

Investment Research
Fourth Quarter Commentary, Part One
The Financial Panic of the Twenty-First Century
October, 2008

***“The system, though it may not be perfect in every part, is, upon the whole, a good one;
Is the best that the present views and circumstances of the country will permit”***

*- Alexander Hamilton, The Federalist Papers
Former statesman, and first US Secretary of the Treasury*



Executive Summary

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- During the past quarter, we have witnessed unprecedented events in global capital markets. Fear and panic hit noise-bleed levels as investors continue to unwind positions and de-lever. The unraveling of the financial crisis has wreaked havoc in global equity markets.
- Despite unprecedented moves taken by the US government, the credit markets are still in total disarray as confidence has clearly not been restored and counterparty risk continues to threaten this market.
- Capital is flocking from the banking system as this excess liquidity is seeking the safest parking place, namely government T-bills.
- Notwithstanding all the initiatives taken by the government, the credit markets have been deteriorating at an alarming rate witnessed by widening credit spreads and complete lack of credit availability.
- The fund flows that make our economy work are threatened by a lack of trust in the value of mortgage assets and financial firms are extremely hesitant to lend money to one another to fund the system.

- At the heart of the Rescue Plan is the need for the housing market to stabilize and home prices to level off to prevent greater mortgage losses. We believe home prices are still too elevated relative to incomes and it will take another 10% to 15% decrease for their prices to reach historic trends over the next 12 to 18 months.
- We are of the belief that both the proposed Paulson Plan as well as the Plan passed by Congress both contains serious deficiencies that will not have the intended results of correcting the current crisis. The optimal solution will involve a confluence of components along with some adjustments to arrive at a carefully crafted strategy to appease all constituents involved.
- The Paulson Plan alone will not work because we believe that these distressed assets are currently not valued to their fair market value on their balance sheets but are valued higher to prevent further write-offs. Buying these assets near fair market value will cause an avalanche of further write-offs which will in turn cause mass insolvency across the industry.
- We believe the Congressional Plan is also faulty. While it addresses the issue of undercapitalization and solvency, it does not solve one important detail. Those toxic assets will still remain on the balance sheets of the banks and that is a main reason why counterparties do not currently conduct business with these firms.
- Economic data coming out of Europe clearly shows a deteriorating picture. We believe this slowdown coupled with potential credit problems bigger than those in the US is a source of major concern. While the rhetoric coming out of Europe is one of confidence and total lack of concern for any coming crisis, the underlying facts reveal quite a different picture.
- What is even more disturbing is the regulatory banking environment in Europe. Currently, banking regulations exist at the individual national level with each nation within Europe responsible for the stability of its own banking industry. *While the US needs a better rescue plan, the European Union needs a system that can devise a rescue plan in place.*
- Some of Europe's biggest institutions such as UBS, ING and Fortis are based in some of the smallest countries such as Switzerland. Rescuing a major bank operating across the continent would require political will and coordination that could be lacking.
- We believe that this level of undercapitalization within Europe will be exacerbated when the US rescue plan is implemented because as US toxic assets begin to value at low levels, European counterparts that hold similar toxic assets will be forced to write down their assets to similar levels, if not by their regulators, by counterparties with whom they do business. This will truly expose the severity of the European credit problems.
- One remaining fact we would like to point out is the strong position of Asia. While not totally immune, Asia remains the only region that has raised as much new capital to replace write-offs. This has made Asia relatively immune to this crisis. Decoupling anyone?
- We have said numerous times in our previous commentaries that we are currently in the midst of a serious recession that probably started at some point in the second to third quarter of 2008. This will no doubt have a negative impact on corporate earnings for both 2008 and 2009.
- Additionally, we believe that much higher volatility in the equity markets is here to stay. We would, therefore, use these rallies as rebalancing triggers to lighten up on directional US equity exposure to more market neutral exposure to take advantage of this volatility despite the directionality of the overall market.
- We are bearish on the outlook for the European Union because we believe their economy faces severe headwinds. We believe the ECB will have to lower rates in the coming months to stave off a more serious downturn despite its single mandate of inflation protection.
- Despite the Europeans' belief that their "incipient federalism triumphs over <the US> dysfunctional established federalism¹," we would avoid exposures to both the equity markets and the currency because we believe the banking system there has serious problems and there is currently no formal institutional framework to fix it. On a relative basis, despite their claims that Europe is in better shape than the US economically, the equity markets

¹ "A bad day for Benelux banking – a great day for Europe", *Financial Times*, Willem Buiter, September 29, 2008.

disagree as MSCI Europe has underperformed the S&P 500 by over 980 bps.² We continue to believe that the US is closer to a trough than Europe and this will translate to relative outperformance for the US markets.

- While emerging markets have continued to take a beating and are down across the board, we believe that they represent significant value. They are trading at very compelling valuations to their prospective growth rates with price-to-earnings multiples in the low single digits. Additionally, we do not think that these markets are as exposed to credit issues as are the developed markets. To date, their banking system has had to write down a fraction of the losses and has been able to recapitalize these losses with fresh capital.
- We remain very bullish on the dollar versus the euro because we believe that economic conditions in the US are further along an economic trough than the US.
- Our long term outlook for Asian currencies remains bullish as we have mentioned in previous commentaries that their path will be “measured in magnitude and glacial in pace.” As those economies transform from export and investment driven to more domestic consumption driven, their foreign exchanges will have to strengthen to reflect these structural changes.
- Commodities including oil have also taken a hit mainly because they are pricing in a slowing global economy. With the developed world in recession and the developing world slowing down, the demand for commodities has in fact waned. However, we believe that the intermediate to longer term bullish picture for commodities remains intact.

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² As of September 26, 2008.

Over the past quarter, we have witnessed unprecedented events in global capital markets. Fear and panic are hitting noise-bleed levels and investors continue to unwind positions and de-leverage. The unfolding of the financial crisis has wreaked havoc in global equity markets. Stocks have plummeted and seem to have disconnected themselves from fundamentals, while credit markets remain pocked with land mines and sink holes, as investors seek safer ground. On a year to date basis, the S&P 500, Dow Jones and MSCI EAFE (Foreign Stocks) are all negative by 19.29%, 16.93% and 29.26%, respectively. Money-markets have seen their assets swell to more than \$3.5 trillion. Heightened risk aversion and a flight to safety pushed the yield on the 3-month T-bill to the lowest level in recorded history since 1954 – some of the shortest dated issues traded at a negative yield as investors were essentially paying the US Government to safeguard their holdings in fears over money market funds “breaking the buck”. Commodity prices have tumbled on the fears of a global economic slowdown, lead by oil now off 25% on the year and 40% from its peak. Questions that appear to be in the hearts and minds of global investors are: “What is next to fall?” and “Where do we hide?”



Because these last few months have witnessed such an unprecedented period in history for global financial markets, our current commentary will be formatted differently, written and disseminated to our clients in two Parts. Due of the severity of the current crisis, we are sending you Part One, which will focus solely on the financial crisis and cover such topics as:

- 1) A detailed analysis of the causes of the “Financial Panic of the Twenty First Century”;
- 2) A synopsis of government actions that have been taken to date to help alleviate the severity of the crisis;
 - Analysis as to their effectiveness and future ramifications to the economy and the taxpayer;
- 3) A detailed analysis and evaluation of:
 - The Paulson Proposal;
 - The various alternatives offered; and
 - A TwinFocus alternative;
- 4) What's next?:
 - Our outlook for the financial crisis including issues facing Asia and in particular Europe;
 - Proper regulatory reforms that will be needed; and
- 5) Our economic and investment outlook in light of recent events.

Part Two of our commentary will comprise a detailed letter to the incoming president of the United States. In that letter, we will summarize the different issues that must be addressed by the incoming chief executive and the TwinFocus proposals for

doing so. We will focus on geopolitical issues, more specifically our economic and political relations with our commodity-producing brethren in Eurasia and Latin America. While we are living in very precarious times in which the role of the United States as a unipolar superpower has come into question, we remain confident and in fact excited about the long-term prospects for the US.

The Financial Crisis: Causes

There are many causes to the financial crisis that span over three decades, including deregulation, the failure of the current regulatory environment, the rise of global imbalances and the onset of cheap credit and low interest rates, and subprime and securitization. All of these causes are interlinked, with one feeding upon the other to produce what we are currently facing today.

We believe the root of the problems started in the 1970's with the deregulation of commissions charged for stock trading.¹ Fixed commissions allowed investment banks healthy profit margins in booking trades for clients. Deregulation translated into greater competition and entry of low-cost brokers such as Charles Schwab and Fidelity. In order to compete more effectively, investment banks were forced to branch into new lines of business, such as securitization, the use of complex derivative securities and the extensive use of leverage.²

The search for margin and profits was on.

In 1999, the US legislature and the Clinton administration deregulated the banking industry by eliminating the Glass-Steagall Act that traced its origins all the way back to the Great Depression.³ Glass-Steagall greatly restricted the combining of investment banks with commercial banks. Conglomeration through the elimination of this restriction allowed investment banks to combine with commercial banks to better diversify their businesses and to fund their operations using a relatively stable base of deposits rather than using fickle money markets.⁴ Additionally, Clinton signed into law the Commodities Futures Modernization Act, which shielded derivatives markets from federal regulation. This helped to facilitate the hyperbolic growth in the derivatives markets over the past few years. Lastly, in 2004, the top five investment banks (*Guess which ones...*) sought approval from the SEC to increase their leverage ceilings from the 12-to-1 leverage to over 30 and 40-to-1 leverage levels. For every dollar investment banks had in equity, they were allowed to leverage by a factor of over 40, not allowing for any margin of error in risk management assumptions.

We are not arguing that the elimination of these antiquated laws were not sensible and necessary for the US to compete in an ever-increasing global economy. All things being equal, it was a good thing for equity commissions to drop and investment banks to join forces with commercial banks to diversify business lines. However, all things did not prove equal. Investment banks were forced to enter riskier businesses and activities that were outside the purview of federal regulations. And other policies were not adopted to handle conditions in the new market environment and the new technologies that were taking place. As deregulation was

¹ These were unintended consequences of very sensible policy decisions to allow small investors to make cheaper trades. Fixed commissions were becoming harder and harder to justify.

² Leverage was funded through the money markets which this crisis has proven how fickle and misperceived they could be in times of extreme crisis.

³ President Clinton signed into law the Gramm-Leach-Bliley Financial Services Modernization Act of 1999. The Glass-Steagall Act provided significant regulations between commercial banks, insurance companies, securities firms, and investment banks.

⁴ “Anatomy of a Financial Crisis”, Barry Eichengreen, VoxEU, September 23, 2008.

occurring, market participant activities were changing and were left unmonitored and largely ignored.

