GREAT ECONOMIC RECESSION: CAUSES AND CONSEQUENCES

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INTRODUCTION

September 15, 2008 – panic gripped the USA – Americans woke up on that Monday to know that Lehman Brothers, the leading global bank had collapsed due to bankruptcy – imposing losses of billions on the already shaken monetary system because of real estate market catering and credit crisis.

The 2008 financial crisis – precipitated in the summer of 2007 and heightened in September 2008 – rapidly mutated from the bursting of the subprime mortgage bubble in the US to the intense global recession. The problem started with the US but cast a dark cloud on the prominent economies of the world like the European Union and Japan. The old proverb again comes true – "when America sneezes, the world catches cold".

The crisis was mostly unpredicted and surprised many policymakers, economists, multilateral agencies and financiers who could not understand that the buoyant US economy will turn into "Great Recession". But indications were there – trading off in the credit use leading to crowding out of production financing, the imbalance between the financial sector's contributions to the real economy and debt balance[1], large current account deficits, loose fiscal policy, and regulation; all were warnings of the squall.[2]

However, this crisis has raised many questions to the policymakers, academicians, investors and market players. What circumstances have led to this crisis? What have been the consequences and policy responses? These are the questions that would be explored in this project.

1 Dirk Bezemer, *Why some economists could see the crisis coming*, Financial Times, September 8, 2009, available at https://www.ft.com/content/452dc484-9bdc-11de-b214-00144feabdc0 Retrieved on September 6, 2017.
2 Sher Verick and Iyanatul Islam, *The Great Recession of 2008-2009: Causes, Consequences and Policy Responses*, IZA Discussion Paper No. 4934, May, 2010.

BACKGROUND OF THE CRISIS

The financial crisis of 2008 was not the first, in fact, there were several other financial crises that had taken place time and again but those were forgotten during the prosperous years of the early 2000s.

During the progression of the global economy, several alarming external developments particularly growth slowdown in the industrial sector possessed the elements of dramatic twists.[3] The oil price shock of 1979, the continued deceleration of global growth in the 1980s as well as in 1990s and almost zero effective real per capita growth of the developing nations from 1990 to 1998 were labelled as 'lost decades' by some authors.[4] The biggest hit was the south Saharan African countries. Several structural adjustment programmes (SAPs) failed to accelerate growth.

On the contrary, many economists considered that the economic boom was the result of improved monetary policy and structural changes leading to reduced inflation volatility and output volatility.[5] The then Federal Reserve Governor termed it as 'Great Moderation'.[6] But the 2008 financial crisis has challenged these impressions.

In fact, no attention was given towards the several crises experienced in the period from 1970 to 2008 like 124 systemic banking disasters, 208 currency troubles, several debt crises, twin crises, triple crises, regular periodic economic downfall at an average of less than ten-year period, oil price shocks in 1970s and food price shock in 2007.[7]

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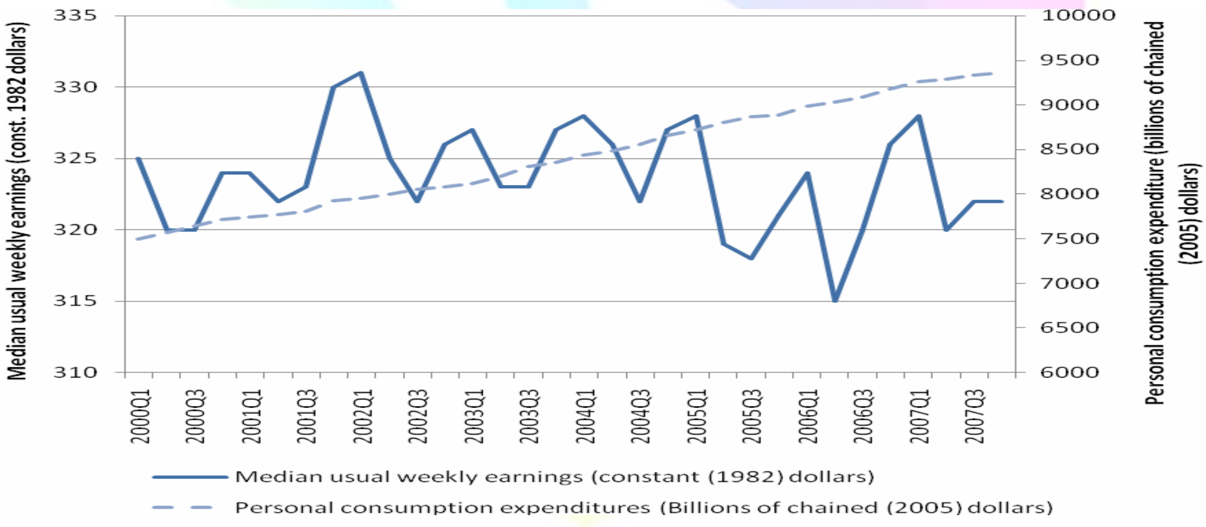
3 W Easterly, *The Lost decades: Explaining Developing countries stagnation in spite of policy reform1980-1998*, Journal of Economic growth 6(2), pp. 135-157, (2001).
4 Fumio Hayashi and Edward C. Prescott, *The 1990s in Japan: A Lost Decade*, August 2003, available at http://fhayashi.fc2web.com/Prescott1/Postscript_2003/hayashi-prescott.pdf. Retrieved on September 6, 2017; Larry Elliott, *The Lost Decade*, The Guardian, July 9, 2003, available at https://www.theguardian.com/world/2003/jul/09/population.aids. Retrieved on September 6, 2017.
5 B S Bernanke, *Remarks by Governor Ben S Bernanke: the Great Moderation*, Speech made at the meetings of the Eastern Economic Association, Washington D.C., February 20, 2004, available at https://www.federalreserve.gov/boarddocs/speeches/2004/20040220/, Retrieved on September 7, 2017; G Baker, *Welcome to the Great Moderation*, The Times, January 19, 2007, available at http://www.timesonline.co.uk/tol/comment/columnists/article1294376.ece. Retrieved on September 7, 2017.
6 *Ibid.*
7 L Laeven and F Valencia, *Systemic Banking Crises: a new database*, IMF Working Paper, No.224, November, 2008; International Monetary Fund, *Initial Lessons of the Crisis*, Paper produced by the Strategy, Policy and the Review Department, February 6, 2009; R Pollin, *Tools for a new economy: Proposals for a financial regulatory System*, Boston Review, January/February, (2009).

After bursting of the dotcom bubble in 2001 there was a mild recession followed by an untenable boom in the period 2002 – 2007. The outpouring of private capital, export income and remittances lead to flooding of external finance which caused a surge in credit flows. Such growth conditions precipitated over optimism and risk underrating.[8] The policymakers, investors, multilateral agencies were complacent with the situation when the actual crisis literally began to foment.

Moreover, influenced by the euphoria of the global boom less attention was also paid towards the strain and pain that distressed the labour markets globally despite high growth. A significant increase in number of jobs but slow real wage growth, increased casualization of the labour force, instability and rising inequality were evident in different parts of the world.[9] In fact, the positive growth period could not be translated into increase in household income. Stagnant real wages in developing countries caused unmanageable level of poverty but in the US, banks loaned the money to spend which provoked increased consumption (Figure – 1).

Figure – 1: Consumption growth in the US despite sluggish real wages in the period of 'Great Moderation'.



