

CAUSES, CONSEQUENCES AND LESSONS FROM THE GLOBAL FINANCIAL CRISIS

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This is one of the most tumultuous times on record in the global financial markets. The financial landscape is going through a period of upheaval with some major firms folding, other operations merging and a limited number of companies in both the Europe and the US, being rescued by governments.

Chapter I

Meaning and Types of Financial crisis

The financial crisis in the US, the worst since the Great Depression of 1929, is threatening to reach perilous proportions. The collapse of the big five financial giants on Wall Street — Fannie Mae, Freddie Mac, AIG, Lehman Brothers and Merrill Lynch — with revenues 2ankrupt nearly \$322 billion in 2007, followed by two of the largest banks — Washington Mutual (WaMu) and Wachovia — has sent shock waves through global financial markets.

The gravity of the financial crisis that has hit the US economy can be gauged from the fact that the cost of the rescue of these financial giants to the Federal Reserve and Treasury Department has been estimated at close to a trillion dollars (equivalent to India's national income).

According to some analysts, the total cost on this count could go up to \$2 trillion since the financial turmoil is not likely to end anytime soon. Most of these banks had created debts to the tune of 30-40 times their equity against the prudential norm of not exceeding ten times.

According to some estimates, the derivatives trade had grown five times between 2002 and 2007 to exceed \$500 trillion, thus making this 'shadow' economy almost ten times bigger than the real economy of the world.

Meaning of Financial crisis

The term financial crisis refers to a situation in which the supply of money is outpaced by the demand for money. This means that liquidity is quickly evaporated because available money is withdrawn from banks (called a run), forcing banks either to sell other investments to make up for the shortfall or to collapse

TYPES OF FINANCIAL CRISES

1. Banking crisis

When a commercial bank suffers a sudden rush of withdrawals by depositors, this is called a bank run. Since banks lend out most of the cash they receive in deposits, it is difficult for them to quickly pay back all deposits if these are suddenly demanded, so a run may leave the bank in bankruptcy, causing many depositors to lose their savings unless they are covered by deposit insurance. A situation in which bank runs are widespread is called a systemic banking crisis or just a banking panic. A situation without widespread bank runs, but in which banks are reluctant to lend, because they worry that they have insufficient funds available, is often called a credit crunch.

Examples of bank runs include the run on the Bank of the United States in 1931 and the run on Northern Rock in 2007. The collapse of Bear Stearns in 2008 is also sometimes called a bank run, even though Bear Stearns was an investment bank rather than a commercial bank. The U.S. savings and loan crisis of the 1980s led to a credit crunch which is seen as a major factor in the U.S. recession of 1990-1991.

The Bear Stearns Companies, Inc., based in New York City, was one of the largest global investment banks and securities trading and brokerage firms prior to its sale to JPMorgan Chase in 2008. The main business areas, based on 2006 net revenue distributions, were: capital markets (equities, fixed income, investment banking; just under 80%), wealth management (under 10%) and global clearing services (12%).

Beginning in 2007, the company was badly damaged by the subprime mortgage crisis. In March 2008, the Federal Reserve Bank of New York provided an emergency loan to try to avert a sudden collapse of the company. The company could not be saved, however, and was sold to JPMorgan Chase for as low as ten dollars per share, a price far below the 52-week high of \$133.20 per share, traded before the crisis, although not as low as the two dollars per share originally agreed upon by Bear Stearns and JP Morgan Chase

2. Speculative bubbles and crashes

A financial asset exhibits a bubble when its price exceeds the value of the future income (such as interest or dividends) that would be received by owning it to maturity. If most market participants

buy the asset primarily in hopes of selling it later at a higher price, instead of buying it for the income it will generate, this could be evidence that a bubble is present. If there is a bubble, there is also a risk of a crash in asset prices: market participants will go on buying only as long as they expect others to buy, and when many decide to sell the price will fall. However, it is difficult to tell in practice whether an asset's price actually equals its fundamental value, so it is hard to detect bubbles reliably.

Well-known examples of bubbles (or purported bubbles) and crashes in stock prices and other asset prices include, the Wall Street Crash of 1929, , the crash of the dot-com bubble in 2000-2001, and the now-deflating United States housing bubble

Tech bubble

In financial markets a stock market bubble is a self-perpetuating rise or boom in the share prices of stocks of a particular industry. The term may be used with certainty only in retrospect when share prices have since crashed. A bubble occurs when speculators note the fast increase in value and decide to buy in anticipation of further rises, rather than because the shares are undervalued. Typically many companies thus become grossly overvalued. When the bubble “bursts,” the share prices fall dramatically, and many companies go out of business.

1995 marked the beginning of a major jump in growth of Internet users, who were seen by companies as potential consumers. As a result, numerous Internet start-ups were birthed in the mid to late 1990s. These companies came to be referred to as “dot-coms,” after the .com in many web addresses.

Many of these companies engaged in unusual and daring business practices with the hopes of dominating the market. Most engaged in a policy of growth over profit, assuming that if they built up their customer base, their profits would rise as well. Many dot-coms

also expended a great deal of energy in market domination, attempting to corner the bulk of customers for a particular need.

Investors responded to daring business practices with money; lots of it. The American stock market rose dramatically during the dot-com bubble, with hundreds of companies being founded weekly. Many people associate lavish lifestyles with the dot-com bubble, since companies regularly sponsored exclusive events filled with fine food and entertainers. At conferences and events focusing on the tech industry, the combined entertainment costs were sometimes counted in hundreds of thousands of dollars.

Unfortunately for many companies and investors, the growth of the tech sector proved to be illusory. Numerous high profile court cases targeted tech companies for unscrupulous business practices including borderline monopolies, and the stock market began to tumble down in a serious correction. A decline in business spending combined with market correction to deal a serious financial blow to many dot-coms, and tech companies began to fold, one by one.

The issues of the dot-com bubble were also compounded by outside factors, like a rise in outsourcing which led to widespread unemployment among computer developers and programmers. The market also took a major downturn in the wake of terrorist attacks in the United States in 2001

In response, during 2001, the Federal Reserve began cutting rates dramatically, and the fed funds rate arrived at 1% in 2003, which in central banking parlance is essentially zero. The goal of a low federal funds rate is to expand the money supply and encourage borrowing, which should spur spending and investing

As lower interest rates worked their way into the economy, the real estate market began to work itself into a frenzy as the number of homes sold – and the prices they sold for – increased dramatically beginning in 2002 as the loans became cheaper.

3. International financial crises

When a country that maintains a fixed exchange rate is suddenly forced to devalue its currency because of a speculative attack, this is called a currency crisis or balance of payments crisis. When a country fails to pay back its sovereign debt, this is called a sovereign default. While devaluation and default could both be voluntary decisions of the government, they are often perceived to be the involuntary results of a change in investor sentiment that leads to a sudden stop in capital inflows or a sudden increase in capital flight.

Several currencies that formed part of the European Exchange Rate Mechanism suffered crises in 1992-93 and were forced to devalue or withdraw from the mechanism. Another round of currency crises took place in Asia in 1997-98. Many Latin American countries defaulted on their debt in the early 1980s. The 1998 Russian financial crisis resulted in a devaluation of the ruble and default on Russian government debt.

4. Wider economic crises

A downturn in economic growth lasting several quarters or more is usually called a recession. An especially prolonged recession may be called a depression, while a long period of slow but not necessarily negative growth is sometimes called economic stagnation. Since these phenomena affect much more than the financial system, they are not usually considered financial crises per se. But some economists have argued that many recessions have been caused in large part by financial crises. One important example is the Great Depression, which was preceded in many countries by

bank runs and stock market crashes. The sub prime mortgage crisis and the bursting of other real estate bubbles around the world is widely expected to lead to recession in the U.S. and a number of other countries in 2008.

A SHORT LIST OF SOME MAJOR FINANCIAL CRISES SINCE 1980

- 1980s: Latin American debt crisis, beginning in Mexico
- 1989-91: United States Savings & Loan crisis
- 1990s: Collapse of the Japanese asset price bubble
- 1992-3: Speculative attacks on currencies in the European Exchange Rate Mechanism
- 1994-5: 1994 economic crisis in Mexico: speculative attack and default on Mexican debt
- 1997-8: Asian Financial Crisis: devaluations and banking crises across Asia
- 1998: 1998 Russian financial crisis: devaluation of the ruble and default on Russian debt
- 2001-2: Argentine economic crisis (1999-2002): breakdown of banking system
- 2008: Global financial crisis and USA, Europe: spread of the U.S. subprime mortgage crisis

Chapter II

Key terms and explanations

a) Adjustable rate mortgage (ARM)

An adjustable rate mortgage (ARM) is a mortgage loan where the interest rate on the note is periodically adjusted based on a variety of indices. Among the most common indices are the rates on 1-year constant-maturity Treasury (CMT) securities, the Cost of Funds Index (COFI), and the London Interbank Offered Rate (LIBOR). Consequently, payments made by the borrower may change over time with the changing interest rate (alternatively, the term of the loan may change). They can be used where unpredictable interest rates make fixed rate loans difficult to obtain. The borrower benefits if the interest rate falls and loses out if interest rates rise

b) Asset-backed security

Asset-backed security is a type of debt security that is based on pools of assets, or collateralized by the cash flows from a specified pool of underlying assets. Assets are pooled to make otherwise minor and uneconomical investments worthwhile, while also reducing risk by diversifying the underlying assets. Securitization makes these assets available for investment to a broader set of investors. These asset pools can be made of any type of receivable from the common, like credit card payments, auto loans, and mortgages, to esoteric cash flows such as aircraft leases, royalty payments and movie revenues. Typically, the securitized assets might be highly illiquid and private in nature.

c) Bank run

A bank run (also known as a run on the bank) occurs when a large number of bank customers withdraw their deposits because they believe the bank is, or might become, insolvent

d) Banking panic

A banking panic or bank panic is a financial crisis that occurs when many banks suffer runs at the same time

e) Bubble

An economic bubble (sometimes referred to as a speculative bubble, a market bubble, a price bubble, a financial bubble, or a speculative mania) is “trade in high volumes at prices that are considerably at variance with intrinsic values

f) Collateralized debt obligations (CDOs)

Collateralized debt obligations (CDOs) are a type of asset backed security and structured credit product. CDOs are constructed from a portfolio of fixed-income assets. These assets are divided by the issuer into different tranches: senior tranches (rated AAA), mezzanine tranches (AA to BB),

and equity tranches (unrated). Losses are applied in reverse order of seniority and so junior tranches offer higher coupons (interest rates) to compensate for the added default risk.

A CDO is constructed as follows:

A special purpose entity (SPV) acquires a portfolio of credit. Common assets held include mortgage backed securities, Commercial Real Estate (CRE) debt, and high-yield corporate loans.

The SPV issues different classes of bonds and equity and the proceeds are used to purchase the portfolio of credits. The bonds and equity are entitled to the cash flows from the portfolio of credits, in accordance with the Priority of Payments set forth in the transaction documents. The senior notes are paid from the cash flows before the junior notes and equity notes. In this way, losses are first borne by the equity notes, next by the junior notes, and finally by the senior notes. In this way, the senior notes, junior notes, and equity notes offer distinctly different combinations of risk and return, while each reference the same portfolio of debt securities.

A CDO investor takes a position in an entity that has defined risk and reward, not directly in the underlying assets. Therefore, the investment is dependent on the quality of the metrics and assumptions used for defining the risk and reward of the tranches.

The issuer of the CDO, typically an investment bank, earns a commission at time of issue and earns management fees during the life of the CDO. An investment in a CDO is therefore an investment in the cash flows of the assets, and the promises and mathematical models of this intermediary, rather than a direct investment in the underlying collateral. This differentiates a CDO from a mortgage or a mortgage-backed security (MBS).

g) Credit default swap (CDS)

Credit default swap (CDS) is a swap contract in which the buyer of the CDS makes a series of payments to the seller and, in exchange, receives a payoff if a credit instrument (typically a bond or loan) goes into default or on the occurrence of a specified credit event (for example bankruptcy or

restructuring). Credit Default Swaps can be bought by any (relatively sophisticated) investor; it is not necessary for the buyer to own the underlying credit instrument.

As an example, imagine that an investor buys a CDS from ABC Bank, where the reference entity is XYZ Corp. The investor will make regular payments to ABC Bank, and if XYZ Corp defaults on its debt (i.e., it does not repay it), the investor will receive a one-off payment from ABC Bank and the CDS contract is terminated. If the investor actually owns XYZ Corp debt, the CDS can be thought of as hedging. But investors can also buy CDS contracts referencing XYZ Corp debt, without actually owning any XYZ Corp debt. This is done for speculative purposes, betting against the solvency of XYZ Corp in a gamble to make money if it fails.

If the reference entity (XYZ Corp) defaults, one of two things can happen:

Either the investor delivers a defaulted asset to ABC Bank for a payment of the par value. This is known as physical settlement. Or ABC Bank pays the investor the difference between the par value and the market price of a specified debt obligation (even if XYZ Corp defaults, there is usually some recovery; i.e., not all your money will be lost.) This is known as cash settlement.

