UNDERSTANDING THE CURRRENT FINANCIAL CRISIS

The Perfect Financial Storm

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Working Paper #44

February 2009

CRGP | Collaboratory for Research on Global Projects

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About the Author

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One of the tragedies of the financial storm that reached major hurricane proportions in September of 2008 is the fact that it has been very poorly explained to the average citizen. A tremendous amount has been written about it in the past several months, much of it highly technical or politically charged, but little has been truly communicated. Washington in particular has done an unusually poor job in explaining the problem even as they have appropriated trillions of dollars to the various recovery packages.

The result has been a backlash of anger and a sharp drop of consumer confidence that has certainly made the economic pull back that much worse. The country is thus parched for good information on what is happening and why. As true as this is here at home, it is just as true abroad. The crisis is being fed by the uncertainty of what lies ahead in terms of regulatory structures, tax rates, and regulations not to mention the general macro-economic conditions we will face.

There is no denying the gravity of the current situation. The financial crisis is real, it is global, it is serious and it is growing. With the cream of the nation's financial institutions such as AIG, Merrill Lynch, Lehman Brothers, Wachovia, Citibank, Fannie Mae, Freddie Mac and others in various stages of collapse, it is an understatement to say that this is the worse financial crisis in the past seventy years. Day by day, the economic panic is growing and is digging deeper wounds into Main Street. We tend to think of this as a financial crisis but the Main Street economy is already in worse shape than the financial markets.

Compounding the problem is the fact that this crisis has now gone global and is affecting every corner of the world. It is rare that a financial crisis will simultaneously affect the United States, Europe and Asia all at once. One or two regions can usually be counted on to continue to do well and pull the others along. Indeed, it can be easy demonstrated that the rest of the world is in a more difficult position than we are. Unfortunately, most of the countries of the world do not have the economic size or the regulatory framework to deal with the institutional collapse that is occurring with this financial storm.

Because the storm began in America, much of the world is blaming the U.S. for inflicting this on them. Unquestionably, the financial collapse began in America and manifested itself in the subprime mortgage market. The problems that started in the sub-prime markets quickly cascaded through every aspect of the financial markets. The losses caused by the sub-prime markets severely impacted the earnings and capital of the banks, causing a general credit crunch. This had the result of chocking off lending between the banks, which lost credit confidence in each other. The general lack of credit also impacted on the immense and global derivatives markets and soon across the entire business community.

For several months the international markets pointed to America with a certain degree of blissful schadenfreude. They were mildly amused that our vaunted capital markets were seemingly not as sophisticated as we claimed and sanguine in the notion that their economic success had "decoupled" them from the U.S. economy. That attitude only lasted for several months. The financial crisis has now gone global, suggesting that it was always more than just the U.S. markets that were at fault.

The Perfect Financial Storm

The phrase perfect storm originates from the 1997 book “The Perfect Storm” which refers to the simultaneous occurrence of weather events which, taken individually, would be far less powerful than the storm resulting of their chance combination. Such occurrences are rare by their very nature, so that even a slight change in any one event contributing to the perfect storm would lessen its overall impact. Since the 2000 movie by the same name, the phrase has gained popularity and grown to mean any event where a combination of circumstances will dramatically aggravate a situation.

To use another analogy, pilots will tell you that a problem in mid-air is not usually a major concern. There are usually redundant systems that will kick in and take care of the problem. But it is when there are two or more simultaneous problems that true danger presents itself. That is, unfortunately, the nature of the problem with the current economic crisis. It was not one factor, but at least five related problems that have put our global economy into a major tailspin.

Neither of these analogies is meant to suggest that the problems that have lead to the current situation were imposed from the outside. They were not acts of nature that just happened; we did this to ourselves through inaction and poor decision making. But, to understand this financial crisis, one must understand the individual problems and see how they impact on each other. They include:

1) Structural Economic Imbalances

For years now, the U.S. economy has been struggling under the weight of fundamental macroeconomic imbalances. It is clear that, as a nation, our savings rate has been too low, our trade and current account imbalances have been unsustainable and that our federal and state budget deficits have been rising as a percentage of GDP. We have moreover, been ignoring the two looming tsunamis that threaten to engulf the US in the not too distant future, the Social Security and Medicare entitlements problems.

A full catalogue of these issues and the impact they will have on the economy is beyond the scope of this paper. They have been fully discussed by a number of excellent books and articles[i]. But they have undoubtedly weakened the economy and diminished our national capacity to deal with our economic troubles. Thus, as the problems mounted, our capacity to respond has been much weakened.

