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REVISITING THE GLOBAL FINANCIAL CRISIS OF 2007/2008

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Abstract

In this paper we reviewed the factors that led to the 2007/08 global economic and financial crisis. Key factors that contributed to the crises include.; laxity in regulation of financial institutions, regime of easy credit, unbridled development of several exotic financial assets whose underlying risks were vague even to the financial institutions that developed them, extensive and unsustainable use of leverage, lack of transparency and neglect of fundamentals in the calculation of risk matrices and criminal complicity of some credit rating agencies. These factors, it must be noted, differed in their impact and magnitude to the crisis from one clime to the other. When combined, as they did in the 2007/08 crisis, it becomes a perfect recipe for a financial time-bomb. In this work also, the authors' places analytical spotlight on some of these factors that could potentially lead to future financial crisis if not mitigated.

Keywords: Financial Crisis, Economic Meltdown, Economic Recession, Banking Crisis

INTRODUCTION

The 2007/08 global financial crisis which triggered distressed assets, high bank insolvency and loss of market trust in developed and emerging economies (IMF, 2009), has elicited a plethora of research among practitioners and scholars. These studies cover a broad range of areas like the causes of the crisis (see Hampel, et al, 2008), effects of the crisis on macroeconomic environment, the role of the crisis in changing market fundamentals across countries, and policy responses (IMF, 2009; Asia Development Bank, 2009). Some of these studies focused on strategies of preventing future occurrence and ensuring global financial stability. The crisis which was triggered by the sub-prime mortgage crises in United States of America, and spread to Europe, Asia, and other countries of the world was described as a 'tsunami' in order to properly capture the magnitude of the crisis and its peculiarity in terms of origin, evolution, nature, pace and the disturbing realities (Chossudovsky, 2009). The world blamed the United States subprime mortgage as the prime cause of the crisis. Gupta, et al., (2010) elucidated this view by arguing that "the subprime mortgage is designed to carter for customers that are unable to meet documentation requirements for ordinary mortgage". This reveals the risky nature of subprime lending when compared to normal lending and most importantly, the wisdom in banks staying away from this segment due to high default risk. In the 1990s, the segment witnessed serious boom due to factors such as; home price appreciation; reduction in risk horizon for original mortgage lender (securitization); lax lending standards (a corollary of the securitization, which is the ability of lenders to push-off loans from their books to the financial markets); low interest rates, abundant liquidity and a chase for yield; and adjustable rate of mortgages and teaser rates (Gupta et al., 2010). Increasing number of banks also increased their lending to the sector till the burst in 2007 (monumental slide in housing prices).
The rest of the paper is organized as follows: Following this introduction, section 2 reviewed the 2007/08 global financial crisis while in section 3, we highlighted the recipes that could lead to a financial disaster in the future. The paper is concluded in section 4.

REVIEW OF THE GLOBAL FINANCIAL CRISIS

There is a broad consensus that subprime mortgage was the proximate cause of the crisis but the remote causes of the financial crisis have been attributed to many factors. Uche (2009) linked the origin of the crisis to the unwillingness of financial regulators to learn from the 1929 financial crisis. He argued that the abolition of the Glass Steagall Act of 1933 (Banking Act of 1993) which separated banking from securities business to eliminate all areas of potential conflict of interest that arise as a result of combining commercial banking with investment banking, and the enactment of the Gramm-Leach-Bliley Act (BLBA) of 1999[1], which effectively repealed the prohibition of combining banking and securities business triggered the crisis. He summarized this argument thus: "…because of the sheer size of the American financial system, once the Glass Steagall obstruction was eliminated, it quickly established itself as the champion of the transition from a bank-based system of financial intermediation to a credit-market based system. Under the new system, the practice of securitization of assets reigned supreme. Problem assets were simply securitized through complex models and transferred to third parties with the aid of Special Purpose Vehicles (SPVs). This effectively removed such assets from the balance sheet of the financial institutions that originated them. This was the very foundation of the US subprime mortgages which is at the centre of the financial crisis".

The abolition of Glass Steagall Act of 1933 eliminated all barriers in terms of banks combining non-bank financial services (universal bank) and banking services[2]. This banking model encouraged large correlated holdings by banks, development of capital-market based securities, promotion of shadow banking, complex network of contracts, and asset price bubble which were part of the build-up to the crisis.

