The Global Financial Crisis: What Lies Ahead?

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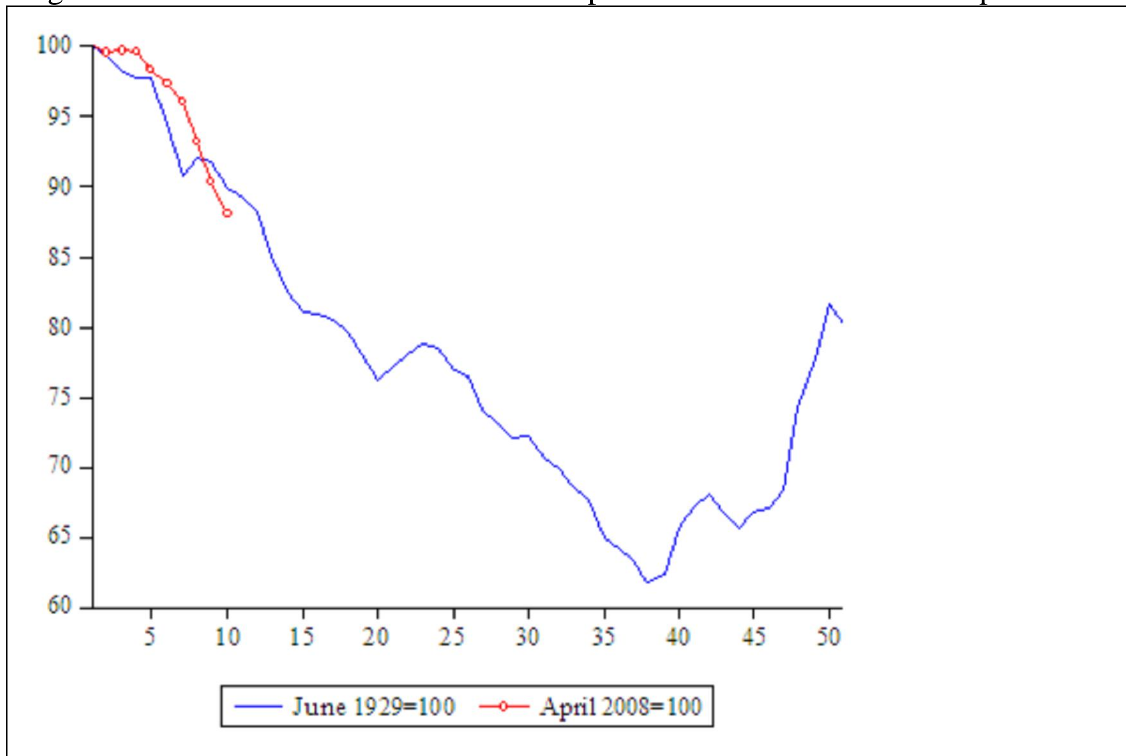
Talk prepared for the Institutional Investor UAE Investment Management Summit
April 27, 2009

In this talk I will look ahead to a horizon of two to three years and try to identify some of the major features of the economic environment affecting international investors.

The baseline recovery scenario

The most important overall issue for investors is how long and how deep will be the current economic recession because this is what will most affect the path of earnings growth going forward. What is striking about the current crisis is how, after being contained as a localized crisis in real estate and banking in North America and Europe, it suddenly spread worldwide to the real economy in 3Q 2008 with a collapse of investment, trade, and commodity prices, especially crude oil. For a time, people seriously entertained the notion that the emerging economies of East Asia and the Middle East were "decoupled" from the West and could serve as the engine of growth that would prevent recession moving worldwide. This notion has now been put to rest and we see that by a variety of measures the current crisis is proving every bit as severe as the worldwide collapse of trade between 1929 and 1931. (See Eichengreen and O'Rourke, "A Tale of Two Depressions" VoxEU April 6, 2009).