2) Too Much Money Chasing Too Few Assets

One of the least reported causes for the current crisis is ironically one of the most important factors that contributed to many of the economic and financial problems we are now facing. Specifically, the enormous volume of money chasing investment opportunities has disrupted the normal levels of supply-demand for such funds.

In 2004 McKinsey Global Institute (MGI) issued a report stating that the world was experiencing and unprecedented surplus of funds which were flooding the world’s financial markets. Their report estimated that the world’s financial markets were struggling to find investment opportunities for $142 trillion in global “liquidity.” That sum was at an unprecedented level, roughly 3.5

times the aggregate global GDP of $52 trillion. In 2006, MGI upped that number to $167 trillion.[ii] At the same time, the Deputy Secretary of the U.S. Treasury Robert Kimmitt estimated the figure at $190 trillion.[iii]

Regardless of which figure is the most accurate, the impact of such daunting quantities of money in the international financial system has had a profound impact. They readily distorted the decision making and the incentives of everyone involved.

This phenomenon was the result of several factors. First, following the attacks of 9/11 the U.S. Federal Reserve dramatically cut interest rates in an effort to revive the U.S economy from the shock of the attacks. Numerous other countries around the world did likewise. Such interest rate cuts have the direct effect of rapidly pouring money into the banking system.

At the same time, the capital markets were dealing with massive amounts of money that were in the international markets as a result of the historically unprecedented rise of the Asian economies and the general prosperity the world has enjoyed since the mid 1980s. The rise of the Asian economies has been so dramatic that the economic gains stemming from the Industrial Revolution pale in comparison. Despite numerous financial and economic crises over the years, most of the world enjoyed an extraordinary level of prosperity for the past thirty years. Economists have taken a great deal of pride in the notion that the business cycle has been, if not beaten, at least tamed. Or so we thought.

This remarkable prosperity had already heightened the demand for all asset classes, from raw materials, food and other commodities to real estate, and investment instruments of all types. Prime real estate in Bombay is now as expensive as in New York or London. The asset bubble has fed upon itself, giving people around the globe the giddy sense that the good time would keep rolling on and on.

3) A Systemic Breakdown of Risk Management

With this euphoria and market liquidity as a backdrop to economic activity around the world, the normal financial prudence that usually characterizes financial decision making slowly melted away. The easy analogy is that of a lottery winner who quickly ends up broke after a wild spending spree. It is now clear that there has been a systemic breakdown in discipline and risk management around the world.

The principal role of financial institutions is to be the market intermediaries which direct savings into needed investment opportunities. They are the market mechanism that determines who should and who should *not* be the recipient of investment funds. With so much competitive pressure to place funds into investment avenues, “irrational exuberance” became the norm of the day.

Apart from the built up exuberance of the times, three other factors played into this phenomena. The first grew out of the innovations in finance that have characterized the modern financial world. In the mid 1970s, a revolutionary new set of financial theories began the march of finance along the road of greater mathematical analysis. The most famous of these was the advent of the Black-Scholes options risk/pricing models, the authors of which went on to win the Nobel Prize for their efforts and insights.

This set of theories launched a dramatic burst of new financial instruments, including “derivatives” and other highly complex and mathematically based financial products. On the whole, these instruments have been exceedingly important and beneficial new innovations. But as we can now see, they have had a sharp downside as well.[iv]

For years now, the leading financial institutions of the world have been hiring PhD mathematicians from the world’s top universities to help build the new analytic models and trading systems that went along with the new theories. The mathematical skills these young “quants” have brought to the financial markets are such that few people in any organization had any real understanding of the models that were being used. Certainly, their senior managers and the risk management committees, who were to provide oversight, barely understood the mathematics of these new instruments. As it turns out, neither did the risk rating agencies or the financial regulators. For one thing, they could not begin to afford to hire the level of talent needed to do so or keep up with the pace of innovation.

Unfortunately, the complex financial models that were created ultimately proved to have only limited application to the day to day markets. For one thing, the five year statistical data traditionally used for such modeling was too limited in scope. The world behaved in unforeseen new ways and new market developments changed the trading patterns in ways that the old statistical data could not account for. In the end, the quantitative models proved to be too simplistic and narrow. But so great was the respect for the analytic capabilities of the quants that trillions of dollars of investments based on these new instruments were underwritten. The dramatic meltdown of the firm “Long Term Capital Management” (which employed two of the three founders of the Black-Scholes theories) in 1998 should have been a warning of the danger ahead. But little seems to have been learned from the experience.

Securitization

Another one of the most important innovations in finance in the last twenty-five years has been the advent of securitization, i.e., the ability to sell off financial assets to third party investors. While this has been a boon to investors and the financial markets alike, it has ironically led to a deterioration of risk management in the originating banks.