In an ideal capitalist world, changes do not need monitoring because, according to George Soros, the global capitalist system is predicated on the belief that financial markets, if left alone, tend towards equilibrium and will revert to their mean.⁵ They can dislocate from time to time by exogenous forces/shocks but they will return to their equilibrium points if left alone. But we tend to agree with him, also, that financial markets are prone to excess, and that if these boom/bust cycles progress beyond a certain point, financial markets will not revert to their mean. In fact, increased globalization tends to breed financial contagion, so that ill effects can knock one economy after another in the absence of radical intervention. This lack of monitoring in the face of unprecedented financial market deregulation was the largest legislative oversight contributing to the crisis.

We believe that the second cause of the crisis was produced by the very low interest-rate environment in the US. The causes of these low rates are many in nature, some of which are not entirely obvious. Short-term interest rates were negative from 2002 through the first quarter of 2005 and were barely positive in the Eurozone and Japan within the same time period. This phenomena reflected very accommodative monetary policy in light of the 9/11 attacks and the bursting of the Tech Bubble. It can be traced back to Alan Greenspan, the former Fed Chairman, who believed that there was a once-in-a-lifetime opportunity to leap forward in prosperity.⁶

Long-term rates were also very low from 2002 through 2007 in the US and the Eurozone.⁷ This reflected a set of policies that gave rise to major global imbalances. The Bush administration began cutting taxes simultaneous with the Fed's rate cuts in order to lift the US economy out of the 2001 recession. This caused high investment demand and low savings in the US, resulting in higher US consumer spending and lower household savings. Equally important, the emerging markets, China in particular, saw a decline in spending and a marked increase in investment. With China saving over 50% of GDP, the savings was funneled into the US through purchases of US treasuries and agency securities (a topic covered in greater detail below). This reduced long-term rates in the US and encouraged further consumer spending beyond income.⁸

We explained this capital inflow of Chinese savings to the US in great detail in earlier commentaries we gave on a theory called the Bretton Woods II⁹ (BWII), an arrangement described as follows:

For example, the consumer-driven US economy purchases goods from China at ever increasing rates. China, in order to keep her currency artificially undervalued, pegs it to an artificially advantageous rate within a tight range. As US consumers pour more and more dollars into the Chinese economy, the Chinese in turn print more of their money, the proceeds of which are used to purchase US Treasury bonds in order to keep the Chinese FX pegged to that rate. In essence, the Chinese engage in vendor financing to keep this cycle growing. It is based on structural current account deficits in the US and structural current account surpluses in China. The

US gets to consume more than it produces and finance budget deficits cheaply (equivalent in spirit to a no-document residential loan!).

Put in a different context, BWII is like a barter system where the US receives current consumable goods from China in return for long-term claims on the US. Over the past 30 years, we conveniently transferred a significant portion of our manufacturing capabilities and hence demand to China to exploit its vast amounts of cheap labor. In return, one would expect that we could pay for these goods China sells to us with the services that now dominate our economy. However, as we mentioned before, our services are sometimes unwanted by everybody, including the Chinese, so that in order to pay for the goods we buy from them, we need to sell our US assets, either our Treasuries (promises of future streams of our income), our factories and even our much-esteemed investment banks and private equity firms (Merrill Lynch and Blackstone Group to name but a few).

To some, BWII appears to be equivalent to a money laundering operation. I buy your goods and in return you lend me back my money to buy more goods from you.¹⁰ Periphery countries are in effect giving us a blank check so long as we buy their goods with the proceeds. It is argued that by keeping their FX artificially low, by recycling their current account surplus savings back into dollars, they are in effect increasing global liquidity, driving down and distorting risk premiums and subsidizing uneconomic lending.¹¹ ...This regime is the primary basis for the current global savings glut that has kept global interest rates very low these past few years and has helped mis-price credit in the US.

We want to emphasize again that the Fed's easing, the Bush tax cuts and the Chinese imbalances were not necessarily policy mistakes. *The emergence of China and the elimination of over one billion people from poverty in China is arguably one of the most important developments in human history.* Additionally, the Fed's easing and the Bush tax cuts to forestall a serious recession were also not policy mistakes. However, these events created unintended externalities that went unmonitored. They were aggravated by the failure of US regulators to adopt countercyclical measures that would tighten capital and lending standards in order to prevent a credit boom.¹² They were also aggravated by China's failure to encourage more domestic spending. Lack of monitoring and legislation to adapt to these changes was the problem.

Housing's Role & Subprime Education

The third cause was an unwarranted confidence that home prices could only rise, and that the price of homes would experience low volatility. From 1996 through 2005, US housing prices went up 90% and from 2000 through 2005, they went up over 60%.¹³ In the 30 years leading up to the crisis, home prices only rarely fell, reinforcing the belief that homeowners could always improve their home, buy a second home, or tap into their equity because everyone else was doing it in increasing numbers.

These trends in home prices, along with the liquidity that was flowing into the US, and combined as well with the search for yield, created the fourth and perhaps most important cause, which was the subprime mortgage industry and the "originate-and-distribute" business model for loans through securitization. Because the word "subprime" (and "alt-A") has been perhaps

⁵ "The Crisis of Global Capitalism", George Soros.

⁶ "Who's to blame for the great financial crisis?", *The Telegraph*, September, 18, 2008. Cheap credit seeped into every corner of finance, just as it did in 1929 before the Wall Street crash.

⁷ "The Subprime Crisis: Origins, Policy Responses, and Reforms", Morris Goldstein, Peterson Institute for International Economics, August, 2008.

⁸ Remarks by Fed Chairman Ben Bernanke at the Homer Jones Lecture, Saint Louis, MO Speech, March 10, 2005.

⁹ "An Essay on the Revised Bretton Woods System", Michael Dooley, et. al., National Bureau of Economic Research, 2003.

¹⁰ "Dollar's Last Lap as the Only Anchor Currency", *Financial Times*, Wolfgang Munchau, November 25, 2007.

¹¹ "Renegade Economics: The Bretton Woods II Fiction", PIMCO, Chris P Dialynas, Marshall Auerback, September 2007.

¹² "Greenspan's sins return to haunt us", *Financial Times*, David Blake, September 18, 2008.

¹³ "The Subprime Crisis: Origins, Policy Responses, and Reforms", Morris Goldstein, Peterson Institute for International Economics, August, 2008.

the mass media's most widely used – and overused – financial catchword over the past 12 months, we consider it essential to define the term for a proper understanding of the issues involved.

Simply put, subprime mortgages were a financial innovation designed to provide home ownership opportunities to riskier borrowers who would not otherwise be qualified to buy homes. Factual analysis will reveal that this financial innovation was quite successful. In fact, in our First Quarter 2008 Commentary, we stated that the home-participation rate went from 64%, representing a 40-year average, to 69% by 2005:

After four decades of virtual flat-lining, the homeownership rate increased from 64% in 1994 to 69% in 2005, which translated into more than 5 million renters becoming homeowners during that period.¹⁴ These additional 500,000 annual home purchases played the leading role in boosting the real price of homes in the US to unprecedented levels.

In order to properly assess future ramifications of the credit and housing bubbles, we need to understand why the homeownership rate increased by 500 basis points after staying glacially steady for over 40 years.

...the sharp increase in home ownership was the inner workings of the mortgage market through easing credit standards, the decline in down-payments, the increased availability of second mortgages, and downright mortgage fraud facilitated by securitization and Wall Street wizardry.

Here are even more daunting mortgage facts: 1) subprime and Alt-A mortgages represent approximately 25% of the \$6.0 trillion mortgage market; 2) issuance in 2005-2006 of subprime mortgages climbed to 30% of the mortgage market; and 3) over the 2000-2007 period, total amount of agency mortgages doubled -- but subprime mortgages grew by 800%!

An infrastructure was also put in place to allow the subprime mortgage industry to thrive and prosper. For example, more than one half subprime mortgages were issued by independent mortgage brokers who were not supervised by the federal regulators who oversee banks and thrifts.

A conceptual security design for subprime and Alt-A mortgages was prepared by the mortgage industry in order to craft a mortgage that would make lending possible to riskier borrowers. This was based on the central thesis that the borrower and lender can benefit from house appreciation over short- to intermediate-time horizons, and that house prices in the US *only appreciated and experienced very little volatility*. Time horizons were kept short to protect lenders. The subprime mortgage would be refinanced into another subprime mortgage every 2-3 years. A premise of this refinancing architecture was that home values would appreciate on a consistent basis. In fact, no other consumer loan in existence premises the borrower's ability to repay upon the appreciation of an underlying asset – in this case, the house collateral.

The ability of banks to refinance and sell these loans bring us to the fourth cause of the current crisis.

The securitization model of bank lending, or alternatively the "originate-and-distribute" model, created severe incentive problems. Before securitization, banks would make loans to a borrower after a due-diligence process based on the borrower's ability to repay. The bank kept the loan on its balance sheet until it was paid off. Banks used depositor funding to make new loans. Today, the loan is most likely packaged with thousands of other loans of similar

characteristics and sold to investors as plain vanilla mortgage-backed securities (MBS) -- or a further innovation can be made by combining them with other asset-backed securities, the payments split into various tranches with different ratings given to the tranches based on their risk characteristics.

The logic behind the "originate-and-distribute" model was that it would funnel capital into the mortgage markets, and in the process funnel risks to those institutions and market participants that could best withstand them, and therefore earn a high yield in an environment of very low interest rates. This appeared to be a panacea for the investment community and for those politicians who wanted to increase home participation rates in the US. Mortgage securitization increased from 35% in 2000 to over 60% in 2005 and the volume of non-conforming loans also increased dramatically at the same time.¹⁵

Problems, however, arose that affected both origination *and* distribution. On the origination side, because originators do not hold the loans on their balance sheets, and earn more income by generating as many loans as possible, there were no incentives for originators to execute due diligence on borrowers' ability to repay. Originators did not have any "skin in the game." Originators had every incentive to maintain origination volume which would allow them to earn substantial fees but did not have the proper incentive to maintain loan quality.

On the distribution side, these opaque securities were put in off-balance-sheet special investment vehicles (SIVs) to allow lenders lower capital requirements. These SIVs borrowed on a very short-term basis (many from money market funds) to buy these more intermediate-term MBS securities. When the crisis occurred, investors looked at these short-term securities more closely. The banks that created the SIVs could no longer fund them, and to prevent a crisis of confidence re-intermediated them back to their balance sheets, creating capital shortfalls.