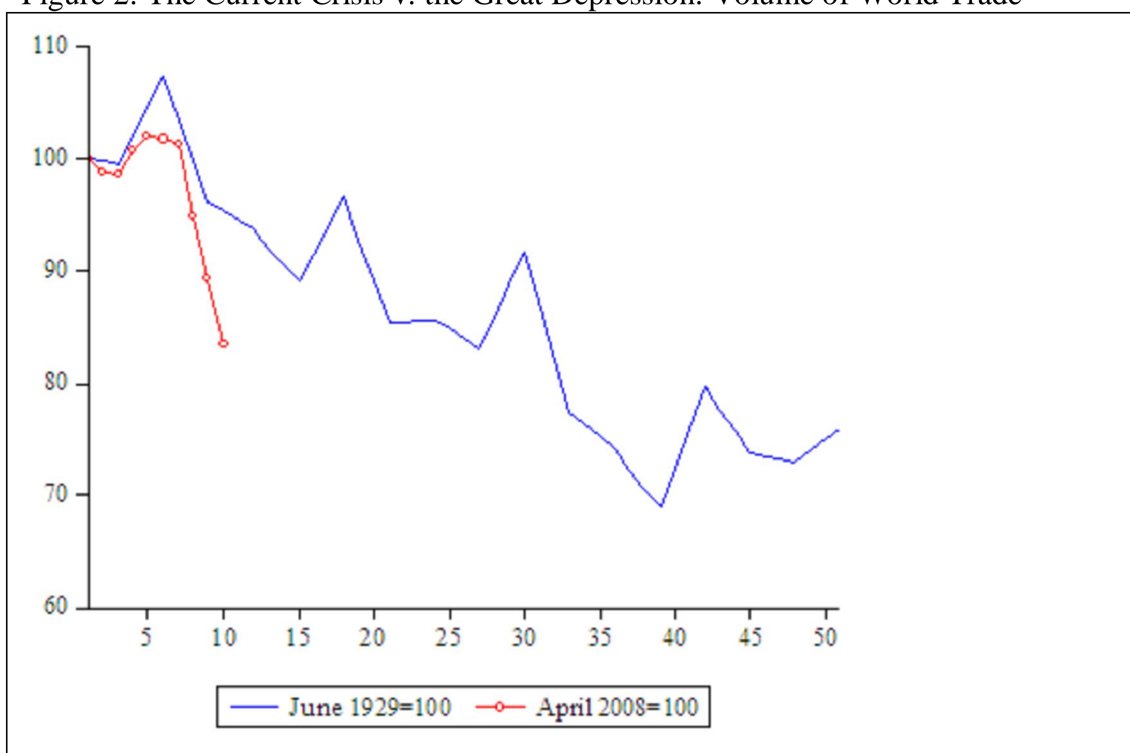
Figure 1: The Current Crisis v. the Great Depression: World Industrial Output



Eichengreen and O'Rourke, 2009

Given the self-reinforcing nature of the market declines, this decline in real economic activity is sufficient to make investors extremely cautious. However, there are certainly important differences between the situations of 2009 and 1931, and these on balance suggest that the economic slump will not be as prolonged as the Great Depression of the 1930's. In particular, the macroeconomic policies are different and overall are aimed at stimulating demand currently. The US and China are being particularly aggressive in applying fiscal stimulus. In addition, the US and to a lesser extent Europe are both adopting quantitative easing to prevent the deflationary expectations from settling in.

Figure 2: The Current Crisis v. the Great Depression: Volume of World Trade



Eichengreen and O'Rourke, 2009

Another important difference between the two periods is the speed with which information travels today. This is probably the explanation for the suddenness with which investment and trade has collapsed in the last six months. This meant the process of changing expectations was telescoped into a very short period of time with consequence that investments slumped abruptly in a seemingly coordinated fashion across different industrial sectors and different parts of the world. However, this same phenomenon can operate in the opposite direction once there is a sense that the economy is no longer in free-fall.

Does this mean the worst is behind us? Not necessarily. Of course, the news on employment and other lagging factors is likely to be poor for quite some time to come. Furthermore, it is likely that not all the bad news has been come out on the banking sector. This is important for the investment community because it means that some of the biggest banks, including some that have been relatively unaffected from

the worst of the sub-prime losses in 2007-2008, may be severely weakened for several years to come. This can create opportunities for other players who are still in a relatively healthy state in the second half of 2009. We will return to this theme later in this talk.