The price, or spread, of a CDS is the annual amount the protection buyer must pay the protection seller over the length of the contract, expressed as a percentage of the notional amount. For example, if the CDS spread of XYZ Corp is 50 basis points, or 0.5% (1 basis point = 0.01%), then an investor buying \$10 million worth of protection from ABC Bank must pay the bank \$50,000 per year. These payments continue until either the CDS contract expires, or until XYZ Corp defaults.

All things being equal, a company with a higher CDS spread is considered more likely to default by the market, since a higher fee is being charged to protect against this happening.

Like most financial derivatives, credit default swaps can be used by investors for speculation, hedging and arbitrage.

h) Dot-com bubble

The dot-com bubble was a speculative bubble covering roughly 1995–2001 during which stock markets in Western Nations saw their value increase rapidly from growth in the new Internet Sector and related fields. The period was marked by the founding (and in many cases, spectacular failure) of a group of new Internet-based companies commonly referred to as Dot-Coms.

A combination of rapidly increasing stock prices, individual speculation in stocks, and widely available venture capital created an exuberant environment in which many of these businesses dismissed standard business models, focusing on increasing market share, at the expense of the bottom line. The bursting of the dot-com bubble marked the beginning of a relatively mild yet rather lengthy early 2000 recession in the developed world.

i) Foreclosure

Foreclosure is the equitable proceeding in which a bank or other secured creditor sells or repossesses a parcel of immovable property due to the owner's failure to comply with an agreement between the lender and borrower called a "mortgage".

j) Intrinsic Value

In finance, intrinsic value refers to the value of a security which is intrinsic to or contained in the security itself. It is also frequently called fundamental value. It is ordinarily calculated by summing the future income generated by the asset according to a criterion of present value.

k) Moral hazard

Moral hazard is the prospect that a party insulated from risk may behave differently from the way it would behave if it were fully exposed to the risk. Moral hazard arises because an individual or institution does not bear the full consequences of its actions, and therefore has a tendency to act less carefully than it otherwise would, leaving another party to bear some responsibility for the consequences of those actions.

In the ongoing financial crisis of 2008, there was a systematic transfer of risk from the originator to the investor and finally the insurer which created a moral hazard. Brokers, who were not lending their own money, pushed risk onto the lenders. Lenders, who sold mortgages soon after underwriting them, pushed risk onto investors. Investment banks bought mortgages and chopped up mortgage-backed securities into slices, some riskier than others. Investors bought securities and hedged against the risk of default and prepayment, pushing those risks further along. In a purely capitalist scenario, the last one holding the risk is the one who faces the potential losses. In the 2007–2008 sub prime crisis, however, national credit authorities – in the U.S., the Federal Reserve – assumed the ultimate risk on behalf of the citizenry at large. This led to concerns about the rise of corporate welfare, or economic fascism (corporatism), given the potentially large transfers of wealth to investors in mortgage-backed securities

l) Mortgage

A mortgage is the transfer of an interest in property (or in law the equivalent – a charge) to a lender as a security for a debt – usually a loan of money. While a mortgage in itself is not a debt, it is lender’s security for a debt. It is a transfer of an interest in land (or the equivalent), from the owner to the mortgage lender, on the condition that this interest will be returned to the owner of the real estate when the terms of the mortgage have been satisfied or performed. In other words, the mortgage is a security for the loan that the lender makes to the borrower.

m) Recession

In economics, the term recession generally describes the reduction of a country’s gross domestic product (GDP) for at least 2 quarters. The usual dictionary definition is “a period of reduced economic activity”, a business cycle contraction.

n) Securitization

Securitization is a structured finance process, which involves pooling and repackaging of cash flow producing financial assets into securities that are then sold to investors. The name “securitization” is derived from the fact that the form of financial instruments used to obtain funds from the investors is securities.

o) Sub-prime lending

The term sub-prime lending refers to the practice of making loans to borrowers who do not qualify for market interest rates due to various risk factors, such as income level, size of the down payment made, credit history, and employment status

p) TED

TED is an acronym formed from T-Bill and ED, the ticker symbol for the Eurodollar futures contract. The size of the spread is usually denominated in basis points (bps). For example, if the T-bill rate is 5.10% and ED trades at 5.50%, the TED spread is 40 bps. The TED spread fluctuates over time, but historically has often remained within the range of 10 and 50 bps (0.1% and 0.5%), until 2007. A rising TED spread often presages a downturn in the U.S. stock market, as it indicates that liquidity is being withdrawn.

Chapter III

Briefing on Wall Street crash of 1929 and Great Depression 1929

The Wall Street Crash of 1929, also known as the '29 Crash, the Crash of 1929, the Great Crash of 1929, the Great Crash of October 1929, the Great Wall Street Crash of 1929, 1929 Great Crash or the Great Crash, was the most devastating stock market crash in

the history of the United States, taking into consideration the full extent and longevity of its fallout.

Three phrases – Black Thursday, Black Monday, and Black Tuesday – are used to describe this collapse of stock values. All three are appropriate, for the crash was not a one-day affair. The initial crash occurred on Black Thursday (October 24, 1929), but it was the catastrophic downturn of Black Monday and Tuesday (October 28 and October 29, 1929) that precipitated widespread panic and the onset of unprecedented and long-lasting consequences for the United States..

The decline in stock prices caused bankruptcies and severe macroeconomic difficulties including business closures, firing of workers and other economic repression measures. The resultant rise of mass unemployment and the depression is seen as a direct result of the crash, though it is by no means the sole event that contributed to the depression; it is usually seen as having the greatest impact on the events that followed. Therefore the Wall Street Crash is widely regarded as signaling the downward economic slide that initiated the Great Depression.

The consequences were dire for almost everybody. It wiped out billions of dollars of wealth in one day, and this immediately depressed consumer buying. The failure set off a worldwide run on US gold deposits (i.e., the dollar), and forced the Federal Reserve to raise interest rates into the slump. Some 4,000 lenders were ultimately driven to the wall.

The Great Depression was a worldwide economic downturn starting in most places in 1929 and ending at different times in the 1930s or early 1940s for different countries. It was the largest and most important economic depression in modern history, and is used in the 21st century as an example of how far the world's economy can fall. The Great

Depression originated in the United States; historians most often use as a starting date the stock market crash on October 29, 1929, known as Black Tuesday. The end of the depression in the U.S is associated with the onset of the war economy of World War II, beginning around 1939.

The depression had devastating effects in the developed and developing worlds. International trade was deeply affected, as were personal incomes, tax revenues, prices, and profits. Cities all around the world were hit hard, especially those dependent on heavy industry. Construction was virtually halted in many countries. Farming and rural areas suffered as crop prices fell by roughly 60 percent. Facing plummeting demand with few alternate sources of jobs, areas dependent on primary sector industries such as farming, mining and logging suffered the most. However, even shortly after the Wall Street Crash of 1929, optimism persisted; John D. Rockefeller said that “These are days when many are discouraged. In the 93 years of my life, depressions have come and gone. Prosperity has always returned and will again.

The Great Depression ended at different times in different countries. The majority of countries set up relief programs, and most underwent some sort of political upheaval, pushing them to the left or right. In some states, the desperate citizens turned toward nationalist demagogues – the most infamous being Adolf Hitler – setting the stage for World War II in 1939

Causes of Great Depression

It was not just one factor, but instead a combination of domestic and worldwide conditions that led to the Great Depression. As such, there is no agreed upon list of all the causes of the Great Depression. Here instead is a list of the top reasons that historians and economists have cited as causing the Great Depression.

1. The large and growing disparity of wealth between the well-to-do and the middle-income citizens made the U.S. economy unstable- According to a study done by the Brookings Institute, in 1929 the top 0.1% of Americans had a combined income equal to the bottom 42% That same top 0.1% of Americans in 1929 controlled 34% of all savings, while 80% of Americans had no savings at all. The federal government also contributed to the growing gap between the rich and middle-class. Calvin Coolidge's administration (and the conservative-controlled government) favored business, and as a result the wealthy who invested in these businesses. An example of legislation to this purpose is the Revenue Act of 1926, signed by President Coolidge on February 26, 1926, which reduced federal income and inheritance taxes dramatically. Andrew Mellon, Coolidge's Secretary of the Treasury, was the main force behind these and other tax cuts throughout the 1920's. In effect, he was able to lower federal taxes such that a man with a million-dollar annual income had his federal taxes reduced from \$600,000 to \$200,000. Even the Supreme Court played a role in expanding the gap between the socioeconomic classes. In the 1923 case *Adkins v. Children's Hospital*, the Supreme Court ruled minimum-wage legislation unconstitutional.
2. Credit sales- This strategy created artificial demand for products which people could not ordinarily afford. It put off the day of reckoning, but it made the downfall worse when it came. By telescoping the future into the present, when "the future" arrived, there was little to buy that hadn't already been bought. In addition, people could not longer use their

- regular wages to purchase whatever items they didn't have yet, because so much of the wages went to paying back past purchases.
3. Luxury spending and investment from the rich- Greater investment usually means greater productivity. However, since the rewards of the increased productivity were not being distributed equally, the problems of income distribution (and of overproduction) were only made worse. Lastly, the search for ever greater returns on investment lead to wide-spread market speculation.
 4. Concentration only on automotive and radio industries - While the economy did prosper greatly in the 1920's, because this prosperity wasn't balanced between different industries, when those industries that had all the wealth concentrated in them slowed down, the whole economy did. The fundamental problem with the automobile and radio industries was that they could not expand ad infinitum for the simple reason that people could and would buy only so many cars and radios. When the automotive and radio industries went down all their dependents, essentially all of American industry fell. Because it had been ignored, agriculture, which was still a fairly large segment of the economy, was already in ruin when American industry fell.
 5. Large-scale international wealth distribution problems. While America was prospering in the 1920's, European nations were struggling to rebuild themselves after the damage of war. Hence fall in exports
 6. Speculation in stock market- Through the miracle of buying stocks on margin, one could buy stocks without the money to purchase them. The speculative boom in the stock market

was based upon confidence. In the same way, the huge market crashes of 1929 were based on fear.

The effect of the Great Depression was huge across the world. Not only did it lead to the New Deal in America but more significantly, it was a direct cause of the rise of extremism in Germany leading to World War II.

Chapter IV

Great depression 1929 and The Current crisis

The similarity between both the crises is that they both originated from USA and now worldwide nations are facing its spillover effects. This financial global turmoil is a combined result of some intermingled financial mistakes. There are some fundamental causes at roots of this depression.

- Firstly are the conceited norms in USA. USA has always been relishing sustainable economic development, buffered with low inflation rates in last two decades. This led to complete ignorance of business cycle of economy. The signs of this were reflected 20 months ago, when America was combating excess liquidity in the market. That was the plenteous sign of coming of real estate bubble and asset price inflation.
- Secondly it is the protection enjoyed by these private and investment banks. Booming economic conditions made these banks take higher risks, among which most of the deals of these banks were highly leveraged transactions. However these risks turn out to be evil for these high flying banks as they didn't get enough capital in support of their high risk investments.

- Last but not the least reason would be failure of the top tier management to provide guidance to their deal makers. Greed took over and rest is history.

Though today symptoms of current events are similar to that of great depression, but according many economists making their comparison is misleading. Though the current situation has similarities with the great depression of 1929-33, but it is outshined by certain differences.

For instance in 1930, Hawley Smoot Act came along in decade of restrictive tariffs and international disharmony. However, today global turmoil is characterized by prominent degree of free trade and global cooperation. The era of 1929-33 was the one saw the absence of shock absorbers like such as social security and deposit insurance which could safeguard people from economic crises.

In the 1930s, some of the world's largest economies—Germany, the Soviet Union, Japan, and Italy—were run by leaders hostile to the very notion of market capitalism. Today, Germany, Italy, and Japan are working with the United States to cope with a common problem.

Apart from this the policies of Federal Reserve differ in both the periods. 1930's policy was "downturn as a force for good". Liquidate labour, stocks, farmers, so that people will work harder and live more moral lives. However in today's crisis Federal Reserve is making full efforts to increase liquidity in stocks, to farmers and real estate.

It's true that current crisis is nowhere in comparison to the great depression, but still we need to put a full stop over these ongoing crises, which is hitting the nations worldwide hard. The methods now under consideration are to initiate are to follow policy of creation of jobs and more spending by American people. Apart from this we have seen bailout packages already becoming the breaking news. Therefore it can be said roots of the current crisis are the same but the nature is totally different.

Chapter V

Asian Financial Crisis, 1997

The Asian Financial Crisis was a period of financial crisis that gripped much of Asia beginning in July 1997, and raised fears of a worldwide economic meltdown (financial contagion).