Despite the inherent conflicts of the "originate-and-distribute" model, there was no Buyer Beware -- despite the sophisticated nature of these securities buyers. And this brings us to a *fifth* cause. We must first remember that these securities were not by and large well documented, and were difficult to value because they were opaque, did not belong to an active market, and came with very complicated payoff structures based on convoluted assumptions. These institutional investors did not perform due diligence because they were relying on due diligence by the credit-rating agencies and the secondary backing of the Monoline insurers. The problem with the credit-rating agencies was that there was no independent assessment of credit quality behind their judgments. They were paid to help structure the products and then rate them. Their quantitative rating analysis and stress tests were based on faulty assumptions of likely default rates at a time when interest rates were artificially low and home prices seemed to be rising into the wild blue yonder. And Monoline insurers did not have enough capital to handle defaults of this size and magnitude. Investors bought them on the mistaken assumption that their triple-A rating was solid as platinum in an environment where finding "safe" search-for-yield was of vital importance to stay competitive.

The Twenty-First Century Financial Panic began when home prices began to flatten and then decline, blocking subprime mortgages from being refinanced. Because subprime mortgages were financed through highly convoluted structures,

¹⁴ "Homeownership and Home Sales: Some Unpleasant Arithmetic", Goldman Sachs, October 18, 2007.

¹⁵ "Not (yet) a "Minsky Moment"", Charles W. Calomiris, Columbia University, November 23, 2007.

investors could not determine the location or extent of the risks involved. Home price declines led to fears of loss that could not be measured because the risk had now been effectively spread across the globe. The advent and introduction of the ABX indices revealed that these complicated securities were worth much less than was originally thought -- and that they were falling precipitously. Without knowing the exact location of the risks, market participants for the first time in financial history worried about the solvency of their counterparties, thus drastically increasing counterparty risk. This cascaded into the freezing of intrabank activities, writedowns, and plummeting prices for these complex structured products. The ability to short subprime through the ABX exacerbated this process. In fact, the securitization markets have now become totally dependent on government intervention and support.

What makes the Panic of 2008 worse than those of prior periods is its global footprint. The search for yield became pandemic in a global investment community dominated by low interest rates. Foreign investors got caught up in what looked to be attractive and safe investments at competitive yields. The subprime meltdown was a wakeup call for investors to assess risk across the investment spectrum in all asset classes wherever they were located. **Because of increased globalization, financial markets became increasingly interdependent, so that if one sector fell, the contagion would quickly spread to all the others.**

The bottom line of this right now is that the US financial system is burdened by huge sums of toxic assets whose values are linked to falling home prices.¹⁶ These losses are leaving banks and other financial institutions short of capital.

Government Actions to Date

As the events of this crisis were unfolding, governments across the world began taking pro-active measures to bolster the world financial system. *Deleveraging* and *reducing risk* have been the watchwords of the past few months. Financial institutions have been on a selling rampage to try to repair balance sheets laden with illiquid assets linked to falling home prices. This selling pressure is forcing down the prices of all assets, worsening the balance sheets of other market participants who in turn are forced to sell, thus creating a vicious spiral downward. This behavior has been experienced by government sponsored entities (GSEs), banks, hedge funds, investment banks, and individual households. Similarly, increased asset volatility and decreased price transparency, coupled with lower liquidity, has created additional risk and raised risk premiums, lowering even further the value of almost all stocks, bonds and pieces of real estate.¹⁷

This selling frenzy has caused a 10% year-over-year aggregate asset decline never seen since the Great Depression. Because of the magnitude of the leverage in the US economy, such a decline will cause further margin calls and deleveraging. If fresh capital is not injected into the economy, debt liquidation will follow, and a stagnant economy will turn into something far worse.¹⁸ Private investors, central banks and Sovereign Wealth Funds (SWFs), who bought "cheap" distressed credit assets believing a bottom was in place, are now reluctant to put new capital to work until the environment shows signs of stabilizing. To prevent further asset and debt deflation, therefore, the US Treasury is being required to open up its balance sheet -- as the private sector has shown itself unwilling to step forward. How has the government responded?

Since last August, the government has taken a very pro-active approach to alleviate the effects of this crisis. The actions are many, but their objectives can be grouped into a few categories: 1) helping to prevent the financial crisis from spreading into a systemic contagion that would spread throughout the economy; 2) injecting liquidity into the banking system to minimize the negative impact of tight credit while deleveraging and bolstering aggregate demand to reverse a stagnant economy; and 3) removing bad assets from balance sheets to allow financial institutions to recapitalize those balance sheets and instill confidence and trust by counterparties.

The Bailout of AIG

American International Group, once considered a leading global traditional insurance company through its holding company in London, began writing insurance policies on complex asset-backed securities called collateralized mortgage obligations (CDOs) and other bonds, mostly of them backing subprime mortgages. This meant that AIG was essentially writing insurance to institutional investors holding CDOs (called credit default swaps, CDS) in the event of default.¹⁹ By last year, the AIG portfolio of CDSs stood at roughly \$500 billion, generating over \$250 million in insurance premiums. By September 2007, as the subprime crisis was unfolding, AIG had to recognize over \$352 million in losses on CDSs due to defaults. As the value of the derivatives was dropping, AIG had to post greater amounts of capital. These losses, exacerbated by the global financial crisis, reached over \$25 billion in AIG's most recent quarter and caused many of AIG's trading partners to ask for help from the Federal Reserve because the counterparty risk was deemed too great at that point.

In late September 2008, the government stepped in and effectively nationalized AIG because it was deemed "too big to fail." It first extended a loan to AIG in the amount of approximately \$85 billion. The collateral for the loan was a 79.9% ownership interest in the company where the lender was the New York Federal Reserve Bank and the owner of the collateral was the US Treasury. The interest rate on the loan would stand at 850 bps above LIBOR or approximately 11.3%, giving AIG every incentive to pay it off early.

Analysis of AIG's balance sheet indicates that there are plenty of assets to cover the loan. In fact, AIG could realize over \$115 billion from the sale of all of its divisions.²⁰ There is virtually no risk of loss to the US taxpayers in this bailout, because most of AIG's global assets are not impaired. Its insurance businesses are in separate divisions and their business activities were regulated by the states. This bailout is unprecedented, because AIG was bailed out not because of solvency fears but because its difficulties could have major ramifications for its counterparties, such as Goldman Sachs, that could ripple through the entire financial system.²¹ In fact, AIG wrote over \$300 billion of CDSs for European banks in its European subsidiary to avoid US regulation, a concept we call "International Regulatory Arbitrage."²²

Bailout of FreddieMac & FannieMae

Before we get into a detailed discussion of GSEs, a primer is warranted in order fully to understand their importance. Fannie Mae (Federal National Mortgage Association) and

¹⁶ "I want your money", *The Economist*, September 25, 2008.

¹⁷ "There's a Bull Market Somewhere?", *Investment Outlook*, PIMCO, Bill Gross, September, 2008.

¹⁸ "A fate worse than leverage", *The Economist*, September 25, 2008.

¹⁹ "Behind Insurer's Crisis, Blind Eye to a Web of Risk", *New York Times*, Gretchen Morgenson, September 28, 2008.

²⁰ "AIG's \$16 Billion in Real Estate May Be Cash Source", *Bloomberg*, Brian Louis, September 24, 2008.

²¹ "Turmoil in the Markets: How Big a Danger?", Peterson Institute for International Economics, Adam Posen.

²² "The beginning of the end game...", Daniel Gros & Stefano Micossi, September 20, 2008.

Freddie Mac (Federal Home Loan Mortgage Corporation) were created to buy loans from mortgage originators such as traditional banks and mortgage brokers. They would then repackage the loans into mortgage-backed securities (MBSs) and sell them on the secondary mortgage markets with an "implicit" guarantee that the interest and principal would be repaid. Besides sourcing funds from its sale of MBSs to central banks, institutional investors and private investors, Freddie and Fannie would also sell bonds backed by their own balance sheet.

In essence, the GSEs were to facilitate the flow of fresh capital into US mortgage markets from these different sources that were searching for enhanced yield and safety. By now they guarantee or own nearly half of all outstanding mortgages in the US, and directly or indirectly account for close to half of the entire US investment-grade bond markets.

The federal backing of these securities stems from a decision by the Federal Reserve Bank of New York over a decade ago. Historically, foreign central banks with excess dollar reserves from US trade deficits invested those funds in Treasuries notes and bills that were custodied with the Federal Reserve of New York.²³ By the mid-1990s, Asian and Persian Gulf countries with huge trade surpluses demanded better returns on their investments while retaining the same safety features. At that point, the NY Fed began buying for them GSE paper, mostly from Fannie and Freddie, which were technically not guaranteed by the US government -- but if the need arose, the Treasury would rise to the occasion. As a result, foreign governments now hold over \$1.0 trillion of GSE paper.

As part of its efforts to stabilize the housing and mortgage markets, the US Treasury put government-sponsored mortgage giants Fannie and Freddie into conservatorship, officially ending their hybrid status as quasi-private sector entities. They will now be run by the Federal Housing Finance Agency (FHFA). Accordingly, their CEOs were ousted, dividends will no longer be paid to existing shareholders, and the US Treasury received \$1.0 billion of senior preferred stock in each company with warrants for the purchase of nearly 80% of the common stock of each. The US government has effectively taken control of the GSEs solely for the public objective of providing affordable mortgages to homeowners, and liquidity to the housing market. The initial market reaction on September 8th, following the announcement, was positive. GSE bonds now carried explicit government backing, but the common and preferred shares of both GSEs plummeted, as the ownership by existing shareholders was severely diluted due to the government's new stake in the companies. One unintended externality of the government's move was an impact on regional banks, since many of these banks held GSE preferred shares on their balance sheets. This loss for regionals would translate into a need for new capital.

The bailout was structured in a way that would prevent the socialization of risk by privatizing gains and socializing future losses. There would be full accountability, and those responsible for the mistakes -- shareholders, bondholders and management -- would bear all the consequences.²⁴ Additionally, taxpayers would be compensated for the risks they took and would participate in both the upside potential and the downside risk through shares and warrants. Lastly, as long as government credit lines were extended, no dividends would be paid to stockholders or holders of preferred stock until credit lines were paid.²⁵

²³ "Mortgaged to the World", *New York Times*, Martin Mayer, July 29, 2008.

²⁴ "Fannie and Freddie's free lunch", *The Economist*, Joseph Stiglitz, July 24, 2008.

²⁵ "The way forward for Fannie and Freddie", *Financial Times*, Lawrence Summers, July 27, 2008.