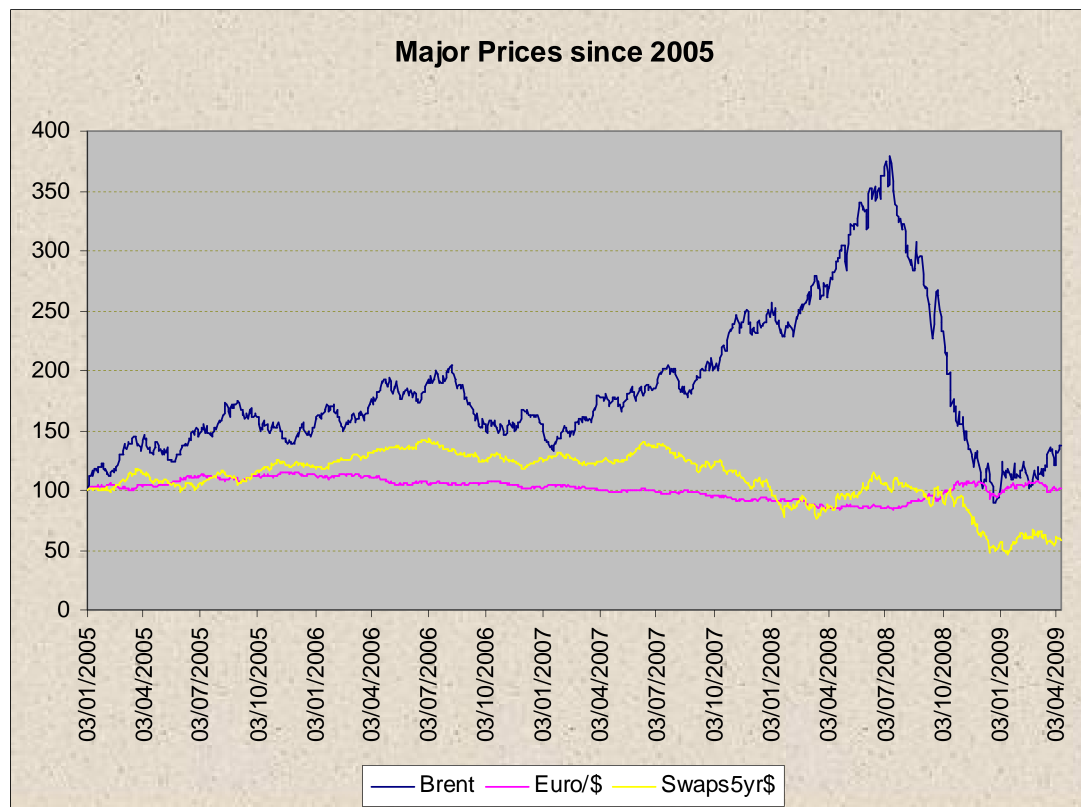
So it seems reasonable as a baseline scenario to expect that the world economy will have returned to positive, if not necessarily robust, growth in 2010. This does not mean that the crisis will be a thing of the past by then and that the investment environment will return to the pre-crisis conditions that prevailed in 2004-2006. Far from it. What will be the enduring effects of the crisis that will mark the investment environment in 2010-2012? In part, they will be the features that hold for the early stages of the up swing in any economic cycle. However, there will also be important changes taking place within the financial sector itself as policy makers and market participants react to the perceived errors that gave rise to excesses of credit markets and their subsequent collapse in 2007.

Persistence of volatility in asset markets

Following a prolonged period of relative price stability, the onset of the financial crisis brought with it a return of high volatility in some of the major prices that drive world trade and incomes. (See Figure 3) After rising gradually from 4% to 5 ½ % over 30 months to July 2007, US bond rates fell precipitously over the subsequent six months to below 4%. They now stand at 2.4%. The fluctuations of crude petroleum have been even more dramatic with a threefold increase to $145/bbl in July 2008 followed by the collapse back to $35/bbl by year end. More recently, we have had large moves in the major currencies with a 40% depreciation of sterling against the dollar in the second half of 2008 at the same time the Japanese yen appreciated 20%.

This increased price volatility has meant major changes in the economics of investment projects worldwide. The uncertainty about price levels makes planning for the long-term very difficult, and this will be one of the major impediments to the return to strong growth. What is predictable is the persistence of price volatility itself. The huge swings of the past 18 months may not continue, but it is very likely that we will continue to see major fluctuations for some considerable time to come. This volatility will bring with it trading opportunities. Markets often overshoot, and it is likely that at any given time there can be a large wedge between the market and underlying fundamental value. However, to benefit from these opportunities, investors will need to make sure that their risk management practices are adapted to the volatile environment. This will mean hedging unwanted risks and keeping leverage in check on the remaining exposures.

