Fund Rate, an interbank lending rate managed directly by the central bank, repeatedly shot up in the morning as banks sat on cash. Fed staff discovered that one reason the Fund Rate was behaving so abnormally was because money-market funds were building up cash in preparation for redemptions, leaving hoards of cash at their banks that the banks wouldn't invest. U.S. depositary institutions on average held excess reserves of $90 billion each day during that week, estimated Lou Crandall, chief economist at Wrightson ICAP. This was cash the banks hold on the sidelines that did not earn any interest. That compared with an average of $2 billion, he said, noting he estimated banks held $190 billion in excess cash on September 18, as they feared they would have to meet many obligations at the same time. Through September 17, money-market fund investors -- including institutional investors such as corporate treasurers, pension funds and sovereign wealth funds -- pulled out a record $144.5 billion, according to AMG Data Services. The industry had $7.1 billion in redemptions the week before. Without these funds' participation, the $1.7 trillion commercial-paper market, which finances automakers' lending arms or banks credit-card units, faced higher costs. The commercial-paper market shrank by $52.1 billion in the week ended Wednesday September 17, according to data from the Fed, the largest weekly decline since December. Officials also watched as the market for MBS disappeared. By taking over Fannie and Freddie they had hoped to re-instill confidence. But yields on mortgage-backed bonds were rising as trading evaporated, nearing levels reached before the government's takeover, which would likely translate into higher mortgage rates for consumers. Borrowers with adjustable-rate mortgages, meanwhile, were in trouble: The cost of many such loans was based on LIBOR which had soared as banks stopped lending to one another. Mr. Paulson wanted Congress to approve a plan that would allow Treasury to create a new facility to hold auctions and buy up distressed assets. On September 18, 2008, Mr. Paulson and Mr. Bernanke decided to ask Congress for authority to buy up toxic assets. In the afternoon, Mr. Paulson, Mr. Bernanke and Securities and Exchange Commission Chairman Christopher Cox briefed President Bush. Mr. Paulson’s amount for bailout submitted to Congress on September 21, 2008 was for $700 billion.

On Monday September 22, 2008 Goldman Sachs and Morgan Stanley, two of the most successful investment banks on Wall Street, became regular commercial banks. This means they will be regulated by the Fed and give up the anonymity which allowed them to take greater risks with their capital. The two banks have both taken write-downs in the billions in subprime MBS. Morgan Stanley's losses were so great they sought financing from two Asian banks in return for part ownership in the company: $8.4 billion from Mitsubishi Financial

Group for 20% of the company and $5 billion from the China Investment Corporation for a 10% stake. The two investment banks took this step to avoid the fate of Bear Stearns and AIG (Amadeo 2008i).

Bloomberg.com reported on September 22 that House Democrats said they narrowed their differences with the Bush administration over a proposed $700 billion government bailout even as Republican Senator Richard Shelby denounced the plan. Treasury Secretary Paulson and Democrats agreed that the rescue program, once passed by Congress, could begin while lawmakers creating an oversight structure, House Financial Services Committee Chairman Barney Frank said. Negotiations continued over new aid for homeowners trying to avoid foreclosure, he said. The additional measures include:

- Aid for homeowners trying to avoid foreclosure.
- An oversight structure that will review Treasury's purchase and sale of mortgages.
- A government equity stake in companies that receive bailout assistance.
- Limits on executive compensation of rescued firms.

In what was the largest bank failure by far in U.S. history as reported by Sidel et al. (2008) in the *The Wall Street Journal* (September 26), federal regulators seized Washington Mutual (WaMu) and struck a deal to sell the bulk of its operations to JPMorgan Chase. J.P. Morgan agreed to pay $1.9 billion to the government for WaMu's banking operations and would assume the loan portfolio of the thrift, which had $307 billion in assets. The full cost to J.P. Morgan would be much higher, because it planned to write down about $31 billion of the bad loans and raise $8 billion in new capital. All WaMu depositors would have access to their cash, but holders of more than $30 billion in debt and preferred stock would likely see little if any recovery.