Scholars and practitioners also blamed the crisis on the liberalization of the financial system. Financial liberalization[3] is an operational reform and policy measures designed to deregulate the financial system within an appropriate regulatory framework. The argument is that financial liberalization accelerated unregulated international investment funds as a result of the global abolition of restrictions on capital flow. This is based on the global savings glut theory, which postulates that the massive flow of savings from surplus countries to deficit countries lowered global interest rates by encouraging reckless investment into risky housing-related assets such as subprime mortgages. The global savings glut theory lends further support to the notion that global imbalances are unsustainable and their unwinding will necessarily be disruptive (Adams and Park, 2009)[4].

The level of speculation in the financial system is another factor that is linked to the crisis. Most scholars and practitioners blamed the crisis on the United States housing policy which encouraged low-income earners to own houses. Ekholim (2012) brings this to the fore by asserting that "the United States deficiencies in the regulation of the mortgage market and a housing policy that promoted homeownership among low-income-owners were more prominent contributing factors" Recent revelation shows a speculative dimension to this trend. For instance, while it is generally agreed that real estate is not an avenue for speculative investment, this was not the case in United States during the housing boom. It was reported that approximately 40% of home purchase were not for primary residences, but for speculative purposes. This is also one of the factors that led to the drastic fall in housing prices.

Analysts have also identified low interest rates that prevailed before the crisis in many countries as important determinant of 'unsustainable increase in indebtedness and property prices'. This is premised on the basis that the combination of low interest rates and large inflows of foreign funds eases credit conditions, and made subprime lending and borrowing very attractive in US, UK and Sweden. These conditions coupled with rising demand for house propelled investors to access mortgage loan for investment in houses.

The activities of credit rating agencies (CRAs) have also been identified as one of the causes of the crisis. In the wake of financial innovation and complex financial

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[1] For details on the origin and forces behind the Gramm-Leach Bliley Act, see Uche (2009)

[2] Uche (2001) identified the potential conflicts of interest in universal banking scheme to include; granting imprudent loans to issuers of securities underwritten by an affiliate; granting risky loans to separately capitalized securities of affiliates in financial difficulty; granting of loans in order to support the price of a security issued by affiliate.; the placement of unsold securities in a bank's trust account; conflict between the commercial banker's obligation to provide impartial advice to depositors and promotional role of investment bankers; banks may also blackmail their customers to use their underwriting services.

[3] The role of financial liberalization in economic growth thesis propounded by McKinnon (1973) and Shaw (1973) have come under serious scrutiny recently. This current focus is accentuated byf two factors. First is the apparent inability of the classical and neo-classical models to adequately address the global financial crisis which ravaged the economies of the world. Second is the decision by the government of developed and developing economies to move conveniently away from free market fundamentals, to a regulated economic regime, with the government taking up major stakes in the financial markets through the injection of funds as a measure of curbing the global financial crisis.

[4] Adams and Park (2009) argue that "[t]he existence of current imbalances is not a cause for concern. Given increasing financial integration across countries, there is no reason why countries should run balanced current position at all times. Nevertheless, the size and persistence of global imbalances, as well as their concentration in a small group of countries, have raised concern about their sustainability. There have also been questions on about whether it is optimal for low-income developing countries to use their savings to finance the consumption of high-income countries and forgo productive investments.