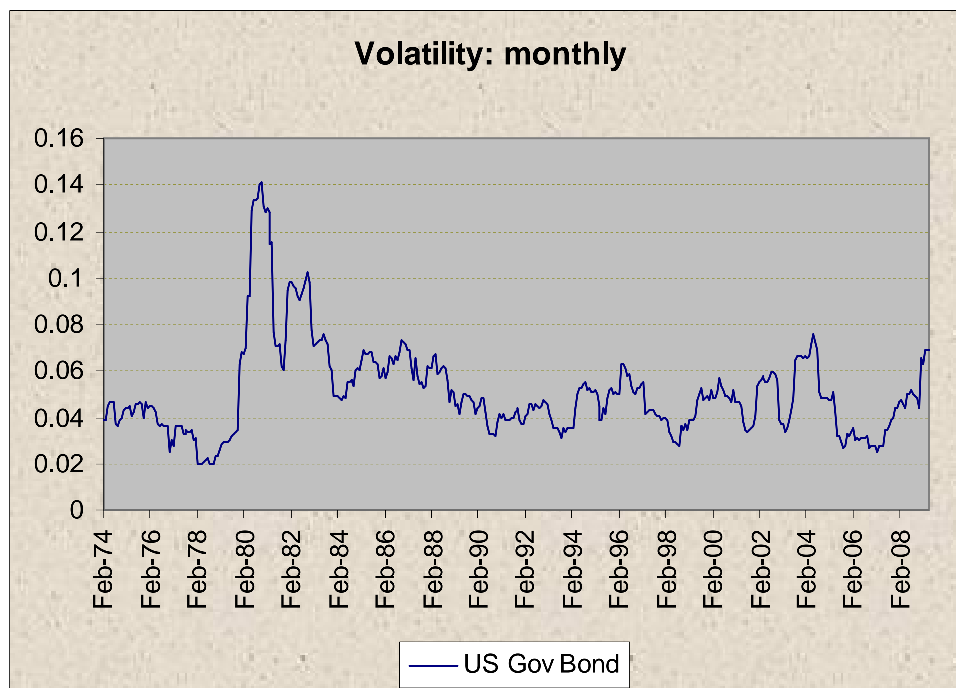
Figure3



What will be some of the key areas that have the potential for driving market fluctuations over the next 2 to 3 years? Monetary policy in the US is probably the first to be considered. Figure 4 shows that the volatility of the bond market has picked up sharply, but that it is still far below the levels of volatility seen the in early 1980's. There are reasons to believe that long-rate volatility make increase further in the months to come. The Fed has now embarked upon a policy of quantitative easing which involves a large expansion of its balance sheet in an attempt to keep broader monetary aggregates from shrinking and avoid a deflationary cycle. As Ben Bernanke has already recognized, the Fed needs to prepare its exit strategy of how and when to soak up liquidity once the private sector credit creation picks up. This will be a tricky strategy to pull off, and there are significant risks of getting it wrong either by maintaining a lax posture so long as to allow inflation to reignite or by tightening prematurely so that the recovery fizzles out. In the face of this, the most likely scenario is one of interest rate volatility as the market reacts to mixed news over the months to come.

Monetary policy will be made all the more difficult by continued volatility in commodity prices and foreign exchange rates. Central banks focussed on inflation targeting will find it difficult to distinguish transient and permanent effects in inflation numbers. Furthermore, as I will discuss below, the demand for macro prudential regulation means that central banks will be encouraged to try to prick asset bubbles. All of this is an invitation for stop-go policy making and interest rate volatility.

