Risk Appetite: Pre and Post Crisis Effects

Introduction

The financial crisis of 2008 was preceded by protracted periods of economic prosperity mainly driven by cheap credit borrowed from various developing economies. Financial institutions mainly hedge funds and investment banks leveraged their balance sheets to enter into risky businesses involving complex financial instruments like collateralized debt obligations, credit default swaps, and innovation in financial engineering like securitization of various asset classes which made them huge profits. These appeared to them as a perpetual source of profits because they had by mistake made an assumption that housing prices would never go down. Over-optimistic profit making conditions stimulated the risk appetite of financial institutions even when they were reluctant to engage in risky financial transactions.
All these disturbances in financial system are attributed largely to the deregulation which was started in 1978 when President Carter signed the Airline Deregulation Act. Soon all other major sectors of economy also started to adopt the deregulation measures as a ubiquitous change needed for growth. Deregulation was taken as an opportunity by financial institutions to exploit this regulatory freedom and allowed them to take risky positions using leveraged money.
A study of this crisis indicates that no single entity can be held responsible for this catastrophe. Massive ignorance of governments, subprime loans, deregulation allowed by regulators, leverage levels raised by SEC, false ratings issued by rating agencies, securitization chain and unregulated swaps etc. were some of the factors which amplified the risks inherent in US financial system. Soon the booming real estate market slowed down which caused banks, investors and average home owners huge losses. Stock markets crashed all over the world subsequently slowing down the credit flow.

In 2012, the stock markets went up nearly 70% from their March 2009 lows. Corporate profits and stock market all-time highs may indicate short term improvements but other economic indicators like consumption rate, unemployment data and public debt lead us to a different conclusion. But the key problem is that these improvements have affected mostly the corporate, not the average taxpayer.

It is to be noted that no single quantitative framework can solve the problem of risk appetiteindex measurement. Different institutions use different parameters to construct their risk portfolios to make investment decisions. This paper adopts a qualitative approach to discuss the relevance of risk appetite levels using risk charts developed by Credit Suisse and UBS. A variant of the underlying issue can be whether the global economy will be out of recessionary conditions if the risk appetite increases globally. This paper tries to analyze the reasons for the current slowdown in a slightly different manner. A part of paper discusses the differences between current slowdown caused by recent financial crisis and other recessions. Qualitative relationship between different parameters has been used in this paper to discuss the current slowdown along with future scenarios.

Reasons for the Crisis

- **Where The Risks Came From?**

Economists across the world have blamed governments for their massive ignorance, de-regulation by regulators, hedge funds, greedy bankers, irresponsible homeowners, insurance companies, investment banks etc. But it is hard to accuse a single entity as it involved many participants**.Figure.1 mentions those parameters which caused the crisis to occur in the first place**.Cheap credit provided by various economies helped fuel the risk appetite of US banks which allowed them to borrow enough subsequently crossing the leverage limits of 30:1.This paper tries to analyze the situation prevailed in markets before the crisis and actions taken by financial institutions in a different way. There existed a set of banks which showed reluctance to take unnecessary risks and didn't want to enter the derivatives business. Low volatility and high de-regulation stimulated risky behavior in bankers who leveraged their balance sheets, opened derivatives & securitization departments which helped them to make enormous profits.

Low volatility	Low inflation	Government's complacency
Deregulation	Credit Default Swaps	Flawed Mathematical Models
High Leverege	High Fiscal Deficit	Low interest rates
High Incentives	Hedge Funds	Investment banks
Homeowners	Gramm Bliley Leach act	High Incentives
Mortgage based securities	Bailouts	Mortgage lenders

Figure 1

On the other hand, their counterpart bankers were questioned by their shareholders for low equity returns. They were forced to adopt securitization and trade in risky financial instruments (CDO's and credit swaps).Executives reluctant to take risks were replaced with young bankers who were ready to indulge in risky financial transactions. They were awarded huge incentives. These actions made whole market to engage in massive risks as everyone was making huge profits. For example, $500B worth of credit default swaps were issued by AIG. As the swaps market was unregulated, AIG didn't keep aside any money assuming the housing market to grow forever, but reverse happened and US government had to take over AIG.