A little known fact about the commercial larger banks is that they actually do not like, or want to be in, the business of lending money. This is particularly true in the large, wholesale segments of the business. Through the simple laws of supply and demand, the enormous quantities of money in the financial markets have subsequently reduced the margins banks could make through lending. The risks they were forced to take to try and make money were often higher than the returns.

As such, a banks’ margin of error became very low; one bad loan could easily wipe out the fruit of numerous good loans. This phenomena lead most of the larger commercial banks (that historically lend money) to look with great envy at the investment banks which merely put investors and large borrowers together for a handsome fee without risking their capital.

In the past few years, the larger commercial banks all sought to become much more like the investment banks, believing that there were higher profits (and thus bonuses) to be made by acting as intermediaries. One of the new practices that captivated the industry was “securitization.” Using securitization techniques, loans can be bundled together and sold to willing investors who (arguably) have lower operating costs and thus a higher tolerance for risk. Thus, the securitization markets have exploded in size. From their start in the early 1970s, the dollar volume of transactions climbed up to $10.2 trillion in 2008 or roughly 50% of all loans made in America.

With such transactions it was hoped that the larger banks could get such assets off their books and into the securities markets. The unintended consequence of this move has arguably been that the risk assessment of the underlying loans has been far more lax than if the banks were holding on to the assets themselves. And as the advanced mathematical tools became a central feature of these instruments as well, the risk assessments offered up by the quants far outstripped the ability of most other people to understand what was being bundled together.

Compounding the problem was the fact that these securitized instruments were sold abroad to financial entities that were that much less capable of understanding them. They did so on the basis of the AAA risk ratings they carried. It has been estimated that approximately half of the subprime mortgage products created in the U.S. were bought by European investors. But it would be a mistake to think that this problem was solely caused by the U.S. Indeed, loose credit standards and faulty assumptions, such as the idea that credit would continue to be cheap and plentiful and that real estate values would continue to rise, existed in both the U.S. and abroad.

What was also largely overlooked was the impact of lax risk assessment on the financial entities that were buying these securities in the event that the financial system started to experience problems. But as long as the rating agencies were stamping them AAA (the highest possible rating), who cared? That was the buyer's problem – though not for long.

The Rating Agencies

Most large institutional investors like pension funds have an underlying requirement that the securities they buy must be high grade in their quality i.e., that they must be rated as "investment grade" by the leading risk rating agencies. Yet the pressures on these bodies to issue lenient ratings were immense. For one thing they were totally out gunned by the young hot shots in the investment banks. Whereas the banks have been paying the young quants seven figures per year, the rating agencies employees are much more modestly paid, thus drawing less capable individuals. It was a relatively easy exercise for the quants to talk their way through to the higher rating that they wanted and needed to sell their securities into the markets.

Thus, there was enormous pressure on the rating agency staffers to be lenient in their assessments. The firm with the most optimistic rating was invariably the one that won the business and got the handsome fee for their efforts. The investment bankers could easily shop around the three principal rating agencies and go with the assessment of the most favorable agency. In 2008, 50% of all ratings were graded AAA. Considering that there are possibly ten companies in the world who have such a rating, this was more than slightly over the top.

Many financial institutions are happy to create investment instruments that people want to invest in. The result, as time proved, was that many asset portfolios were far more risky than their ratings indicated. And yet, incredibly many financial institutions outsourced their risk assessment, even as they acknowledged and mocked the weaknesses of the rating agencies.

4) Regulatory Failure

The importance of the financial system in any advanced economy is such that that it is one of the most highly regulated sectors. This is particularly true of commercial banks where people's deposits are being lent out. But it has become clear that the numerous overlapping institutions we have put in place to oversee the financial sector were not doing the job properly. Indeed, they were often working at cross purposes and with very little cross communications with each other.

The catalogue of regulatory failures that helped feed the current crisis is unfortunately too long for this piece. They could easily fill a separate article in and of themselves. But, a partial list would certainly include the following:

Weak Regulatory Institutions

Given how important the financial institutions are for the health of any economy, it is striking how poorly organized America's regulatory structure is. In Washington D.C. there are at least six different financial regulators, each with their own goals and objectives, staffs, bureaucratic imperatives, Congressional oversight committees and vested interests. Day to day communications are generally very poor between these institutions and they are frequently competing with each other for jurisdictions, resources and influence. They include the Federal Reserve, the Comptroller of the Currency, the FDIC, the OTS, the CFTC, the SEC and others. In addition, there are state banking regulators in the mix.