On Friday October 3, 2008 President Bush signed the Economic Stabilization Act of 2008. Bush and the leadership of Congress closed ranks and sweetened the bill with tax cuts. The compromise won wide support in the Senate on October 1 and passed the House on the second attempt on Friday by a vote of 263-171. President Bush signed the bill shortly thereafter. The bill establishes the Troubled Asset Relief Program (TARP). The Treasury would have $700 billion to buy up toxic mortgages, securities and related assets.

On October 8, 2008 the Fed cut its Fund Rate a 0.5 point cut to 1.5%, again on October 29, 2008 another 0.5 point to 1%.

On November 2, 2008 Presidential Candidates John McCain and Barack Obama had very different positions on the mortgage crisis and government bailout of financial institutions. Republican Presidential Candidate McCain’s solution was focused on the immediate banking crisis. However, it would not address the root causes of the problem. It was also very similar to the proposal by Treasury Secretary Paulson and Fed Chairman Bernanke. McCain proposes a Mortgage and Financial Institutions Trust that would identify and purchase bad loans to resell later at a profit when the market has improved. Obama's proposal would streamline regulatory agencies, especially those to oversee banks that borrow from the government, establish a financial market advisory group, improve transparency for financial disclosure, and crack down on trading activities that could manipulate markets. He would also prohibit government aides from working on issues related to a former employer for two years and prevent them from lobbying after they leave. He would put meetings between governmental agencies and lobbyists on the web for public viewing.

Wednesday October 8, 2008 saw global rate cuts. The Fed and the central banks of the EU, Canada, UK, Sweden and Switzerland cut their rates by half a point, while China's central bank cut its rate by .27 of a point. This was done to lower LIBOR, thus lowering the cost of bank borrowing. Overnight bank lending rates dropped in response, indicating a potential turning point in the crisis.

October 14, 2008 saw the governments of Europe, Japan and the U.S. took unprecedented coordinated action to try and stem the ongoing global credit crisis. The European Union committed to spend $1.8 trillion to guarantee bank financing, buy shares to prevent banks from failing, and take any other steps needed to get banks to lend to each other again. This step was taken after the U.K. committed $88 billion to purchase shares in failing banks and $438 billion to guarantee loans. In a show of solidarity, the Bank of Japan agreed to lend unlimited dollars and suspend its bank stock selling program. In return, the EU is asking the U.S. to meet and increase banking regulation and increase the role of the IMF in this process.

On October 21, the Fed announced it would lend $540 billion to allow money market funds money funds to have enough cash to meet a continuing barrage of redemptions. Since August, over $500 billion had been withdrawn from money markets, which was where most businesses put their overnight cash. Businesses had been hoarding cash because LIBOR rates had been high, since banks had been reluctant to make loans. The Fed's Money Market Investor Funding Facility (MMIFF) would be managed by JPMorgan Chase. The MMIFF would purchase up to $600 billion of certificates of deposit, bank notes and commercial paper that come due within the next 90 days. The remaining $60 billion would come from the money markets themselves, who must purchase commercial paper from the MMIFF. On October 29, 2008 the Fed cut the Fund Rate 0.5 point to 1%.

On November 9, 2008 the Fed’s $85 billion bail-out of insurance giant AIG had been revised to $150 billion. The Treasury would purchase $40 billion in preferred shares as part of its Capital Repurchase Plan. The Fed would purchase $52.5 billion in MBS. The funds would allow AIG to retire many CDS, freeing it up to lend more.

On November 12, 2008 Treasury Secretary Paulson shifted the focus of the TARP from purchasing toxic MBS, which will take too long, to faster ways of infusing capital into the financial system. The Capital Repurchase Program put $115 billion into the eight largest banks, which held nearly half of the nation's financial assets. This has loosened credit markets, and lowered the LIBOR rate. Paulson announced the funds would be used in a program being designed that would leverage private financing, expand the program to financial institutions other than banks, and address a freeze in the consumer credit market. The $1 trillion secondary market for credit card, auto and student debt had come to a standstill. This market normally provides the funding for 40% of these loans. The Fed might partner with the Treasury on the credit programme. Paulson did not want to expend funds to help unregulated financial institutions, meaning auto companies. Only $60 billion of TARP funds were left from the $350 billion allocated for 2008:

- $40 billion went to purchase AIG preferred stocks,
- $125 billion to purchase preferred stock in the top nine banks
- $125 to purchase preferred stock from regional banks around the country.