Figure 4



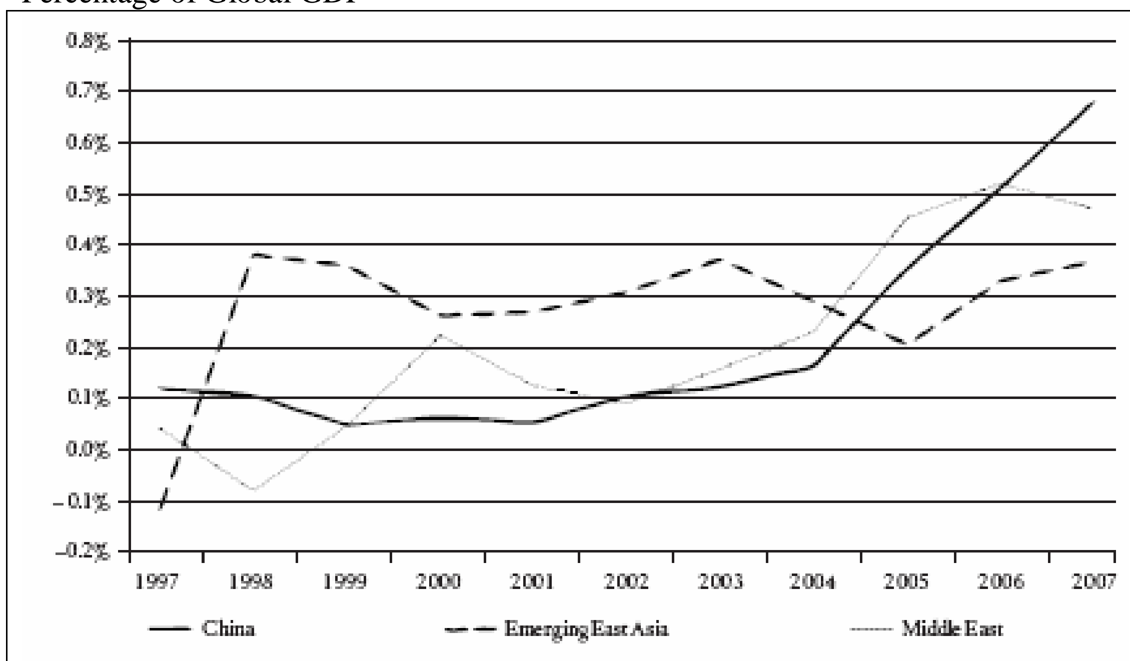
Crude oil is one market where the general rule that past volatility begets future volatility has not applied. This is because in the past price instability in that market has typically been associated with supply realignments among the major producers. After a relatively brief period of uncertainty, producers have been able to restore a degree of order to future production plans and to dampen price fluctuations. Whether the same will be true in the next few years and if so what level will become the central target for crude oil are questions about which I would not care to offer a prediction. I would simply point out an important difference in current environment as compared to those that prevailed in most of the 1980's and 1990's. This is the manifestly greater willingness in the US and Europe to look seriously at energy strategies that give crude oil a much less prominent role to play. In part this is driven by concerns about climate change. But it is also a response to the shock of seeing oil trading for a time at above $140/bbl and to the unprecedented levels of volatility that prevailed in the market in the last year. These latter two factors have added enormously to the credibility of alternative energy sources. Wind power or fitting carbon capture and storage devices to coal-fired power plants look uneconomic *on a certainty basis* when oil is at $40 or $60 or even $80. However, *on a risk adjusted basis* this looks very differently given the oil price volatility we have seen in the past two years.

I have one additional observation about commodity prices that will be relevant to investors over the next 2-3 years. This relates to base metals such as copper and other highly storable commodities. Normally, we would expect that demand for these commodities would pick up only when the rates of industrial production and construction have recovered to something like normal levels. However, extremely low interest rates mean that the cost of carrying inventories in these commodities is correspondingly low. This could help to support a recovery of prices in these commodities considerably in advance of any signs of real strength in the growth aggregate output.

Policy responses

I now will turn to those factors affecting investors that will emerge specifically from the policy responses to the financial crisis. Like any shift in policy following a crisis, they depend upon the interpretation of the causes of the crisis. There are two widely shared views on the causes of the crisis that operate at two different levels. The first proximate causes of the crisis are seen in the financial market practices that emerged between 2002 and 2007 which loosely fall under the umbrella of securitization and the "originate and distribute" model adopted by large universal banks. While analysts differ in where they put emphasis many now recognize that problems with credit derivatives, structured products, practices of credit ratings agencies, and poor financial regulation all interacted combined to allow large, long-term positions containing substantial risk concentrations to be supported on a very levered basis with very short-term funding. Once this was widely recognized in the summer of 2007, the credit markets collapsed thus provoking the major dislocations we have seen in the banking sector.