- **Before The Crisis: How We Reached There?**

It was the ignorance on part of government and regulators as they had not anticipated the unintended consequences of the actions which they took before the crisis. These actions created a false sense of security in the markets. The limited regulatory measures combined with ineffective market discipline, appear to have helped drive innovation (for example in the securitization process) but at a high cost as the risks of highly structured products were not properly understood. This real estate bubble fueled by massive credit collapsed as the housing prices started going down. Several banks were bailed out and mortgage companies were taken over by government, as a result of which credit markets froze. Congress was forced to provide bailout packages for multiple financial institutions to restore the confidence in the financial system. Consequently they passed **Emergency Economic Stabilization Act (EESA)**in 2008 which also included specific provisions aimed at reducing the **"excessive risk taking"** in the financial world. American taxpayers found the financial system fundamentally wrong and this huge bailout program forced them to demand the government intervention in order to regulate the financial system.

Analysis

- ### Slow recovery after the crisis

Global economy seems to be recovering after the crisis but still the progress is in nascent stages. The real question is **"Why Is It Taking Longer to recover from 2008's Financial Crisis**?" According to the National Bureau of Research, United States has seen 12 recessions after the great depression of 1930 and these recessions lasted for an average of 10 months with longest recession lasting 16 months. An ongoing debate among various economists' talks about whether the recessions following the severe financial crisis take longer to recover or do they recover normally. In 2008, **Carmen Reinhart** and **Kenneth Rogoff** of **Harvard** analyzed the financial crises of the past and concluded that crises like this are followed by a high rate of unemployment and slow growth.

One reason for the slow recovery from the crisis is that the repercussions of crisis were exaggerated due to the Euro Zone trouble. The huge debts owed by PIIGS (Portugal, Italy, Ireland, Greece, and Spain) countries forced them to impose high austerity measures which contributed to the further slowdown in these countries. The European Union is trying hard to recover as it is not possible to impose independent monetary policies in different European Countries. The financial crisis of 2008 has left us in such recessionary conditions that recovery seems a herculean task.**Figure_2** demonstrates that the recovery after the global financial crisis is slowest.

Real GDP - BEA (Chained 2000 Dollars, Seasonally Adjusted) — RECOVERY DATA											
Quarters After											
Start of Recovery	1948	1953	1957	1960	1969	1973	1980	1981	1990	2001	2007*
0	0	0	0	0	0	0	0	0	0	0	0
1	4.0	1.1	2.3	1.9	2.8	0.8	1.8	1.2	0.7	0.9	0.4
2	7.2	3.2	4.7	3.5	3.3	2.5	4.0	3.5	1.1	1.4	1.4
3	11.4	6.1	6.8	5.6	4.2	3.8	3.1	5.6	1.5	1.9	1.9
4	13.4	7.9	9.5	7.5	4.5	6.2	4.4	7.7	2.6	1.9	2.5
5	14.8	9.3	9.4	8.7	6.3	7.0	3.1	9.8	3.7	2.4	3.2
6	16.7	9.9	9.8	9.7	8.8	7.5	1.4	11.7	4.8	3.2	3.8
7	19.0	9.4	12.3	10.0	9.9	8.3	1.9	12.8	5.9	4.9	3.8
8	19.2	10.3	11.7	11.4	11.7	9.5	1.6	13.7	6.1	5.9	4.4
9	20.4	10.2	11.9	12.8	14.6	11.7	1.6	14.8	6.7	6.6	4.8
10	20.6	12.0	10.5	14.9	15.9	13.7	2.9	15.8	7.3	7.3	5.8
11	21.4	12.6	11.1	15.8	15.3	13.7	5.2	17.6	8.7	8.1	6.3
12	25.4	12.4	13.2	18.4	16.4	14.1	7.3	18.5	9.8	8.9	6.7
13	27.7	13.4	15.0	19.8	15.3	18.5	9.5	19.6	11.3	10.1	
14	28.7	12.3	17.4	21.4	15.6	19.7	11.6	20.1	12.0	10.6	

Figure 2 Source- NBER

- ### Aftermath Of The Crisis: Are We In Recession?