On November 21, 2008 the financial system and the unemployed received help from the lame-duck Congress, while the Big 3 automakers did not. The FDIC agreed to guarantee up to $1.3 trillion in loans that banks make one another. President Bush signed jobless benefit helping about 1.2 million unemployed workers to receive an extra three months of benefits in 2008. The extension costs $5.7 billion, although every dollar spent on jobless benefits provides $1.64 in economic benefits because the money is spent, not saved or invested. GM, Ford and Chrysler, on the other hand, presented their request for $50 billion in bailout. Most agreed with President-elect Barack Obama's plan that automakers must retool to produce energy efficient vehicles.

On November 24, Citigroup was bailout. The U.S. Treasury gave Citigroup a $20 billion cash infusion in return for $27 billion of preferred shares yielding 8% annual return, and warrants to buy no more than 5% of Citigroup's common shares at $10 per share. More importantly, the Treasury would guarantee $306 billion worth of toxic MBS, helping Citigroup to get these off of its balance sheet. In return, the bank would absorb the first $29 billion in these losses before the government guarantee comes in. Citigroup also received $25 billion in October under TARP.

3. The Spread of U.S. Banking Crisis to Global Economic Crisis

With the collapse of Citigroup, one bank after another collapsed in the U.S., beginning with Wachovia, the biggest retail bank in the U.S. that bought over by BofA. Later on BofA itself was in trouble. However, the biggest news in bank failure was the October 7, 2008 bankruptcy of an arctic nation Iceland that depended on loaning money to investors and other banks. In early October, Iceland nationalized its three largest banks - Kaupthing Bank, Landsbanki and Glitner Bank - which were defaulting on $62 billion of foreign debt. As a result of the banks' collapse, foreign investors fled Iceland, prompting the value of its currency, the krona, to drop 50% in one week. Iceland's banks used $100 billion in debt to finance foreign acquisitions, dwarfing Iceland's GDP of $14 billion. When the global credit crisis shut down lending, these banks' financial collapse brought down the country's economy. World economy was in danger of recession due to a complex network of hedge fund investments in MBS and CDOs with CDS linking banks and major bourses throughout the world. That saw as noted earlier global rate cuts on October 8 and coordinated cuts on October 14, 2008.

Kim K.W and Kim H.N. (2009) provide a comprehensive and concise perspective on how the instabilities in the U.S. spread across the globe. They explain that the current crisis has had four distinct elements: 1) subprime mortgage crisis, 2) credit crunch, 3) global financial crisis, and 4) global economic crisis.

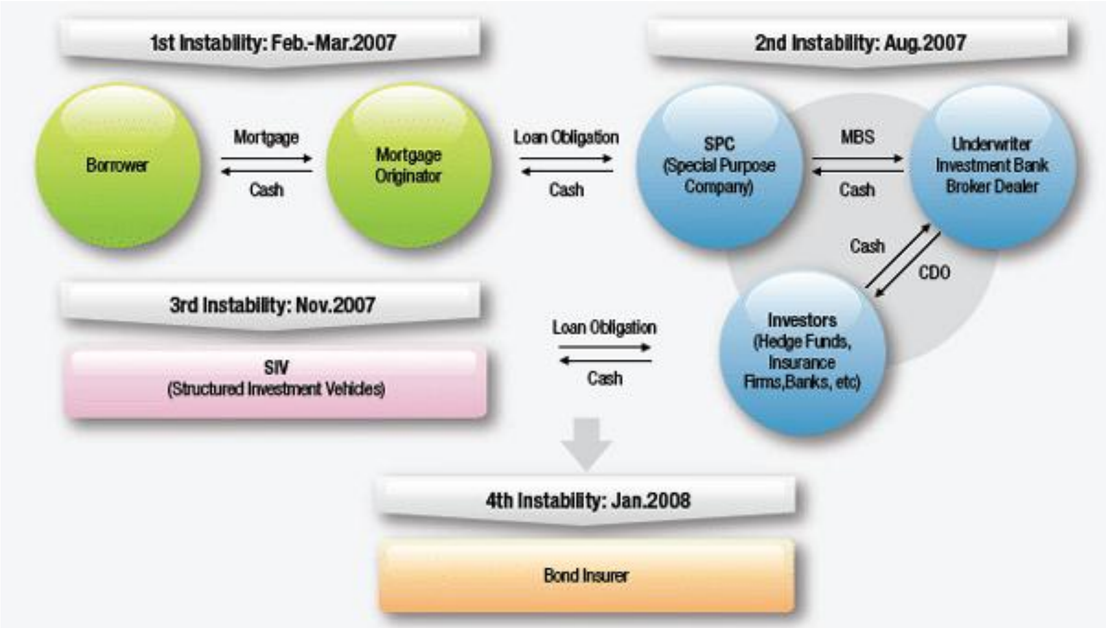
They also explain the development of global credit crunch into eight instabilities. Shown in Figure 3 are instabilities one through four, sufficient to explain the spread from credit and banking crisis to the Wall Street and main bourses all over the world.