Figure 5: China, Emerging East Asia, Middle East Current Account Surpluses as a Percentage of Global GDP



Source: Dunaway, Council on Foreign Relations, March 2009

The second line of explanation for the crisis, operating at a deeper level is that it was the consequence of the global imbalances that emerged in the first half of this decade. Here the drivers have been the very strong growth of current account surpluses in China and the Middle East (see Figure 5). These have there direct counter-part in the current account and budget deficits of the United States and in the low savings propensity of the American consumer. The case for addressing these imbalances as a matter of priority was made by Hank Paulson in the following terms:

> *If we only address particular regulatory issues—as critical as they are—without addressing the global imbalances that fuelled recent excesses, we will have missed an opportunity to dramatically improve the foundation for global*

markets and economic vitality going forward. The pressure from global imbalances will simply build up again until it finds another outlet. (U.S. Treasury, press release, November 12, 2008)

The link between global imbalances and recent excesses that Paulson has in mind go something like this: Much of the current account surpluses of China and emerging East Asia flowed back to developed markets in the form of accumulated reserves held to a significant degree in US Treasury securities. The resulting low interest rates not only facilitated low public and private saving but they also pushed other world savers to "reach for yield" through investments in CDO's, CDO-squared's and other sophisticated structured products. Thus Paulson's statement raises the question of what outlet global surpluses will find if they arise in the future. We will return to this question below.

If there is broad consensus among policy makers that causes of the crisis are to found in these two broad areas, what then are likely to be the changes in policy that will be put into place and will have a perceptible influence on investors over the coming years? [1]

Following the ambitious agenda set out by the G-20 leaders in November 2008, the London summit at the beginning of April was meant to agree a coordinated strategy to produce world economic recovery and to remedy weakness in the world financial system revealed by the current crisis. It is noteworthy that in the G-20 statement in April, the subject of addressing imbalances was not mentioned explicitly. Instead, the centrepiece of the agreed programme was the reinforcement of the IMF with a major increase in SDR's. While this will considerably enhance the IMF's ability to relieve localized stress points in the world economy as the recession runs its course, it does not directly address the issues of the larges current account imbalances.

The other way that the G-20 summit has broken new ground is that it has signalled that this broader grouping with representation of the largest and most economically powerful emerging economies is now the designated forum for coordinating economically internationally. It now includes China, India, Saudi Arabia and Brazil among other non-OECD countries. In principle, this would seem the right body to tackle the problems of global imbalances. However, I think that there are good reasons to believe that the efforts in this regard will be rather timid.

In particular, the recession and the associated collapse of world trade is likely to shrink some of the current account imbalances. The dramatic drop in the US trade deficit so far this year is a step in this direction. This makes addressing structural changes to the imbalances appear a much less pressing concern than that of economic stimulation. Furthermore, if one looks at the factors that have contributed to the growth of the major imbalances, it seems likely that these factors will continue to be very important in the future.

As emphasized recently by Steven Dunaway ("Global Imbalances and the Financial Crisis" Council of Foreign Affairs, NY, March 2009), three major factors have

[1] There is consider agreement across the diverse official accounts of the causes of the financial crisis. See, Larosiere report (EU February 25, 2009); G-20 Statement, April 1, 2009; Bernanke "The Crisis and Policy Response" LSE, January 13, 2009; Turner Report (UK FSA, March 2009).

created the imbalances. First the position of US as provider of reserve currency to the world has meant that it has managed to fund its deficits with relative ease. Second, the view among emerging countries that accumulating international reserves means safety has undermined their development of domestic financial markets and perpetuates the domestic asset shortage. Finally, fringe countries' inability or unwillingness to use fiscal stimulus to spur growth has meant that they at times pursue the short-term benefits of currency depreciation.

All three of these factors are likely to remain strongly in place as the world economy emerges from the recession. In particular, the US has committed itself to a strong fiscal stimulus program which means that maintaining it ability to finance budget deficit will remain a very high priority. Similarly, following on the collapse of world trade in the recession, China will be every bit as eager to stimulate exports as in the past. In the face of these short-term imperatives, addressing problem of current account imbalances is likely to continue to be treated with solemn statements and good intentions but little else.

Developments in financial regulation

What of new financial regulations and other policy actions aimed specifically at stabilizing the financial sector and avoiding the perceived excesses in credit markets that led up to the crisis? Here the actions already taken to recapitalize the weakened banks in the US and Europe are leading to a major competitive realignment within the financial sector. Furthermore, as manifested by the G-20 summit statement but also by a variety of public sector initiatives in the US and in Europe, there are likely to be important changes to financial regulation that will have an important bearing on how the financial climate develops from here.

