The 2007-2008 Global Financial Crisis:

An Analysis of the causes and the propagation mechanism

Submitted By:

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(2017B3A70620G)

Essay Submission for the course "Money, Banking and Financial Markets"

"Far out in the uncharted backwaters of the unfashionable end of the Western spiral arm of the galaxy lies a small unregarded yellow sun. Orbiting this, at a distance of roughly ninety million miles is an utterly insignificant little blue-green planet, whose ape descended life forms are so amazingly primitive that they still think digital watches are a pretty neat idea. This planet has, or had, a problem, which was this. Most of the people living on it were unhappy for pretty much of the time. Many solutions were suggested for this problem, but most of these were largely concerned with the movements of small, green pieces of paper, which is odd, because on the whole, it wasn't the small, green pieces of paper which were unhappy. And so the problem remained, and lots of the people were mean, and most of them were miserable, even the ones with digital watches." – The Hitchhiker's Guide to the Galaxy by Douglas Adams

The Birth of the Crisis

As the above quote suggests, money and money instruments can cause as well as solve the majority of Earth's problems. However, how can a nuclear problem in one sector of one country of the entire Earth cause a crisis so severe so that its effect continues to be felt even after a decade? Why was the nuclear problem in the US mortgage market not contained? And how did it spread the crisis through the entire global economy like a wildfire? There's only one possible answer: What seemed like independent and unrelated factors of the economy were tied up to each other so closely that failure in one caused a domino effect, collapsing every other sector and impacting economies oversees. What were these factors and how did they cause a crisis? Let's have a look at some of them.

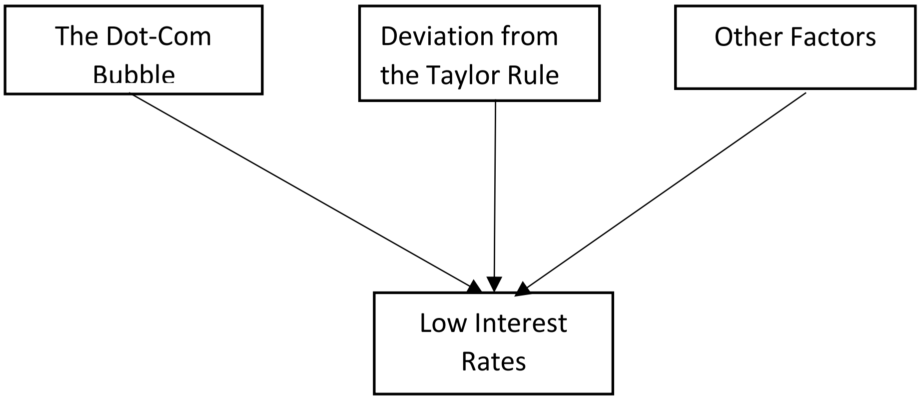
The Dot-Com Bubble

"The coining of the "Get Big Fast" belief started during the dot-com era. The initial start-ups operated with a short-term loss business plan, insisting that by grabbing the market share and dominating their specific sectors they could then charge what they wanted at a later date. Recent research (Goldfarb, Kirsch and Miller, 2006) suggests that many companies would have had better success targeting smaller niche markets. "[2] At the end of the 20th century, it was believed that the Internet is the next big roaring sensation, and any business that deals with online commerce is bound to be a gigantic success. However, as is prudential, most of these businesses were not successful, and those that did manage to capture the market, were highly overvalued as the optimistic methods of valuations focussed more on the technical aspects of success, rather than analysing the cash flows and the revenue of the company.[3] The result of the over optimism and the overvaluation was that when the companies finally crashed, many of them went bankrupt or merged with other companies, and investors suffered huge monetary losses.[2] The financial crisis of 2001 ensued after the bursting of the Dot-Com Bubble.