The first phase of the crisis began when New Century Financial, the second-largest subprime loan lender, filed for bankruptcy in March 2007. At the time, most people did not expect the crisis to last very long nor become very big. With the interest cut by the Fed, world capital markets showed resilience to the extent that in October 2007, the Dow Jones Industrial Average hit a record high of 14,164 points.

Slowly, however, the crisis began infiltrating various areas of the global financial system. Most financial institutions began to run low on cash and, although governments released massive amounts of money into the credit market, a credit crunch began to squeeze major financial institutions. As a result, investment banks either collapsed or were merged. Even Goldman Sachs, the largest investment bank, became a commercial bank. In March 2009, Citigroup, generally regarded as a symbol of capitalism, was essentially nationalized as the US government converted the preferred shares to common stock.

After the credit crisis began, eight instabilities appeared in global financial markets. The first was rising delinquency rates due to resets of adjustable rate subprime mortgages (ARMs), loans that started out at a low fixed rate but reset to higher, floating rates after 2-3 years. The resetting of ARMs peaked in the first quarter of 2008.

The second instability resulted from falling prices of MBS and CDOs based on subprime mortgages. Outstanding issuance of CDOs in the U.S. amounted $1.9 trillion and CDOs at risk of turning bad are estimated at $250 billion.



Source: Kwon, Sun-Woo (2008), adapted from Kim, K.W. and Kim, H.N. (2009).
Figure 3: The Development of Global Credit Crunch

The third instability arose because of the liquidity crisis of structured investment vehicles (SIVs), which are finance companies established by banks to manage high-risk assets separately from their own books. As it is difficult for banks to invest in high-risk assets on their own, they employ SIVs as an indirect method of investment. The total amount of assets invested by SIVs is estimated at US$320 billion, and the proportion of MBS and CDOs exceeds 40% of the total assets. SIVs' financial troubles have spread to banks, their parent companies, resulting in massive losses at major banks. Citigroup, for example, owns seven SIVs, which manage US$ 83 billion in assets. Although the bank is not responsible for the SIV defaults by law, it voluntarily acquired the SIV assets due to fears of reputation risk.

The fourth instability was mainly due to the downgrade of bond insurers in January 2008. Concerns grew that bond insurers which guaranteed CDOs or purchased credit default swap (CDS) may become insolvent. Share prices of MBIA and Ambac, the two largest bond insurers, plummeted after credit rating agencies lowered Ambac's credit rating from AAA to AA. Subsequently, fears over possible insolvencies spread across financial markets, which put downward pressure on the credit ratings of other bonds guaranteed by those bond insurers. The credit ratings for 4,991 bond issues insured by Ambac declined.

The fifth instability arose due to the skyrocketing margin calls of non subprime mortgage-related fixed income securities. For example, Carlyle Capital, the investment fund of the private equity giant the Carlyle Group, received substantial margin calls and additional default notices from lenders in March 2008. Although Carlyle Capital invested mainly in triple-A rated mortgage securities, lenders started questioning Carlyle Capital's solvency and raised margin calls and collateral requirements.

The sixth instability was due to the liquidity problem of government sponsored enterprises such as Fannie Mae and Freddie Mac. Fannie and Freddie suffered combined losses of nearly $14 billion in the year following the start of the subprime mortgage crisis. As Fannie and Freddie guaranteed almost half of the country's mortgages, their significant losses threatened the entire mortgage and credit industry. Consequently, the U.S. federal government decided to take over Fannie and Freddie with over $200 billion in public funds.