Why was the bailout important? The reason has to do with the consequences that would occur had the woes of Freddie and Fannie continued, namely their inability to find sources of liquidity and capital due to the lowered level of confidence in the financial system and in the balance sheet of the GSEs. The most urgent concern in the short run was falling real estate prices and rising mortgage defaults, which could bring down additional financial institutions.²⁶ Bank failures such as IndyMac and then Washington Mutual and Wachovia were all evidence that this fear was coming to fruition. Such fears would resonate well beyond US borders because of the volume of mortgage-backed securities held by foreign institutions, causing further risk for the US dollar with even further geopolitical ramifications. Treasury Secretary Paulson stated that the takeover would improve the availability of mortgage financing, curtail the decline in home prices and provide homeowners with additional refinancing options, ultimately benefiting non-GSE MBS securities as well.²⁷

Many believe that quasi-government entities -- or financial hybrids²⁸ -- are the worse possible design for financial institutions, generating conflicts of interest. It is no coincidence that crashes have been associated with financial hybrids on both sides of the Atlantic: Fannie and Freddie in the US, and Sachsen LB and IKB abroad.²⁹ An example of such conflict of interest for Fannie and Freddie is that their public purpose during this contraction is best served by expanding their balance sheets and increasing their lending to the distressed mortgage markets. This aim, however, potentially conflicts with their private objectives, since it would increase the share of their portfolios taken up by nonperforming loans, requiring them to raise new capital, which would dilute existing shareholders. The purchase, repackaging and securitization of mortgage debt, which had been Freddie and Fannie's initial mission, profoundly increased and still increases liquidity in the US mortgage markets.³⁰ Once these institutions became hybrids, however, their managers and political supporters started to involve them in business lines which should have been avoided and were at best ancillary to their initial purpose. These ancillary business activities were culprits that nearly or fully bankrupted the hybrids, leaving the taxpayer with the bill.

Lastly, as of September 2008, the GSEs combined guaranteed a total of \$5.3 trillion of mortgage and loan debt. Many pundits believe that this volume of liabilities on the balance sheet of the US Treasury will affect its credit rating. We believe that this line of reasoning is incredibly faulty and that the government's rescue plan will not affect the Treasury's credit rating.³¹ The \$5.3 trillion figure refers to the GSEs guarantee, which is not equivalent to outright liabilities. Although the government would have to cover any GSE losses, these losses will be minimal even by the most conservative

²⁶ "Meltdown Risk, Revised", *Council on Foreign Relations*, Lee Hudson Teslik, July 16, 2008.

²⁷ "Fannie Mae and Freddie Mac", *Goldman Sachs Global Fixed Income Update*, September 8, 2008. The Secretary cited three goals in deciding to take control of Fannie and Freddie: 1) Providing stability to financial markets, 2) Supporting the availability of mortgage financing, and 3) protecting the taxpayer by minimizing the near term costs to the taxpayer and by setting policymakers on a course to resolve the systematic risk created by the inherent conflict in the GSE structure.

²⁸ Financial hybrids are neither wholly public-sector entities nor private-sector companies.

²⁹ "Financial Hybrids Do Not Work", Peterson Institute for International Economics, Adam S Posen, August 7, 2008.

³⁰ "Financial Hybrids Do Not Work", Peterson Institute for International Economics, Adam S Posen, August 7, 2008.

³¹ "Experts Debate Fannie/Freddie Nationalization", *Council on Foreign Relations*, Roger M. Kubarych, September 9, 2008.

assumptions about the further deterioration of the economy and the mortgage markets.³²

Impact of Government Actions on Economy & US Treasury to Date:

Despite unprecedented moves taken by the US government as explained above, the credit markets are still in total disarray and show no signs of improvement, as confidence has shown no sign of returning to them.

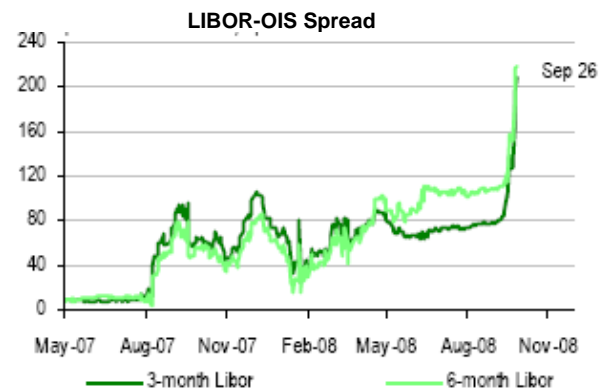
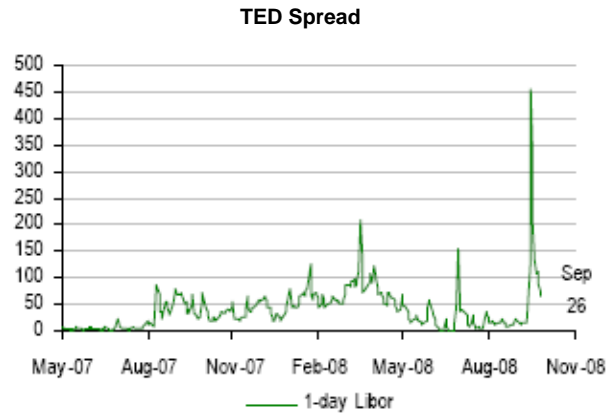
Let's start with liquidity. As capital flees from the banking system and as investors are deleveraging, this excess liquidity is seeking the safest parking place, which is short-term government bonds such as the 3-month T-bill. In fact, at one point over the last few weeks, the yield approached essentially zero. Similarly, on September 29th, on news that the US House of Representatives rejected the Paulson Proposal, the yield on the 3-month T-bill went from 0.80% to 0.21%. This yield usually hovers at around 1.5% to 2.0% near the Fed Funds Rate. This disparity indicates the level of "flight to safety" that we are observing.

Other useful indicators of risk and liquidity also showed signs of significant stress. First, LIBOR, or London Interbank Offering Rate, which represents the interest rate that banks charge each other for loans, climbed over 430 bps to an all-time high of 6.88%, reflecting a heightened level of distrust that banks have in each other due to a lack of transparency in the balance sheets of other banks and their asset holdings.³³ LIBOR is set daily in London, covers 10 currencies and over 15 maturities and represents the average borrowing costs of 16 of the world's leading banks, calculated from a daily survey by the British Banker's Association (BBA).³⁴ These LIBOR levels demonstrate that counterparty fear in the banking sector is at a new high.

Two other measures of liquidity and risk are of utmost importance in our analysis. The first is the TED spread, which represents the spread between the 3-month LIBOR and the 3-month T-bill. This spread represents the perceived systematic credit risk in the banking system, as it measures the theoretical preference that banks have for lending money to the US Treasury versus lending money to fellow banks. The TED Spread at one point stood at over 500 bps before backing down to approximately 350 bps.³⁵ The TED spread was at 110 bps a month ago and historically has fluctuated between 10 bps and 50 bps.

The other spread we monitor is the LIBOR-OIS Spread. Further evidence of credit stress is the sharp increase in spreads in the short-term funding markets, specifically the spread between the LIBOR rate and the overnight indexed swap (OIS) rate.³⁶ The OIS rate embeds the expectation of the overnight rates and considers interest rate expectations. The increase in the spread is viewed as a stress to the interbank market.³⁷ This spread widened to over 246 bps,

showing that cash scarcity in the short-term funding markets was at an all-time low.



Source: UBS Research

The injections of liquidity have had a significant effect on the Fed's balance sheet and that of other central banks. In the latest two-week reserve maintenance period, the monetary base rose an exceptional 8% (11% year-over-year) while the Fed's asset base rose roughly 16% in the same two-week period.³⁸ The different growth rates between the monetary base and the total assets are the effect of the Fed's "sterilization", produced by selling government bonds to the public, thus offsetting the injections of reserves through the various lending programs which were then deposited at the Fed. The increase in the monetary base has been concentrated in the bank-reserves component rather than in currency-in-circulation, with excess reserves reaching record highs.

Additionally, central banks have been buying more dollar-denominated assets against the popular belief of most market pundits. In fact, the Fed's custodial holdings of foreign central banks (a topic we covered in the GSE section) increased by over \$40 billion, with Treasuries accounting for approximately \$30 billion of the increase and Agency paper accounting for the other \$10 billion.³⁹ This is contrary to earlier reports that Asian banks have been net-selling Fannie and Freddie debt.⁴⁰

view. "Why does the spread between LIBOR and expected future policy rates persist, and should central banks do something about it?", VoxEU, Francesco Giavazzi, June 2, 2008.

³⁸ UBS Investment Research, US Economic Perspectives, September 26, 2008.

³⁹ "Extraordinary Times", Council on Foreign Relations, Brad Setser, September 26, 2008.

⁴⁰ "Bank of China flees Fannie-Freddie", Financial Times, Saskia Scholtes & James Politi, August 28, 2008.

³² "A Macro Perspective on the GSE Turmoil", US Daily Financial Market Comment, Goldman Sachs, July 11, 2008.

³³ "LIBOR Surges Most on Record After US Congress Rejects Bailout", Bloomberg, Gavin Finch & David Yong, September 30, 2008.

³⁴ "LIBOR's Future in Question", EDHEC Business School, Dr. Arjuna Sittampalam, September 24, 2008. There is widespread suspicion that a number of banks have been understating interest rates they are paying and causing LIBOR to actually fall short of actual rates. This is a topic for another day.

³⁵ "And now the Great Depression", VoxEU, Barry Eichengreen, September 28, 2008.

³⁶ OISs are interest rate swaps in which the floating rate is linked to a published index of daily overnight rates.

³⁷ Whether the stress is related to liquidity or credit risks is less clear. The European view is that the LIBOR-OIS spread reflects credit risk. The American view is that this spread reflects a shortage of capital, or a liquidity

In fact, the rate of growth of the Fed's custodial holdings over the two-week period was stronger than the rate of growth in global reserves, suggesting that global central banks are shifting out of funds in commercial banks and into Treasuries. This mostly reflects two important facts: 1) a sense that the rest of the world is slowing far more than the already sluggish US economy and 2) a general flight from risk, including emerging market risk.⁴¹

The Paulson Plan: Objectives, Pros, Cons & Alternatives

Despite all the initiatives taken by the government, the credit markets have been deteriorating at an alarming rate, shown by the credit spreads and the complete lack of credit availability. As a result, the two principal problems facing the banking system are: 1) capital destruction, tied to declining asset quality and lack of demand for risk assets; and 2) the drying up of liquidity due to the lack of transparency in measuring the banking system's exposure to risky mortgage assets.⁴² The fund flows that make our economy work are threatened by a lack of confidence in the value of mortgage assets, which makes financial firms extremely hesitant to purchase assets or lend money with one another to fund the system.⁴³

In response to the continued malaise, Treasury Secretary Paulson announced the Troubled Asset Relief Program (TARP), designed to resuscitate ailing credit markets. He identified the fundamental problem in the US economy as illiquid mortgage assets which have lost value due to the slumping housing market. These toxic assets are choking off the flow of credit that is vital to the health of the US economy.⁴⁴ Because these assets are currently on the balance sheets of financial firms, and because their true value is both unknown and very volatile, counterparties are not willing to do business with the holders of these assets, and so new capital is not migrating to them because of the heightened risk of loss involved. TARP would be designed to improve the capital situation by raising valuations on risky mortgage assets above their distressed levels and removing the current information asymmetry faced by the banks by transferring the toxic assets from private balance sheets into the public balance sheet. By increasing balance-sheet transparency, interbank lending would improve significantly and credit would begin to flow.