What this financial crisis has demonstrated is that our financial regulators are proving every bit as weak and in need of reform as were our intelligence capabilities in the period before 9/11. Just as with our intelligence institutions, "in each case, failure stemmed from the same causes: 1) agency cultures that led officials to resist new ideas, technologies and missions; 2) promotion incentives that rewarded all the wrong things; and 3) structural weaknesses that hampered the CIA and the FBI and prevented all 15 U.S intelligence agencies from working as a unified team." [v] To date there have been no discussion of melding these financial regulatory organizations into one, integrated and coherent regulator or even ensuring better coordination.

5) "The Moral Hazard Problem"

The so called moral hazard problem is merely a fancy way of saying people were given incentives to do the wrong things. As the competition on the financial firms grew, the boards of these institutions offered larger and larger bonuses to management to keep up with and beat out their rivals. These rewards are usually a normal part of all business situations. But over the years they slowly grew out of hand.

The advent of securitization and modern risk management derivatives such as "credit default swaps" lulled the banks into believing that market risks were well understood and hedged away. As the risk assessments of the portfolios seemed to show greater predictability, the banks were being lulled into thinking that they were in a better and better risk positions. These pressures led to another problem. As the senior managers of the banks believed that the risk management problem was largely well managed they took greater and greater comfort in the notion that they were safe, even as they were taking their institutions into riskier financial shoals.

At the same time, the reward structures that were built up around the senior management of most financial firms strongly encouraged them to maximize the returns to their shareholders. Not only were they encouraged to take bigger financial positions, but there was a real downside to not doing so. Few executives can withstand the pressure to sit idly by while the competition is surging ahead. Had they done so, their Boards, the media and their shareholders would have regarded them as laggards and the pressures would have grown to oust them from their jobs. That meant taking bigger and bigger positions, which is exactly what they did. And why not? Their risk managers and the rating agencies were assuring them that all was well.

The Advent of Massive Derivatives Portfolios

The innovations in the financial markets discussed earlier dramatically accelerated growth of the financial instruments known as derivatives. Simply stated, derivatives are instruments whose value is "derived" from something else, hence the name. While simple examples have been in the financial markets since the mid 1800s, the last thirty years has seen an explosive growth in much more sophisticated and mathematically based variations that have been a boon to the financial markets.

On the whole these instruments have a very important and beneficial place in the financial world. As a result, they have grown to almost incomprehensible levels. The aggregate size of the world's economy is now estimated at roughly $52 trillion in 2008, while the annual volume of derivatives written is more than ten times that level, at roughly $531 trillion. What is remarkable is that these instruments are not subject to any meaningful level of regulation. The fear has always been that regulation would stifle the innovation needed to foster new variants of these instruments. It is moreover, a fitting question as to who in the regulatory community had the capability of understanding the complexity and underlying mathematics of these instruments. Once again, they were totally out gunned by the quants.

Thus, despite calls for some degree of regulation from people like Warren Buffett (who called them weapons of mass destruction) and George Soros (who called them hydrogen bombs), both Republican and Democratic administrations vociferously fought off these efforts.[vi] As a result when the banks started to sustain massive losses from other operations and hence needed to unwind these transactions from their books to meet required capital levels, they found themselves unable to do so. The result was a forced liquidation of other assets to remain compliant with regulatory capital needs. These sales put enormous pressure on asset values, just when the markets could least sustain them.

New Unregulated Financial Intermediaries

The extreme over supply of money and the inability of the traditional financial institutions to deal with these funds lead to the creation of new financial entities that sought newer and more "sophisticated" ways of investing. Hence, the creation of "private equity" firms and "hedge funds" and structured investment vehicles (SIVs), the latter being off-balance sheet vehicles owned by banks. These were the institutions that created most of the sub-prime mortgage and other highly risky financial products that led to the disaster. Since they were free of regulatory constraints, these firms sought to take even larger risks than the commercial banks could.

In very large part, this meant that they could take on much higher levels of debt than the commercial banks. Since debt financing has an inherently lower cost than equity, and they did not have to shoulder the reporting cost of regulation, for a time their investments where producing much higher rates of return. Taken together, these two factors contributed to the dramatic growth of hundreds of hedge funds and private equity firms, all of which were totally unregulated.

But when the credit crisis came, and lending shut down, the financial risks associated with this business model were quickly made apparent. The number of new financings has dropped very dramatically while old investments, also highly leveraged, suddenly found themselves high and dry. It is now anticipated that 50% of hedge funds are or will soon be out of business. For the private equity firms, all of whom depended on high levels of financial leverage (i.e., borrowing), new business has ground to a virtual halt.