The crisis started in Thailand with the financial collapse of the Thai baht caused by the decision of the Thai government to float the baht, cutting its peg to the USD, after exhaustive efforts to support it in the face of a severe financial overextension that was in part real estate driven. At the time, Thailand had acquired a burden of foreign debt that made the country effectively bankrupt even before the collapse of its currency. As the crisis spread, most of Southeast Asia and Japan saw slumping currencies, devalued stock markets and other asset prices, and a precipitous rise in private debt.

Though there has been general agreement on the existence of a crisis and its consequences, what is less clear were the causes of the crisis, as well as its scope and resolution. Indonesia, South Korea and Thailand were the countries most affected by the crisis. Hong Kong, Malaysia, Laos and the Philippines were also hurt by the slump. The People's Republic of China, India, Taiwan, Singapore, Brunei and Vietnam were less affected, although all suffered from a loss of demand and confidence throughout the region.

Foreign debt-to-GDP ratios rose from 100% to 167% in the four large ASEAN economies in 1993-96, then shot up beyond 180% during the worst of the crisis. In Korea, the ratios rose from 13-21% and then as high as 40%, while the other Northern NICs (Newly Industrialized Countries) fared much better. Only in Thailand and Korea did debt service-to-exports ratios rise.

Although most of the governments of Asia had seemingly sound fiscal policies, the International Monetary Fund (IMF) stepped in to initiate a \$40 billion program to stabilize the currencies of South Korea, Thailand, and Indonesia, economies particularly hard hit by the crisis. The efforts to

stem a global economic crisis did little to stabilize the domestic situation in Indonesia, however. After 30 years in power, President Suharto was forced to step down in May 1998 in the wake of widespread rioting that followed sharp price increases caused by a drastic devaluation of the rupiah. The effects of the crisis lingered through 1998. In the Philippines growth dropped to virtually zero in 1998. Only Singapore and Taiwan proved relatively insulated from the shock, but both suffered serious hits in passing, the former more so due to its size and geographical location between Malaysia and Indonesia. By 1999, however, analysts saw signs that the economies of Asia were beginning to recover.

Chapter VI

Financial Crisis of 2007–2008,

The financial crisis of 2007–2008, initially referred to in the media as a “credit crunch” or “credit crisis”, began in July 2007 when a loss of confidence by investors in the value of securitized mortgages in the United States resulted in a liquidity crisis that prompted a substantial injection of capital into financial markets by the United States Federal Reserve and the European Central Bank. The TED spread, an indicator of perceived credit risk in the general economy, spiked up in July 2007, remained volatile for a year, then spiked even higher in September 2008reaching a record 4.65% on October 10, 2008. In September 2008, the crisis deepened, as stock markets world-wide crashed and entered a period of high volatility, and a considerable number of banking, mortgage and insurance company failures in the following weeks.

America’s housing collapse is often cited as having caused the crisis. However the financial system was vulnerable because of intricate and over-leveraged financial contracts and operations, a U.S. monetary policy making the cost of credit negligible therefore

encouraging such over-leverage, and generally an “hypertrophy of the financial sector”

One example was credit derivatives – Credit Default Swaps (CDS), which insure debt holders against default. The U.S. government’s seizure of the mortgage companies prompted an auction of their debt so that traders who bought and sold default protection (CDS) could settle contracts. The auctions are used to set a price by which investors can settle the contracts with cash rather than having to physically deliver a bond to their counter-parties. Sellers of protection pay the face value of the contracts minus the recovery value set on the bonds.

After affecting banking and credit, mainly in the United States, the situation evolved into a global general financial crisis verging on a systemic crisis. It spread at the same time worldwide and to many financial and economic areas:

- Financial markets (stock exchanges and derivative markets notably) where it developed into a market crash,
- Various equity funds and hedge funds that went short of cash and had to get rid of assets,
- Insurance activities and pension funds, facing a receding asset portfolio value to cover their commitments,
- With also incidences on public finance due to the bailout actions.
- Forex, at least for some currencies (Icelandic crown, various Eastern Europe and Latin America currencies...), and with increased volatility for most of them

The first symptoms of what is called the Economic crisis of 2008 ensued also in various countries and various industries, as the financial crisis, albeit not the only cause was a factor by making borrowing and equity rising harder.

Historical background

The initial liquidity crisis can in hindsight be seen to have resulted from the incipient sub prime mortgage crisis, with the first alarm bells being rung by the 2006 HSBC results. The crisis was widely predicted by a number of economic experts and other observers, but it proved impossible to convince responsible parties such as the Board of Governors of the Federal Reserve of the need for action. One of the first victims outside the US was Northern Rock, a major British bank. The bank's inability to borrow additional funds to pay off maturing debt obligations led to a bank run in mid-September 2007. The highly leveraged nature of its business, unsupportable without fresh infusions of cash, led to its takeover by the British Government and provided an early indication of the troubles that would soon befall other banks and financial institutions.

Excessive lending under loosened underwriting standards, which was a hallmark of the United States housing bubble, resulted in a very large number of sub prime mortgages. These high-risk loans had been perceived to be mitigated by securitization. Rather than mitigating the risk, however, this strategy appears to have had the effect of broadcasting and amplifying it in a domino effect. The damage from these failing securitization schemes eventually cut across a large swath of the housing market and the housing business and led to the sub prime mortgage crisis. The accelerating rate of foreclosures caused an ever greater number of homes to be dumped onto the market. This glut of homes decreased the value of other surrounding

homes which themselves became subject to foreclosure or abandonment. The resulting spiral underlay a developing financial crisis.

Initially the companies affected were those directly involved in home construction and mortgage lending such as Northern Rock and Countrywide Financial. Financial institutions which had engaged in the securitization of mortgages such as Bear Stearns then fell prey. Later on, Bear Stearns was acquired by JP Morgan Chase through the deliberate assistance from the US government. Its stock price fell from the record high \$154 to \$3 in reaction to the buyout offer of \$2 by JP Morgan Chase, subsequently the acquisition price was agreed on \$10 between the US government as well as JP Morgan. On July 11, 2008, the largest mortgage lender in the US, IndyMac Bank, collapsed, and its assets were seized by federal regulators after the mortgage lender succumbed to the pressures of tighter credit, tumbling home prices and rising foreclosures. That day the financial markets plunged as investors tried to gauge whether the government would attempt to save mortgage lenders Fannie Mae and Freddie Mac, which it did by placing the two companies into federal conservatorship on September 7, 2008 after the crisis further accelerated in late summer.

It then began to affect the general availability of credit to non-housing related businesses and to larger financial institutions not directly connected with mortgage lending. At the heart of many of these institution's portfolios were investments whose assets had been derived from bundled home mortgages. Exposure to these mortgage-backed securities, or to the credit derivatives used to insure them against failure, threatened an increasing number of firms such as Lehman Brothers, AIG, Merrill Lynch, and HBOS. Other firms that came under pressure included Washington Mutual, the largest savings and loan association in the United States, and the remaining large investment firms, Morgan Stanley and Goldman Sachs.

Risks and regulations

For some analysts the first half of the 2000 decade will be remembered as a time that financial innovations and the CRA requirement of mandated lending to non creditworthy individuals overwhelmed the capacity of both regulators and banks to assess risk in the financial markets. The case of Citigroup is emblematic: Citigroup had always been under Federal Reserve regulation, and its near collapse shows that the regulation was ineffective, and that government underestimated the crisis severity even after it began. Citigroup was not alone in not being capable to understand fully the risks it was taking. As financial assets became more and more complex, and harder and harder to value, investors were reassured by the fact that both the international bond rating agencies and bank regulators, who came to rely on them, accepted as valid some complex mathematical models which theoretically “showed” the risks were much smaller than they actually proved to be in practice

Developing global financial crisis

Beginning with bankruptcy of Lehman Brothers on Sunday, September 14, 2008, the financial crisis entered an acute phase marked by failures of prominent American and European banks and efforts by the American and European governments to rescue distressed financial institutions, in the United States by passage of the Emergency Economic Stabilization Act of 2008 and in European countries by infusion of capital into major banks. Afterwards, Iceland almost claimed to go bankrupt. Many financial institutions in Europe also faced the liquidity problem that they needed to raise their capital adequacy ratio. As the crisis developed, stock markets fell worldwide, and global financial regulators attempted to coordinate efforts to contain the crisis. The US government composed a \$700 billion plan to purchase unperforming collaterals

and assets. However, the plan was vetoed by the US congress because some members rejected the idea that the taxpayers money be used to bail out the Wall Street investment bankers. The stock market plunged as a result, the US congress amended the \$700 billion bail out plan and passed the legislation. The market sentiment continued to deteriorate and the global financial system almost collapsed. While the market turned extremely pessimistic, the British government launched a 500 billion pound bail out plan aimed at injecting capital into the financial system. The British government nationalized most of the financial institutions in trouble. Many European governments followed suit, as well as the US government. Stock markets appeared to have stabilized as October ended. In addition, the falling prices due to reduced demand for oil, coupled with projections of a global recession, brought the 2000s energy crisis to temporary resolution. In the Eastern European economies of Poland, Hungary, Romania, and Ukraine the economic crisis was characterized by difficulties with loans made in hard currencies such as the Swiss franc. As local currencies in those countries lost value, making payment on such loans became progressively difficult.

As the financial panic developed during September and October, 2008 there was a “flight to quality” as investors sought safety in U.S. treasury bonds, gold, and strong currencies such as the dollar and the yen. This currency crisis threatened to disrupt international trade and produced strong pressure on all world currencies. The International Monetary Fund had limited resources relative to the needs of the many nations with currency under pressure or near collapse.

Banks affected by the global crisis 2008

Bank	Date	Status	Website
Fannie Mae	07 Sep	Nationalised	http://www.fanniemae.com/index.jhtml
Freddie Mac	07 Sep	Nationalised	http://www.freddiemac.com/
Lehman Bros	15 Sep	Collapsed	http://www.lehman.com/
Merrill Lynch	15 Sep	Taken over	http://www.ml.com/index.asp?id=7695_15125_17454
AIG	16 Sep	Part-nationalised	http://www.aigcorporate.com/corpsite/
HBOS	17 Sep	Taken over	http://www.hbosplc.com/home/home.asp
WaMu	25 Sep	Collapsed and sold	https://www.wamu.com/personal/default.asp
Fortis	28 Sep	Nationalised	http://www.fortis.com/Language2.asp
Bradford & Bingley	29 Sep	Nationalised	http://www.bradford-bingley.co.uk/
Wachovia	29 Sep	Taken over	http://www.wachovia.com/
Glitnir	29 Sep	Nationalised	http://www.glitnir.co.uk/
Hypo Real Estate	06 Oct	Rescue package	http://www.hyporealestate.com/eng/index.php
RBS	13 Oct	Part-nationalised	http://www.rbs.co.uk/
Lloyds TSB	13 Oct	Part-nationalised	http://www.lloydstsb.com/

Chapter VII

United States Housing Bubble and Sub-prime lending

The United States housing bubble is an economic bubble in many parts of the United States housing market including areas of California, Florida, Colorado, Michigan, the Northeast Corridor, and the Southwest markets. On a national level, housing prices peaked in early 2005, began declining in 2006 and may not yet have hit bottom. Increased foreclosure rates in 2006–2007 by U.S. homeowners led to a crisis in August 2008 for the subprime, Alt-A, Collateralized debt obligation (CDO), mortgage, credit, hedge fund, and foreign bank markets

SUB-PRIME LENDING

Although there is no standardized definition, in the US sub prime loans are usually classified as those where the borrower has a credit score below a particular level, e.g. a FICO [Fair Issac Corporation] score below 660. Sub prime lending encompasses a variety of credit types, including mortgages, auto loans, and credit cards.

Sub prime could also refer to a security for which a return above the “prime” rate is adhered, also known as C-paper. In the United States, mortgage lending specifically, the term “sub prime” can be applied to “non conforming” loans, those that do not meet Fannie Mae or Freddie Mac guidelines, generally due to one of an array of factors including the size of the loan, income to mortgage payment ratio or the quality of the documentation provided with the loan. The phrase also refers to bank loans taken on property that cannot be sold on the primary market, including loans on certain types of investment properties and to certain types of self-employed persons.

Stemming from the “credit crunch”, attention has been drawn to recent sub prime lending practices. It has been suggested that some lenders engaged in predatory lending practices. More extreme allegations included lenders deliberately targeting borrowers who may not have fully understood the terms of their loan, or lending to people who were never likely to afford the interest payments in the long-run. Many of these loans included exorbitant fees and hidden terms and conditions, and they frequently led to default, seizure of collateral, and foreclosure.

Sub prime Mortgage

Subprime mortgage loans are riskier loans in that they are made to borrowers unable to qualify under traditional, more stringent criteria due to a limited or blemished credit history. Subprime borrowers are generally defined as individuals with limited income or having very low credit scores. Subprime mortgage loans have a much higher rate of default than prime mortgage loans and are priced based on the risk assumed by the lender.