What is needed, therefore, is a clear and effective way of deleveraging and recapitalizing the financial markets in an orderly fashion, with minimal or no taxpayer funds. Any plausible proposal will be judged by the likelihood of its: 1) restoring stability to the financial system at the lowest possible cost; 2) placing loss on individuals such as management and shareholders; and 3) addressing the collapse of the housing market and providing a mechanism to stabilize it.⁴⁵

With that said, the basic principal behind the Paulson Plan is to remove the toxic assets from the balance sheets of troubled financial firms, based on the premise that balance-sheet risk is preventing business transactions from occurring and capital from flowing into credit markets. The Secretary will have the authority to issue up to \$700 billion of Treasury securities to finance the purchase of these troubled assets. The latter may include residential and commercial mortgage-related assets, which in turn may include MBS and whole loans. The

Secretary will have the discretion, in consultation with the Fed Chairman, to purchase other assets as deemed necessary to stabilize the financial markets. By effectively removing these assets from their balance sheets, distressed firms can resume trading and lending with less counterparty risk associated with balance sheets. The Treasury will effectively act as a clearing house for counterparty risk.

The timing and scale of any purchase will be at the discretion of the Secretary, subject to the \$700 billion cap. The assets will be purchased through market mechanisms where possible, and will be managed by private asset managers at the full discretion of the Treasury, including the right to sell or hold to maturity. Cash received from liquidating assets, including any returns, will be remitted to the general Treasury fund for the benefit of taxpayers.⁴⁶

Costs

Let's begin the analysis of this proposal. Firstly, while critics have called this a "bailout", we prefer to call it an "involuntary investment" that will ultimately benefit Main Street. The media and politicians have labeled the \$700 billion a cost of the program, inferring that the money spent to buy the toxic assets will be permanently lost. If someone buys a financial asset that has the potential for appreciation, it is called an "investment" even if there is a risk of loss. The same principle should be applied here, despite its involuntary nature. The Treasury is going to own these "assets", with every incentive to make a profit for taxpayers. Even assuming losses on some of the assets, the aggregate cost of the program should be nowhere near the \$700 billion initial outlay. The ultimate return of those assets relative to their purchase price will determine the Treasury's cost.

Let's give an example. Bill Gross of PIMCO estimates that the average price of these distressed mortgages will be approximately \$0.65 on the \$1.00.⁴⁷ This represents a 35% loss to the selling institution and a prospective yield of 10% to 15% profit to the Treasury. Financed with 3% to 4% Treasury bonds, the Treasury will be in a position to earn a positive return spread of 7% to 8%. This assumes a lengthy ownership period and a certain level of home foreclosures, which this program is designed to help curtail. In this scenario, not only does the Plan not cost the taxpayers anything, there is an actual profit to help offset other programs such as social security and health care.

Although the precise cost depends on many factors, most importantly the prices that will be paid, we believe that \$200 billion should be an approximate total cost assuming more bearish assumptions than Bill Gross. In addition, the macroeconomic benefits achieved from a successful implementation of the Plan could be substantial. For example, assuming that the cost of a downside to the economy without a Plan is approximately 1% of GDP for 2009 and 2010, the Plan's implementation would translate into an additional \$300 billion of additional output and income, exceeding the pessimistic \$200 billion cost figure.⁴⁸ The increased tax revenue from greater GDP would mitigate the fiscal impact as well.

To put things in perspective, on September 29th when the House of Representatives initially rejected the Plan, the US equity markets lost over \$1.4 trillion in value, twice the value of the Plan itself. More ironically, the longer our esteemed

⁴¹ "Why no dollar crisis? The needed flows don't show up in the TIC data...", *Council on Foreign Relations*, Brad Setser, September 19, 2008.

⁴² "The Clock Is Ticking on TARP", *US Economy/Strategy Weekly*, Deutsche Bank, September 26, 2008.

⁴³ "Main Street Needs the Paulson Plan", *Wall Street Journal*, Kenneth Lewis, September 26, 2008.

⁴⁴ "Paulson's plan was not a true solution to the crisis", *Financial Times*, Martin Wolf, September 23, 2008.

⁴⁵ "Let's Get the Bank Rescue Right", *Wall Street Journal*, Glenn Hubbard, Hal Scott, and Luigi Zingales, September 24, 2008.

⁴⁶ "Details on the Administration's Bailout Plan for the Financial System", UBS, September 21, 2008.

⁴⁷ "How Main Street Will Profit", *Washington Post*, William H. Gross, September 24, 2008.

⁴⁸ "US Views: More Thoughts on the Treasury Plan", Goldman Sachs Research, September 22, 2008.

Congressmen in their infinite wisdom and partisan bickering wait to put a plan in place, the more it will cost the government, since our institutions become weaker by the day. For example, our commercial paper markets are simply freezing, preventing companies like General Electric with its triple-A credit rating from conducting business with other companies due to funding concerns. This weakened economic activity will affect more than just the “fat cats on Wall Street.”

In summary, we do not know what the ultimate cost or profit will be from the Plan because we do not know the purchase prices or returns. But speaking of purchase prices.....

Purchase Prices

The Plan is vague as to how purchase prices will be determined, and given the heterogeneity of the assets, the government will need to separate them into asset type, securitization type, borrower characteristics and structural features.⁴⁹ The most recent proposals cite “market based” mechanisms that would be the default assumption in the Treasury’s thinking, but multiple methods would be used.⁵⁰ Fed Chairman Bernanke identified a program that would price assets close to a model-based “held-to-maturity” value, versus their current distressed price, as it is a better reflection of value.

There are several reasons why price levels are very important. If the Treasury buys these assets at inflated prices, they will be subsidizing these banks at the taxpayers’ expense, since losses will inevitably occur at resale. If prices are determined at very low levels, distressed firms will not want to sell because they would have to incur further losses, especially if they are carrying these assets at higher prices on their balance sheets. These losses would translate into a need to raise capital.

There are several ways to price these complex securities. First, we can value them at par but everyone would agree par value is largely irrelevant at this point in the credit cycle. Second, we can value them by their value on the holders’ balance sheets. These values are most likely artificially high, as holders have every incentive to overvalue assets to avert the need to raise capital.⁵¹ Third, we can value based on market values, assuming no government intervention such as the Merrill Lynch sale of its portfolio of toxic assets in July at \$0.22 on the dollar. However, because of the heterogeneity of the assets, fair market values cannot easily be determined. Fourth, we can value the assets based on quantitative models of long-term cash flow projections. Bernanke testified to Congress that the plan is to pay more than current fair market value based on a model approximating held-to-maturity approach.

Fair market values can be arrived at using an auction mechanism that would minimize the cost to taxpayers and encourage financial institutions to compete to lower their sell offers.⁵² With a reverse auction, the Treasury would put out a list of specific securities it is willing to buy and would hold these reverse auctions for predetermined quantities of each class of securities. Holders of these securities would compete with each other by offering them to the Treasury at attractive (lowest) prices. The Treasury would then rank these bids from highest to lowest and buy as many as it seeks at the cheapest prices. If the prices set too low, further write-downs might be

required. If prices are too high, then banks are benefiting at taxpayer expense.

One issue arising from this process is that of information. Commentators believe that any type of auction will raise problems related to asymmetric information regarding the value of these assets.⁵³ Because the holders of these complex mortgage-related assets have vastly more information about their true nature and worth, they have a great advantage over the Treasury and are more likely to receive a greater price than is warranted.

One goal of the Treasury will be to encourage other market participants, such as hedge funds and traditional investors, to follow suit with the Treasury and begin trading in these distressed debt markets. By deciding to buy the assets of the distressed firms rather than buying the firms themselves, the Treasury implicitly believes it can create a market for these assets that are currently illiquid and lack the faith of the investor base. If the Treasury starts a buying spree, this Plan will prove highly successful, but if it starts a selling spree, it could swamp its rescue efforts.⁵⁴ To encourage private investors to back up its purchases, the Treasury needs to buy cheaply, setting prices at attractive levels. If the Treasury pays more than hedge funds think assets are worth, they will find ways to bet against the Treasury.

Thus, the desire to attract private capital to these markets creates a Catch-22 situation. The Treasury has every incentive to price the assets low, to encourage private investors to participate, thus lowering costs to the Plan. But if the prices are too low, then financial institutions will have to take further losses if the assets are marked higher on their balance sheets than the sale price. These losses will lower their existing capital, either requiring recapitalization or starting insolvency proceedings. Many critics of the Paulson Plan believe that there is more than a liquidity issue here; there is a solvency issue when banks are required to recapitalize.⁵⁵ We believe that the process of price discovery will have a substantial impact on a wide variety of financial institutions, as shown by the number of smaller firms that are objecting to the Plan as is.

Size of the Plan

Many have questioned the size of the Plan as being too small to effectuate a bailout of this magnitude. Upon further analysis of the numbers, we would disagree. Firstly, since the Treasury will be purchasing distressed assets at approximately 65% of par value (\$0.65 on the \$1.00), it will be able to purchase assets carrying approximately \$1.1 trillion of face value. The lower the prices paid, the more the government can buy at loan face value.

Take a look at the details. There are currently \$11.3 trillion of outstanding 1-4 unit residential mortgages, half of which are protected by the government backstop of Freddie and Fannie. That leaves about \$5.6 trillion to be backstopped by the Plan.⁵⁶ According to the Mortgage Bankers Association, as of the second quarter of 2008, 6.41% of residential mortgages were delinquent and another 2.75% were in the process of foreclosure, totaling 9.16% of “troubled” residential loans.⁵⁷ This would translate into \$520 billion of troubled loans.

⁴⁹ “Troubled Asset Relief Program: implications & questions”, Merrill Lynch Research Fixed Income Strategy, September 26, 2008.

⁵⁰ “The Treasury’s Proposal: Where Things Stand”, Goldman Sachs Economic Research, September 23, 2008.

⁵¹ “The Price of Salvation”, Peterson Institute for International Economics, September 24, 2008.

⁵² “Paulson, Bernanke Describe Mechanism of Auction Proposal”, *Wall Street Journal*, Damian Paletta & Deborah Solomon, September 24, 2008.

⁵³ “Let’s Get the Bank Rescue Right”, *Wall Street Journal*, Glenn Hubbard, Hal Scott, 7 Luigi Zingales, September 24, 2008.

⁵⁴ “How to Spend That \$700 Billion”, *Washington Post*, Sebastian Malleby, September 26, 2008.

⁵⁵ “Fixing the bailout”, *Financial Times*, September 24, 2008.