Excessive Expansionary Monetary Policy and deviation from the Taylor Rule

After the New York attacks of 2001, and the bursting of the Dot-Com bubble, the Federal Reserve started employing Monetary Policy incessantly to fuel growth. However, the monetary policy was too expansionary and did not follow the Taylor Rule – which should be done to avoid asset price increases and inflation. While the inflation was controlled by the global competition, the government did not pay heed to asset inflation and focussed on merely an inflation-targeting approach.[4] "In the case of the Federal Reserve, its former chairman, Alan Greenspan, and his successor, Bernanke (and many others), believed that monetary policy should target only inflation, and that burst bubbles could be dealt with by a proactive monetary policy of low interest rates, as in 2001−2002, sometimes referred to as the "Jackson Hole doctrine". This doctrine believes in the omnipotence of monetary policy, categorically ruling out such problems as liquidity traps, credit crunches and systemic financial instability. "[4]

The net result of these two (and certain other) factors was a remarkable decline in the short-term interest rates. This led to a "great moderation" of price growth, and interest rates were at a historic low. [5]



Low Interest Rate and Increase in credit creation

As the interest rates decreased, it led to households borrowing large sums of money to finance their consumption.[1] “The increasing and cumulating financial inflows enabled private households to lower their saving rate and indulge in a consumption frenzy, encouraged by rising house and other asset prices that signalled a new age of wealth”[4] This led to huge bouts of credit creation, which continued till around 2006. After this, the gap between people’s income and debt widened, and households found it increasingly difficult to pay back their loans.[1] “The downward pressure on interest rates and the desire to achieve higher yields whetted investors’ appetite for risky assets. At the same time, structural factors on the demand side appear to have fuelled the demand for mortgages, thereby forming the basis for the production of these risky assets on a large scale.”[5]