Kinds of Subprime Mortgages

There are many different kinds of subprime mortgages, including:

- interest-only mortgages, which allow borrowers to pay only interest for a period of time (typically 5-10 years);
- “pick a payment” loans, for which borrowers choose their monthly payment (full payment, interest only, or a minimum payment which may be lower than the payment required to reduce the balance of the loan);
- and initial fixed rate mortgages that quickly convert to variable rates.

This last class of mortgages has grown particularly popular among subprime lenders since the 1990s. Common lending vehicles within this group include the “2-28 loan”, which offers a low initial interest rate that stays fixed for two years after which the loan resets to a higher adjustable rate for the remaining life of the loan, in this case 28 years. The new interest rate is typically set at some margin over an index, for example, 5% over a 12-month LIBOR (London Interbank Offered Rate). Variations on the “2-28” include the “3-27” and the “5-25”.

The Subprime Mortgage Financial Crisis in the US

The subprime mortgage financial crisis refers to the sharp rise in foreclosures in the subprime mortgage market that began in the United States in 2006 and became a global financial crisis in July, 2007. This crisis was caused due to the reason that a large number of home owners were unable to pay the mortgage as their home values declined.

When the housing boom between 2001 and 2005, happened in the United States due to the low interest rates (among other factors), property prices saw a phenomenal hike. Hence, many of the economically weaker borrowers who had defaulted instalments saw a dramatic rise in their property value.

The lenders and banks targeted this section of the market sensing the market potential of this rise in property value. They lent money for these individuals to pay back their loans. The picture was rosy for these lenders until the bubble burst and the property market crashed. Property values suffered declines from the demise of the housing bubble, leaving home owners unable to meet financial commitments and lenders without a means to recoup their losses. Many of these sub-prime mortgage lenders had to declare bankruptcy.

The sharp rise in foreclosures after the housing bubble caused several major subprime mortgage lenders, such as New Century Financial Corporation, to shut down or file for bankruptcy, with some accused of actively encouraging fraudulent income inflation on loan applications, leading to the collapse of stock prices for many in the subprime mortgage industry, and drops in stock prices of some large lenders like Countrywide Financial.

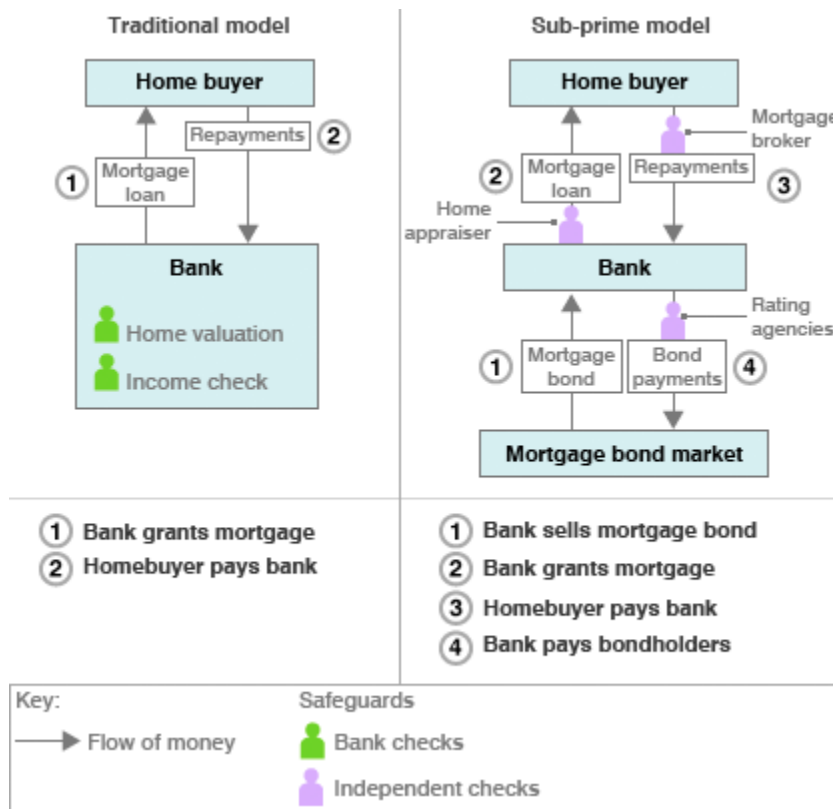
The effects of the meltdown spread beyond housing and disrupted global financial markets as investors.

The US sub-prime mortgage crisis has led to plunging property prices, a slowdown in the US economy, and billions in losses by banks. It stems from a fundamental change in the way mortgages are funded.

Traditionally, banks have financed their mortgage lending through the deposits they receive from their customers. This has limited the amount of mortgage lending they could do.

In recent years, banks have moved to a new model where they sell on the mortgages to the bond markets. This has made it much easier to fund additional borrowing,

But it has also led to abuses as banks no longer have the incentive to check carefully the mortgages they issue.



Chapter VIII

The Housing Boom and Bust

	Causal Event	Description	Implications
1	Modification of the Community Reinvestment Act, 1995.	Intended to make credit more inclusive by requiring banks to extend credit across the market place.	The move encouraged <u>sub prime</u> mortgage lending. I.e. lending to consumers having poor credit ratings. These loans were high risk loans bearing a higher rate of interest usually 1 – 3 % than the interest rates on prime loans. The value of US subprime mortgages stood at \$ 1.3 trillion as of March 2007.
2	Low interest rates between the period 2000 and 2004.	The Federal Bank brought down its Federal Fund Rate (FFR) from a high of 6.5% in 2000 to 1% in June 2003 in order to keep the US economy buoyant after the burst of the dot com bubble in the late 1990s. Experts believe that this was done on the basis of erroneous low inflation data while ignoring other important factors.	Accordingly, the prime rates plunged to around 4% at the beginning of 2004. Cheap funds triggered an increase in housing demand which in turn led to a rise in housing prices.
3	The Housing Boom	Between 1997 and 2006, home prices in the US	Cheap and easy credit coupled with rising housing

		<p>increased by 124%. This led to huge increase in construction activity.</p> <p>At the same time, banks, in addition to considering high risk customers, also offered increasingly high risk loan options and incentives such as the NINJA loans ie no income no job and assets loans, piggy back loans (wherein no or very small down payment is required to be made by customers) and easy payment ‘teaser’ loans (wherein the first few instalments are deceptively low and then increase drastically as per the prevalent interest rates).</p> <p>With no proper government insight, almost 20% of all mortgage loans originated in 2004-05 were subprime mortgage loans.</p>	<p>prices propelled an increase in home demand both for residential as well as speculative purposes.</p> <p>Home ownership increased by nearly 6% between the period 1994 and 2004. Speculation within the housing sector also increased with nearly 40% of the houses being purchased for non residential purposes in 2005-2006.</p> <p>Rising home prices also prompted home owners to obtain second mortgages against the increased value for consumer spending thereby leading to a large increase in household debt.</p> <p>Thus a large proportion of consumer spending was out of borrowed funds instead of from genuine income of customers.</p>
3	The Iraq war and	The Iraq war (initiated in	Higher short term rates led

	<p>consequent increase in interest rates.</p>	<p>2003) was misjudged to be a short war with low costs and both the judgements proved wrong. The US government funded the war from borrowings through short term T bills. As a result the short term T bill rate increased from a mere 0.90% in 2003 to 4.85 % in 2006. FFR also increased from 1.00 % to 4.5 % during the same period.</p> <p>The war proved long term and initial cost estimates of \$ 60 billion escalated to \$ 500 billion. Short term funds were being used for funding long term war leading to short term interest rates being higher than the long term interest rates.</p>	<p>to deferment in long term investments that usually create steady long term jobs. Thus the US economy began to stall in 2006.</p> <p>Mortgage rates being indexed to T bill rates and FFR, also shot up during the period and peaked in 2006.</p> <p>Since most of the borrowers had adjusted rate mortgages (ARMS), the EMIs rose significantly and consequently, the rate of default and foreclosures began to rise.</p>
<p>4</p>	<p>Over construction and foreclosures.</p>	<p>Overbuilding in the housing sector coupled with an increase in foreclosures due to a rise in interest rates and gradual decrease in incomes and employment rates led to</p>	<p>Housing prices began to fall as a result of such inventory surplus and declining demand.</p>

		surplus inventory in the housing markets.	
5	The Housing Bust.	By May 2008, housing prices had declined by more than 18% from their peak in Q2 2006.	<p>Consumers found it difficult to refinance their mortgages. By March 2008, the values of the homes were lower than the value of the mortgages which provided the consumers an incentive to foreclose their loans and walk away without their homes.</p> <p>During 2007, nearly 1.3 million homes were subject to foreclosure activity, up 79% from 2006.</p>

Thus, as can be concluded from above, while the real estate market boomed, lenders as well as borrowers, both made merry; lenders by issuing easy loans to non deserving customers and borrowers by availing these loans to fulfill the great American dream owing a home. But these dreams crashed once interest rates shot up and housing prices began deflating.

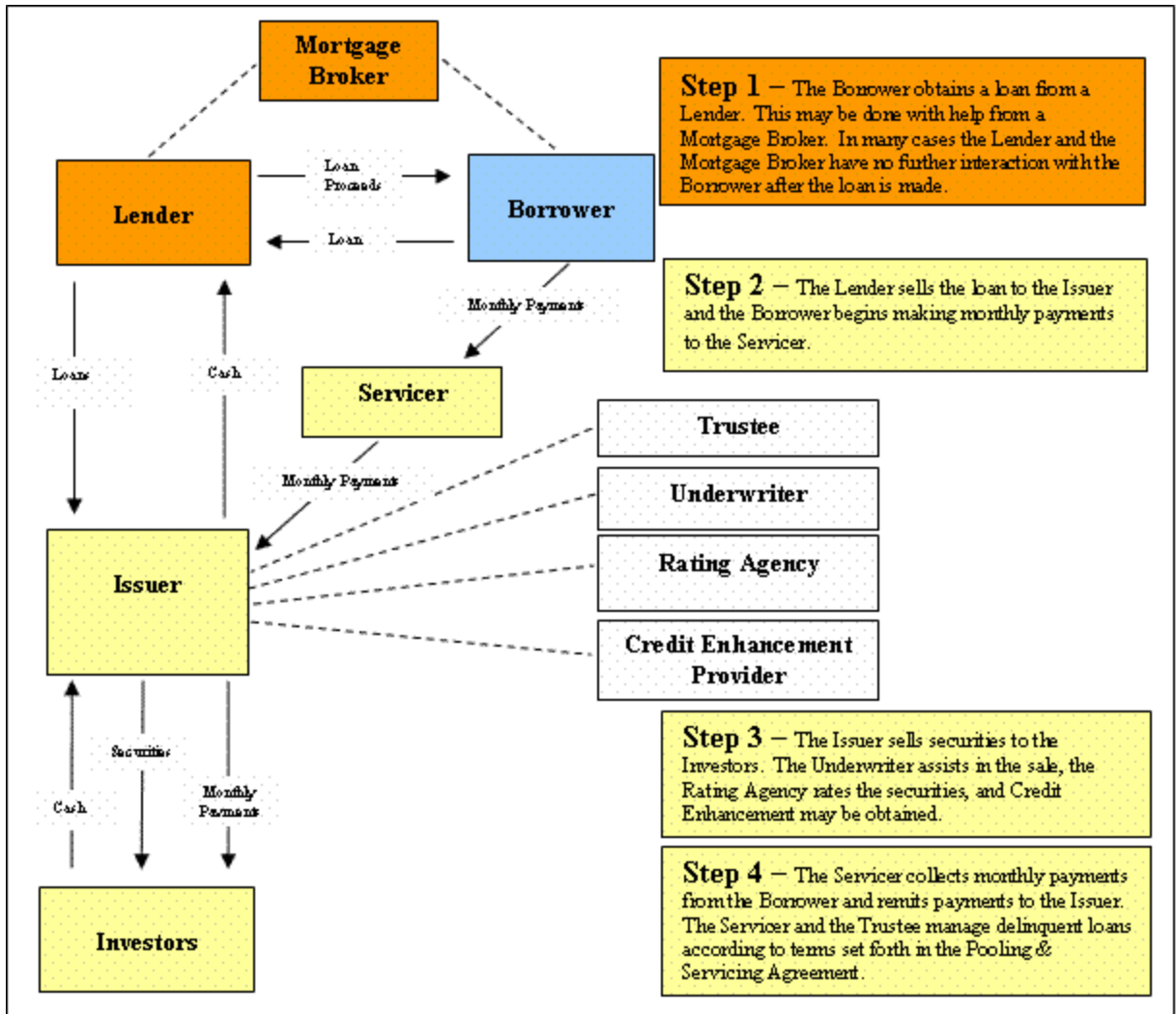
But the buck did not stop at the financial institutions who issued high risk sub prime mortgage loans. Instead of waiting for the principal and interest to be repaid on these loans over a period of time, the banks went ahead and securitized these mortgage loans. Alan Greenspan (former chairman of the United States Federal Reserve Board) rightly stated that the securitization of home loans for people with poor credit and not the loans themselves was to blame for the current global credit crisis.