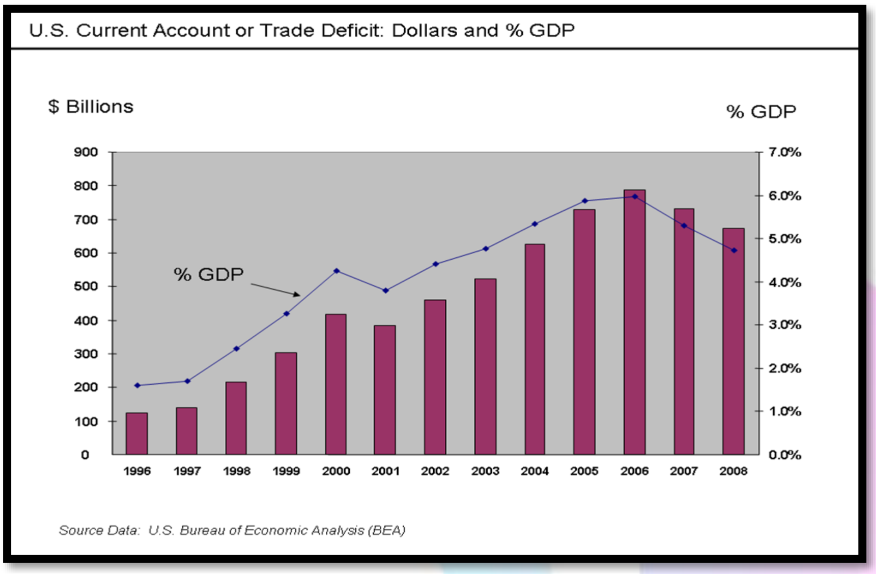
Source: Bureau of Labour Statistics, www.bls.gov., and Bureau of Economic Administration, www.bea.gov.

8 J Y Lin, *The impact of Financial Crisis on Developing Economies.* Paper presented at Korea Development Institute on October 31, 2008. http://siteresources.worldbank.org/ROMANIAEXTN/Resources/Oct_31_JustinLin_KDI_remarks.pdf Retrieved on September 6, 2017.

9 International Labour Organisation (ILO), *Global Wage Report, 2008/9*, Geneva: ILO, 2009; ILO, *The Global Wage report Update2009*,ILO, Geneva, 2009; A Ghose, N Majid and C Ernst, *The Global Employment Challenge*, ILO, Geneva, 2008.

This high consumption growth further worsened the US current account deficit from 3.9% of GDP in 2001 to 6% of GDP in 2006 (Figure – 2).

Figure – 2



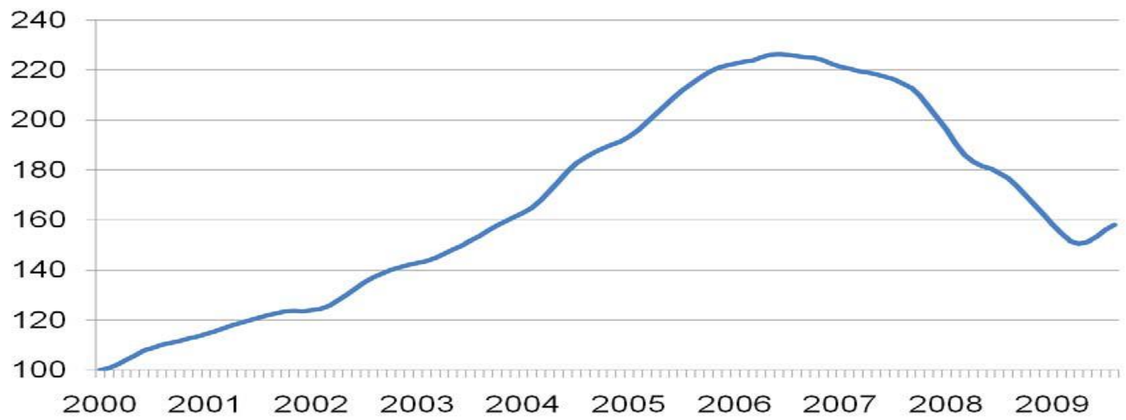
CAUSES OF THE CRISIS

The historical background leading to the 2008 financial crisis demonstrates that the world economy was hardly as steady as proposed by many leading authorities. The crisis first swallowed the banks and financial institutions and then virtually the global economy as a whole. The high upsurge in the real estate and low interest rates, increase in private debt, increasing current account deficit, cheap credit and global imbalances, sub-prime lending and hike in interest rates, securitization, overleveraging, improper financial regulation, shadow banking and inappropriate functions of the credit rating agencies reversed the general approach of people from risk loving to risk loathing.

a) High upsurge in the real estate and low interest rates

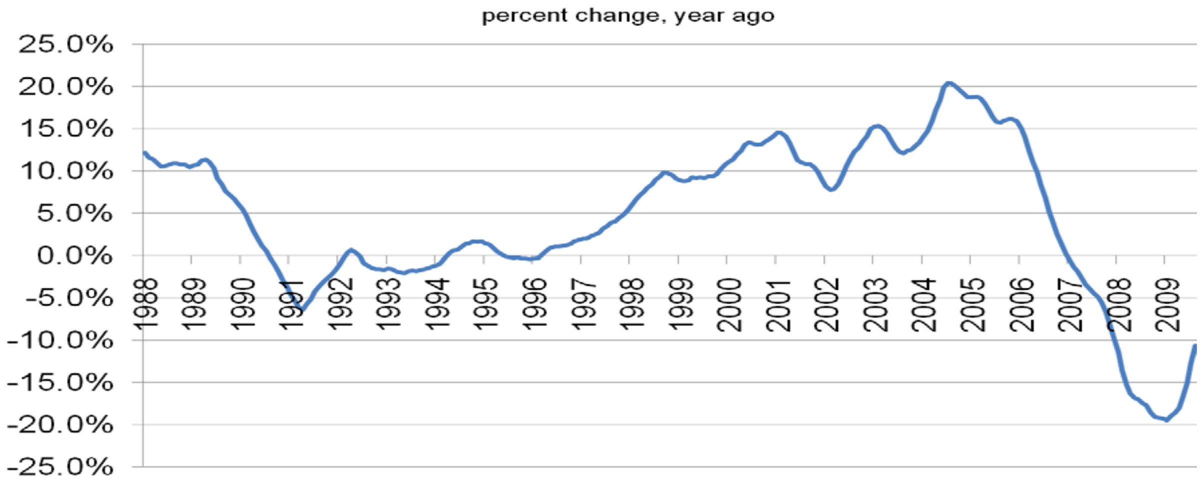
The immediate cause behind the crisis was the upsurge in the real estate price in the US as well as other countries like UK, Iceland, Spain, Ireland and other markets those eventually bumped into problems. In fact, in a survey conducted by the 'Economist' in 2005, it was observed that the financial worth of the real estate business in developed economics had increased by more than 133% in five years which was corresponding to 100% of the total GDP of those developed countries.[10] 'The Economist' cautioned that "it looks like the biggest bubble in the history".[11] The Figure 3 and Figure 4 depict the S&P Corelogic Case-Shiller 10-City Composite Home Price NSA Index from 1990 and the year to year variation in the index respectively. The graphs showed the striking acceleration in the real estate prices from early 2000s followed by rapid fall since July, 2006.