⁵⁶ “The Plan to Fix the Economy”, Morgan Stanley Economics & Strategy Research, September 22, 2008.

⁵⁷ “Assessing the Size of the Treasury Plan”, Goldman Sachs Research, US Daily Financial Markets Comment, September 24, 2008.

Moreover, another 4.24% of all commercial loans are either in default or in the process of foreclosure as of the end of Q2 of 2008 (\$150 billion). This adds up to approximately **\$670 billion** of troubled loans that the Plan can cover. At a price of 65% of par, total outlays would be \$435 billion, leaving a spare \$265 billion as cushion.

Paulson Plan Alternatives

There has been much criticism of the Paulson Plan since it was introduced. It was said to have socialized banking losses but privatized gains, benefiting only the “fat cats of Wall Street.” The critics’ overwhelming consensus is that if the government is to provide fresh capital to distressed financial firms, it should also participate on any upside by getting back an equity stake.⁵⁸ They argue that the basic tenets of capitalism require that those that reap the gains must court the losses, but that Paulson’s Plan does the opposite, as it merely provides welfare to the rich at taxpayer expense.⁵⁹ Joseph Stiglitz, a Nobel prize-winning economist at Columbia University described the Paulson proposal as:

...a new corporate welfarism masquerading behind free-market ideology; another version of trickle-down economics, where the hundreds of billions to Wall Street that caused the problem were supposed to somehow trickle down to help ordinary Americans....Wall Street has polluted our economy with toxic mortgages. It should now pay for the clean-up.⁶⁰

Along these lines of reasoning, Senator Christopher Dodd has proposed amendments to the Paulson Plan that would require financial firms to insure the Treasury against any losses it may incur in the ownership and disposition of these assets.⁶¹

As we mentioned above, paying low prices for these toxic assets will cause further asset write-downs and further recapitalization of the banking system. The main alternative to the Paulson Plan suggests that the government buy the firms themselves rather than their assets, injecting much needed capital and receiving back preferred shares with warrants attached. This is advocated by Senator Charles Schumer and inspired by the Reconstruction Finance Corporation policies of the 1930s.⁶²

Senior preferred stock issuance would leave asset valuation and liquidation decisions to the private sector and would supply much needed capital to the banking sector in an incentive-based manner to help the banks to grow again. Common shareholders will have dividends blocked until the taxpayers are first paid back, and taxpayers will be the last to realize any losses, since common and other preferred equity will be extinguished before the taxpayer would be at risk. By issuing senior preferred shares attached with warrants, the financial system will stabilize, illiquid and insolvent banks will get recapitalized, and time will be gained to allow for illiquid distressed assets to unwind and mature to value.⁶³ Lastly, only distressed banks that don’t have private alternatives will be given federal assistance.

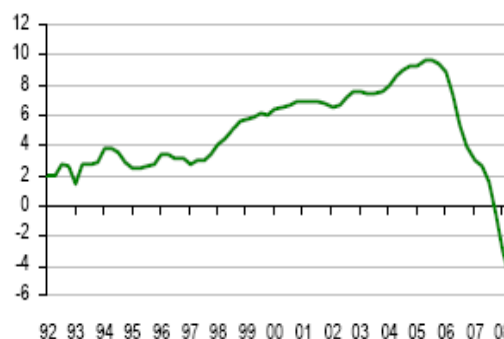
Similarly, the funds used to recapitalize the banking system instead of buying up assets can be leveraged to create a multiplier effect for the economy.⁶⁴ According to George Soros, if the \$700 billion is injected at the equity level, it can be leveraged more than 12 times over, giving the Treasury over \$8.4 trillion to reignite the economy. Bank examiners would establish how much additional capital each bank would need to properly capitalize according to current capital requirements. Recapitalized banks would be allowed to increase their leverage to resume lending.⁶⁵

Dominant in the Alternative Plan is the implicit assumption that these financially distressed firms are insolvent and will need recapitalization to survive.⁶⁶ Along with injecting banks with additional capital to recapitalize their balance sheets, there are other ways to recapitalize the banking system. For example, because there is no time for Chapter 11 bankruptcy proceedings, the Treasury could invoke a forced restructuring by converting some of the debt to equity, with the government specifying maximum leverage ratios.⁶⁷ Having too much debt in relation to equity levels can hurt both the debt and equity holders. Additionally, banks could be forced to block dividends on common shares and stock buybacks. Lastly, banks can seek private capital as did Goldman Sachs with the \$5.0 billion injection by Warren Buffet.

Stabilization of the Housing Markets

The final issue we need to cover is how the housing market can be stabilized, and with it the mortgage market. At the heart of this Plan is the need for the housing market to stabilize and home prices to level off to prevent greater mortgage losses. However, as we mentioned, the past few years have seen the homeowner participation rate skyrocket past 69% which is over 500 bps above the forty-year historical trend. Despite recent defaults and foreclosures, we are still at the 68% level, which translates into a need for more homeowners to become renters. As an analyst from Oppenheimer, Meredith Whitney, recently opined, the home participation rate needs to fall to 65% before house prices will stabilize. Unfortunately, we must agree with her assessment. Home prices are still too expensive relative to incomes, and it will take another 12% to 15% decrease in home prices for them to reach historic trends. The following charts show that home prices show no signs of stabilizing currently or in the futures market.

OFHEO Purchase-Only Index



⁵⁸ “An emerging consensus against the Paulson Plan: Government should force bank capital up, not just socialize the bad loans”, Jeffrey Frankel, VoxEU, September 23, 2008.

⁵⁹ “Why Paulson is wrong”, Luigi Zingales, VoxEU, September 21, 2008.

⁶⁰ “Good day for democracy”, *The Guardian*, Joseph Stiglitz, October 1, 2008.

⁶¹ “Fixing the bail-out”, *Financial Times*, September 24, 2008. We debate how valuable this insurance policy is if the assets of the bank drop in value causing losses. In such circumstances, the banks will most probably be insolvent rendering the insurance worthless.

⁶² “A matched preferred stock plan for government assistance”, Prof. Charles Calomiris, Columbia University, September 22, 2008. “Pricing subprime instruments for purchase would be very challenging and fraught with unfair and hard-to-defend judgment.”

⁶³ “The Public Deserves a Better Deal”, *Wall Street Journal*, John Paulson, September 26, 2008.

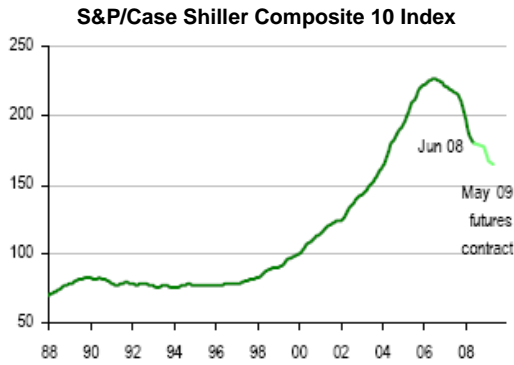
⁶⁴ “Recapitalize the banking system”, *Financial Times*, George Soros, October 1, 2008.

⁶⁵ See footnote #75. Limits on bank leverage could be imposed later.

⁶⁶ “Why Paulson is wrong”, Luigi Zingales, VoxEU, September 21, 2008.

Banking sector here would include the “shadow banking system.”

⁶⁷ Different kinds of debt would be mandatorily converted into equity (preferred and ordinary).



Source: Office of Federal Housing Enterprise Oversight
Source: S&P, UBS Research

The TwinFocus Proposal

We are of the belief that both the current Paulson Plan and the Alternative Plan contain serious deficiencies that will not have the intended result of correcting the current crisis. The solution will involve a confluence of aspects and with some adjustments to arrive at a carefully crafted strategy that will assuage all constituents involved.

The Paulson Plan alone will not work, we believe, because the distressed assets are valued to a point which does not render the holding institutions effectively insolvent, at least as measured by their lack of adequate capital. Buying these assets anywhere near fair market value will cause an avalanche of further write-offs, which in turn will cause mass insolvency across the industry. This is the reason why the banking industry is effectively opposing the Plan. Additionally, in our opinion the short-sellers will drive these securities down further in light of such a possible outcome. This will make raising new private capital all the more difficult. There is also the matter of the correct purchase price, which subjects us to the Catch-22 dilemma described above.

We believe the Alternative Plan is also faulty. While it addresses the issue of undercapitalization and solvency, it does not solve one important detail. Those toxic assets will still remain on the balance sheets of the banks, and that is a major reason why counterparties do not currently conduct business with these firms. These assets on the balance sheets are a ticking time bomb, and moving a time bomb from one room to another does not stop it from ticking. The bomb has to be permanently disarmed. Merely providing more capital will not keep these assets from continuing to fall in price, creating more undercapitalization and the need for more taxpayer funding. Proponents of this proposal believe that once the Plan is enacted, the housing market will turn around and the asset values will stabilize. We believe, as we mentioned above, that housing might not necessarily stabilize over the next 12 to 18 months. The Alternative Plan proposes to add emergency provisions to provide homeowners help in the form of refinancing, based on adjusting mortgages to the homeowners' ability to pay.⁶⁸ This could prove very costly.

⁶⁸ We also have a problem with these provisions. There are many current homeowners who falsified mortgage applications to receive loans to buy homes. With rates resetting, they are now faced with foreclosures. We believe this is a poor use of taxpayer money as it represents a transfer of wealth from those who follow the law and barely make their mortgage to those who falsify. This is the reason why the homeownership has bubbled to its current levels. A bifurcation is needed to separate the legitimate homeowners who are having temporary problems with their mortgages due to the ills of the economy and those homeowners who should not have been allowed to purchase. The latter is the group that should be helped by taxpayer outlays. The former should follow the German housing model and revert to the rental markets. This is perhaps a discussion left for another day.

Our own plan provides a solution to both shortfalls. First, we propose to purchase toxic assets much like the Paulson Plan proposes. We see the removal of these assets from the balance sheets of affected firms as the top priority. Because our plan also provides for recapitalization, we would not find ourselves in the Catch-22 trap that the Paulson Plan falls into. It is in the economy's interest to buy these assets at true fair market value and not at inflated price, which is a main criticism of the Paulson Plan. We also see an epiphenomenon developing. If fair market values are at the low end, they will entice private investors such as hedge funds to start buying and trading the securities, creating a liquid market for them.

As soon as toxic assets are removed from balance sheets, each firm will be analyzed by the proper banking regulators to determine the extent of their undercapitalization based on current capital requirements. The firms will be funded to the extent of their deficit in capital. For this capital, the Treasury will receive senior preferred debt with warrants that could be traded. Dividends will be blocked to prevent the capital dilution that could benefit current common shareholders at the expense of the preferred shareholder-taxpayers.