After the crisis there was a sudden rise in risk aversion which spread globally because of the highly interconnected nature of economies. The demand for consumer goods plummeted as unemployment rose to high levels and the uncertainty of job creation went up. It should be noted that the growth achieved during the booming economy was not permanent as it was achieved by taking risks and it is easy to generate the performance by taking risks. Now the risk appetite of banks, investors and consumers has gone down and the situation is exacerbated by the Euro Zone. The banks are more cautious in disbursing loans and it has become necessary for the NINJA (No Income, No Job, and No Assets) consumers to make down payments to buy assets. Today the investors have become more risk averse and are more careful about where they should invest and where they should not.

High leverage levels of financial institutions are being replaced by deleveraging, which will continue unless the market dissolves the toxic assets which still occupy a large space on their balance sheets. Increased financial regulations may prevent the institutions from taking high risks in the long term, which if coupled with transparency in financial system, may lead to sustained growth.

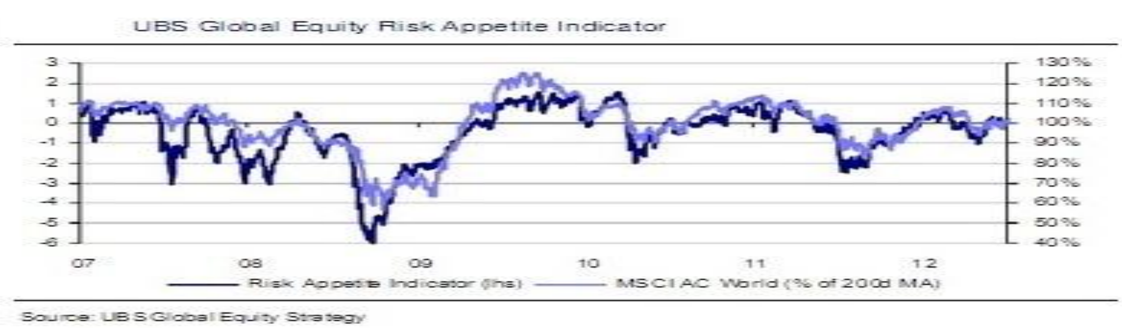
US economy whose consumption was always fuelled by debt, has had to see a significant decline in consumption [from (+)2.5-3% to (-)1-2%] which has resulted in lesser and lesser investments as companies are not willing to invest in new products and reluctant to upgrade existing products in order to control costs.

The underlying question, whether the reduction in risk appetite has pushed us towards another recession, zeroes down to the question asked in the introduction. Is it possible to stimulate the economy if the risk appetite achieves those levels which we had before the crisis? The risk levels have reduced drastically in economies highly affected from the crisis, which has led to a structural shift in markets. Investors are willing to invest more cautiously and flexibly. **Figure 3**depicts the preferences of investors which depend on risk contained in those countries.