Figure 3: The Case-Shiller 10 Cities Composite Index



Source: https://us.spindices.com/indices/real-estate/sp-corelogic-case-shiller-10-city-composite-home-price-nsa-index

Figure 4: Changes in the Case-Shiller 10-City Composite Index (Year-on-Year)



Source: https://us.spindices.com/indices/real-estate/sp-corelogic-case-shiller-10-city-composite-home-price-nsa-index

10 *In Come the waves*, The Economist, June 16, 2005, available at www.economist.com/node/4079027 Retrieved on September 7, 2017.
11 *Ibid.*

The question definitely arises why this sudden upsurge in price? The most important is the US policy after the bursting of the dotcom bubble and the terrorist attack in 2001. To avoid the mild recession the interest rate was reduced to very low level and it was just one per-cent in 2003 (Figure – 5). According to Taylor the rate was unexpectedly low.[12] At the same time as shown in Figure – 3, the real estate prices were increasing at a rapid pace of more than eight per-cents during that period. The situation instigated borrowing for purchasing of houses. Moreover, other benefits like tax advantages, pro-poor policies, credit default swaps (CDS) of 2000 etc. provoked large demands followed by increase in price. The condition was such that even after staring of subsequent increase in interest rate from 2004 borrowing continued till 2006 as it was profitable (Figure – 4). Hence, the US economic policy of low rate of interest was an important factor that brought about increased housing price. Similar was the case for Ireland and Spain where loose economic policy resulted in the asset price bubbles. Apart from the low interest rates another factor that contributed for price growth was global imbalances.

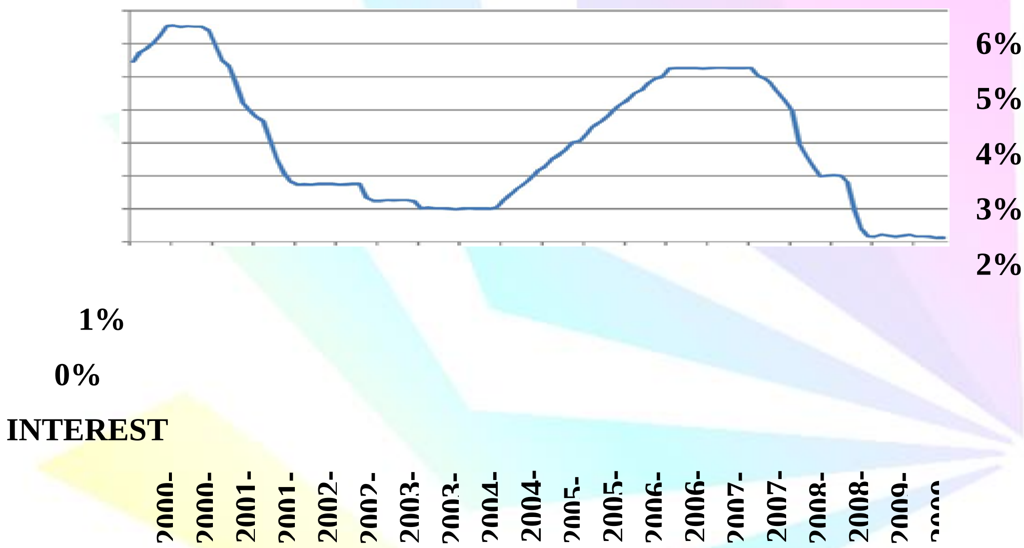


Figure 5: US Federal Funds Effective Interest rates following dotcom bubble bursting (Monthly Federal funds effective interest rate is a weighted average of rates on brokered trades)

Source: http://www.federalreserve.gov/releases/h15/data.htm

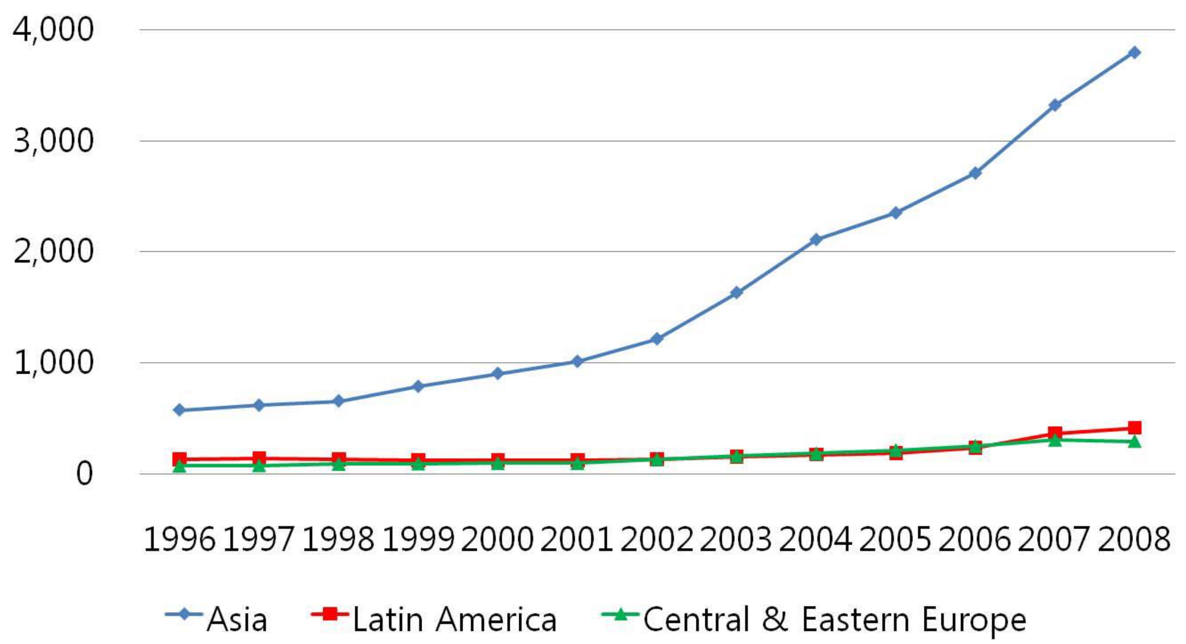
b) Global imbalances

It is a complex critical issue and before going into the deep, background of this issue needs to be highlighted. The Asian financial crisis of the 1990s compelled several rapidly growing

12 Taylor, J. (2008). "The Financial Crisis and the Policy Responses: An Empirical Analysis of What Went Wrong," working paper, Stanford University.

developing countries to make some meaningful revision in the macroeconomics. Before 1990s crisis began they were investing more than saving and the investment came from borrowing. They hoped that the present borrowing would support consumption through investment in infrastructure and they would be richer in future. The countries which were trapped in this crisis were South Korea, Thailand, and Indonesia. South Korea banks and firms borrowed a large amount of foreign currency and to overcome the crisis appealed to International Monetary Fund (IMF) to provide funds. IMF imposed several conditions on South Korea like increase of interest rates, reduction in government expense etc. But this was not the case for the US as IMF is mostly dominated by the US and EU and South Korea was forced to digest such harsh policies of the IMF in spite of their elementally sound economy. However, this was blessings in disguise for South Korea. It was understood that they must have to be economically self-sufficient and in order to attain this they piled up trillions of dollars as foreign reserve. Such accumulation of foreign reserve by the Asian countries like China, Hong Kong, Japan, Singapore, South Korea and Taiwan is evident from the Figure – 6 (Asia in the Figure – 6 comprises of these six countries). Antithetically, reserves of Latin America, Central, and Eastern Europe did not improve.

Figure 6: Comparison of Foreign Exchange Reserves in Different Regions



Source: IMF Data.