For those distressed firms who own toxic assets and do not want to sell because they feel that these assets will appreciate in the future as market conditions improve, we would provide another solution to help them. This would be based, again, on the underlying premise that these toxic assets are preventing firms from functioning normally. The firms can have their toxic assets valued by the Treasury for a reasonable fee and receive what would effectively be a put option on the assets, the Treasury guaranteeing a certain value for those assets for a certain period of time. At that point, the firms can approach counterparties with an insurance policy underwritten by the government to try to transact business. The counterparties would be incentivized to transact business because they would be assured a floor on the value of the assets with a potential upside.⁶⁹ This part of the Plan would cost the taxpayer nothing initially and would generate fees. Costs would begin to arise if the assets would be put to the Treasury. If the mortgage market and/or the market for these securities reverses, these put options will expire worthless and the Treasury will keep the premiums. The notional value of these put options will be subtracted from the \$700 billion statutory cap of the Plan.

How will we pay for these asset purchases and for balance sheet recapitalization? We believe we can achieve our goals and still stay within the \$700 billion limit. Here is how.

We determined previously that there are approximately \$670 billion of troubled loans that will need to be bought. Given that we are not constrained by the Bernanke Doctrine of Held-to-Maturity pricing methodology, the Treasury will be incentivized to purchase these assets at their true market values, which we believe could be near the 60% of par level.⁷⁰ This would cost approximately \$390 billion, leaving us with \$310 billion for market recapitalization. Many commentators such as George Soros and Bill Gross believe that the recapitalization of the banking system could be achieved with less than \$500 billion.⁷¹ The shortfall of approximately \$190 billion could come from assistance by the FDIC, which would take over banks that are insolvent.

⁶⁹ "The Good and the Bad of the Bailout", *Council on Foreign Relations*, Benn Steil, September 22, 2008.

⁷⁰ Merrill Lynch sold a portfolio of assets at 22% of par when things were arguably better.

⁷¹ "Recapitalise the banking system", *Financial Times*, George Soros, September 1, 2008.

What is the major concern we have with our own plan -- or anybody else's plan for that matter? It remains the housing market, because we believe it remains overvalued by historic norms. Preventing it from falling further to reach the long-term trend could do more harm than good. Additionally, we believe that the current versions of the Plan proposed to Congress are deficient, and that passing any one of them could produce serious negative effects. Any sharp rally in equities as a result of passage would in fact make a good exit point. Lastly, this crisis is a global one and any plan passed in the US has to be matched with plans around the world to prevent international regulatory arbitrage.

The European Union Banking Industry, A Comparative Analysis

Economic data coming out of Europe clearly show a deteriorating situation. The Eurozone economy shrank in the second quarter of 2008 at an annualized rate of 0.8% and business confidence has turned down sharply in the three largest European economies, Germany, France and Italy. Similarly, the once high-flying PIGS economies (Portugal, Italy, Greece and Spain), have seen their unemployment rates swell and their current account deficits explode as their economies are slowed by the credit crisis.⁷²

We believe that this slowdown, coupled with potential credit problems bigger than those in the US, is a source of major concern. While the rhetoric coming out of Europe is one of confidence and lack of concern for any coming crisis, the underlying facts reveal a very different picture for a number of reasons. First, the ECB is overloaded with toxic assets of low quality, and in huge quantities.⁷³ Second, the key distinguishing problem for the EU is that the largest European banks have become not only too big to fail but "too big to save." For example, the liabilities of Deutsche Bank, supporting a leverage ratio of over 50 to 1, amount to approximately 2.0 billion euro, equivalent to 80% of the GDP of Germany. This is an overwhelming stress point for the Bundesbank or the German government to manage without help. Another example, Barclays liabilities (1.3 billion pounds – leverage ratio of 60 to 1), surpasses Britain's GDP. The recent bailout of the Belgian Fortis Bank had a leverage ratio of 33 to 1 and its liabilities were several times larger than the GDP of Belgium, requiring the help of the other Benelux countries (Netherlands and Luxembourg).⁷⁴ With banks having outgrown their national treasuries, European central-bank regulators have had to become pro-active, and the European Central Bank will need to be put in charge. Smaller countries such as Switzerland that cannot rely on the ECB can only pray that their giants will remain intact.

What's even more disturbing is the regulatory banking environment in Europe. Currently, banking regulations exist at the national level, with each nation within Europe responsible for the stability of its banking industry.⁷⁵ Different countries have different regulatory models. This has resulted in a hotchpotch of regulatory systems across the Eurozone that has caused many to question whether the system could cope with a major banking crisis.⁷⁶ We question not the willingness of the individual governments to support bank failures but their ability. Some of Europe's biggest institutions, such as UBS, ING and Fortis, are based in the smallest countries, like Switzerland. Rescuing a major bank that operates across the continent would require political will and coordination that

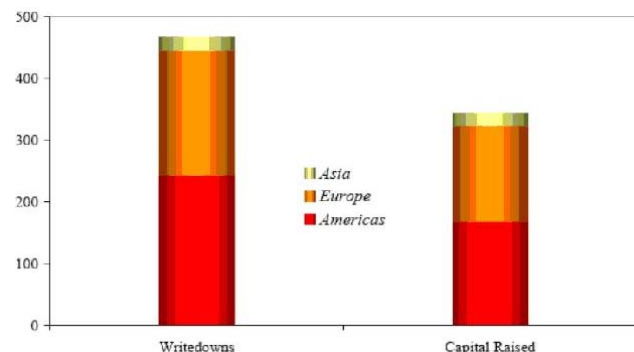
might be lacking.⁷⁷ While the US needs a better rescue plan, the European Union needs a system that can devise a rescue plan in place. In this respect, the US is far ahead.

Our last point on the European banking system has to do with the quality of their asset base, which has come into question as well. The European banking system faces two main problems:⁷⁸

1. Total assets grew much faster than the risk-weighted assets against which banks must hold capital; and
2. The tangible component of equity has decreased. In other words, part of the capital cushion in the European banking system was made up largely of intangible assets derived from mergers within the banking system.

The solution to these problems is to recapitalize the European banking system, a need that stems from the high leverage practiced by the largest internationally active banks. This must be achieved through injection of public equities such as senior preferred shares or through mandatory debt-to-equity conversions, both of which we mentioned in our previous discussion.⁷⁹ We believe that this level of undercapitalization will be exacerbated when the US rescue plan is implemented. As US toxic assets begin to value, European counterparts that hold similar toxic assets will be forced to write down their assets to similar levels, if not by their regulators then by counterparties with whom they do business. As the chart shows, European banks have not taken as many write-downs as US banks, and have raised less new capital.

Bank Write-downs and capital raising (USD, billions)



Source: International Monetary fund, VoxEU

One remaining fact we need to point out is the strong position of Asia. As the chart shows, it is the only region that has raised as much capital to replace write-downs, and so it has remained relatively immune to this crisis.

Decoupling anyone?

⁷⁷ "In Europe, bank regulations haven't kept up with cross-border realities", *International Herald Tribune*, Matthew Saltmarsh, September 23, 2008. In fact, the European finance ministers took the first step and signed a memorandum of understanding binding national authorities to favor private-sector rescues where possible. This, of course, is non-binding.

⁷⁸ "Banks' losses and capital: The new version of the paradox of Achilles and the tortoise.", VoxEU, Marco Onado, August 19, 2008. The quality of assets is at stake as well as the level of leverage.

⁷⁹ "Open Letter to European leaders on Europe's banking crisis: A call to action", VoxEU, Alberto Alesina et. al., October 1, 2008. To prevent future crisis, regulation of the European financial markets and institutions at the European level will be required.

⁷² "Pigs in Muck", *Financial Times*, August 31, 2008.

⁷³ "The beginning of the end game", Daniel Gros and Stefano Micossi, VoxEU, September 19, 2008.

⁷⁴ "Europe Acts To Stave Off Financial Collapse", NPR, Rob Gifford, September 30, 2008.

⁷⁵ "A confidence crisis in European banks", *Financial Times*, October 1, 2008.

⁷⁶ "Cross-border contagion", *The Economist*, September 18, 2008.

Our Investment & Economic Outlook

In the light of recent events, we believe that a comprehensive review of this financial crisis was warranted for our clients to understand fully the causes of the crisis, and to assess the current proposed solutions. With that said, we want to share our thoughts on the economic outlook going forward, and our different tactical strategies to take advantage of these dislocations.

Despite a potential rebound from trough levels based on previous bear markets, we continue to view risky assets as unattractive and have been tactically cutting back on such positions. Credit conditions are likely to remain tight, and we see no relief as evidenced by the TED Spread and other indicators. Accordingly, we regard this as an unfriendly environment for any equities that need credit to perform well.

The volatility in equity markets has been high, as stocks have seen both indiscriminate selling from fear and buying as a result of short covering. This has been evident by the VIX topping 42, a level not seen since 2002. During the most recent days in September, the Dow Jones took its largest 4-day point swing in history, resulting in what some deem the most volatile week in modern history.

While panic levels may subside, we remain cautious and expect further strain in financial markets. We are unsure how conservative banks are marking illiquid assets on their balance sheets, and this leads to further solvency concerns. We remain concerned as well about further slowdowns in household spending. We expect home prices to decline by another 10-15%, to bring the decline down from its peak to 25-30%. This would return housing affordability levels to the pre-bubble norm. We believe that before we see the markets stabilize we must see an end to deterioration in the broader economy, and particularly in housing. Unfortunately, all of the ad hoc actions by the Government cannot correct poor decisions taken by management at some of the world's largest financial institutions. Nor will they ameliorate the dismal situation of the consumer, with the real-estate market still trending down amidst bleak macroeconomic forecasts. While the government's actions dramatically decrease the risk of systemic failure, we believe that these actions will only slow the pace of the eventual decline.

That said, we strongly believe that the global economy is still growing, and that great opportunities lie abroad. Many of the recent market moves have been technical in nature, as opposed to fundamental, for example, skewing valuations towards tail-risk scenarios such as a complete collapse in the mortgage market or systemic failure in the financial markets. The Bulls continue to focus on fundamentals, believing stocks to be cheap on a relative basis, while the Bears continue to focus on the macro headwinds. We believe that once major concern over the credit crisis has subsided, that fundamentals will ultimately reign in select risk assets. Such assets as Commodities and Emerging Markets have been duly punished as a result of the global risk aversion and the unwinding of leverage. We are long-term believers in the fundamental stories for both.

Investors such as hedge funds have continued to de-leverage, resulting in massive liquidations across the board. As a result, many of the crowded trades in short financials, long commodities/EM, have been punished. Because of the fact that during a liquidity crunch "you don't sell what you want to sell, you sell what you can sell", the more high quality equity and fixed income securities suffered. These include large cap multinationals, high grade non-financial corporate bonds, municipals, and mortgages. As such, we believe that when funds flow back into the markets, these assets will benefit.