Chapter IX

Securitization and inaccurate credit rating practices

Although, securitisation has been around for decades it gained momentum in the 1990s. Securitization is a process of standardizing contractual terms which allows a loan to be packaged with other contracts and sold as a diversified bundle to passive investors. To put it simply, Cash flows from the bundle are carved up or “tranching” into different securities, differing in liquidity, maturity, contingency, and risk, each of which appeals to a particular clientele. The end products purchased by investors are Mortgage Backed Securities (MBS) & Collateralized Debt Obligations (CDO). Four Categories of risks are embedded in this : Credit risk; Asset price risk; Liquidity risk and Counterparty risk.

The process of securitization has been explained in the following diagram.



Let us now understand the role of securitization of sub prime loans in the current economic and financial crisis.

	Causal Event	Description	Implications
(i)	Modification of the Community Reinvestment Act, 1995.	Allowed securitization of sub prime loans	The total amount of securitized sub prime loans increased to 75% of the total loan securitization by 2006.
(ii)	Transfer of risk and generation of immediate cash	Securitisation allowed a large number of high risk loans to be transferred to	Being thinly regulated, moving the debts off the balance sheet to special

		<p>special purpose vehicles from the balance sheets of lending institutions through products such as MBOs and CDOs.</p> <p>It also enabled the financial institutions to bundle off its mortgage loans through securitized products to investors and generate immediate cash.</p>	<p>purpose vehicles allowed large financial institutions to circumvent capital reserve requirements.</p> <p>Also, passing off of risk from the lender to the investor and finally to the insurers (in the form of credit default swaps) resulted in a moral hazard in which each link in the mortgage chain made a profit while believing it was passing on risks.</p> <p>Securitisation of loans also freed cash to allow financial institutions to make more loans. This further fuelled the boom in the Housing Market.</p>
(iii)	Inaccurate credit ratings based on inaccurate credit risk measurement practices.	Inaccurate credit risk measurement practices resulted in risky sub prime loans being clubbed with prime loans within the same securitized products (MBOs and CDOs). These products then received investment grade ratings from reputed	High credit ratings on securitized products encouraged the flow of investor funds into these securities (MBS and CDOs).

		<p>rating agencies.</p> <p>Moreover, in the booming housing market, there was a false sense of security, that even if the borrowers defaulted on their payments, the value of the house would be more than enough to cover the outstanding loan amounts.</p>	
(iv)	Increase in demand for securitized products	With the appetite of investors increasing for securitized products, even the subprime mortgage lenders got a lucrative avenue to sell their risky debt. Thus it became very profitable to originate mortgages – even risky ones.	Since banks no longer had to carry the loan risk, they had every incentive to reduce the underwriting standards. The standard of mortgage underwriting practices declined significantly with practices such as automated loan approvals wherein loans were disbursed without appropriate documentation and review. Innovative but risky loan products such as the NINJA, piggy back loans and teaser loans (as discussed above) came into being.
(v)	The housing bust and the resultant	With the rise in interest rates and the fall in housing prices	This resulted in heightened delinquencies and

	economic downturn.	the housing boom finally ended in 2007 (as explained above).	foreclosures by borrowers and many financial institutions reported major subprime losses.
(vi)	Decline in ratings of subprime backed assets	As associated risks increased, credit rating agencies cut ratings of subprime backed credit derivatives	Prices of CDO and MBS crashed in derivative markets. No buyers in the market led to value uncertainty and illiquidity
(vii)	Banks world wide announce subprime losses	Subprime exposure discovered in books of all major banks worldwide. As Mark-to-market values needed to be accounted, banks took enormous write-downs in their books. In Feb 2007 HSBC became the first financial institution to write down USD 10.8 billion on account of subprime exposures through MBS and CDOs. As of August 2008,	Mortgage institutions were in distress and many announced bankruptcy in the US and the European continent. During 2007, at least 100 mortgage institutions were either suspended, shut down or were sold. Large Financial institutions were bailed out by various Governments across the European continent and in the US. A few Financial institutions were nationalized while others were taken over to save them from

		Financial institutions around the world recognized losses and writedowns to the tune of more than USD 500 billion.	bankruptcy.
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Chapter X

Federal Takeover of Fannie Mae and Freddie Mac

The Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), two large government-sponsored enterprises, are the two largest single mortgage backing entities in the United States. Between the two corporations, they back nearly half of the \$12 trillion mortgages outstanding as of 2008. During the mortgage crises, some in the investment community feared the corporations would run out of capital. Both corporations insisted that they were financially solid, with sufficient capital to continue their businesses, but stock prices in both corporations dropped steadily nonetheless.

Due to their size and key role in the US housing market, it had long been speculated that the US Government would take action to bolster both companies in such a situation

The federal takeover of Fannie Mae and Freddie Mac refers to the placing into conservatorship of government sponsored enterprises Fannie Mae and Freddie Mac by the US Treasury in September 2008. It was one financial event among many in the ongoing Subprime mortgage crisis. The director of the Federal Housing Finance Agency (FHFA), James B. Lockhart III. On September 7, 2008 announced his decision to place the two Government sponsored enterprises (GSEs), Fannie Mae and Freddie Mac into conservatorship run by FHFA.

Conservatorship is a legal concept to be found in the law of many states of the United States of
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[America](#), whereby an entity is established by [court order](#), or in the case of regulated business enterprises, via statutory or regulatory authority, that some property, person or entity be subject to the legal control of another person or entity, known as a conservator. Conservatorship, when referring to government control of private corporations such as [Freddie Mac](#) or [Fannie Mae](#), is known as [Nationalisation](#) in other parts of the world such as the [United Kingdom](#)

The combined GSE losses of \$14.9 billion and market concerns about their ability to raise capital and debt threatened to disrupt the U.S. housing financial market. The Treasury committed to invest as much as \$200 billion in preferred stock and extend credit through 2009 to keep the GSEs solvent and operating. The two GSEs have outstanding more than US\$ 5 trillion in mortgage backed securities (MBS) and debt; the debt portion alone is \$1.6 trillion. The conservatorship action has been described as “one of the most sweeping government interventions in private financial markets in decades, and one that “could turn into the biggest and costliest government bailout ever of private companies”

With a growing sense of crisis in U.S. financial markets, the conservatorship action and commitment by the U.S. government to backstop the two GSEs with up to US\$ 200 billion in additional capital turned out to be the first significant event in a tumultuous month among U.S.-based investment banking, financial institutions and federal regulatory bodies.

Chapter XI

BANKRUPTCY OF LEHMAN BROTHERS HOLDINGS INC

Lehman Brothers Holdings Inc. was a global financial-services firm active prior to its bankruptcy and sale in 2008. The firm did business in investment banking, equity and fixed-income sales, research and trading, investment management, private equity, and private banking. It was a primary dealer in the U.S. Treasury securities market. Its primary subsidiaries included Lehman Brothers

Inc., Neuberger Berman Inc., Aurora Loan Services, Inc., SIB Mortgage Corporation, Lehman Brothers Bank, FSB, Eagle Energy Partners, and the Crossroads Group. The firm's worldwide headquarters were in New York City, with regional headquarters in London and Tokyo, as well as offices located throughout the world. Lehman Bros, which till June 2008 had not reported a quarterly loss even once, had earlier survived many an economic crises. Thus the collapse of the giant investment bank came as a major shock for the entire world

On September 15, 2008, Lehman Brothers Holdings announced it would [file](#) for [Chapter 11 bankruptcy protection](#) citing bank debt of \$613 billion, \$155 billion in bond debt, and assets worth \$639 billion. It further announced that its subsidiaries will continue to operate as normal. A group of Wall Street firms agreed to provide capital and financial assistance for the bank's orderly [liquidation](#) and the Federal Reserve, in turn, agreed to a swap of lower-quality assets in exchange for loans and other assistance from the government.

Lehman's bankruptcy is the largest failure of an investment bank since [Drexel Burnham Lambert](#) collapsed amid fraud allegations 18 years prior. Later that day, the [Australian Securities Exchange](#) (ASX) suspended Lehman's Australian subsidiary as a market participant after clearing-houses terminated their contracts with the firm.

Lehman shares tumbled over 90% on September 15, 2008. The Dow Jones closed down just over 500 points on September 15, 2008, which was at the time the largest drop in a single day since [the days following](#) the attacks on [September 11, 2001](#)

In the [United Kingdom](#), the investment bank went into [administration](#) with [PricewaterhouseCoopers](#) appointed as administrators. In Japan, the Japanese branch, Lehman Brothers Japan Inc., and its holding company filed for civil reorganization on September 16, 2008, in [Tokyo District Court](#).

On Tuesday, September 16, 2008, [Barclays plc](#) announced that they will acquire a “stripped clean” portion of Lehman for \$1.75 billion, including most of Lehman’s North America operations. On September 20, this transaction was approved by U.S. Bankruptcy Judge [James Peck](#). On September 17, 2008 the New York Stock Exchange delisted Lehman Brothers.

On September 17, 2008, Paul Brough, Edward Middleton and Patrick Cowley of KPMG China became the provisional liquidators appointed over Lehman’s two [Hong Kong](#) based units – Lehman Brothers Securities Asia Limited and Lehman Brothers Futures Asia Limited. They are also appointed as the provisional liquidators for three further Hong Kong based Lehman Brothers companies, Lehman Brothers Asia Holdings Limited, Lehman Brothers Asia Limited and Lehman Brothers Commercial Corporation Asia Limited on 18 September 2008.

[Nomura Holdings](#), Japan’s top brokerage firm, agreed to buy both European and Asian division of Lehman Brothers for a nominal fee of \$2 and \$225 million, respectively. It would not take on any trading assets or liabilities in the European units. The last Lehman Brothers Annual Report identified that these non-US subsidiaries of Lehman Brothers were responsible for over 50% of global revenue produced.

Lehman Brothers filed for bankruptcy because they failed to raise enough capital to secure their debts. The next logical question is why did they have so much debt? This is a two-fold answer: First, Lehman Brothers had massive exposure to property derivatives. These are investments that are tied to the value of properties such as homes and mortgages. Due to the housing crash (the biggest part of which is falling property values), the value of the investments that Lehman had fell significantly.

The second part is slightly more complex. Lehman had a ton of what is called “leveraged assets”. Basically what happened is Lehman took their assets and took out loans secured by those assets (for instance, using their on-hand cash as down payments on loans) and then invested those loans in the

aforementioned property derivatives. So, not only did those investments lose value, but Lehman had to pay the interest on the money they borrowed (and subsequently lost). In short, Lehman was a casualty of the credit crunch due to exposure to bad debt.

Chapter XII

Collapse of Merrill Lynch, AIG, Washington Mutual (WaMu) and Wachovia

Merrill Lynch & Co

Merrill Lynch & Co., Inc. is a global financial services firm. Through its subsidiaries and affiliates, the company provided capital markets services, investment banking and advisory services, wealth management, asset management, insurance, banking and related financial services worldwide.

Merrill Lynch is headquartered in New York City,

In November 2007, Merrill Lynch announced it would write-down \$8.4 billion in losses associated with the national housing crisis and remove E. Stanley O'Neal as its chief executive. O'Neal had earlier approached a rival bank for a merger, but the talks ended after O'Neal's dismissal. In December 2007, the firm announced it would sell its commercial finance business to General Electric and sell off major shares of its stock to Temasek Holdings, a Singapore investment group, in an effort to raise capital. The deal raised over \$6 billion. In July of 2008, the new CEO of Merrill Lynch, John Thain, announced \$4.9 billion fourth quarter losses for the company from defaults and bad investments in the ongoing mortgage crisis. In one year between July 2007 and July 2008, Merrill Lynch lost \$19.2 billion, or \$52 million daily. The company's stock price had also declined significantly during that time. Two weeks later, the company announced the sale of select hedge funds and securities in an effort to reduce their exposure to mortgage related investments. Temasek Holdings agreed to purchase the funds and increase its investment in the company by \$3.4 billion.

Andrew Cuomo, New York Attorney General, threatened to sue Merrill Lynch in August 2008, over their misrepresentation of the risk on mortgage-back securities. A week earlier, Merrill Lynch had offered to buy back \$12 billion in auction-rate debt and said they were surprised by the lawsuit. Three days later, the company froze hiring and revealed that they had charged almost \$30 billion in losses to their subsidiary in the United Kingdom, exempting them from taxes in that country. On August 22, 2008, CEO John Thain announced an agreement with the Massachusetts Secretary of State to buy back all auction-rate securities from customers with less than \$100 million in deposit with the firm, beginning in October 2008 and expanding in January 2009. On September 5, 2008 Goldman Sachs downgraded Merrill Lynch's stock to "conviction sell" and warned of further losses from the company. Bloomberg reported in September 2008 that Merrill Lynch had lost \$51.8 billion in mortgage-backed securities as part of the subprime mortgage crisis. On September 14, 2008, Bank of America announced it was in talks to purchase Merrill Lynch for \$38.25 billion in stock. The Wall Street Journal reported later that day that Merrill Lynch was sold to Bank of America for 0.8595 shares of Bank of America common stock for each Merrill Lynch common share, or about US\$50 billion or \$29 per share. This price represented a 70.1% premium over the September 12 closing price or a 38% premium over Merrill's book value of \$21 a share, but that also meant a discount of 61% from September 2007.