The case of China, the largest accumulator of the dollar, was manifold: firstly, China though not affected by the Asian crisis figured out that seeking help from IMF in future might be risky, secondly to prevent export damage, and thirdly for promoting alternate means of protection. Now how these reserves could be invested? One possibility was to invest in the equities of the foreign firms. But this blocked by America in several cases, one example was China's purchase initiative to buy Union Oil Company of California (Unocal) in 2005. So they invested in Treasury bonds, mortgage backed securities of Fannie Mae and Freddie Mac (Government Sponsored Enterprises – GSEs) and other debt securities. This abundant supply of debt was the cause for declining lending standards. Due to this fund flow, the mortgage rates were low despite tightened monetary policy in 2004.[13]

c) Sub-prime lending and hike in interest rates

The flow of fund due to global imbalance, low-interest rates and declining of lending standards and the misconception that housing prices would never decrease lured many borrowers to avail mortgage loans to buy houses from 2002 to 2006. So many of them were 'sub-prime' borrowers i.e. having below average credit history, high debt to income ratio and lending to them posed abnormal credit risk. "The Economist' in 2007 reported that twenty per-cent of the new US mortgages up to 2006 were subprime.[14] Now partly because of apprehension of inflation Federal Reserve increased interest rate from 1.25% to 5.25% from May, 2004 to May, 2006 (Figure – 5). Higher interest rates turned the housing market into a soft market as borrowing was costlier and the situation worsened for the subprime borrowers. Federal Chairman Bernanke in October, 2007 stated that by August 2007 sixteen per-cents of the subprime borrowers with floating rate were defaulters.[15] Due to these defaulters, the housing price further lowered.

d) Securitization and improper financial regulation

During this financial turmoil the financial innovation emerged was new type of securitization.[16] It is just like drawing of lots of financial instruments e.g. mortgages to make them a lump, slicing them and then converting them into different shapes and sizes to make them acceptable for different kinds of investors. The converted securities are having several acronyms like

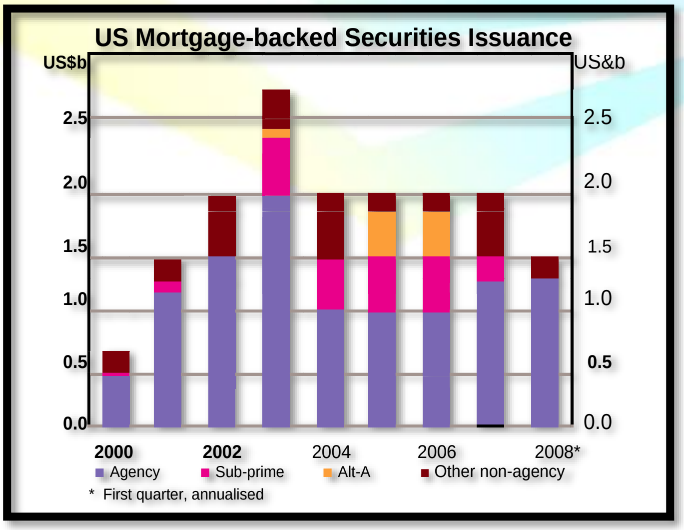
13 Baily, M.N., Litan, R.E., and M.S. Johnson (2008). *The origins of the financial crisis*, Initiative on Business and Public Policy at Brookings, Fixing Financial Series, Paper 3, November 2008.
14 *CSI: Credit Crunch*, The Economist, October 18, 2007, available at www.economist.com/node/9972489 Retrieved on September 8, 2017.
15 Ben S Bernanke, *The Recent financial Turmoil and its Economic and Policy Consequences*, Speech at the Economic Club of New York, October 15, 2007, available at https://www.federalreserve.gov/newsevents/speech/bernanke20071015a.htm Retrieved on September 8, 2017.
16 N Roubini and S Mihm, *Crisis Economics*, New York, Penguin, pp.353.

Collateralized Debt Obligations (CDOs), mortgage backed securities, asset backed securities etc.

In fact, as the interest rates moved upward in 2005-06 the mortgage lenders then gambled for the high-risk segment not insured by GSEs. They were sub-prime segments, Alt-A and other sub-standard loans with softer lending provisions (Figure – 7). The lending pattern eased further with the advent of the housing boom and the sub-prime segment allowed adjustable rate mortgages (ARMs) with high loan-value ratio, low-document, (Fig – 8) and increase in leverage (Figure – 9). However, foreclosure rates of the ARMs began to fly high since middle of 2006 (Figure – 10).

The mortgage lenders sold the mortgage to third-parties which then turned into mortgage backed securities (MBS) where in many cases GSEs were the MBS issuers. The lenders then sold these repackaged products to others to wipe of their liabilities. With the growth of sub-prime and Alt-A loans, securitization of assets increased rapidly. Many private financial institutions purchased different MBS and issued co-lateral debt obligations (CDOs); merged them with other securities, re-securitized them, converted some of them into 'AAA' securities. Thus, credit default swaps (CDS) were grown which were purchased by the CDO issuers. The mortgages were thus traded in the open market across the border beyond the capacity of the regulatory bodies.

Figure 7: US Mortgage backed Securities Issuance[17]



17 Luci Ellis, *Emerging from the Global Storm:* Growth and Climate Change Policies in Autralia Conference, Victoria University, Melborne, April 15, 2009.

Figure 8: The lending style softened further with high loan-value ratio, repayment to income and low-doc

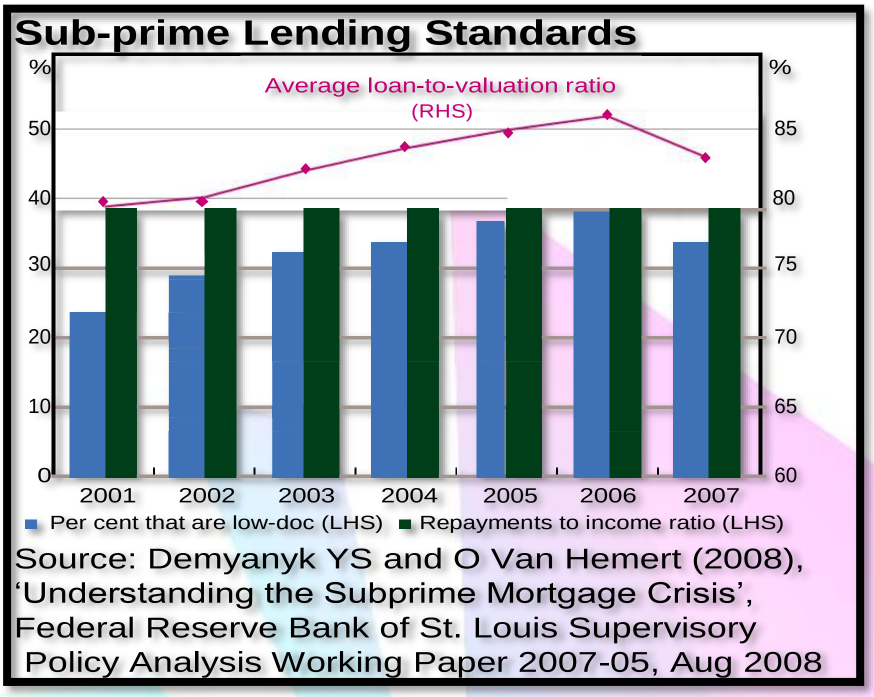
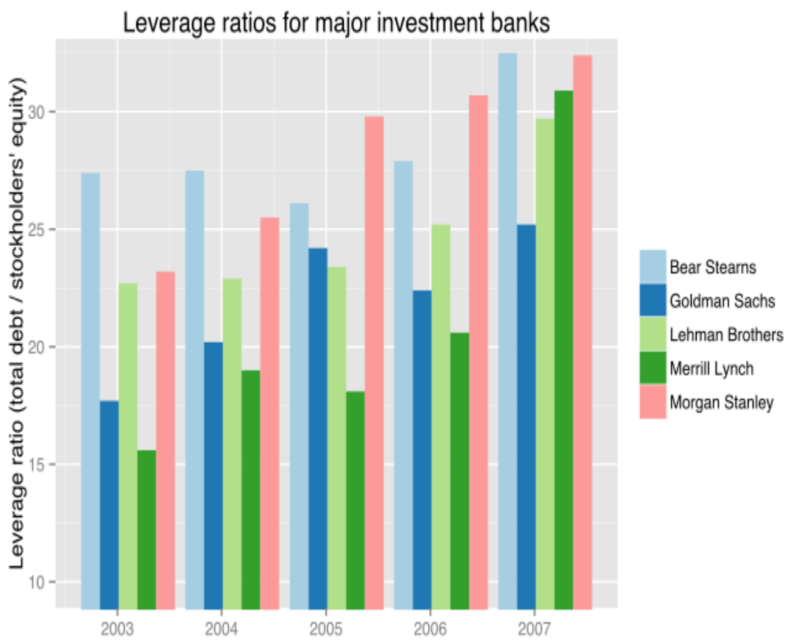