The seventh instability came about after September 2008 when Lehman Brothers and other investment banks went bankrupt or were merged by other institutions. This was a real turning point of the financial crisis because the real sector began to be affected.

The eighth instability resulted from the upward risk of nationalization of U.S. commercial banks. The main focus was on Citigroup, which already reported five consecutive quarterly losses. Although the U.S. government decided to essentially nationalize Citigroup, share prices plummeted to less than $1 at one point early this year. There is a good chance that more US commercial banks will be de facto nationalized.

4. Impacts on the Global Economy, Industries and Communities

Although the crisis began in U.S. housing market and banks, the global financial crisis and the subsequent credit crunch have affected emerging countries more severely than developed ones (Reinhart and Rogoff, 2008). Several emerging countries have been hit by the rapid withdrawal of foreign capital and are struggling to fund current account deficits. When foreign currency financing dried up in these counties, domestic banks stumbled and currencies came under pressure. East European countries were particularly vulnerable because their economies are highly dependent on financing from West European countries, whose banks have also suffered from liquidity problems and continuation of losses. At a UNU-WIDER seminar on the impact of the global recession on the poorest countries, UNU-WIDER Senior Researcher Wim Naudé pointed out that Africa is by far the most at risk developing region.

East Asian economies, especially those of Korea, China, and Japan, seem to have a relatively sunnier outlook because they have large foreign reserves. However, East Asian countries have not been able to avoid the global recession: Korea's GDP declined by 5.6% in the fourth quarter of 2008 from the previous quarter, and Japan's GDP fell by 3.2%. China's GDP growth slowed significantly to 6.8% from the previous year.

Japan and Singapore were the first East Asian economies that went into negative GDP growth rates, registered in the third quarter of 2008. Japan is trying to avoid another lost decade, referring to the stagnant Japanese economy in the 1990s after the bubble burst in 1990. Singapore’s decline is deeper for a small open economy highly dependent on trade and FDI. Table 1 shows GDP growth rates in selected economies.

Because all East Asian countries have export-dependent economic structures, their recent trade figures have been getting much worse. Foreign demand for major goods such as IT products and automobiles produced by East Asian countries has continued to fall. Korea's exports fell a record 33.8% in January and 18.3% in February of 2009 year-on-year. Japan's exports declined 45.7% and posted its first current-account deficit (172.8 billion yen) in 13 years in January. China's exports plummeted by a record 25.7% and its trade surplus declined sharply to US$ 4.8 billion in February.The world economy went into recession by the fourth quarter of 2008. Japan was declared in recession.

Table 1: Quarterly GDP Growth in Selected Economies, 2007-2009

Country	2007				2008				2009	Last forecasts
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
AUSTRALIA	3.7	3.9	4.2	4.2	3.3	2.8	1.8	0.3	n.a.	11-May-09
BRAZIL	5.1	6.0	5.4	6.1	6.1	6.3	6.8	1.2	n.a.	20-Apr-09
CANADA	2.2	2.8	3.1	2.8	1.5	0.7	0.3	-0.7	n.a.	17-Apr-09
CHINA	11.7	11.9	11.5	11.2	10.6	10.1	9.0	6.8	6.1	21-Apr-09
FRANCE	2.2	1.7	2.4	2.2	2.0	1.1	0.6	-0.9	n.a.	11-May-09
GERMANY	3.7	2.5	2.4	1.7	2.8	2.0	0.8	-1.6	n.a.	28-Apr-09
HONG KONG	5.6	6.1	6.7	6.9	7.3	4.3	1.7	-2.5	n.a.	7-May-09
INDIA	10.0	9.1	8.9	9.1	8.8	8.1	7.7	4.5	n.a.	27-Apr-09
JAPAN	3.2	2.1	2.0	2.1	1.4	0.5	-0.2	-4.3	n.a.	21-Apr-09
KOREA, REP.	4.4	5.3	5.0	5.7	5.3	4.2	3.0	-3.4	-4.4	13-May-09
MALAYSIA	5.5	5.7	6.7	7.3	7.4	6.7	4.7	0.1	n.a.	1-May-09
RUSSIAN FED.	7.5	8.0	7.7	9.0	8.7	7.5	6.0	1.2	n.a.	15-Apr-09
SINGAPORE	7.5	8.7	9.2	5.7	6.6	2.5	-0.1	-4.1	n.a.	13-May-09
UNITED KINGDOM	2.8	3.0	3.1	3.2	2.6	1.8	0.4	-2.0	n.a.	9-Apr-09
UNITED STATES	1.3	1.8	2.8	2.3	2.5	2.1	0.7	-0.8	n.a.	30-Apr-09