Among the important changes that are on their way, probably the most important will be an increase in the amount of regulatory capital major banks will need to hold. This will apply across the board, but the biggest increases are likely to apply to the banks' trading books. This will significantly reduce the incentive for banks to move their exposures to the trading book through securitization. Furthermore, there is likely to be greater emphasis placed on Tier 1 capital which will put pressure on banks to raise capital through share issuance. Beyond this, the role of credit ratings agencies (CRAs) will be subjected to an extensive review. Generally, this will mean that that the CRAs will be under pressure to assign conservative ratings, especially for structured and other complex products for which little past history is available. While there has been quite a bit of talk about the problems caused by credit derivatives, in fact the changes to that market are likely to be limited to the emergence of central counterparty clearing that will allow more efficient netting and perhaps will reduce counterparty risk in these products.

Many critics of current financial regulations have focussed on the pro-cyclical nature of Basel capital standards which have only been reinforced with Basel 2's use of Value at Risk and with the move toward fair value accounting. This has led to calls for greater emphasis on macro prudential regulation. (See Brunnermeier et al, *The Fundamental Principles of Financial Regulation.* Geneva Reports on the World Economy 11, January 2009). This agenda has generated a fair amount of support with some policy makers and received particular mention in the G-20 summit statement.

This calls for a new Financial Stability Board, which will be the current Financial Stability Forum augmented to reflect full G-20 membership, to monitor macroeconomic and financial risks and to work with the IMF and member countries to undertake preventative actions.

While this agenda is likely to occupy quite a bit of attention among policy makers, it is not clear which if any among the wide variety of regulatory changes that have been proposed are likely to see the light of day. One area that has attracted a fair amount of interest is in making capital standards counter-cyclical. There are various ideas on the table as to how this could be done. For example, minimum capital ratios could be adjusted as a function of the *growth of credit.* An alternative proposal is to set a cap on leverage ratios, i.e., on a measure tied to total assets rather than risk adjusted assets. This would tend to be binding when the upswing in the credit cycle matures and would be slack during downturns. In the end it may that one or more of these proposals will be adopted in a revision of the standards, i.e., in a Basel 3. However, in the medium term this is not likely. Instead, what is more probable is that the experience of the financial crisis will encourage central banks to target asset prices as well as inflation in formulating monetary policy. That is, the monetary authorities may try to prick perceived asset bubbles in the making. If so, this will simply reinforce the tendency toward stop-go policy making engendered by quantitative easing and will tend to perpetuate interest rate volatility for some time.

One area where specific actions may well be taken relates to G-20's call to extend a comparable level of financial supervision to "all systemically important institutions." Which are these likely to be? Large hedge funds have been in sights of would-be regulators ever since the collapse of LTCM and are likely to be facing increased pressure to provide regulators with position information. The AIG Financial Products bailout has put large insurers and re-insurers in the spot-light as well. There is a European Commission initiative to extend the surveillance net to include private equity. And what of sovereign wealth funds? In the US, they have already been confronted with the prospect of being treated as domestic bank holding companies on the basis of owning more than 10% in a regulated bank. (See the testimony of Scott Alvarez, General Counsel of the Federal Reserve, April 24, 2008).

All of this raises a host of murky issues of how define what is and what is not a systemically important institution. Probably a clear criterion for determining systemic importance would relate to the scale of an institution's investments with other players in the financial system. But this raises a fundamental difficulty: how can we determine whether an institution hold positions large enough to warrant supervision if it is not already subjected to the reporting requirements entailed in being supervised? This is not a trivial issue. Because of this, I would expect there to be a prolonged episode during which legislators dance in the dark with a series of participants of the "shadow banking sector" hoping to establish a concrete basis for redefining the borderline between systemically important and systemically unimportant institutions.

In the near-term the main concrete change I see arising from the push for macro-prudential regulation is to reassert the role of central banks in the assuring financial stability. What form this takes will depend heavily upon the context of the regulatory framework in force within a jurisdiction. In the US where financial regulation is extremely "balkanized", the upshot may be that some of the regulatory responsibilities

currently held by the FDIC and the Comptroller of the Currency may be handed to the Fed or may be put under the scrutiny of the a new systemic risk regulatory body chaired by the Fed. In Europe the support of Germany and France is currently giving quite a bit of momentum to the European Commission's efforts to extend the supervisory net. It seems inevitable that this will increase pressure to give the ECB a clearly defined responsibility for banking supervision, something that it does not have under current EU law. This is precisely the recommendation of the Larosière Committee (see The Larosière Report, Brussels, February 25, 2009, pars.177-178). This last initiative creates a degree of friction between the European legislative intent for regulatory reform and that likely to be pursued in the UK where focus seems to be on fortifying the Financial Services Authority. It remains to be seen whether this will undermine the dominance of the City of London.