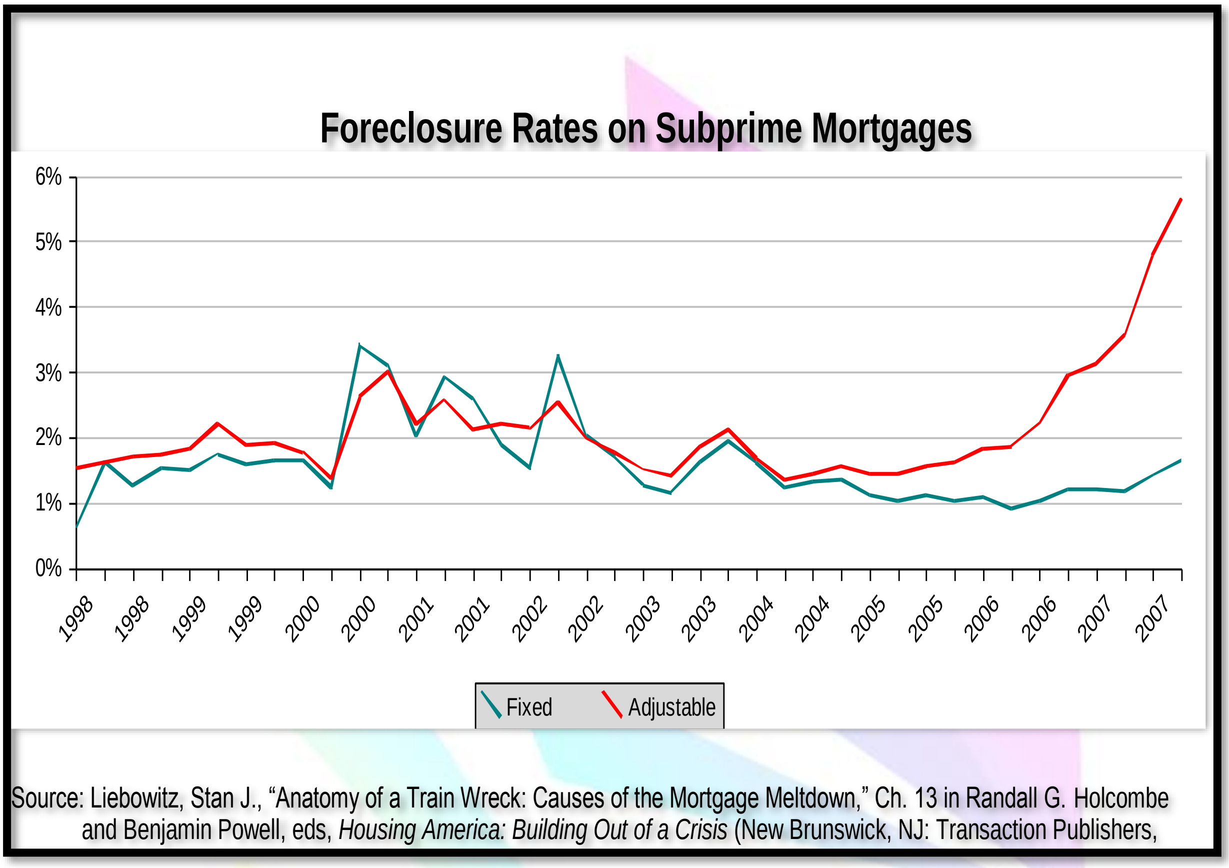
Figure 9: Overleveraging by the investment banks between 2003 and 2007.



Source:

https://commons.wikimedia.org/wiki/File:Leverage_ratios_for_major_investment_banks.svg

Fig 10: Subprime Foreclosure Rate



Many drawbacks were pinpointed in this area such as capital requirement during issuance of CDOs, the reliability of the credit-ratings of the private rating agencies, the debatable method of regulating the credit rating agencies, design of remuneration package and the derring-do benefits constituted by the rating agencies (Table – 1). However, securitisation could not shield bankers from the fear of aggregate risks and they charged higher interest rates from the fellow bankers. They preferred to invest in 'T-bills' rather than investing in other banks. This developed liquidity crisis.

Table – 1

US Subprime meltdown – steps towards financial crisis vis-à-vis associated risks

	STEPS	RISKS
1.	Households borrowing from the brokers/lending house	➢ Inadequate information – credit integrity of the borrower not known ➢ Sub-standard lending which further ran down in 2004 & 2005 with 'NINJA' (no income, no job, no asset verification) mortgage ➢ In some US States provisions for the mortgage to walkaway
2.	The lending house then sells the mortgage to other financial house	➢ Risk was disposed of – a kind of ornery inspiration
3.	Financial house issues mortgage-backed securities (MBS)	➢ MBS issuers like GSEs then shifted loans to Structured Investment Vehicles (SIVs), off-balance sheet SPVs to bypass necessity of capital through greater leverage. If troubles cropped up and securities downgraded, the SIVs had to be returned to the balance sheet ➢ Securities are classified into senior, junior, and non-investment tranches. But proper tranching is a critical issue ➢ Securitization progressed speedily with the surge of sub-prime and Alt-A loans.
4.	Collateral debt obligations (CDOs) are issued by private financial institutions	➢ Private financial institutions purchased different MBS and issued co-lateral debt obligations (CDOs); merged them with other securities like credit card, students' loan, business loans etc., re-securitised them, converted some of them into 'AAA' securities.

5.	**Credit default swaps (CDS) grow**	➢ **CDS were purchased by the CDO issuers. The mortgages were thus traded in the open market across the border beyond the capacity of the regulatory bodies.**

e) Shadow banking

The US model of 'originate-to-distribute' for risk distribution failed to assess the perfect valuation of assets as the crisis began. This absence of clear conception changed the liquidity disaster into a solvency disaster. In fact, the countries where non-banks or pseudo banks acted as a vital force in financial intermediation suffered much during turmoil. As these types of banks did not customarily come under the financial security filters so the risk was much more from them. In fact, due to pressure from these shadow-banking systems the traditional banks were much more pressurised to compromise with their guarantee standards and disburse more unsecured loans.