products (asset securitization)[5] for instance, investors relied so much on rating agencies, since they lacked the analytical and technical background based on the complex nature of those financial products. The credit rating agencies however, adopted the same credit risk metrics for all financial products. The uniform rating scale led to the underestimation of systemic risk of structured products compared to corporate and sovereign bonds. This shows clearly the unpreparedness of rating agencies to adequately rate the structured products due to their complexities. Gupta et al., (2010) captured the role of rating agencies by arguing that "[Credit] ratings contributed to the flow of global investor funds into these securities, funding the housing bubble in the US. A total amount of $3.2 trillion was the inflow on account of loans made to homeowners with doubtful creditworthiness between 2002 and 2007. These mortgages could be bundled into mortgage-backed securities (MBS) and collateral debt obligations (CDO) securities that received high ratings and therefore could be sold to global investors. At the inception of the structuring process, the CRAs took lower rated mortgage bonds combined with equity, to form a Mezzanine CDO to enable it to receive a higher rating. During the second stage, these intermediate rated (AA or BB-) Mezzanine CDO or normal CDOs were combined together again to form AAA rated securities. The rating agencies advised their clients on structuring the debt of the products thereby creating a chain of multilayered mortgage products and then consequently rating them as AAA ratings. Thus, the products created at every stage carried more risk and illiquid securities than the previous ones, but yet carried a rating of AAA. As mortgage securities became increasingly complex with little transparency on composition and characteristics of these loans held in the pools, investors relied more on the CRAs".

The endorsement of these complex financial products by rating agencies[6] boosted investors' confidence in the products which would have been very difficult if the acceptance of such product rest squarely on the ability of issuers to convince the investors on the viability and profitability of such product (Uche, 2009).

On the other hand, the causes of the crisis in developing economies are diametrically different. In Nigeria for instance, at the inception of the crisis, financial regulators argued that the Nigerian financial system is insulated from the global crisis, since the "economy draws its strength from strong internal dynamics rooted in its large population, resilient small and medium enterprises, vibrant informal sector and excellent crop of entrepreneurs" (Ujunwa et al., 2011). Within the period also, the Central Bank of Nigeria conducted commercial bank audit which revealed the soundness of the Nigerian banking in resisting external shocks. IMF within the period endorsed the strength of Nigerian banking system in supporting economic growth.

However, despite the assurances from financial system regulators that the Nigerian financial system is insulated from the crisis, the Nigerian stock market was not spared from the crisis. Ujunwa et al., (2011) noted that "while the regulators of Nigerian financial system were busy canvassing for a new economic model for the global financial crisis, Nigerian investors who were basking on the euphoria that the financial system is insulated from the global financial crisis were caught in the gap. For example, the Nigerian Stock Exchange that witnessed unprecedented growth in total market capitalization and value of share traded from 2004 to early 2008 is currently experiencing a serious downturn in its activities. The market capitalization of the 303 listed equities., which had opened on January 1st, 2008, at N10.18tn and later appreciated to N12.395tn as at March 2008, suffered its highest fall in the 48-year history of the Nigerian Stock Exchange, depreciating by N3.223tn or 32 per cent to N6.957tn by the year end. Similarly, the NSE All Share Index depreciated by the same margin from 63,016.60 at which it opened in January, to 31,450.78 at the last trading day at 2008".

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[5] Gupta et al., (2010) argue that "to free up their capital in order to make fresh loans, mortgage banks started issuing mortgage backed securities (MBS) that is securities backed by pool of mortgaged loans made to home borrowers. Investors were keen to invest in such MBS as it provided them both yield and risk diversification. Wall Street firms then began to use these MBS as components for more complex structured products such as collateralized debt obligations (CDOs) which were essentially created by slicing and dicing the MBS into various tranches, each with a different level of risk and return. These collaterized debt obligation tranches were given credit ratings by the established credit rating agencies. Very often, the structuring of the product itself was done by the investment bank and the credit rating agency working together. These CDOs were then sold across the world to a cross-section of banks, mutual funds, pension funds, state bodies such as municipal organizations and a host of others. However, monetary policy had begun to tighten from 2004 when in order to control growing inflation the Federal Reserve raised its key short term interest rate. The Federal funds target rate shot up from 1% in 2004 to 5.25% by 2006. In line with this, subprime lending rates too increased substantially, which adversely affected this segment's repayment capacity. Simultaneously the boom in U.S. housing prices faded out and housing prices started to actually fall. The above two factors led to a jump in payment defaults by the original borrowers in the subprime segment. But by then the U.S. mortgage backed- securities market (at $8 trillion outstanding) had became the largest fixed-income market in the world, even bigger than the U.S. treasury market. As borrowers started defaulting, first the market prices of MBS fell, and then the values of CDOs began dropping too. Banks had to report large losses on account of the mark-to-market of their sizeable holdings of MBS and CDOs. Many mortgage lenders went bankrupt and large investment banks had to raise emergency capital. As their capital was eroded, they cut down on lending to maintain their capital adequacy ratio (CAR). The resulting liquidity crisis pushed the entire U.S. economy into a recession.