The US Economy

We have said numerous times in the past that we believe ourselves to be in a serious recession which started at some point in the second to third quarter (Q3) of 2008.⁸⁰ We are on track for a Q3 contraction of 2% year-over-year (YoY) and the fourth quarter (Q4) of 2008 and the first quarter (1Q) of 2009 to be flat. This will have a negative impact on corporate earnings. For the Q3 of 2008, we expect financials to report a 55% YoY decline and the energy sector to report a YoY increase of 55%, with all other sectors reporting mild declines.⁸¹ Unemployment has shown no sign of reversing as we continue to see deterioration in the weekly jobless claims and other employment metrics. Housing continues to plummet and has still not reached long-term trend levels. The export sector is still doing relatively well and providing us a big cushion for further deterioration, but it can do only so much, especially in light of the recent strength of the dollar relative to the euro.

With that said, for 2008, we see S&P profits per share coming in at approximately \$76 and approximately \$78 for 2009 reflecting a decline in profit margins in line with previous recessions. These estimates can change depending on the severity of the recession, the final impact of the Treasury Plan, the housing crisis, and the level of oil prices. Applying a modest 13 times 2009 earnings, we see further downside to 1014 on the S&P over the next 12 months. Alternatively, using the past ten bear markets as a guide, we observe that there is on average a 32% pullback to the S&P 500. This would bring us to a 1064 level.⁸²

Similarly, we have observed, on average, that we have rallied 11%, 15% and 23% returns after 1 month, 3 month and 6 month intervals, respectively, from reaching the trough. Because it is quite difficult to determine the exact timing of any troughs, given especially the event-driven sensitivity of this market, we choose to have well-sized and targeted allocations to US equity for our clients, despite our belief that we could see further downside.

Additionally, we believe that much higher volatility in the equity markets is here to stay. We would therefore use these rallies as rebalancing triggers to lighten up on directional US equity exposure to more market-neutral exposure, thus taking advantage of this volatility despite the directionality of the overall market.

Europe

We are bearish on the outlook for the European Union, because we believe that its economy faces severe headwinds. We believe the ECB will have to lower rates in the coming months to stave off a more serious downturn despite its single mandate of inflation protection. As we mentioned above, both the larger, more developed countries as well as the PIGS countries are suffering from a deteriorating economy at elevated inflation levels.

We also note that those economies have experienced leverage levels similar to the United States, and that they have not yet written off losses from many of their loans, losses that are not reflected in their share prices. Additionally, further asset write-downs in the US from a possible rescue plan will

⁸⁰ While we still have not met the Wall Street definition of recession – two negative quarters of negative GDP growth, we think we are in a recession as defined by the National Bureau of Economic Research which does not make its final determination until several quarters after the actual start of the recession.

⁸¹ "The Profit Cycle: Part I", Goldman Sachs, United States Portfolio Strategy, September 8, 2008.

⁸² "Bear market troughs: A history of 10 cycles", Goldman Sachs United States Portfolio Strategy, September 18, 2008.

expose these overvalued assets on the balance sheets of European banks. Even though the German housing market did not have a bubble as did the US, due to the German tradition of requiring a 20% down-payment, we believe that such leverage has manifested itself in other sectors, including manufacturing. This leverage will be unwound and will ultimately slow economic activity.

Despite the Europeans' belief that their "incipient federalism triumphs over the [US] dysfunctional established federalism⁸³," we would avoid exposure to both the equity markets and currency markets because we believe that the banking system there has serious problems, and there is no formal institutional framework to fix them. On a relative basis, despite their claims that Europe is in better shape than the US economically, the equity markets disagree, as MSCI Europe has underperformed the S&P 500 by over 980 bps.⁸⁴ We continue to believe that the US is closer to a trough than Europe and that this will translate to relative outperformance of the US markets.

Asia & Emerging Markets

While emerging markets have continued to take a beating and are down across the board, we believe that they represent significant value. A confluence of factors is leading to stronger fundamentals in emerging markets, including strong earnings growth and aggressive share buy-backs by corporations. For example, with the Chinese markets correcting over 40% and the GCC markets correcting over 25%, they are trading at very compelling valuations to their prospective growth rates, with price-to-earnings multiples in the low single digits. Additionally, we do not think that these markets are as exposed to credit difficulties as are the developed markets. To date, their banking system has had to write down a fraction of the losses and has been able to recapitalize these losses with fresh capital. While their growth projections have been revised down, we still see high single digit growth for China and many of the other Asian countries.

Furthermore, the BRIC countries account for over 50% of global GDP. Long term demographic fundamentals tend to side with EM countries, with over 90% of the UN-forecasted population growth of 1.8 billion between now and 2030, counting residents outside the US, Europe and Japan.

Fixed Income & Inflation

We remain big fans of fixed income. In light of the recent sell-off, we see tremendous value in all sectors of fixed income, including high yield, corporate credits and particularly municipals. We do not believe that inflation will be an issue until global credit conditions begin to unwind and the deleveraging process eases. In fact, we have seen countries around the world lower their inflation projections. Similarly, China has actually begun to ease monetary policy as it moves from an inflation mandate to one focused on growth.

Another signal that inflation is not a likely culprit is the price of gold. Despite the level of global uncertainty, gold has not managed to rally to any significant degree. Our benign inflation outlook, however, is a short-term one as we still believe that the long-term outlook for inflation favors a more bullish stance. An inflation tax can prove an effective means of paying national debt.

In our view, the collateral effects of the credit crisis have led to extreme volatility, technical mispricings and exceptional bargains in the municipal-bond market. Investors willing to hold intermediate to longer-term triple-A rated bonds may lock in

tax-free yields in the 4-5% range, which is nearly 100 bps over comparable Treasuries. Investors residing in the top Democratic proposed bracket receive a taxable equivalent yield of over 8% for very little risk.

Currencies

Our outlook for the US dollar has not changed. We remain very bullish on the dollar versus the euro because we believe that economic conditions in the US are further along an economic trough than the ECB. Additionally, yield spreads that have benefited the euro are now working against it. Further, we believe that the ECB will have to cut rates in the foreseeable future.

Our long-term outlook for Asian currencies remains bullish. We have mentioned in previous commentaries that their path will be "measured in magnitude and glacial in pace." This has been the case thus far with the Chinese yuan as it slowly appreciates against the dollar despite Chinese central bank easing. We believe that from a long-term Chinese macro view, as the Chinese middle class expands and as the economy re-orient itself from one export- and investment-driven to one driven by domestic consumption. This will ultimately unwind some of the global imbalances that have been built up over the past few years and will favor a stronger Chinese currency.

Commodities

Commodities including oil have also taken a hit, mainly because they are priced in a slowing global economy. With the developed world in recession and the developing world slowing down, the demand for commodities has in fact waned. However, we believe that our intermediate-to-longer term bullish picture for commodities remains intact. Moreover, in previous commentaries, we have written that if oil prices can come down to their current marginal cost to produce, oil-consuming countries are likely to take advantage of this "calm" and build up supply capacity, knowing that as the world re-emerges from the slowdown, the "storm" could become destructive. We also believe that, from a technical perspective, commodities could be selling off, due to investors such as hedge funds de-leveraging and unwinding positions from redemptions.

Our general investment theme, resonating through all these topics, is our concern for the redemptions that we are likely to see from hedge fund managers in the coming quarters. We believe that we could see another major dislocation in global markets as hedge fund managers are forced to liquidate -- just as institutions and households across the world are deleveraging and asking for redemptions.

More on oil and commodities in Part II. While we have other outlooks and themes, we will leave those for the benefit of the President-elect.

Summary & Conclusion

This quarter has been unprecedented for the financial system. The world has never seen credit markets become so dysfunctional in such a short period of time. The fundamental problem is not lack of capital but lack of trust, which is a necessary component to the efficient working of the capitalist system. The recent crisis has exposed a complicated game, involving rating agencies, off-balance-sheet liabilities, complex derivatives and unthinkable leverage. It has also proved to us that our current regulatory environment is antiquated and totally inadequate for today's financial system. Not only were the regulations wrong, the regulations that were in place were not properly enforced and implemented.

We need to structure a regulatory framework that takes into consideration all the weaknesses of the current system and which helps to prevent unintended externalities. There is a

⁸³ "A bad day for Benelux banking – a great day for Europe", *Financial Times*, Willem Buijter, September 29, 2008.

⁸⁴ As of September 26, 2008.

compelling argument to be made to standardize regulations globally in order to prevent the sort of international regulatory arbitrage that we saw with AIG. Many questions must be answered by these regulations -- such as who should central banks be regulating and how to ensure financial stability in a world dominated by markets.⁸⁵

International quantitative standards for liquidity should be addressed for both banks and investment houses. For non-bank institutions where the FDIC does not apply, we must overhaul the Basel II capital requirement regime to make them counter-cyclical. Lastly, we need to improve securitization under the current system, in order to improve incentives in the originate-and-distribute model. One possible solution is to issue covered bonds that are essentially equivalent to ABS but with the actual assets remaining on the issuer's consolidated balance sheet.⁸⁶

One last point we would like to make is based on the foundation of our capitalist system. A time when confidence is lagging in the financial system is not a time for government to step back. Well-design policies are essential to support the economy under times of extreme stress, such as the present. We can only hope that the US political and regulatory response continues to inspire optimism and confidence by the rest of the world in America's ability to manage its problems.

Future events will dictate that while capitalism is the most productive system, a delicate balance is needed over the long term between private activity and government oversight. While there are times that free markets are difficult to defend, they must be defended because they have proved their value over the past 200 years. The doctrine of *laissez faire* has survived worse and will do so again. The most important point that those who criticize Wall Street must remember is that just as there is no reward without risk in a free market economy, there can be no risk without reward. If we destroy all hope of reward for investors, there will be no banks. While the free flow of capital is not under threat, the rationale behind it is, and that is more precious. Let us not make the same regulatory mistakes as we did with the Smoot-Hawley Tariff Act, which quadrupled the effective tax rate on thousands of imports and deepened the Great Depression.

The invisible hand of Adam Smith's free markets is broken. We can surgically repair it with experienced surgeons. Let us not rush to judgment and mistakenly amputate it. If we do, we will have much more to worry about than "fat cats on Wall Street."

Please let us know if you have any questions. In these difficult times, we thank you for your continued trust and confidence in our abilities.

Your humble advisors,



Paul Karger, CFA
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Director of Research

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Forecasts, estimates, and certain information contained herein are based upon proprietary research and should not be interpreted as investment advice, as an offer or solicitation, nor as the purchase or sale of any financial instrument

⁸⁵ "Credit crunch in a century's context", *Financial Times*, August 7, 2008.

⁸⁶ There are essentially corporate bonds that are backed by a pool of assets. They have been successfully implemented in Europe and Germany.