Source: Economist Intelligence Unit Country Data Base, http://eiu.bvdep.com/ip (accessed May 20, 2009)

The impacts on the industries are already visible. Toyota declared in April 2009 its first loss in its history. On May 14, 2009 Sony Corp announced its first annual loss in 14 years and warned it would stay in the red in 2009 as the recession cuts demand for television, cameras and other electronics. The Japanese giant posted a net loss of Y98.94 billion (RM3.5 billion) for the year to March, a dramatic turnaround from the previous year’s profit of Y369.44 billion (RM12.4 billion). Sony said it was impacted by the weak economy, a stronger yen and the falling values of its investments (AFP in *The Sun* May 15, 2009: 15).

Sanyo Electronics Co on May 14, 2009 also reported a net loss of $976 million (RM3.4 billion) for the past financial year due to falling sales and restructuring costs but said it expects to break even in 2009 (AFP in *The Sun* May 15, 2009:15).

Panasonic Corp. reported on May 15, 2009 a deep annual loss and warned it will spend the current year in the red as well, making it the latest Japanese electronics company to acknowledge there will be no quick recovery for an industry weighed down by relentless price cuts on televisions and other gadgets. Panasonic's results came one day after rival Sony Corp. offered a bleak outlook of its own by forecasting a second straight year of losses and announcing further measures to cut costs and close plants. Other major Japanese conglomerates, including Toshiba Corp., have also signaled there are tough times ahead. Panasonic couldn't escape the slowdown in spending on televisions and home appliances. The company was forced to drastically cut prices along with the rest of its peers when demand started to dry up in late 2008, leading to the worst quarter in Panasonic's history. In the three months ended March 31, Panasonic posted a net loss of 444.3 billion yen ($4.6 billion), as sales fell 30% from a year earlier to 1.54 trillion yen. That left the company with a loss for the full year of 379.0 billion yen. Panasonic expects a net loss of 195 billion yen in the current year, with sales off 10%. Panasonic is trying to replicate a turnaround it pulled off earlier this decade when it revived flagging earnings by reducing its work force, slashing inventory and closing factories. The company has a goal of reducing its 230 global manufacturing sites by 20% by the end of March. About half of those closures will come in Japan, Panasonic said.

All told, Panasonic expects to cut annual costs by 135 billion yen this year. Panasonic agreed in December to buy Sanyo Electric Co., a leading maker of rechargeable batteries and solar panels, in a deal that values Sanyo at about $9 billion. Panasonic said it is waiting on regulatory clearance before launching a tender offer for Sanyo's shares (Wakabayashi, *WSJ* May 16, 2009).

General Motors Corp. told owners of 1,100 U.S. dealerships on May 15, 2009 that it intends to drop them from its retail network, a new indication that the auto maker appears headed for a bankruptcy filing as soon as June 1. Letters to the affected dealers said the company doesn't expect to continue doing business with them beyond October 2010. The 1,100 GM dealerships to be cut represent the first wave of a wider downsizing of the company's network. In total, the company plans to eliminate about 2,400 of its 5,969 stores. Among them are 470 dealerships that sell Saturns, Saabs and Hummers. GM plans to sell or shut down those brands. GM reported losses of nearly $90 billion in the last four years and has required $15.4 billion in government loans to keep operating. The White House's auto task force has given the company until June 1 to reach cost-cutting agreements with workers and bondholders and being trimming dealers or face a bankruptcy filing. GM is close to a deal with the United Auto Workers union, but bondholders have resisted its offer to swap $27 billion in debt for a 10% stake in the reorganized company. GM said the 1,100 dealerships to be cut represent 18% of its network but produced just 7% of its sales last year. Nearly 500 of them sell fewer than 35 new GM vehicles a year. The National Automobile Dealers Association said the affected dealerships employ about 63,000 salespeople, mechanics and other personnel. Overall, the GM stores to be closed have a combined inventory of 65,000 cars and trucks. GM plans to buy back some of the dealers' remaining inventory, parts and equipment. In addition the auto maker plans to shut down production for much of the summer to trim its backlog of unsold vehicles. The company believes that having fewer, healthier dealers will help it better compete with foreign-based rivals such as Toyota Motor Corp. and Honda Motor Co., which tend to have newer, better financed stores in more attractive locations. By limiting the number of retailers, those companies ensure that each has a better shot at being profitable. GM's move to cut its U.S. retail network comes as its dealers in Europe look to secure a minority stake in the auto maker's German-based Opel unit with a $680 million investment. That investment would come as part of a plan by Fiat SpA of Italy to merge its car operations with Opel's and those of Chrysler (Terlep, *WSJ*, May 16, 2009).