[6] The global financial crisis and the activities of rating agencies in fuelling the crisis have put rating agencies in the centre of vitriolic criticism. United States Securities and Exchange Commission (SEC) has also made some proposals on the direction to follow. For details see Gupta et al., (2010)

The banking system was not spared, but in view of the inaction of CBN at that time, it appeared to have weathered the storm because of the supposedly 'low-level of Nigerian banking system integration with the global financial system'. However, a review of the Expanded Discount Window in 2009 revealed that five banks were frequently using the window[7]. The decision of the CBN to review the activities of banks in the expanded discount window was belated, as effective regulation would entail good knowledge of the extent of bank exposure prior to the crisis. Sanusi (2009a) noted that "an examination of the five banks revealed excessive high level of non-performing loans which is attributable to poor corporate governance practice. The total loan portfolio of these banks amounted to N2,801.92 billion[8], the five banks accounted for a disproportionate component of the total exposure to capital market and oil and gas, the huge provisioning requirements have led to significant capital impairment, and the five banks were either the perennial net takers of funds in the inter-bank market or enjoyed support from the CBN for a very long time, a clear indication of illiquidity".

The revelation prompted CBN to order special examination on the remaining banks which further revealed that four additional banks were in a grave situation[9]. Aside the removal of the CEOs of the affected banks, the CBN also injected N620 billion into the distressed banks in the form of tier two-capital. The crisis also crept into the revenue of the government as crude oil price slide in the international market. One key source of amplification of the financial crisis in Nigeria is capital flows. From theoretical and empirical view point, large capital inflows can promote macroeconomic vulnerabilities and stymie financial stability. This is even worse where the flow is in the form of portfolio investment (flows to capital market)[10], since this can indirectly promote financial system fragility through asset price bubble. Foreign portfolio investment is short-term in nature and will only remain in an economy only if the returns are consistent with expectations, or at least at a tolerable level; otherwise, the funds move. Its short-term nature seems to be blamed for the instability in the financial system as witnessed in Asia, Latin America and Russia (Henry, 2003).

The excess-exposure of the Nigerian capital market to foreign portfolio investment fuelled the stock market crisis. The decision of most foreign investors in the Nigerian stock market to exit the market in order to service their facilities elsewhere resulted to sudden burst in asset prices and decline in the volume of market activities. Essentially, the forces of demand and supply drive asset prices in Nigeria, because of the presence of information asymmetry and myopic investors. Foreign investors with superior information exited the market at its prime and when other investors wanted to exit the market, supply was greater than demand and asset prices crashed. It is misleading, though not unusual for the CBN and Securities Exchange Commission (SEC) at that time, to believe that Nigerian financial system was insulated from the crisis, let alone voicing it out to investors (Sanusi, 2010).

Nigerian banks were grossly affected by the crisis for two cardinal reasons. First, the banks were involved in margin lending[11] which exposed banks to the capital market. The decision to invest in the capital market was largely influenced by the 2005 CBN induced consolidation. The banks at that time had excess funds and desperately wanted to employ it profitably. The desperation largely influenced their decision to embark on certain investments like margin lending, rapid establishment of bank branches, financing of consumables in order to use-up the excess fund at the bank. The banks gave out loans to individuals and corporate entities to invest in the capital market, and when the bubble burst, they were trapped with deluge of non-performing loans. Second, the banks also invested in gas and oil sector which are generally considered risky and fundamentally negates

[7] It is important to state that this was the period within which the Federal Government of Nigeria appointed Sanusi Lamido Sanusi as the new Governor of Central Bank of Nigeria upon the expiration of the tenure of Charles Chukwuma Soludo. The affected banks were Afribank, Finbank, Intercontental bank, Oceanic bank and Union bank. Ecobank acquired Oceanic bank in December, 2011, Access bank acquired Intercontinental bank in December 2011 and First City Monument bank acquired Fin bank on the 10th of February 2012. Afribank is among the three banks which Central Bank of Nigeria nationalized in August, 2011 and is currently christened Keystone bank.