American International Group

American International Group, Inc. (AIG) (NYSE: AIG) is a major American insurance corporation based at the American International Building in New York City. The British headquarters are located on Fenchurch Street in London, continental Europe operations are based in La Défense, Paris, and its Asian HQ is in Hong Kong.

On September 16, 2008, AIG suffered a liquidity crisis following the downgrade of its credit rating. The London unit of the world's largest insurer (by assets) sold credit protection credit default swaps (CDS) on collateralized debt obligations (CDOs) that had declined in value. The United

States Federal Reserve loaned money to AIG at AIG's request, to prevent the company's collapse, in order for AIG to meet its obligations to post additional collateral to credit default swap trading partners. The Federal Reserve announced the creation of a secured credit facility of up to US\$85 billion, secured by the assets of AIG subsidiaries, in exchange for warrants for a 79.9% equity stake, the right to suspend dividends to previously issued common and preferred stock. AIG announced the same day that its board accepted the terms of the Federal Reserve Bank's rescue package and secured credit 47ankrupt. This was the largest government bailout of a private company in U.S. history, though smaller than the bailout of Fannie Mae and Freddie Mac a week earlier

Meanwhile Goldman Sachs and JP Morgan Chase tried but failed to raise \$70 billion to lend AIG. One day later, The Fed found itself forced to bail out insurance giant AIG by providing an emergency credit liquidity facility of up to \$85 billion, which will be repaid by selling off assets of the company. After concluding that a disorderly failure of AIG could worsen the current financial and economic crisis, and at the request of AIG, the Fed intervened, after AIG had demonstrated that it could not obtain financing from any source. The Federal Reserve required a 79.9 percent equity stake as a fee for service and to compensate for the risk of the loan to AIG.

Washington Mutual

Its headquarters is in seattle , Washington, united states.

The Seattle based bank holding company Washington Mutual declared bankruptcy on September 26, 2008. The 120 year old company, one of the largest banking institutions in the US West, was driven into bankruptcy by the subprime crises. On the previous day, September 25, 2008, the United States Office of Thrift Supervision (OTS) announced that it closed the holding company's primary operating subsidiary, Washington Mutual Savings Bank, and had placed it into the receivership of the Federal Deposit Insurance Corporation (FDIC). The FDIC sold the assets, all deposit accounts, and secured liabilities to JPMorgan Chase, but not unsecured debt or equity obligations. Washington Mutual Savings Bank's closure and receivership is the largest U.S. bank

failure in history. Kerry Killinger, the CEO from 1988 to August 2008, had been fired by the board of directors. Virtually all savings and checking account holders were not affected as the accounts were insured by the FDIC during the collapse, and subsequently transferred in whole to JPMorgan Chase. The holding company, Washington Mutual Inc was left without its major asset and equity investment, its former subsidiary Washington Mutual Savings Bank, and filed for bankruptcy the following day, the 26th.

WaMu's collapse is the largest U.S. bank failure in history.

Wachovia

Wachovia Corporation based in Charlotte, North Carolina, is a diversified financial services holding company provided via its operating subsidiaries a broad range of banking, asset management, wealth management, and corporate and investment banking products and services. It is one of the largest providers of financial services in the United States, operating financial centers in 21 states and Washington, D.C., with locations from Connecticut to Florida and west to California. It also serves retail brokerage clients under the name Wachovia Securities nationwide as well as in six Latin American countries, and investment banking clients in selected industries nationwide. Wachovia provides global services through more than 40 offices around the world. Presently it is the fourth-largest bank holding company in the United States based on total assets. Wells Fargo plans to acquire Wachovia for \$15.1 billion in stock.

On 29 September 2008, the Federal Deposit Insurance Corporation (FDIC) announced that Citigroup would acquire Wachovia Corporation's banking operations. The transaction was to be an "open bank" transfer of ownership. Wachovia's bank subsidiaries did not fail, nor were they placed into receivership. The transaction would have been facilitated by the FDIC, with the concurrence of the Board of Governors of the Federal Reserve and the Secretary of the Treasury in consultation with the President.

After Robert k Steel(ceo) took over, he insisted that Wachovia would stay independent. However, its stock price plunged 27 percent during trading on September 26 due to the seizure of Washington Mutual the previous night. On the same day, several businesses and institutional depositors withdrew money from their accounts in order to drop their balances below the \$100,000 insured by the FDIC—an event known in banking circles as a “silent run.” Ultimately, Wachovia lost a total of \$5 billion in deposits that day—about one percent of the bank’s total deposits The large outflow of deposits attracted the attention of the Office of the Comptroller of the Currency, which regulates national banks. Federal regulators pressured Wachovia to put itself up for sale over the weekend; had Wachovia failed, it would have been a severe drain on the FDIC’s insurance fund due to its size.

As business halted for the weekend, Wachovia was already in talks with Citigroup and Wells Fargo. Wells Fargo initially emerged as the frontrunner to acquire the ailing Wachovia’s banking operations, but backed out due to concerns over Wachovia’s commercial loans. By this time, regulators were concerned that Wachovia wouldn’t have enough short-term funding to open for business on September 29. In order to obtain enough liquidity to do business, banks usually depend on short-term loans to each other. However, the markets had been so battered by a credit crisis related to the housing bubble that banks were skittish about making such loans. Under the circumstances, regulators feared that if customers pulled out more money, Wachovia wouldn’t have enough liquidity to meet its obligations

On October 3, Wachovia announced the entire company would instead be merging with Wells Fargo. Wells Fargo will pay \$15.1 billion—roughly \$7 per share—to buy Wachovia. Unlike the Citigroup deal, the Wells Fargo deal will require no assistance from the federal government. The combined company will be headquartered in San Francisco, home to Wells Fargo. However, Charlotte will be the headquarters for the combined company’s East Coast banking operations, and

Wachovia Securities will remain in St. Louis. The Federal Reserve approved the merger on October 12, 2008

Wells Fargo & Co. is a diversified financial services company headquartered in San Francisco, California, United States with operations around the world. Wells Fargo is the 4th largest bank in the US by assets and the 3rd largest bank by market cap. It is the only bank in the United States to be rated AAA by S&P.

Wells Fargo was named as “The World’s Safest US Bank” based on long-term foreign currency ratings from Fitch Ratings and Standard & Poor’s and the long-term bank deposit ratings from Moody’s Investors Service for the year 2007

Chapter XIII

Link between problems in sub-prime mortgage and liquidity crisis

As defaults in the loans grew beyond expectations, the investors sought sell their positions. The institutions holding these packages of loans had to sell some of their assets to meet cash demands from their investors. However, there wasn’t anyone to buy these securities, except as very low prices (pennies on the dollar). This started the liquidity crisis. It expanded when the same intuitions then sold their more solid assets to help meet the cash demand from their investors. This included stocks with solid fundamentals, causing the stock markets to fall.

The banks that had lent money to these funds got concerned that their loans were in jeopardy and issued margin calls. This caused the funds to sell more assets, especially the ones that that they could sell easily, the better assets. This further caused the selling in the markets that lead to the liquidity crisis we saw recently. To help overcome these problemS central banks in Europe, the

United States and Asia temporarily bought securities from the banks to help provide sufficient cash to help them meet the demand. The banks will have to buy back these securities at a later date.

As a result rates for new loans rose in price to better reflect the realities of the market. New borrowers were faced with rates that were substantially higher than just a few weeks ago. Even well qualified borrowers encountered difficulties borrowing money as the lending institutions “over reacted” to the credit problems.

This is how we experienced the latest liquidity crisis which has caused much of the increase in volatility we have been seeing the stock markets.

Chapter XIV

Regulatory responses to the sub prime crisis

1. Economic Stimulus Act of 2008

- enacted February 13, 2008
- an Act of Congress providing for several kinds of economic stimuli intended to boost the United States economy in 2008 and to avert or ameliorate a recession.
- The stimulus package was passed by the U.S. House of Representatives on January 29, 2008, and in a slightly different version by the U.S. Senate on February 7, 2008.
- The Senate version was then approved in the House the same day. It was signed into law by President George W. Bush on February 13, 2008.
- The law provides for tax rebates to low- and middle-income U.S. taxpayers, tax incentives to stimulate business investment, and an increase in the limits imposed on mortgages eligible for purchase by government-sponsored enterprises (e.g., Fannie Mae and Freddie Mac).
- The total cost of this bill was projected at \$152 billion for 2008

2. Housing and Economic Recovery Act of 2008

- The Housing and Economic Recovery Act of 2008 included six separate major acts intended to restore confidence in the American mortgage industry. The Act: Insures \$300 billion in mortgages, that will assist an estimated 400,000 borrowers
- Enacted on July 30,2008
- Creates a new Federal regulator to ensure the safe and sound operation of the GSEs (Fannie Mae and Freddie Mac) and Federal Home Loan Banks;
- Raises the ceiling on the dollar value of the mortgages the government sponsored enterprises (GSEs) may purchase;
- Lends money to mortgage bankers to help them refinance the mortgages of owner-occupants at risk of foreclosure. The lender reduces the amount of the mortgage (typically taking a significant loss), in exchange for sharing in any future appreciation in the selling price of the house via the Federal Housing Administration. The refinancing must have fixed payments for a term of 30 years;
- Requires that lenders disclose more information about the products they offer and the deals they close;
- Helps local governments buy and renovate foreclosed properties.

3. Emergency Economic Stabilization Act of 2008

- commonly referred to as a bailout of the U.S. financial system, is a law authorizing the United States Secretary of the Treasury to spend up to US\$700 billion to purchase distressed assets, especially mortgage-backed securities, and make capital injections into banks
- The bailed-out banks are mostly U.S. or foreign banks, though the Federal Reserve extended help to American Express, whose bank-holding application it recently approved.
- The Act was proposed by Treasury Secretary Henry Paulson during the global financial crisis of 2008.

- On October 1, a revised compromise version was approved by the Senate with a 74-25 vote.
- The bill, HR1424 was passed by the House on October 3, 2008 and signed into law.

Chapter XV

Impact of the Financial Crisis and Actions Taken

On Developing Countries

1. Global trade is forecast to shrink in 2009 for the first time since 1982
2. Foreign investment and short-term credit are drying up
3. Developing country exports are falling; large amounts of capital have been withdrawn
4. GDP growth in developing countries is expected to fall to 4.5% from a projected 6.4%
5. Private capital flows are expected to drop from \$1 trillion in 2007 to \$530 billion in 2009
6. Remittances that workers send to home countries are projected to decline
7. 100 million people have fallen into extreme poverty, according to World Bank estimates and
Another 44 million children are malnourished
8. Measures to offset rising prices have left many countries fiscally vulnerable

On the US and the world at large

	Resultant Event	Description	Implications
1	Severe liquidity and credit crunch in the US markets.	As major banks and financial institutions reported subprime exposure, it became difficult to	Lack of liquidity thus caused by distrust within the banking system and crash in the prices of MBS and CDOs

		<p>determine counterparty risks of each bank and banks became reluctant to lend to each other.</p> <p>As defaults grew beyond expectations, investors started selling their positions. Financial institutions sought to liquidate their securitized assets but could not except at very low prices.</p> <p>The financial institutions had to sell their stock to meet cash demand from investors which caused the stock market to crash.</p>	<p>within in the market thus led to a “credit crunch”.</p> <p>Loan rates shot up substantially and even borrowers with good credentials could borrow at rates that were significantly higher than just a few weeks ago.</p>
2	Commodity price increases	Investors and Financial speculators took trillions of dollars out of risky mortgage bonds and shaky equity markets and put it into commodities and commodity futures.	Financial speculation in commodity futures contributed to the world food price crisis and oil price increase.
3	Collapse of major stock markets around the world.	Beginning mid 2008, the US as well as many European stock markets entered the	Investors have lost trillions of dollars as the market capitalization of stocks

		bear phase.	across the world fell sharply.
4	Job losses	Job losses in the Financial sector were significant with more than 65000 jobs lost in the US alone upto September 2008.	Rise in unemployment rates have resulted in decrease in consumption and demand
5	Decrease in consumer wealth	Housing prices decline left consumers with lower wealth which placed downward pressures on consumption.	Decline in consumption led to decline in demand which in turn has affected the manufacturing and services industry.
6	Recessionary trends in the US and across the world especially the EU.	As discretionary spends reduce, consumer confidence dips, funding becomes difficult and the cost of capital rises for the industry, there is a clear recessionary environment within the US.	With US in the grip of recession, the trend would spill over to the rest of the world especially the EU.