These types of financial institutions were risky as irregular practices like maturity imbalance, short-term borrowing for purchasing of long-term securities, purchase of unsafe and low liquidity assets were their usual practices. President of the New York Federal Reserve Bank in June, 2008 had rightly stated that –

> *"In early 2007, asset-backed commercial paper conduits, in structured investment vehicles, in auction-rate preferred securities, tender option bonds and variable rate demand notes, had a combined asset size of roughly $2.2 trillion. Assets financed overnight in triparty repo grew to $2.5 trillion. Assets held in hedge funds grew to roughly $1.8 trillion. The combined balance sheets of the then five major investment banks totalled $4 trillion. In comparison, the total assets of the top five bank holding companies in the United States at that point were just over $6 trillion, and total assets of the entire banking system were about $10 trillion. The combined effect of these factors was a financial system vulnerable to self-reinforcing asset price and credit cycles."*[18]

18 *Geithner-Speech Reducing Systemic Risk in a Dynamic Financial System*, available at http://www.newyorkfed.org/newsevents/speeches/2008/tfg080609.html Newyorkfed.org. June 9, 2008. Retrieved on September 8, 2017.

Nobel laureate Paul Krugman in 2009 described this shadow banking system as the core of all crisis problems. He advised to strictly regulate these parallel banking activities.[19]

During 2008, these banking systems were almost closed down but this resulted inaccessibility to private credit markets as fund-source, at least by thirty per-cent.

f) Inappropriate functions of the credit rating agencies (CRAs)

One of the most important factors behind the subprime crisis was improper functions of the CRA. European Central Bank (ECB) in 2009 recommended that regulatory structure for CRA should be revamped thoroughly.[20] As most of the final investors did not have the adequate analytical and technical skills to assess the CDO structures they completely depended on the CRAs. CRAs used similar rating grades (AAA to C or Aaa to C) for all including structured products ignoring their complexity. In many cases AAA rated structured products were found to be useless and risky. In fact, about 56% of the ratings were consequently downgraded during 2008 (Table – 2).

Rating of the structured products was actually the "golden goose" of the rating agencies. CRA earned huge profits by grading these complex products in comparison to their usual business of dealing with corporate bonds. To overcome the danger of losing out of the business the CRAs compromised with the pressure from the investment banks and in turn they have received profitable returns for getting favourable ratings.[21]

Table – 2

Percentage of Securities downgraded during 2008 by S&P[22]

Rating	Total	Downgraded	% Downgrade
AAA	1032	156	15.1
AA (+/-)	3495	1330	38.1
A(+/-)	1983	1886	63.2
BBB(+/-)	2954	2248	76.1
BB(+/-)	789	683	86.6
B(+/-)	8	7	87.5
TOTAL	11261	6310	56.0

19 Paul Krugman, *The Return of Depression Economics and the Crisis of 2008.* W.W. Norton Company Limited. ISBN 978-0-393-07101-6, (2009).

20 European Central Bank (2009). Credit Rating Agencies, Development and Policy Issues ECB Monthly Bulletin.

21 M K Brunnermeier, *Deciphering the Liquidity and Credit Crunch* 2007, NBER 1050 Massachusetts Avenue Cambridge, MA 02138 (2008).

22 R K Mittal, *Role of the Credit Rating Agencies in the Financial Market Crisis,* Journal of Development and Agricultural Economics, August 2010.

In general, three CRAs namely S&P, Moddy's and Fitch dominated the show and the Credit Rating Agency Reform Act, 2006 was passed to break this monopoly but with no remarkable breakthrough as the criteria fixed for getting recognition of nationalised credit rating agency prevented others to compete.[23]

CONSEQUENCES OF THE CRISIS

It is well recognised that economies move predominantly on confidence. But this crisis had broken the backbone of that confidence. The individuals and firms being not any more getting confidence pull out from investing; the financial institutions including banks not having enough confidence pull out from lending. The plans and proposals those were very lucrative during boom found to be risky, useless and bogus all on a sudden. Consequently, the crisis brought about degradation of several macroeconomic indicators. However, the 2008 crisis triggered from the subprime mortgage, easy credit and several other financial catastrophes resulted in devastation in the financial market, decrease in GDP, higher unemployment, increased poverty, and contraction in industrial output.

a) Devastation in the financial market

By 2007, insecurity gripped everywhere in the financial markets. Under the alarming situation of the defaults of the mortgage payment failure continuously moving upwards forced the banks to write off many loans. This created credit crunch. Generally, banks had become evasive to disburse loans and it was a hard time even for a person with good credit history to get the loans approved. It was reported that only ten per-cent of the home loan applications got approval and fifty per-cent of the small business loan applications were rejected.[24] Lack of business loan means lack of expenditure in business leading to decrease in productivity and less demand for labour-force. The situation was alarming not only in the US but also in various other parts of the world. The UK bank Northern Rock borrowed huge sum to finance mortgage credit with the intention to resell those mortgages in the capital market. But with the advent of the crisis the investors avoided the market resulting liquidity crisis. Having no other way they approached Bank of England in September, 2007. This triggered anxiety and fear among the customers who started withdrawing their deposits at a rapid pace. Situation worsened in 2008

23 Greg Gordon, Industry wrote provision that undercuts credit-rating overhaul, McClatchy DC Bureau, August 7, 2013 available at http://www.mcclatchydc.com/news/nation-world/national/economy/article24751870.html#.Uidbt6ypeSo Retrieved on September 8, 2017.
24 Tim Bigany, *5 Consequences of the Mortgage crisis*, Investopedia, November 25, 2010, available at http://www.investopedia.com/financial-edge/1110/5-consequences-of-the-mortgage-crisis.aspx Retrieved on September 9, 2017.

and Northern Rock was nationalised in February, 2008. In March 2008 Bear Sterns was acquired by JP Morgan as the former was shot by the mortgage lending.

But the biggest disaster was in September 2008 when Lehman Brothers was forced to file for bankruptcy. In fact, with the acquisition of Bear Sterns tension embraced the investors which resulted in lack of confidence and ultimately stock value of Lehman Brothers came down to twenty-three per-cent in the first week of September 2008. This was just a beginning. Moody's warned to downgrade credit ratings; Lehman unsuccessfully attempted its takeover by Bank of America and Barclays. Finally, on September 15, 2008 they filed for bankruptcy. Government took up steps to bail out Merrill Lynch, AIG, HBOS, Royal Bank of Scotland, Bradford & Bingley, Fortis, Hypo Real Estate, and Alliance & Leicester. The banking system in Iceland and Ireland collapsed. Freddie Mac and Fannie Mae were taken up by the US government on September 7, 2008.