[8] For instance, there was a bank audit by CBN before the crisis and the banks were given clean bill of health. Six months after, another audit by the same CBN revealed the amount of delinquent loans for the five banks to be N2.8 billion. The fact that delinquent loans are time dimensional raises an important question on whether these banks accumulated these nonperforming loans after the first audit.

[9] The four banks were Bank PHB, Equatorial Trust Bank, Spring Bank and Wema Bank. Bank PHB and Spring bank were nationalized in August, 2011 and their names changed to Mainstreet bank and Enterprise bank respectively. In the same vein, Equitorial Trust Bank was acquired by Sterling Bank Plc in August, 2011.

[10] International Monetary Fund (1993) defines foreign portfolio investment as equity and debt issuances including country funds, depository receipts, and direct purchases by foreign investors of less than 10% control. This implies that the investor has no intention of participating in the management of the enterprise. Foreign portfolio investment, unlike foreign direct investment is made solely for the purpose of dividend, capital gains or earnings of interest without involvement in the actual management of the enterprise into which such investment is made. A portfolio investor lends his/her capital in order to get a return on it, but has no control over the use of capital. The investor is primarily attracted by the interest and exchange rates differentials.

[11] During the National Assembly probe on the causes of the crisis, one of the bank's CEO confessed that as at time Nigerian banks ventured into margin lending, they had no understanding of the principles governing margin lending.

core value of risk management. The slide in oil prices in the international market exposed the banks further to high volume of delinquent loans (Sanusi, 2009b).
From the narratives, it is crystal clear that the causes of the global financial crisis are different among countries. While the causes of the crises in developed economies are asset securitization, financial liberalization, USA housing policy, low interest rates and the activities of rating agencies, same cannot be said of developing economies. The causes of the crises in developing economies such as Nigeria are purely regulatory failure[12] and the undiversified nature of their economies. However, it clear that whether it is regulatory failure or other unsavory events, the recipe for financial crisis seems to be the same in all climes. We shall turn our analytical spotlight on the recipes that led to the recent crisis.

RECIPE FOR A FINANCIAL DISASTER: AN OVERVIEW

Building on the works of Delaney (2007), the following were the perfect recipe that conspired to trigger the 2007/2008 global financial crisis and which can potentially lead to future crisis if not mitigated.

Lax Regulation and Regime of Easy Credit

Some analysts have traced the cause of the recent global financial crisis to lax regulation and regime of easy credit especially in the United States. According to Onyukwu and Eboh (2010), this regime of lax regulation started during the period of Alan Greenspan as the Chairman of the Federal Reserve Bank of America. Alan Greenspan was vehemently opposed to any regulation of financial instruments especially the derivatives. It should be noted that the mortgage-backed security that triggered off the crisis of 2007 is simply a specific kind of derivative. It was said that during Alan Greenspan's tenure as Chairman of the Fed, the federal fund rate (the equivalent of the Nigeria's CBN monetary policy rate) was lowered to only 1% for more than a year. It was this action that allowed huge amounts of 'easy' credit-backed money to be injected into the US financial system that helped create an unsustainable economic boom. Some analyst (see Stigliz, 2008) believed that these actions of Alan Greenspan in the years 2002 – 2004 were actually motivated by the need, then, to take the US economy out of the feared likelihood of a recession caused by the bursting of the dot.com bubble, as it was called. However, the financial and economic crisis of 2007/08 shows that although these actions may be said to have averted the crisis then, it merely postponed it into a bigger crisis. Thus excessive securitization of sub-prime mortgage loans made possible by the regime of easy credit and sustained by the continued appreciation of housing prices was at the root of the crisis and also explains its easy transmission to other sectors.