Actions taken by the US Government and regulatory agencies

	Authority	Description	Implications
A	Federal Reserve	The Federal reserve undertook several actions to improve liquidity within the markets such as reducing the FFR and discount rates, conducting open market	These steps were taken to address the continued liquidity concerns within the Markets. The new rules for mortgage

		<p>operations, using the Term Auction facility and including commercial papers as collaterals.</p> <p>A number of rules have also been introduced that apply to mortgage lenders.</p>	<p>lenders are aimed at “curbing abuses while preserving responsible sub prime lending and sustainable home ownership.”</p>
B	The US Congress	<p>The regulatory powers of the Federal Bank are proposed to be expanded to enable better intervention during financial crisis.</p> <p>A number other steps such as considering bills to regulate the lending practices, higher capital reserve requirements for non deposit banks, temporary ban on short selling of financial stocks were also undertaken.</p> <p>A bailout plan was passed by the US Government on 1st Oct 2008 to purchase large amounts of illiquid and risky MBS from Financial institutions thus involving</p>	<p>All these actions have been undertaken to bring about better transparency and regulatory reportings for complex financial securities, products and legal entities as also to restore consumer confidence.</p>

		<p>\$700 billion in additional commitments and to ban short selling of financial products.</p> <p>Also, the Government in partnership with private entities such as the Hope Now Alliance is taking steps to adjust loans and avoid foreclosures.</p>	
C	Legislative	<p>The Economic Stimulus Act, 2008 was introduced to help stimulate economic growth through a \$ 168 billion package in the form of tax rebates.</p> <p>The Housing and Economic Recovery Act, 2008 has been introduced which provides for mortgages to home owners in the risk of foreclosures and for establishing a new regulator to ensure the safe and sound operations of Government entities such as Fannie Mae and Freddie Mac.</p>	<p>These Acts were introduced to restore investor confidence in the economy and the mortgage markets.</p>

D	Law Enforcement	<p>The Federal Bureau of investigation (FBI) have arrested a number of people on suspicions of mortgage fraud which include ex employees of financial institutions and wall street executives.</p> <p>The FBI is also investigating into the possibility of fraud by mortgage financing companies such as Freddie Mac and Fannie Mae, Lehman Bros and insurer American International Group (AIG).</p>	<p>Investigation into frauds would not only bring the guilty to light but also give insight on the loopholes and non transparencies in the legislative and regulatory environment that need to be addressed.</p>
E	Credit risk measurement practices.	<p>The credit risk measurement models on which decisions were being based are being reassessed and remodeled to tune them to the present needs.</p> <p>Financial institutions are considering options to move to Advanced Internal Ratings based approach as recommended by Basel II.</p>	<p>Large scale improvements to the credit risk measurement techniques and credit ratings would help restore the badly battered confidence of investors in credit rating agencies and underwriters.</p>

Chapter XVI

Impact of the financial crisis on India

Indian policy makers and political leaders are crying themselves hoarse that the fundamentals of the Indian industry are strong and that the financial and banking system within the country is well structured and sound. But the fact remains that India has not been able to escape the onslaught of the global financial contagion which has become a virulent disease for the country. Here is a bird's eye view of the impact on the Indian economy.

	Resultant Event	Description
a	Stock market steep fall	The benchmark 30 stock BSE sensitive index (SENSEX) has fallen by more than 55% since its peak in Jan 08.
b	Liquidity crunch and weak rupee	The FIIs have pulled out more than \$ 10 billion from India resulting in a weak rupee and a liquidity crisis. To stem the sharp depreciation in the rupee, RBI intervened and sold dollars to the tune of \$ 10 billion which further sucked liquidity from the market.
c	Decline in exports and increase in trade deficits.	Although the Indian Rupee has depreciated by more than 21% in the last few months against the USD, it is of little help to Indian Exporters. Rising input costs and the high cost of borrowings have squeezed out margins while the financial turmoil in the US and Eurozone has shrunk the market size of exporters. Indian exports are likely to miss its export target of \$ 200 billion by more than 20%. The country's trade deficit for the current fiscal is expected to be around \$ 121 billion.

d	Increase in job losses and unemployment rate	Large layoffs are taking place in almost all sectors whether it be textiles, diamond cutting, truck manufacturing, airlines, investment banks or real estate firms.
e	Higher cost of borrowing and General slowdown in the industry	<p>The corporate sector is struggling as expansion plans and merger plans have taken a backseat in the uncertain global environment. With avenues for external commercial borrowings narrowing and the capital markets drying up, the Indian industry is facing a major credit crisis. Big Indian conglomerates are looking at rights issue while listed and unlisted Indian companies are approaching PE players for raising finance at very high costs. Corporate profits for the Sep 08 quarter have fallen by a staggering 35%. Industrial production grew by only 4.9% during the first half of the current financial year as compared to 10% during the same time in the last FY.</p> <p>Sales figures have caved in for the automobile sector, mutual funds have seen a 20% drop in the money they manage, hotels admit a 20% drop in occupancy, index of shipping freight rates has dropped 90% and real estate transactions have dropped by half.</p>

Chapter XVII

Action taken by the Indian Government and regulatory authorities

Extracts from RBI Growth stimulus- 06.12.2008

Taken together, the measures put in place since mid-September 2008 have ensured that the Indian financial markets continue to function in an orderly manner. The cumulative amount of primary liquidity made available to the financial system through these measures is over Rs.300,000 crore. This sizeable easing has ensured a comfortable liquidity position starting mid- November 2008 as evidenced by a number of indicators. Since November 18, the LAF window has largely been in the absorption mode. The weighted average call money rate has come down from a recent high of 19.7 per cent on October 10 to 6.1 per cent on December 5. The overnight money market rate has consistently remained within the LAF corridor (6.0 per cent to 7.5 per cent) since November 3. The yield on the 10 year benchmark G-Sec has declined from 8.6 per cent on September 29 to 6.8 per cent on December 5. Taking the signal from the repo rate cut, the top five public sector banks have reduced their benchmark prime lending rates (BPLR) from 13.75 – 14.00 per cent as on October 1 to 13.00 – 13.50 per cent presently.

12. The Reserve Bank has reviewed the evolving macroeconomic and monetary/liquidity conditions and has decided to take the following further measures:

* It has been decided to reduce the repo rate under the LAF by 100 basis points from 7.5 per cent to 6.5 per cent and the reverse repo rate by 100 basis points from 6.0 per cent to 5.0 per cent, effective December 8, 2008.

* In view of the need to enhance credit delivery to the employment- intensive micro and small enterprises (MSE) sector, it has been decided to provide refinance of an amount of Rs. 7,000 crore to the Small Industries Development Bank of India (SIDBI) under the provisions of Section 17(4H) of the Reserve Bank of India Act, 1934. This refinance will be available against: (i) the SIDBI's incremental direct lending to MSE; and (ii) the SIDBI's loans to banks, NBFCs and State Financial

Corporations (SFCs) against the latter's incremental loans and advances to MSEs. The incremental loans and advances will be computed with reference to outstandings as on September 30, 2008. The facility will be available at the prevailing repo rate under the LAF for a period of 90 days. During this 90-day period, the amount can be flexibly drawn and repaid. At the end of the 90-day period, the drawal can also be rolled over. This refinance facility will be available up to March 31, 2010. The utilisation of funds will be governed by the policy approved by the Board of the SIDBI.

* We are working on a similar refinance facility for the National Housing Bank (NHB) of an amount of Rs 4, 000 crore. We will announce the details after consideration of the proposal by the Central Board of the Reserve Bank which is meeting next week.

* On November 15, 2008, the Reserve Bank had announced that proposals by Indian companies for premature buyback of foreign currency convertible bonds (FCCBs) would be considered under the approval route, provided that the buyback is financed by the company's foreign currency resources held in India or abroad and/or out of fresh external commercial borrowings (ECBs) raised in conformity with the current norms for ECBs. Extension of FCCBs was also permitted at the current all-in cost for the relevant maturity. On a review, it has now been decided to permit Authorized Dealers Category - I banks to consider applications for premature buyback of FCCBs from their customers, where the source of funds for the buyback is: i) foreign currency resources held in India (including funds held in EEFC accounts) or abroad and/or ii) fresh ECB raised in conformity with the current ECB norms, provided there is a minimum discount of 15 per cent on the book value of the FCCB. In addition, the Reserve Bank will consider applications for buyback of FCCBs out of rupee resources provided that: (i) there is a minimum discount of 25 per cent on the book value; (ii) the amount of the buyback is limited to US \$ 50 million of the redemption value per company; and (iii) the resources for buyback are drawn out of internal accruals of the company as certified by the statutory auditor.

* It has been decided that loans granted by banks to Housing Finance Companies (HFCs) for on-lending to individuals for purchase/construction of dwelling units may be classified under priority sector, provided the housing loans granted by HFCs do not exceed Rs.20 lakh per dwelling unit per family. However, the eligibility under this measure will be restricted to five per cent of the individual bank's total priority sector lending. This special dispensation will apply to loans granted by banks to HFCs up to March 31, 2010.

* Under the current guidelines, exposures to commercial real estate, capital market exposures and personal/ consumer loans are not eligible for the exceptional regulatory treatment of retaining the asset classification of the restructured standard accounts in standard category. As the real estate sector is facing difficulties, it has been decided to extend exceptional/ concessional treatment to the commercial real estate exposures which are restructured up to June 30, 2009.

* In the face of the current economic downturn, there are likely to be more instances of even viable units facing temporary cash flow problems. To address this problem, it has been decided, as a one time measure, that the second restructuring done by banks of exposures (other than exposures to commercial real estate, capital market exposures and personal/ consumer loans) up to June 30, 2009, will also be eligible for exceptional regulatory treatment.

* In view of the difficulties faced by exporters on account of the weakening of external demand, it was decided that the interest rate on Post-shipment Rupee Export Credit up to 180 days will not exceed BPLR minus 2.5 percentage points. In respect of overdue bills, banks have been permitted to charge the rates fixed for Export Credit Not Otherwise Specified (ECNOS) for the period beyond the due date. It has now been decided that the prescribed interest rate as applicable to post shipment rupee export credit (not exceeding BPLR minus 2.5 percentage points) may also be extended to overdue bills up to 180 days from the date of advance.

13. Operational instructions covering the above measures will be issued separately.

14. The cumulative impact of the measures in today's package, together with earlier measures, should be to step up demand and arrest the growth moderation. In particular, the reduction in the repo/reverse repo rates should result in a reduction in the marginal cost of funds to banks and enable them to improve the flow of credit to productive sectors of the economy on viable terms. The liquidity support provided to the SIDBI under the refinancing arrangement is expected to alleviate the credit stress/tightening of lending conditions confronting micro and small enterprises and should revive activity in these employment-intensive drivers of growth. The facility for premature buyback of FCCBs will help Indian companies to take advantage of the current discounted rates at which their FCCBs are trading. The special dispensation for treating loans to HFCs as priority sector lending will boost lending to the housing sector. The facilities for restructuring exposures will help soften pressures being faced by the commercial real estate and other sectors in the current environment. The benefit of the concessional rate of interest available to the exporters up to 180 days irrespective of the original maturity of the export bills is intended to benefit exporters who have drawn bills for shorter maturities and are facing difficulties in realizing the bills on due dates on account of external problems.

**Extracts from the press release dated 07.12.2008 on
Government Announcement of Measures for stimulating the Economy**

The Government has been concerned about the impact of the global financial crisis on the Indian economy and a number of steps have been taken to deal with this problem.

The first priority was to re-assure the people of the stability of the financial system in general and of the safety of bank deposits in particular. To this end, steps were taken to infuse liquidity into the banking system and also to address problems being faced by various non-bank financing companies. These steps have ensured that the financial system is functioning effectively without suffering the kind of loss of confidence experienced in the industrialised world.

Having assured stability of the system, the Government has focussed its attention on countering the impact of the global recession on India's economic growth. On the monetary side, the RBI has sought to pump sufficient liquidity into the banking system to enable bank credit to meet the expanded requirements of the economy keeping in mind the contraction in credit from non-bank sources. Banks have been provided adequate liquidity through a series of reductions in the CRR and additional flexibility in meeting the SLR requirement. Interest rate reductions have also been signalled by reductions in the repo and reverse repo rates, the most recent of which was announced on Saturday when both the repo rate and the reverse repo rate were cut by 100 basis points. Access to external commercial borrowings has also been liberalised so that borrowers capable of accessing funds from abroad are allowed to do so. The banks are being encouraged to counter what might otherwise become self-fulfilling negative expectations by enhanced lending to support economic activity.

These measures in the area of money and credit are being supplemented by fiscal measures designed to stimulate the economy. In recognition of the need for a fiscal stimulus, the government had consciously allowed the fiscal deficit to expand beyond the originally targeted level because of the loan waivers, issue of oil and fertilizer bonds and higher levels of food subsidy. In addition, the following steps are being taken:

1. Plan Expenditure:

In order to provide a contra-cyclical stimulus via plan expenditure, the Government has decided to seek authorisation for additional plan expenditure of upto Rs 20,000 crore in the current year. In addition, steps are being taken to ensure full utilisation of funds already provided, so that the pace of expenditure is maintained. The total spending programme in the balance four months of the current fiscal year, taking plan and non-plan expenditure together is expected to be Rs.300,000 crore.