Decline of the Housing sector

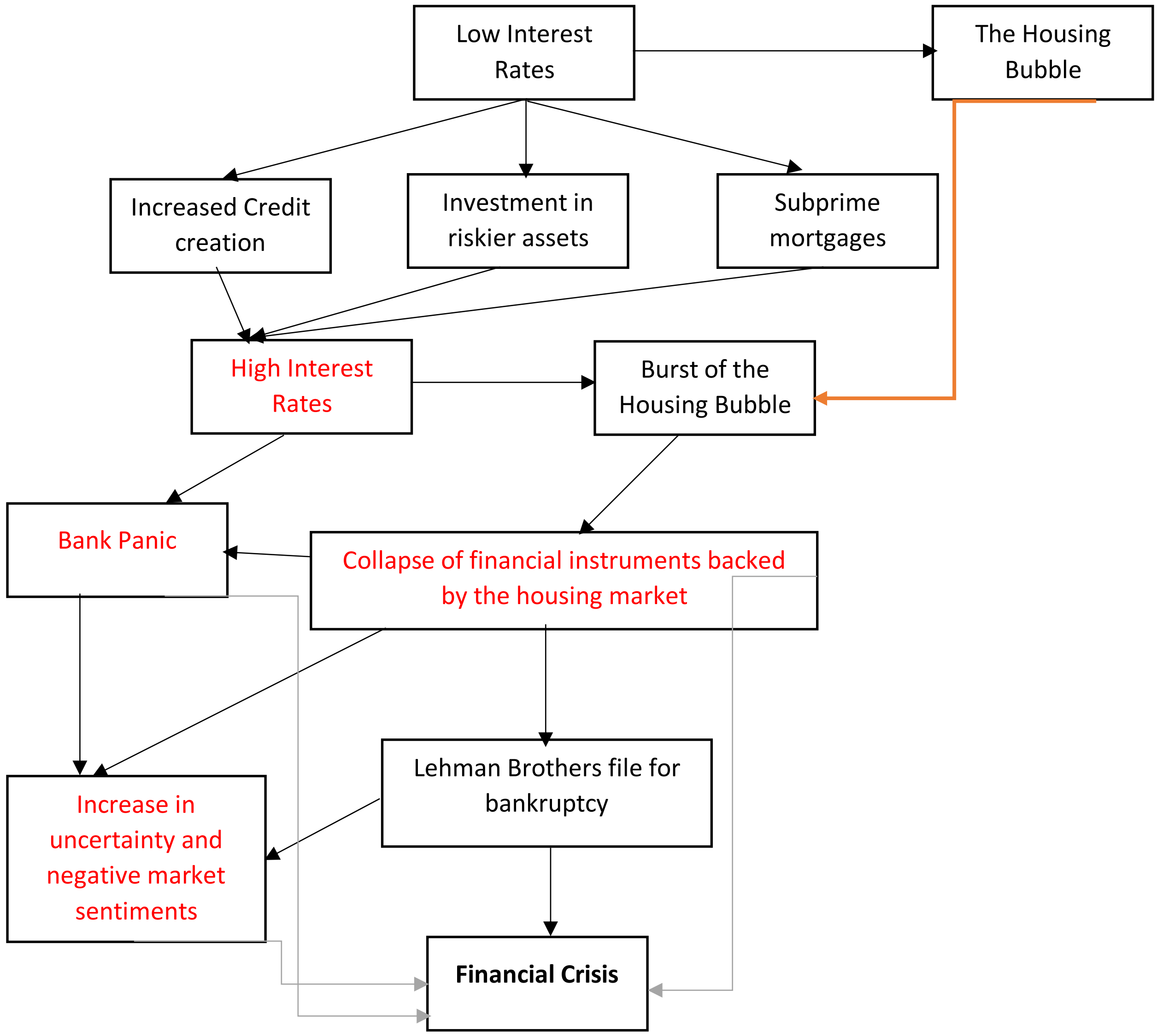
Many households bought new homes during this period, financed by the low interest rate loans. This caused the housing prices to increase, and the real-estate sector witnessed a boom, causing a “Housing Price Bubble”. However, the financial institutions were perpetrators of a Moral Hazard problem, as they used the depositors’ money to finance more and more loans, many of which were on “subprime mortgages” (risky assets). When the debtors were finally unable to pay back the banks, the banks suffered huge losses and the interest rates rose. Borrowing became difficult, and the housing prices declined. This led to the bursting of the “Housing Price Bubble”. Moreover, the inability of the banks to recover their bad depts also triggered a bank panic. [1]

The Domino effect and the collapse of the Lehman Brothers

“The housing bubble translated into the build-up of a financial house of cards comprising multiple securitization, collaterized debt obligations (CDOs) and credit default swaps (CDS). This represented an enormous extension of the derivatives markets, in part facilitated by shadow banks (so-called “special investment vehicles”) and non-banks such as hedge and pensions funds. Extreme leveraging, excessive maturity risks and considerable overall risk taking occurred, as in many historical boom-bust cycles.”[4] The burst of the housing bubble led to a domino effect, where-in all the financial instruments and derivatives backed up by the housing market crashed. This was the spark that ignited the financial crisis of 2008.[1]

Finally, on September 13,2008, the Lehman Brothers filed for bankruptcy. It was the fourth-largest investment bank at the time. The Lehman Brothers held huge amounts of subprime mortgages, and was gravely affected by the burst of the housing bubble. Information Asymmetry and Moral Hazards were the main reasons for the collapse of Lehman Brothers.[1] The Lehman Brothers constantly used cosmetic accounting to make its assets look less risky than it actually was. ” By 2008, Lehman had assets of $680 billion supported by only $22.5 billion of firm capital. From an equity position, its risky commercial real estate holdings were thirty times greater than capital.” [6] This was the problem of information asymmetry, which allowed the Lehman Brothers to invest in risky assets undetected. Another problem was the one of Moral Hazard, where the Lehman Brothers kept investing in riskier asset as it believed it was "Too big to fail". [1]

The collapse of the Lehman Brothers brought about an immediate financial crisis in an already tensed economy, and economic activity declined to new lows.