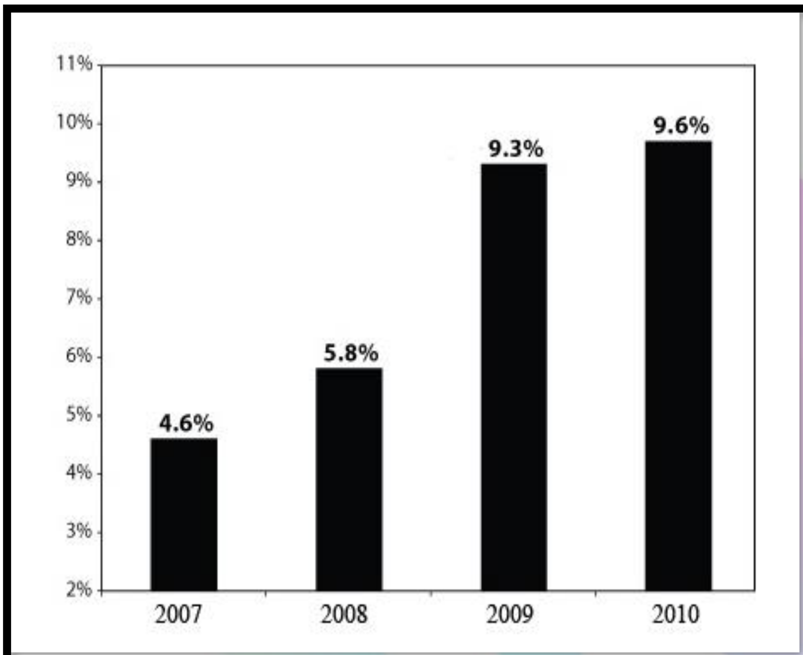
Subsequently, the government as well as the central banks all over the world involved in full swing to rescue. A rescue package of eighty billion was provided to AIG, an insurance company by the US government to inhibit bankruptcy. In October, 2008 US Treasury projected Seven hundred billion bail-out plans. UK reduced VAT, cut interest rates to encourage consumers. UK nationalised RBS and Lloyds TSB. In the G20 summit in London in April 2009 decision was taken to put in approximately six hundred eighty-one billion Pound into the world economy. Financial Stability Board was formed in April, 2009 to administer early warnings and to assess and advise policymakers and regulators about the susceptibility of the global financial system. In UK Financial Policy Committee (FPC) was formed on April 1, 2013 as per Financial Services Act, 2012 to identify systemic risks and to direct and guide Prudential Regulation Authority (PRA) and Financial Conduct Authority (FCA) to take steps to reduce the risk. Concurrently, in US Dodd-Frank Act was passed in 2010 to reduce risks in the financial systems.

b) Decrease in GDP, higher unemployment and increased poverty

Real GDP of US slowed in 2008 to 1.3% in comparison to 2.0% in 2007. This was mainly due to sluggish consumer expenditure which increased by only 0.3% in 2008 as against 2.8% in 2007. Furthermore, the non-residential fixed investment also slowed down from 4.9% increase in 2007 to 1.8% in 2008. Residential investment showed negative growth of -0.93% throughout

2008.[25] As per Okun's Law there is a direct relationship between economic growth reflected by GDP and employment rates. Unemployment in US increased from 7 million in 2007 to 16 million in 2010. Average annual US unemployment from 2007 to 2010 is shown in figure – 11.

Figure 11: Average annual unemployment rate



Average Annual Unemployment Rate, 2007 – 2010
Source: Bureau of Labour Statistics

In an IMF study it was observed that during recession in the US every 2% decrease in GDP caused 1% increase in unemployment.[26] Between late 2007 to mid-2009 about 8.7 million jobs vanished; out of which 3.2 million were concerned with manufacturing, retail trade and professional services – all were consumer related. Table – 3 shows the employment related to each GDP component during 2007 to 2010.

25 *GDP and the Economy: Advance Estimates for Fourth Quarter 2008,* Survey of Current Business, February, 2009, available at https://www.bea.gov/scb/pdf/2009/02%20February/0209_gdpecon.pdfhttps://www.bea.gov/scb/pdf/2009/02%20February/0209_gdpecon.pdf Retrieved on September 9, 2017.

26 International Monetary Fund, *Unemployment dynamics during recessions and recoveries: Okun's Law and beyond,* Chapter 3 in IMF (2010). World Economic Outlook Rebalancing Growth, April 2010. IMF, Washington, D.C (2010).

Table – 3

Employment related to each gross domestic product component, 2007–2010[27]

Gross domestic product component	Employment in thousands				Change	Per-cent change
	2007	2008	2009	2010	2007-2010	2007–2010
Total non-agricultural wage and salary employment	138,351.3	137,600.2	131,608.4	130,535.5	-7,815.8	-5.6
Personal consumption expenditures	85,144.0	85,136.4	82,971.5	81,982.0	-3,162.0	-3.7
Gross private investment	16,999.4	15,512.8	12,203.0	12,218.2	-4,781.2	-28.1
Exports	9,215.8	9,531.0	8,434.9	8,808.5	-407.3	-4.4
Federal government	5,252.2	5,562.4	5,940.8	6,090.6	838.5	16.0
State and local government	21,739.9	21,857.5	22,058.1	21,436.2	-303.7	-1.4

In OCED countries unemployment was also soared from 5.7% to 8.6% in the third quarters of 2007 and 2009 respectively. ILO in January 2010 reported that about 34 million more people became unemployed globally in 2009 as against 2007.[28] The most affected OCED countries which showed highest increase in unemployment were Estonia, Spain, Ireland, Us and Turkey. These job losses, lack of credit facility and foreclosure heightened the poverty rate. In a Brookings Institution estimate Washington D.C. became the home for one-third of the America's total poor.[29] The collapse in 2008 affected mostly the poor people as home was their main asset and even after when the capital market soared back due to US government policy,

27 Bureau of Labour Statistics, Consumer spending and U.S. employment from the 2007–2009 recession through 2022, October 2014, available at https://www.bls.gov/opub/mlr/2014/article/consumer-spending-and-us-employment-from-the-recession-through-2022.htm Retrieved on September 9, 2017.
28 International Labour Organization (ILO), *Global Employment Trends*, January 2010, ILO, Geneva. International Labour Organization (ILO) and the International Institute of Labour Studies (IILS) (2008). World of Work Report 2008. IILS, Geneva. (2010).
29 *See supra* note 24.

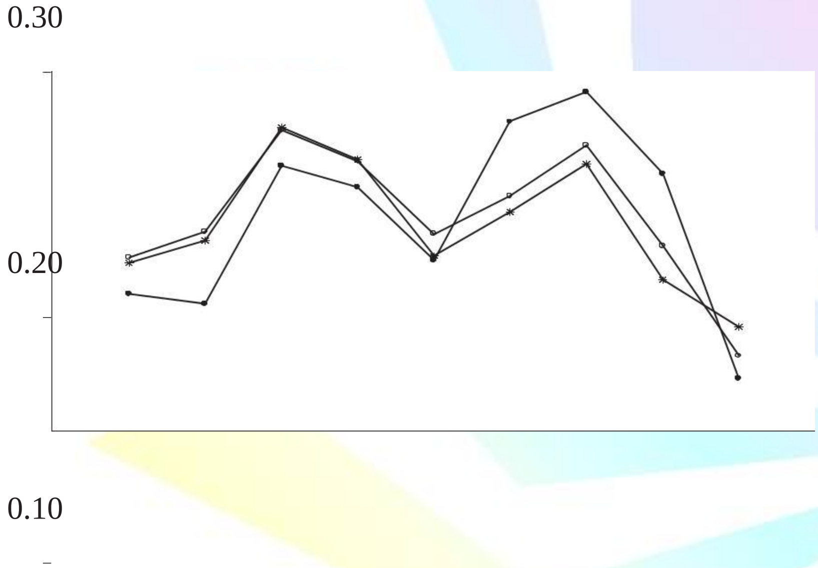
the fate of the poor people didn't change due to stagnation in real estate price. In fact, a Pew Research Centre analysis showed 93% poorer Americans lost their wealth by 4% where 7% rich households increased their wealth by 28% from 2009 to 2011.[30] Forty-four million (7:1) Americans were below poverty line by 2011. An IMF working paper in 2002[31] showed that 'poverty impacts' of a financial crisis are mainly due to unemployment, inflation, reduced expenditure and GDP contraction – all these factors remained present during 2008 crisis.

c) Contraction in industrial output

A recent study on 23 industries across 82 countries revealed that the global manufacturing production decelerated considerably from the last quarter of 2008.[32]

Figure 11: Growth for 23 Industries in Germany and the UK over the Period 2000–10[33]

Industry growth in Germany over 2001-2010



30 Andre Demon, Poverty, Unemployment, Enriching the Few: The 2008 Economic Crisis and the Restructuring of Class Relations in America, Global Research, June 4, 2013, available at http://www.globalresearch.ca/poverty-unemployment-enriching-the-few-the-2008-economic-crisis-and-the-restructuring-of-class-relations-in-america/5337520 Retrieved on September 9, 2017.