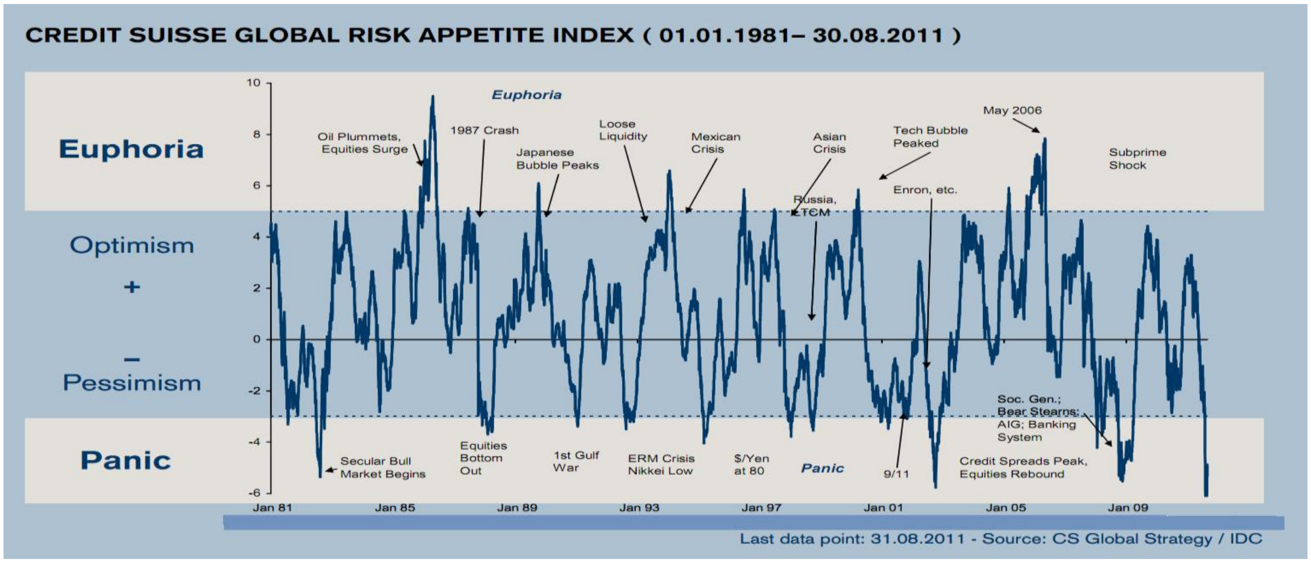
Parameter	Degree of risk in investment
Countries with high risk exposure to Euro debt crisis	High
Countries with better stable growth rates	Low
Countries with less fiscal deficits	Low
Countries which have stable currencies during volatile durations	Low
Countries with low credit ratings	High
Countries with unstable governments	High

Figure 3

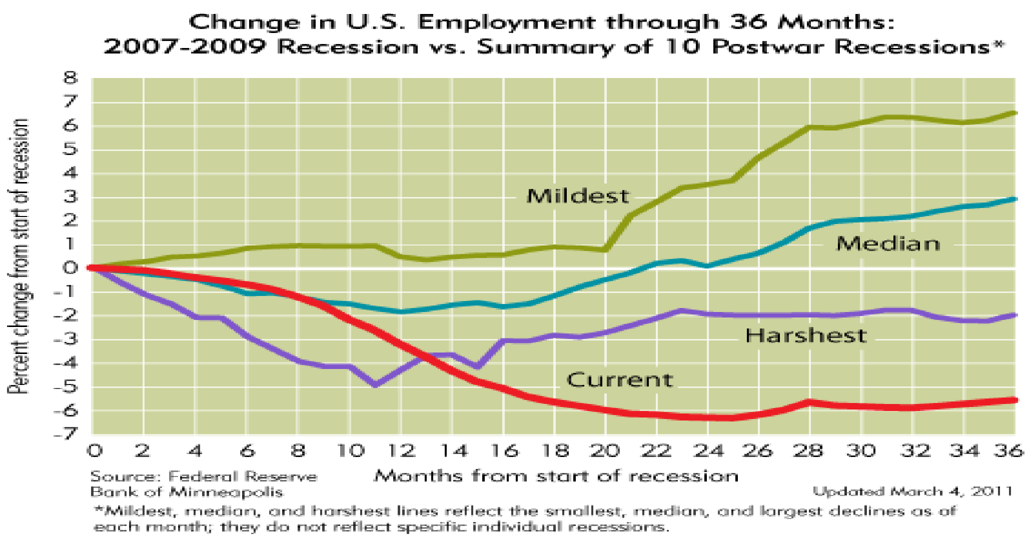
Charts below show the risk appetite globally.It is to to be noted that the QE3 annuoncements made by US fed in 3rd quarter may have helped stock markets to outperform but it is just reflection of the steps taken by government to boost the economy.