The economy will continue to need stimulus in 2009-2010 also and this can be achieved by ensuring a substantial increase in plan expenditure as part of the budget for next year.

2. Reduction in Cenvat:

As an immediate measure to encourage additional spending, an across-the-board cut of 4% in the ad valorem Cenvat rate will be effected for the balance part of the current financial year on all products other than petroleum and those where the current rate is less than 4%.

3. Measures to Support Exports

i) Pre and post-shipment export credit for labour intensive exports, i.e., textiles (including handlooms, carpets and handicrafts), leather, gems & jewellery, marine products and SME sector is being made more attractive by providing an interest subvention of 2 percent upto 31/3/2009 subject to minimum rate of interest of 7 percent per annum

ii) Additional funds of Rs.1100 crore will be provided to ensure full refund of Terminal Excise duty/CST.

iii) An additional allocation for export incentive schemes of Rs.350 crore will be made.

iv) Government back-up guarantee will be made available to ECGC to the extent of Rs.350 crore to enable it to provide guarantees for exports to difficult markets/products.

v) Exporters will be allowed refund of service tax on foreign agent commissions of upto 10 percent of FOB value of exports. They will also be allowed refund of service tax on output services while availing of benefits under Duty Drawback Scheme.

4. Housing

Housing is a potentially very important source of employment and demand for critical sectors and there is a large unmet need for housing in the country, especially for middle and low income groups. The Reserve Bank has announced that it will shortly put in place a refinance facility of Rs.4000 crore for the National Housing Bank. In addition, one of the areas where plan expenditure can be increased relatively easily is the Indira Awas Yojana. As a further measure of support for this sector public sector banks will shortly announce a package for borrowers of home loans in two categories: (1) upto Rs.5 lakhs and (2) Rs 5 lakh-Rs 20 lakh. This sector will be kept under a close watch and additional measures would be taken as necessary to promote an accelerated growth trajectory.

5. MSME Sector

The Government attaches the highest priority to supporting the medium, small and micro enterprises (MSMEs) sector which is critical for employment generation. To facilitate the flow of credit to MSMEs, RBI has announced a refinance facility of Rs.7000 crore for SIDBI which will be available to support incremental lending, either directly to MSMEs or indirectly via banks, NBFCs and SFCs. In addition, the following steps are being taken.

(a) To boost collateral free lending, the current guarantee cover under Credit Guarantee Scheme for Micro and Small enterprises on loans will be extended from Rs.50 lakh to Rs.1 crore with guarantee cover of 50 percent.

(b) The lock in period for loans covered under the existing credit guarantee scheme will be reduced from 24 to 18 months, to encourage banks to cover more loans under the guarantee scheme.

(c) Government will issue an advisory to Central Public Sector Enterprises and request State Public Sector Enterprises to ensure prompt payment of bills of MSMEs. Easing of credit conditions generally should help PSUs to make such payments on schedule.

6. Textiles

(a) An additional allocation of Rs.1400 crore will be made to clear the entire backlog in TUF Scheme.

(b) All items of handicrafts will be included under 'Vishesh Krishi & Gram Udyog Yojana'.

7. Infrastructure Financing

A large number of infrastructure projects are now being cleared for implementation in the Public Private Partnership mode. These projects may experience difficulty in reaching financial closure given the current uncertainties in the financial world. In order to support financing of such projects, Government has decided to authorise the India Infrastructure Finance Company Limited (IIFCL) to raise Rs.10,000 crore through tax-free bonds by 31/3/2009. These funds will be used by IIFCL to refinance bank lending of longer maturity to eligible infrastructure projects, particularly in highways and port sectors. In this way it is expected that IIFCL resources used for refinance can leverage bank financing of double the amount. Depending on need, IIFCL will be permitted to raise further resources by issue of such bonds. In particular, these initiatives will support a PPP programme of Rs.100,000 crore in the highways sector.

8. Others

(a) Government departments will be allowed to take up replacement of government vehicles within the allowed budget, in relaxation of extant economy instructions.

(b) Import Duty on Naphtha for use in the power sector will be eliminated.

(c) Export duty on iron ore fines will be eliminated and on lumps will be reduced to 5%.

The Government is keeping a close watch on the evolving economic situation and will not hesitate to take any additional steps that may be needed to counter recessionary trends and maintain the pace of economic activity.

Chapter XVIII

Lessons from financial crisis

The financial crisis is having an impact across the world. There could be several more developments over the next few months that might make things more difficult. As the world suffers what is clearly a truly major financial crisis, it is of interest to take stock of what lessons might be drawn from the crisis.

Key Lessons for Governments

1. Understanding the importance of incentives in the design of policy responses
2. The composition of 'spending', in designing a fiscal stimulus or adjustment program
3. Importance of sound information on what is happening on the ground as the crisis unfolds.
4. Short-term responses to a crisis cannot ignore longer term implications for development in all its dimensions.
5. The macroeconomic stabilization response must be consistent with restoring the growth process
6. Financial sector policies need to balance concerns about the fragility of the banking system with the needs for sound longer-term financial institutions.

7. The social policy response must provide rapid income support to those in most need, giving highest on the poorest amongst those affected, while preserving the key physical and human assets of poor people and their communities.
8. Address the tradeoffs between rapid crisis response and longer-term development goals

Key lessons for industries

1. Diversify Globally
2. Local foray
3. Tighten Recruitment and Retention Processes
4. Address the Skills Shortage
5. Improve Productivity
6. Innovate- do things differently

Key lessons for Individuals

For individuals, financial crisis can result from excessive borrowing, living beyond one's means, poor asset allocation, under-diversification, medical emergencies, or even loss of employment. And it's in these present deteriorating market conditions that individuals are made to pay for their poor decisions. So here it's important to work out a plan to stay in control and avert a financial crisis.

Know your debt

We all need debt at some point. It can be a loan for a house, an automobile, education, or for other personal needs. Debts can be good, bad or ugly. Home loans are considered good debts as they are used to build useful assets. A home loan makes more sense if you want to switch from a rented to an owned house. And, if the difference between your EMI (equated monthly installment) and rent is less then it is important to acquire a home. Personal loans are "bad" debts, which should be availed of only in emergency situations. Ugly debts are credit card debts that are used to personal finance

consumption or luxuries. Both the bad and the ugly debts come with high interest rate liabilities and should be avoided at all costs.

Borrow sensibly

Financial planners suggest that one should remain as debt-free as possible. You should borrow only if it is necessary. And you should plan them in such a way that your inflows i.e. your income is more than your outflows.

Don't over-leverage

Overleveraging is a high-risk, low-return game. When you borrow for investment purposes, your net income depends on the returns generated from that asset class minus the interest paid. For example, X and Y invest Rs 5,000 each in a stock. While X invests his own money, Y borrows the same amount at the rate of 10 per cent annum. Let's assume that over the next three years, the stock generates returns of 40 per cent. After three years, the net income for X will be Rs 7,000 – Rs 5,000 = Rs 2,000, but for Y, it will be Rs 7,000 – Rs 6,500 = Rs 500 (6500 = 5000 + 1500 interest for 3 years)

Every investment has risk

Typically, during good times, investors tend to ignore the risk element in a paper and focus only on returns. Investors in equities stand to lose their entire money, if the company goes down. The plunging share prices of Lehman Brothers, Freddie Mac and Fannie Mae to one dollar proves that entire market capitalisations can simply get wiped out. Even debt market products get badly hit on account of the write-down of the debt that they hold. So, a portfolio needs to be diversified to prevent such situations.

Everything is interlinked

From the price of a stock to an insurance policy, everything is linked. A fall in the price of a particular stock in united states could mean the overseas mutual fund, where you are invested, will see a fall in its net asset value. Even an insurance policy with a domestic company, which has a foreign partner, can be adversely impacted. This will imply that you will lose your premiums as well as your insurance cover. While such risks can definitely not be avoided, a portfolio that contains only domestic stocks or an insurance company may sound safe, but still here there is no guarantee that even they will not be impacted.

Diversify for retirement planning

Your biggest motive for financial planning is to have a big corpus when you retire .A big nest will ensure that there are adequate funds during your post retirement years. Many people, even those who are in the financial sector, make the basic mistake of putting all their eggs in one basket. employees buy shares of their own companies thinking that being an insider they can have access to the most-sensitive information. This could be very dangerous if suddenly something were to go wrong. The solution again is diversification. Having exposure to local equities, international equities, debt, commodities together would be a better idea to create a sound portfolio that will help you in tough times. And even within each of these areas, spread the money across investment options.

Development of Human Capital

Human Capital is a person's ability to turn their skills and abilities into a livelihood. The development of these skills and abilities helps us maximize our income potential in a competitive marketplace. In our early years, usually between age 19 and 25, we set ourselves on a course that largely defines our Human Capital potential. Each of us makes an investment in Human Capital, whether we realize it or not. For some this is an investment of time, gaining experience and skills on the job. For others it is an investment in trade school or college. It should also be noted that although our greatest focus on Human Capital development is in our early years, this is an investment we should continue to make and assess throughout our working careers. Just like an

investment that needs constant monitoring and analysis, there is a need to monitor the career in the same manner. Most people are shocked when they lose their jobs.

The better way is to be prepared for the worst. That will help to insulate you from any career related problem. Also, concentration on issues like upgrading skills through training, attending conferences and seminars and networking will help to improve your career. Of course all of this cost loads of money. But you will realize that the returns over the years will be much more.

Save during good times

The most important rule is to save the most when you are earning well. Good times are not for ever. Creating a meaningful portfolio or a simple savings corpus would be of great help during bad times. Proper investments will ensure that there are reserves that can be used during emergencies.

For investing in share markets

The situation we all are in will be imprinted in our memories for a long time to come. Today Equity markets have gone back to the levels that existed a couple of years back.

It is very obvious for us as investors to feel disappointed. More so, for those, who have invested in the markets at the peak and for those as well, who were not informed enough to rebalance their portfolios periodically.

All of us know that fluctuations and volatility is the only thing constant in stock markets.

Although we are aware of this fact, we get apprehensive whenever the sensx looses 500 points.

Countless questions arise in our mind. Is this the right time to enter the market? Will the downfall completely wipe away our investments? Should we exit now and save ourselves from more damage or invest more to average out the cost of investment?

But, all is not lost. Even at such levels, opportunities do exist. We can make the most of even this situation. While share markets do carry a risk element, smart and meaningful investment strategies are the key to optimizing returns with minimal risk.

Have a long-term horizon

It pays to have a longer horizon especially in the current times. One would be less disturbed if one knew that his investment horizon is long and that the situation would eventually turn-around. But here buy after a through research. Now when you have bought a stock give it due time to appreciate. But if due to some dynamic factors, the performance deteriorates and you find that there is lesser probability of a turn around, exit the investment immediately. Emotions do not help in stock markets. Remember that emotions are an enemy for stock market investor.

One should know when to invest.

This doesn't mean trying to time the markets. Rather one should avoid becoming a victim of unnecessary euphoria. Legendary investor Warren Buffet once said – I get fearful when others are greedy, but I get greedy when others are fearful.

It is usually been seen that the best investments are those which have been made during times of extreme pessimism and panic. The situation today presents one such rare opportunity when valuations are down to historical levels. The need, therefore, is not to sit tight but to act and capitalize on them.

Go steady

Follow the steady and a systematic approach to investing. Markets are presently going through a period of high volatility, characterized by sharp movements in both directions. Hence, investments in a systematic manner are preferred rather than going for one time lump-sum investments. A Systematic Investment Plan (SIP) or Systematic Transfer Plan (STP) kind of approach can work in this scenario.

Size Matters, at least in Equities

This is the time to repose faith in the Goliaths of the industry. Companies like Reliance, Bharti, ITC, ONGC, Larsen & Toubro, etc. are the best bets to survive difficult times. Planners have said that don't rely on companies just because of their name and good . but you have to keep in mind that they are rich in experience, are the best in their business, have deep pockets and **have already been** through difficult times in the past. They know how to survive, what to do when things are going bad.

Crisis survival guide

- **Increase your savings rate:** Ideally, you should save 50-55 per cent of your monthly income. Try to save more by cutting expense on unnecessary items
- **Allocate to fixed income:** Fixed income instruments are less volatile compared to equity-linked investments; ensure stable returns over the life of the instrument irrespective of bad market conditions
- **Don't panic:** Keep your wits intact, as financial storms don't last. Panic can get you into a further mess
- **Look for alternate income sources:** Passive earning is the best way to augment your income. Look for opportunities to set up a passive income stream
- **Go for insurance:** You can protect yourself and your wealth against future uncertainties by buying health, life and home insurance covers
- **Manage your portfolio:** Align your investments according to your financial goals. Resist the urge to put all

your money into any one asset class