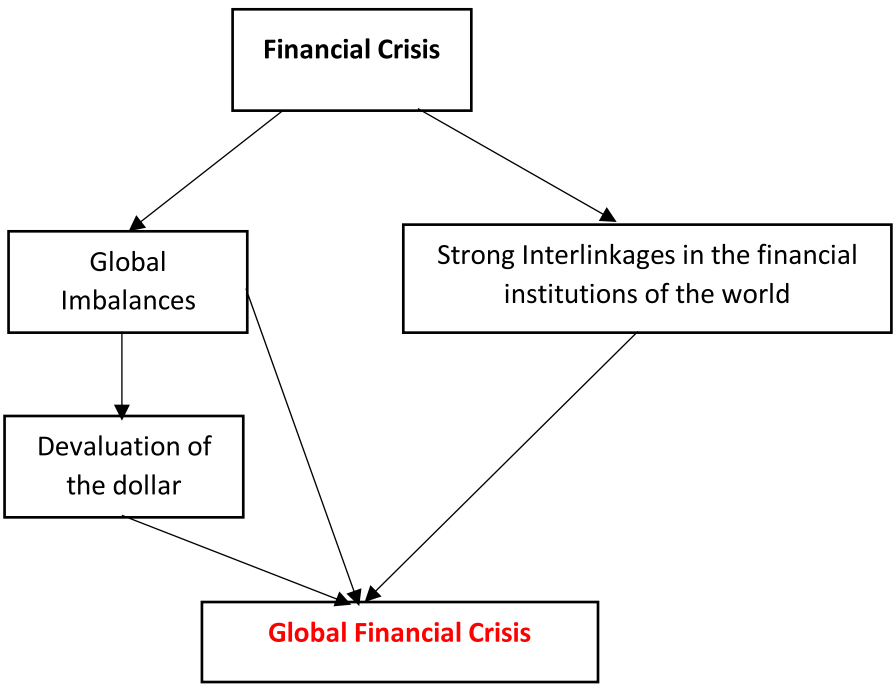
Spread of the U.S Financial Crisis to other countries

The Financial Crisis of 2008 was a global one, and affected many countries simultaneously and almost immediately. Never before had a crisis occurred on such a large scale.[1] "The reputation of the dollar, the main global reserve currency, lowered the currency risk to foreign financial investors. This currency bonus contributed to the taking of excessive risks by financial investors from abroad, since the United States was considered immune to a currency crisis, and since the Federal Reserve and the Government were believed to be capable of managing bailouts should they become necessary" [4]