Source – UBS



Source – Credit Suisse



Economic indicators like high unemployment, low consumption level, high inflation, high probability of recession in European Union (**Figure 3**), and huge fiscal deficit combined with existing level of leverage in financial system and post effects of toxic financial instruments have made the situation even worse. It will take some time for these indicators to stabilize to safe levels; as any short term government policies may not be able to mitigate the risks inherent in economy. It is necessary to contemplate on any policy induced effects such that one policy does not affect any other policy adversely. The growth achieved during 2003-2007 should not be counted as real growth as it came with high costs and ended with a crisis. **Figure 4** shows the reduction in securitization market activity as it is considered an innovation in finance but was highly responsible for increased risk taking. Below charts from different sources, which are based on recession probabilities and securitization levels, are helpful to show the unhealthy conditions of global economy.

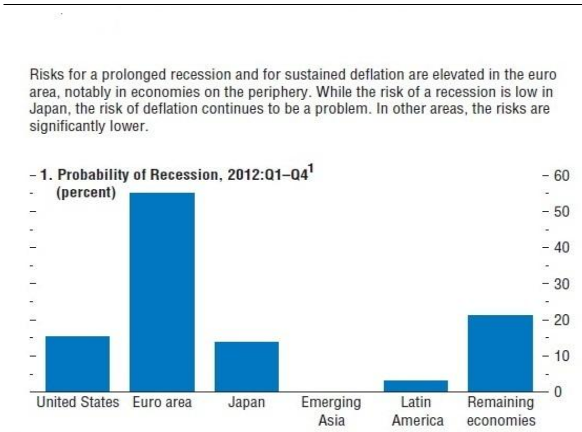


Figure 3

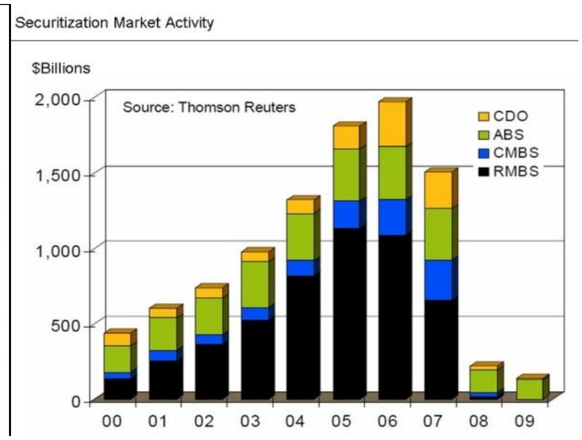


Figure 4

The post-crisis recession was officially ended in June 2009, but even after three years recovery is painfully slow. Even though the current condition of economy is not declared as recession,the low consumption, unemployment and recovery data shows that we are very near to a global recession. High risk aversion has forced us to evaluate the cost and benefits of risks which has some disadvantages too but certainly it is much better to grow sustainably for long term rather than growing fast and falling into a crisis followed by a recession.

Possible future scenarios

Based on current global economic scenario this paper attempts to make few implications which global financial system can face:

1. The risk appetite of investors may shift from overleveraged and risky developed economies to new emerging markets. As these new markets have a room for new assets and cash, this will help asset prices to go down and stimulate growth in other parts of the world. There has been an improvement in risk appetite after September 2012 due to fiscal stimulus announced by various governments including quantitative easing phase 3 released by US Federal Reserve.