Complexity of financial products

The recent market shock concerned a particular asset type known as securitizations. At their simplest, securitization are merely a repackaging of other assets. By combining a pool of assets, the characteristics of these assets can be sliced and diced to create an entirely new set of assets. The characteristics of the new structure often bear little resemblance to the original pooled assets. A cursory look at mortgages will make this point clear. When a mortgage is originated, it is a loan secured by a property. From the lender's perspective, it is a series of cashflows, attached to which is a probability of default, the cost of which are minimized by holding title to the property. A lender can combine a portfolio of these mortgages into a new "special purpose entity/vehicle", a trust, and can create different tranches from the combined cashflows. The special purpose vehicle is bankruptcy remote and therefore, does not have recourse to the assets of the originator. These tranches are structured to reflect their repayment profile and will have different credit profiles. Often times, other enhancements are used in addition to or in lieu of the tranche approach in order to improve the credit quality, e.g. an excess credit spread, insurances or merely over-collateralization. The top tranches can be of AAA quality, whilst the bottom tranche will be more akin to an equity style risk. The top tranches are repaid first from the cashflows, the second tranche with the remaining cash and so on and so forth with the residual cash payable to the equity tranche.
The structure becomes even more complicated when the underlying portfolio is not cash-based but loaded with derivatives. In such structure, even the most sophisticated investor can lose sight of the true nature of the return and the net exposures. In particular, winding down derivative positions in choppy markets is no mean feat. The compensation required for this extreme liquidity risk is often overlooked. And as remarked earlier, the products created at every stage carried more risk and illiquid securities than the previous ones, but yet carried a rating of AAA. As mortgage securities became increasingly complex with little transparency on composition and characteristics of these loans held in the pools, investors relied more on the CRAs for guidance and as shown by the 2007/2008 crisis, investors were misguided by the CRAs.

Little or no emphasis on risk

No matter how much slicing and dicing, repackaging,

[12] For details on regulatory failure, see Sanusi (2010)

restructuring and engineering, the risks attached to the original cashflows cannot be ignored. It is these cashflows which will be used to service any new structure. The market risk attached to these structures once considered minimal and lagging severely behind credit risk, has proved to be equally as potent. The meltdown occurred initially within structures that focused on the US subprime market. This market, worth some $1.3 trillion is the market for loans extended to impaired credits. The advent of securitization ironically increased the liquidity in these products to the extent that over 60% of subprime loans are currently securitized.

Extensive use of leverage

Nothing set up the perfect recipe for a financial storm than leveraging up. In good times, borrowing to invest in securities can pay handsome dividends. The corollary is that when turbulence arises, those that have borrowed heavily or under-reserved can suffer heavily. Part of the problem with the recent sub-prime meltdown was with the original writers of the mortgages. Irresponsible lenders were found to have exaggerated incomes in order to increase the value of loan disbursed. Often times, these products were sold on an interest only basis in order to make repayment affordable. The conditions for a perfect storm soon followed. A drop in income, an increase in interest rates compounded by a fall in US property prices all conspired to bring about the highest rate of mortgage default witnessed to date. $100 billion of loans were subjected to a rate increase, supported by further falls in property prices and the recent credit crunch making refinancing more difficult. Many products had limited guarantees or repurchase agreements. In the event of defaults above, a given threshold, the originator of the loan will be compelled to buy back the non-performing loans. If inadequate reserves have been set aside to meet these payments, bankruptcy can ensue as demonstrated by the insolvency of over 20 mortgage companies in the US in the first three months of the crisis.

Little or no emphasis on Liquidity

Liquidity is defined as the ease at which an asset can be converted to cash. A T-bill, therefore is extremely liquid, a property in Botswana is not. The liquidity, or otherwise, of securitized products has often been overlooked. The leading rating agencies, Moody's, SandP and Fitch, do not even measure liquidity. They will not. Once the crisis began, the issue of liquidity became paramount. In order to avoid a systemic credit crunch, the US Fed injected an initial $45 billion into the system, whilst their European counterpart, the ECB injected $119 billion. Northern Rock, a UK Bank, has won the inauspicious title of being the only bank to have caused a run on money in the UK banking system since the late 19th century. Newsreels were awash with pictures of lengthy queues outside Northern Rock branches of disgruntled depositors ill at ease with the security of their money. Over $4 billion were liquidated over the course of two weeks.