31 Baldacci, C. et al. (2002) *Financial Crisis, Poverty and Income Distribution,* IMF Working Paper, 02/04, Washington DC: IMF.

32 Tomoe Moore and Ali Mirzaei, The Impact of the Global Financial Crisis on Industry Growth, The Manchester School, 84(2), pp. 159-180, March 2016.

33 *Ibid.*

0.00

-0.10

-0.20

Fixed capital formation

Output

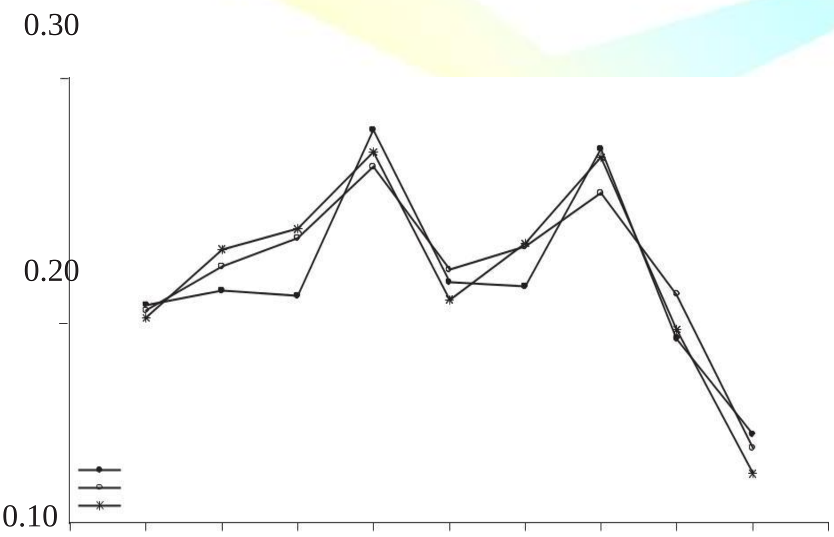
Value-added

-0.30

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 201 0

Year

Industry growth in the UK over 2001-2010



0.00

-0.10

-0.20

-0.30

Fixed capital formation

Output

Value-added

-0.40

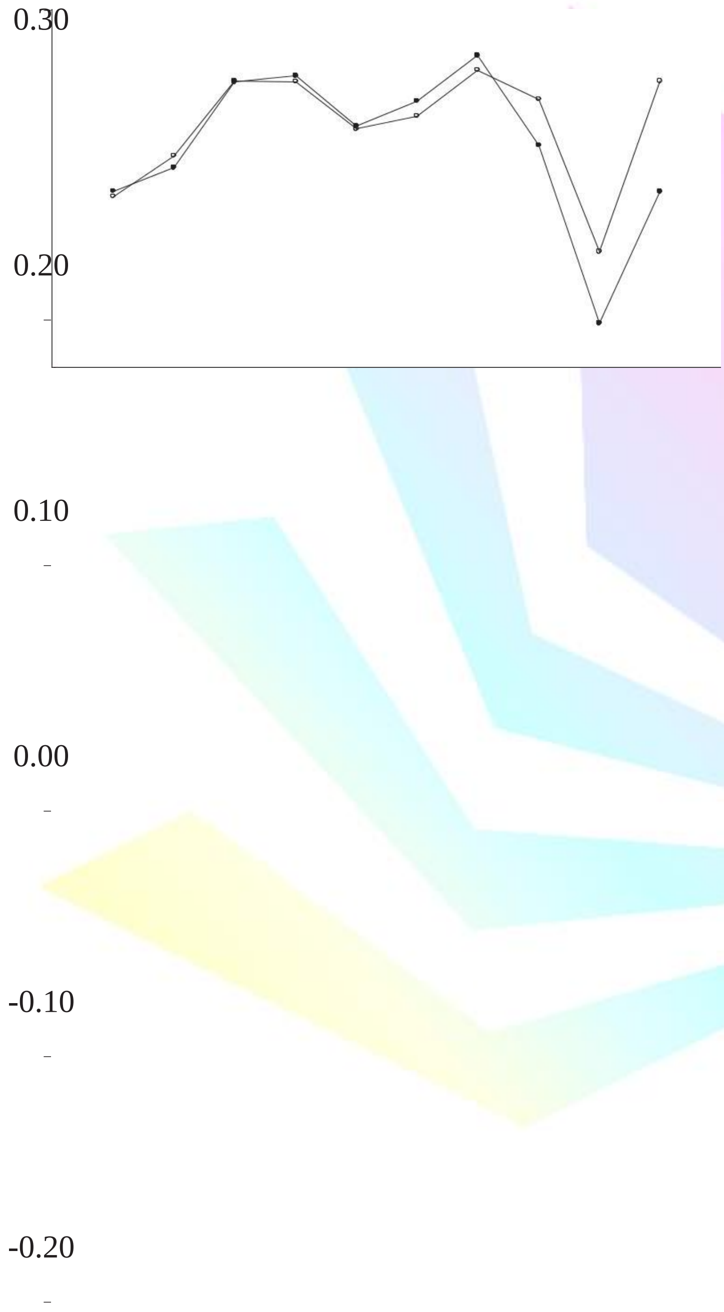
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

Year

A closer inspection by the researchers however revealed that after financial crisis the industrial growth was affected differently for those which were more dependent on external resources than those which were less dependent (figure – 12). The former group was affected more than the later. Nevertheless, before 2007 the effect was almost same for the both.

Figure 12: Industry Growth Indicators for Two Types of Industry[34]

Value-added growth in 82 countries over 2001-2010



34 *Ibid.*

Industries more dependent on external finance

Industries less dependent on external finance

-0.30

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011

Year

CONCLUSION

The global economy jumped into the period of 'great recession' from a period of 'great moderation'. Poor people lost their home, pensioners their savings, bankers bailed out by the government by the taxpayers' money – all due to poor economic policy of the government. It is true that investment banks, hedge funds, pseudo banks gambled with the borrowed money to make huge profits, it is true again that the complex financial innovation of new securitization proved havoc, it is also true that the greed of the people attracted them to go for huge loan at adjustable rate to invest in real estate even though they didn't have adequate capacity to repay them under adverse situation, it is further true that Credit Rating Agencies were incompetent or fraudulent and it is perfect that global imbalances played a vital role to provoke the crisis but above all it is the poor regulatory policy, loose monetary policy and lack of foresightedness of the policymakers which instigated all to do the wrong leading to breakdown of confidence and trust in the financial circle. The aftermath of these indecisions were factory closure, higher unemployment, low real wages, increased poverty, and devastation in the financial market.