Implications for investors

Our argument until now can be summarized as follows. As the world economy begins its recovery from recession, investors will be confronted with a risky environment characterized by continuing high volatility of many of the key benchmark prices including interest rates, foreign exchange and key commodities. In these volatile markets there will be investment opportunities where market prices have deviated sharply from fundamental value. In pursuing these opportunities investors will need to manage the risks that will prevail as the markets work through important cross-currents that have been set in motion. What are these major risk drivers to be kept in view?

As global production recovers the imbalances will emerge along similar lines as the early part of this decade, that is, with China, Emerging Asia and the Middle East recording very large current account surpluses. As in the past, the world financial system will be pushed to recycle these surpluses in the form of correspondingly large net capital flows to the deficit countries, notably the US. The implication of this is that China will almost inevitably remain a large creditor of the US for some time to come. Despite warnings from either side about their counterpart's need to make tough structural adjustments, these two countries will ultimately need to accommodate this basic reality. In other respects however there will be some important new developments in financial markets that investors need to be aware of.

First there have been important changes in the major players in international financial markets. Many of the institutions that were leaders in bringing securitization and structured finance to international financial markets in the first half of this decade are now gone or are being kept on a tight leash by the public authorities in the US and Europe. The largest banks, measured by assets or by market capitalization, now lie outside the US and Europe with the big Chinese banks dominating the list. The biggest players have achieved their position to a large extent because of past caution. Despite their size, it is not clear that these new giants will become leaders in international banking for some years to come. The big international banks that both are healthy and have an established investment banking arm may best positioned to fill the void. However, there are likely to be big write-downs of bad debt that will emerge in the course of 2009. So it is not clear which of these players will be strongest. In the meantime, many are still shrinking their balance sheets and building up their capital base.

In the near-term the dramatic upward revision in the pricing of credit means international investors no longer need to "reach for yield" through investments in structured products as they did prior to mid-2007. There are likely to be high returns to be had in plain vanilla instruments, and these returns are a reflection of the prevailing levels of risk. The remainder of today's conference is devoted to the discussion of specific sectors and strategies that may offer attractive risk adjusted returns.

Does this mean that the era of credit derivatives, structure finance, and private equity are over? I do not think so. These techniques are the current whipping boys among regulators and some portfolio investors. However, I think that their potential benefits in liquidity and diversification (as opposed to regulatory arbitrage) are genuine. Given that the expertise in dealing with these products is now widespread, it seems very likely that they will return to prominence in one form or another. I think that there is an analogy to be made with portfolio insurance, the villainous invention of financial engineers that was deemed to have caused the 1987 stock market crash in the US. While the term "portfolio insurance" was effectively banished from practitioner vocabulary, by the early 1990's there were a whole host of new investment vehicles on the market which achieved the same risk/return profile as portfolio insurance but went under different names. These products have not been the source of market instability subsequently. The reason is that market has become more competent in understanding and managing the risks involved.

The same is likely to be true for securitised credit products and credit derivatives. In the medium term these tools are likely to find their way back into the mainstream of credit creation generally. As they do, there will be opportunities both for portfolio investors and in origination and underwriting.

For investors in portfolio credit securities the hard-earned lesson of the financial crisis is that despite carrying a credit rating like a bond or corporate loan, these products cannot be valued in the same way. Whereas the key to valuing a corporate bond is the probability of default and the expected loss given default; for portfolio credit products the valuation key is the degree to which the defaults of the names in the portfolio are correlated. For this market to return as a healthy mature adult, there needs to much greater focus by both investors and originators on communicating more reliable information on the make-up of the underlying portfolios and the likely correlations that will apply.

The opportunities for origination and underwriting in these markets arise because the teams capable of doing this business no longer have access to the funding resources that had been available to them in the past. The retrenchment of the major universal banks, combined with wide-spread public scrutiny of executive compensation, has contributed to the creation of a number of smaller investment banks and funds aimed at specialized areas of corporate finance and structuring. In the near-term I would expect the efforts these players to be devoted to restructuring the portfolios of existing credits currently on the books of US and European banks. In time however the structuring business will again become a viable vehicle for net credit creation. As a result I would expect to see a developing interest in initiatives teaming up financial

institutions in capital supplying countries with structuring teams in London, New York and elsewhere either in the form of partnerships or in outright acquisitions.

London, April 23, 2009

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