Neglect of Fundamentals

If the dot.com boom and bust taught the financial industry anything, it should have been the perils of ignoring the underlying fundamentals. No matter what the product, the country, the fiscal or regulatory environment, cash-flow is still king. As any stakeholder in a business, whether equity, debt, employee or creditor, the fundamental question needs to be answered: how am I going to get paid? The only way that payments can be made is through the cash that is generated; end of story. It is not a particularly difficult concept, yet many irrational and flawed investment decisions are made purely because this question has not been asked aggressively enough. Investors can get caught up in the quant side of investment – reviewing metrics that attach probabilities to events. The beauty of probability theory is its complete inability to measure the real issues that keep investors awake at night – the so-called 'tail-events' – the events that have a one in a hundred chance of occurring but when they do – they bring about financial annihilation. If a clear focus is kept upon the fundamentals, the chances of losing $8 billion are significantly reduced. The onslaught of securitization was brought about by developments in the world of statistics. The development of a particular subset of statistics, namely copulas, enabled the ease of pricing of all sorts of weird and wonderful products. Their power as statistical tools is unquestionable. But the fact remains, however, that catastrophe modeling remains a niche arena for academics. The income from structuring products may be juicy, but if your balance sheet and income statement is in jeopardy for doing such, you must be very clear about how your cards are stacked. When genius fails, it can be expensive.

Neglect of Transparency

Transparency is a pre-requisite to pricing; understanding the product and one can understand the risks and hence the compensatory rewards. In the absence of transparency, an investor would be better advised to chance their luck at casino tables – the risks and rewards are clearly defined and one may get a decent Martini thrown in for the bargain. The scramble by the global giants to seek to place a value on their potential losses and their admissions that there may yet be more to come clearly demonstrate the lack of transparency that they suffer at the hands of such products.

Overconcentration

A vital ingredient in ensuring disaster is concentration. Ever since the advent of modern portfolio theory, the effect on risk reduction brought about by diversification can be quantified. Packaging large pools of similar products together and restructuring will not vacate the concentration risk in the event of a market tremor. The 2007/08 financial and economic crisis has demonstrated the folly of concentrating risks in structured portfolios.

Neglect of Timing

A particular risk posed by mortgage securities is the prepayment option available to borrowers; equivalent to the borrower holding a call option on the loan. Borrowers will prepay their loans in a decreasing interest rate environment in order to refinance at lower interest rates. From an investor's perspective this is bad news. Replacing this asset will be in a less favourable interest rate environment for the investor seeking fixed income exposure. In the converse, increasing interest rate scenarios reduce the likelihood of prepayment. The investor is therefore saddled with an asset that is paying below the market rate. This inherent feature of mortgage-backed securities is known as negative convexity. The timing of highly correlated cashflows can have a significant impact on the return profile of a mortgage-backed security – an issue which is traditionally overlooked.

Development of complicated jargons

Nothing helps fuel a financial fire like developing an impenetrable language to describe a product range. The more clever and innovative a product sounds, the better the ease at which an investor can be lulled into a false sense of security. However intelligent packaging and intelligent design do not necessarily equate to intelligent investment decisions. There are several of such jargons that have been developed all with the potential of confusing the unwary investor - ABS – Asset-backed securities, CBO – Collateralized bond obligations, CLO – Collateralized loan obligations, SFCDOs – Structured finance CDOs, CRE CDOs – Commercial real estate CDOs, CDO-Squared – CDOs backed primarily by securities issued by other CDOs.

Conclusion

The 2007/08 financial and economic crisis, which started from the US sub-prime mortgage failures, has its roots at lax regulations of the financial institutions and the unbridled development of several 'exotic' financial assets whose underlying risks were vague even to the financial institutions that developed them. Other factors that conspired to bring the world financial systems to its knees where extensive and unsustainable leveraging, neglect of fundamentals of liquidity and cashflows, lack of transparency, overconcentration, poor timing and little or no emphasis on associated risks. These factors constitute a perfect receipt for a financial time-bomb.
It is the thinking of the authors that the 2007/08 financial and economic crisis could have been avoided or at least largely mitigated with adequate regulation of the financial system and market economy. The idea that the market is capable of adequately regulating itself has been proved to be erroneous. The 2007/08 crisis has eloquently shown that markets left on their own could be destructive – leading to cycles of recession, depression and boom. Thus, the inevitable role of government in complementing the market has come to the fore, very strongly.

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