Nortel Networks Corp filed for bankruptcy protection in Canada and the U.S. on January 14, 2009. The troubled Canadian maker of telecommunication equipments and some of its units filed for court protection a day before the firm was due to repay $107 million in bond interest (Dummett, *WSJ,* January 15, 2009:1).

Impacts on the communities have emerged as stories of after the bubble, ghost town across America, half-built subdivisions are lonesome places (Alex Roth, *The Wall Street Journal* August 2008)

Job losses have affected not only the rate of home foreclosure but also dampen the price. The median U.S. single-family house price in the first quarter of 2009 fell 14% from a year earlier to $169,000, the National Association of Realtors reported on May 12, 2009. The trade group said first-time home buyers accounted for half of all purchases in the quarter, and many of them zeroed in on foreclosed homes. That dragged down the median, the Realtors said. The median price for the latest quarter is down 26% from a peak of $227,600 in the third quarter of 2005. The median price was down from a year earlier in 134 of the 152 metro areas included in the survey (Hagerty in WSJ Blogs, May 12, 2009).

Foreclosure filings broke another record in April 2009, according RealtyTrac's monthly report released on May 13, 2009. Filings — default notices, auction sale notices and bank repossessions — were reported on 342,038 properties, a 32% jump from a year earlier. One in every 374 housing units received a filing last month, the highest monthly rate since RealtyTrac started its report in January 2005. Much of the activity is in the early stages– defaults and auctions. Bank repossessions fell on a monthly- and annual- basis to their lowest level since March of 2008, but that's not a good sign. It suggests many lenders and servicers are beginning foreclosure proceedings on delinquent loans that had been delayed by legislative and industry moratoria, notes RealtyTrac's chief executive in the release (Wotapka in *WSJ Blogs* May 13, 2009).

5. Conclusion

The present global economic debacle has its origin in the U.S. subprime mortgage housing crisis that began in 2006 and then spread full-blown into banking and credit liquidity crises, forcing Fannie Mae and Freddie Mac to be bailed out in July 2008 and taken over by the U.S. government on September 7, 2008. However, the filing of Chapter 11 bankruptcy protection by Lehman Brothers, U.S. fourth largest investment bank, on September 15, 2008 marked a significant phase that U.S. real economy began to be affected. Barely two days later on September 17, 2008 the Fed's taking over AIG evidenced the misfortune faced by many on Wall Street and other bourses as the twin integration of global finance and trade sent the impacts reverberated across the globe through the sophistication risk taking activities of unregulated hedge funds straddling major global banks and bourses. The bankruptcy of Iceland in October 2008 marked the global economy is impacted in full circle whose escape can be much longer than predicted. Export-dependent East Asian economies are not spared. However fluid the evolution of the crisis, the root cause can be blamed to the innovation and lax of regulation in the derivative markets, beginning from the so-called interest-only loans banks eagerly provided to sub-prime borrowers to the re-packaged mortgage-back securities and further securitization in the secondary market and Wall Street of the collateral debt obligation with the credit default swaps. In essence the present global credit crunch and economic crisis is different from the 1997/98 Asian financial crisis whereby it then was a run on currencies. However, the root cause is the same, which is unregulated greed. One of the many lessons is that how do we value and manage risks.

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