2. Proactive measures taken by various governments and introduction of new reforms may seem to ease the investors and possibility is there that markets will be driven by increased speculation which may appear to be inconsistent with the unstable economic conditions.

3. Quantitative easing and fiscal stimulus around the global economy can exacerbate the inflation increasing the commodity prices and subsequently reducing the spending and creating cyclical recessionary situations.

4. Financial institutions are pressurized globally by new regulations and forced with higher capital standards. Banks are more risk averse and reducing exposure to complex financial products. Banks are backing their future security by formulating strategies to achieve safe leverage levels. But being more pushed for deleveraging and for more regulations, this may force banks to stop certain operating businesses, which would cause a reduction in liquidity loss and less investments that may push the world again into a slowdown.

5. Almost half of the United States, Russia and Australia experienced drought conditions in 2012 summer and the production level of crops is lowest since 1995. US department of agriculture forecasts food inflation rate to go up from 2.5 to 3.5 % reducing the real income and burdening the world economy.

6. Increased pessimism of investors, growing concerns on US fiscal cliff**(Figure_5)**, china's slowdown and Euro zone's economic uncertainty are the few factors which will continue to threaten the world economy.

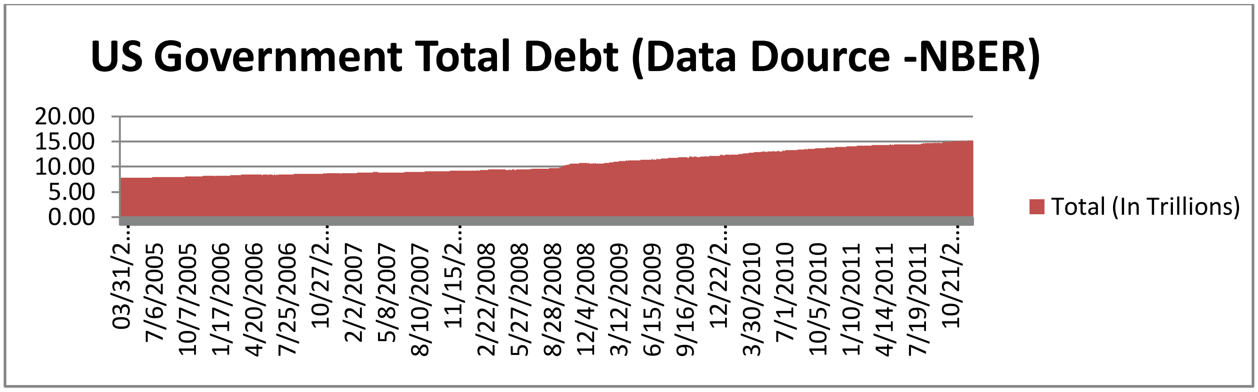


Figure 5 Source - NBER

Conclusion

The global economy today is better depicted by an inflection point on Cartesian coordinates as various governments are adopting growth policies to revive their countries from crisis. Central banks are making efforts to stabilize the economies and stock markets are correcting themselves over time. The risk aversion levels are significantly higher and it may take a long time to change this status quo where investments will be made in fields of microfinance, infrastructure and retail sector etc. The significant reduction in risk appetite of both domestic and international investors after the financial crisis has led to a structural shift in market. There also is the interesting question of whether the global economy will ever be able to achieve its earlier growth trajectory or will there be a permanent loss in production levels? This crisis has presented an opportunity to make real productive growth and to correct the imperfections in the economy. Countries should focus on reducing their debt and leverage levels. The incentives structure for risk taking should be modified which gave financial sector a monopoly in corporate America. The slowdown of US economy has calmed down the exploding real estate market. China which relied highly on exports hitherto, needs to increase domestic consumption. We achieved growth but with huge risk taking which were not permanent instead financial institutions in different countries should adopt the risk adjusted performance approach which will be more resilient to sudden fluctuations and will be sustained for a longer period.

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