In a separate category, there are the also "government sponsored enterprises" (GSEs) most notably Fannie Mae and Freddie Mac. Theoretically, these firms would be expected to be more heavily regulated than their private counterparts since they carried the implied backing of the U.S. Government. But over time, these firms built up their relationships and lobbying efforts with the Congress to the point where they became virtually immune from calls for greater oversight. These Congressional relationships ended up consuming them as the same Congressmen (of both parties) who were supposed to be providing oversight, ended up pressing them into taking on riskier and riskier loans.

It has been well known since at least the 1980s that these institutions were highly under capitalized and numerous administrations have tried to compel them to bolster their equity positions. But the GSE's were consistently reluctant to do so as higher equity would raise their cost of capital and thus lower their rates of return.

At the same time, the boards of these institutions were pushing their senior managers to keep pace with the competition posed by the private sector. The incentive packages they were offered made them willing participants in the game to take on greater business and financial risk. Thus, not only were they undercapitalized to cut costs, they were taking bigger market risks. Historically the GSE's would only invest in safe loans that had strict "conforming" characteristics with conservative guidelines. Breaking with their tradition, Fannie Mae and Freddie Mac underwrote $270 billion in "non-conforming" loans. Their target was to grow such lending to $2 trillion by 2010.

Conclusion

The current financial crisis clearly began in the sub-prime mortgage markets. It is therefore assumed that this was the core problem. But as we can see there were a number of factors that came together and brought on the panic we are now facing. The initial sub-prime losses cascaded into the derivatives markets, the credit markets, the stock markets and the international financial markets. Every country in the world and every major bank in the world is now facing the same set of issues.

These financial losses of the financial world have blown an immense hole in the balance sheets of the larger banks around the world and shattered confidence in the financial sector. The banks have stopped trusting each other and are highly reluctant to lend to each other even on an intra-day basis. Until that confidence is once again restored, we will continue to fight the main street impact of the problem.

There are now widespread calls for enhanced regulatory oversight. But clearly, the failure of the existing structures was part of the problem. It is thus important that we reflect on the problems caused by our existing financial regulatory framework (such as it is) and find ways to strengthen it before we can take comfort in adding to more layers and new institutions.

The issues just described are merely an over view of the exceedingly complex and highly interrelated problems that have caused the current financial panic. How and when these issues are resolved remain to be seen. But it is clear that there is much work to be done and no time to waste.

We are now in totally uncharted territory. Economic theory suggests that such a panic should not be happening. Worse yet, our traditional intervention tools are not working as we had hoped. We thus find ourselves working in the dark and innovating as we go along. When and how we get out of this situation remains to be seen. Hundreds of new books will undoubtedly be written in an effort to tell the full story.

As we unearth ourselves from the financial wreckage, one final and perhaps the most important issue, stands out in stark relief. Clearly, no one set of institutions was specifically at fault. What ensued in all of these instances was a massive and across the board breakdown in good corporate governance. The larger question is thus, how after so much discussion of the issue over the past decade, including legislation such as Sarbanes-Oxley and other similar acts which proved wholly ineffective, could there have been such a widespread and systemic collapse in this vital area. In the end, once we have stabilized the current financial tailspin we urgently need to re-examine why our corporate governance so thoroughly broke down and how we can repair the weak points.

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i “Running on Empty: How the Democratic and Republican Parties Are Bankrupting Our Future and What Americans Can Do About It”, Peter G. Peterson (2005)

See also “On Borrowed Time: How the Growth in Entitlement Spending Threatens America's Future”, Peter Peterson (2004)

ii Mapping Global Markets, Chapter 1: $167 Trillion and Counting, MGI, January 2008, http://www.mckinsey.com/mgi/reports/pdfs/Mapping_Global/MGI_Mapping_chapter_1.pdf

iii “Public Footprints in Private Markets

Sovereign Wealth Funds and the World Economy”, Robert M. Kimmitt, Foreign Affairs, January/February 2008 iv A simple yet comprehensive description of how derivatives and securitization worked in this context can we found in a paper by Professor Douglas W. Arner; "The Global Credit Crisis of 2008; Causes and Consequences, http://www.ALLFL.com.

v Our Clueless Intelligence System, Amy Zegart, Washington Post, Sunday, July 8, 2007.

http://www.washingtonpost.com/wp-dyn/content/article/2007/07/06/AR2007070602004_pf.html

vi See "The Reckoning: Taking Hard New Look at a Greenspan Legacy," Peter Goodman, New York Times, October 9, 2008