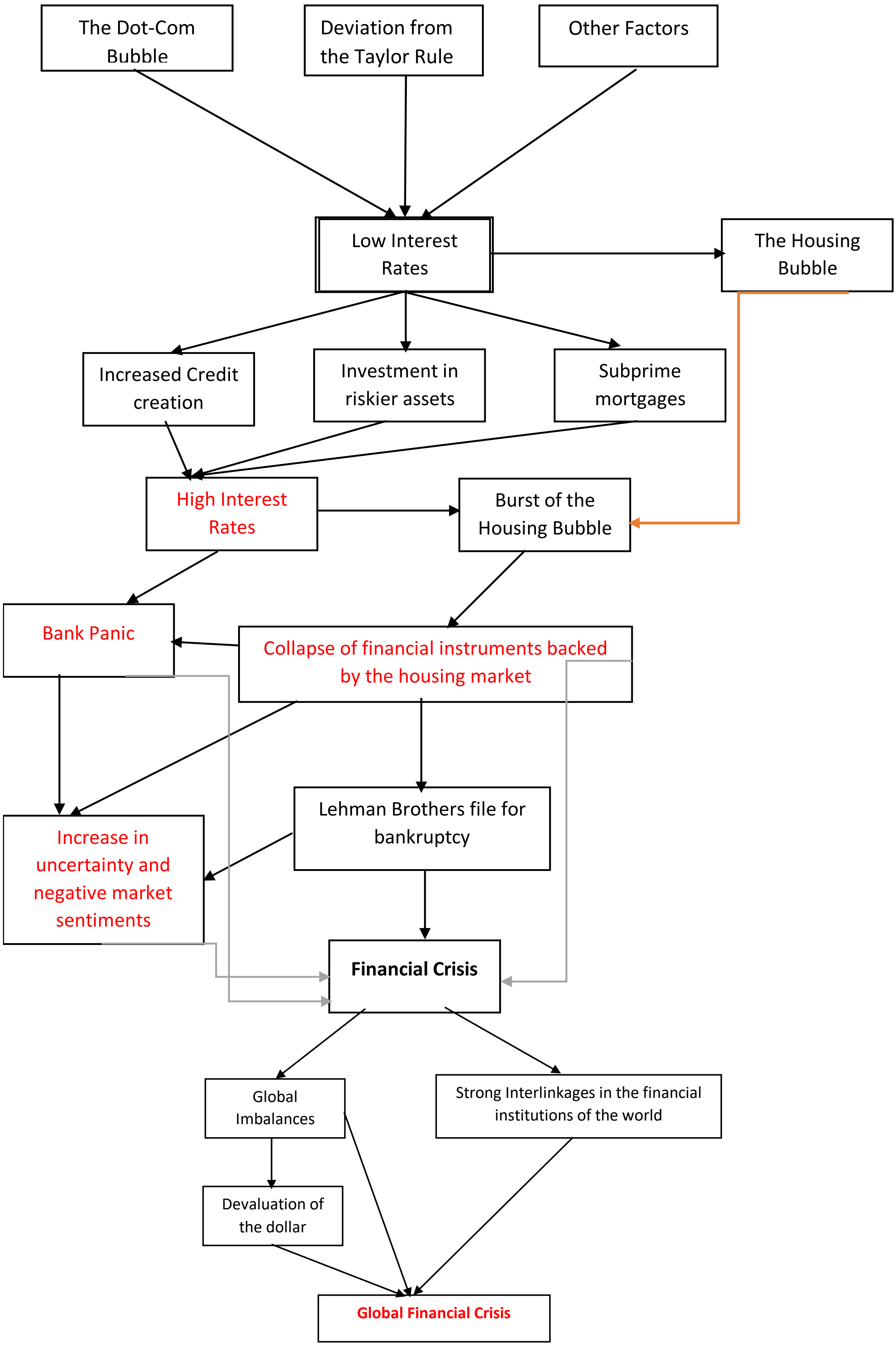
The crisis spread to other countries and economies as there were strong interlinkages between the financial institutions of the U.S.A and the financial institutions of the rest of the country. Banks that catered to both U.S.A as well as local customers were affected severely, and much more than the banks that only catered to customers of the local country. Failure of the global financial markets, such as the global banks, however, triggered a bank panic in the local countries, and "cascading bank failures" were observed.[1]

Open economy countries, such as China, exported much of their production to countries such as the U.S.A and U.K, areas where the global financial crisis had already set in. This led to China(and other exporting countries) to build up huge amounts of foreign reserves, causing these countries to pump huge amounts of capital inflows into the U.S." Continuous net capital inflows into a deficit country cumulate and can reach a high, ever-increasing stock level relative to GDP. A large share of capital inflows into the United States financial system was due to increasing official reserves of the central banks of surplus countries which had fixed or managed exchange-rate regimes (e.g. China and Japan)."[4] These global imbalances were risky, and led to a huge devaluation of the dollar, which affected almost all countries, since the dollar is the base currency for foreign exchange.[1]

<u>And thus, through the interlinkages of the financial institutions and the global imbalances, a global financial crisis had set in.</u>



Summary of the Propagation Mechanism



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