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## MARKET UPDATE AND OUTLOOK: SECOND HALF 2008

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There have been times this year when it was tempting to simply throw in the towel and head to the sidelines. Stomach churning volatility has become, perhaps, the most dominant characteristic of this year's market. The notion of waiting out the passing storm in cash has certainly crossed our minds on several occasions. However, being true to our discipline, the fear of missing "the turn" is ever present as it has been amply demonstrated that market timing is more a matter of luck than of skill. We remind ourselves, daily, that we are long term investors. Yet, we need to consider current conditions as well. Risk reduction has become a key tactical adjustment while selectively seeking out opportunities is another. Moreover, on each occasion when it felt as if the entire market system was collapsing, some bit of positive news would offer renewed hope.

For most of this year, problems seemed to be concentrated among large Wall Street firms. Both anecdotal accounts and economic data seemed to confirm an economy that continued to grow, albeit at a moderating pace. Certainly, the real estate and retail sectors were feeling the pinch of tight credit and high energy prices. Yet, our export industries, particularly among materials producers supporting global infrastructure build-outs, as well as energy, agriculture, and commodities sectors were experiencing unprecedented booms.

The **Great 21<sup>st</sup> Century Financial Crisis** is now one year old. What have we learned? The global banking system is broken. The quality of earnings growth for the past five years was poor. Much economic activity was simply the by-product of cheap, abundant credit. The US economy, while less energy dependent than 30 years ago, remains quite vulnerable to a price shock from commodities. The US depends on the Rest of the World ("ROW") for financing, while ROW needs the US consumer to maintain his/her profligate lifestyle. An alphabet soup of opaque derivative structures designed to "disperse risk" seemed to be most efficient in facilitating enormous amounts of leverage. Despite a year of this misery, it seems that investors enter the second half of 2008 with more questions than answers. Here are a few that come to mind:

Is the current crisis a prelude to Financial Armageddon? Is the securitized model of modern finance irreparably broken? Will global economies embark on an extended period of subpar growth and high inflation (i.e., "stagflation") reminiscent of the dreaded 1970s? Will the US Dollar inevitably lose its place as the pre-eminent reserve currency? Are our nation's fiscal pressures overwhelming? How many generations will bear the burden of our lack of discipline

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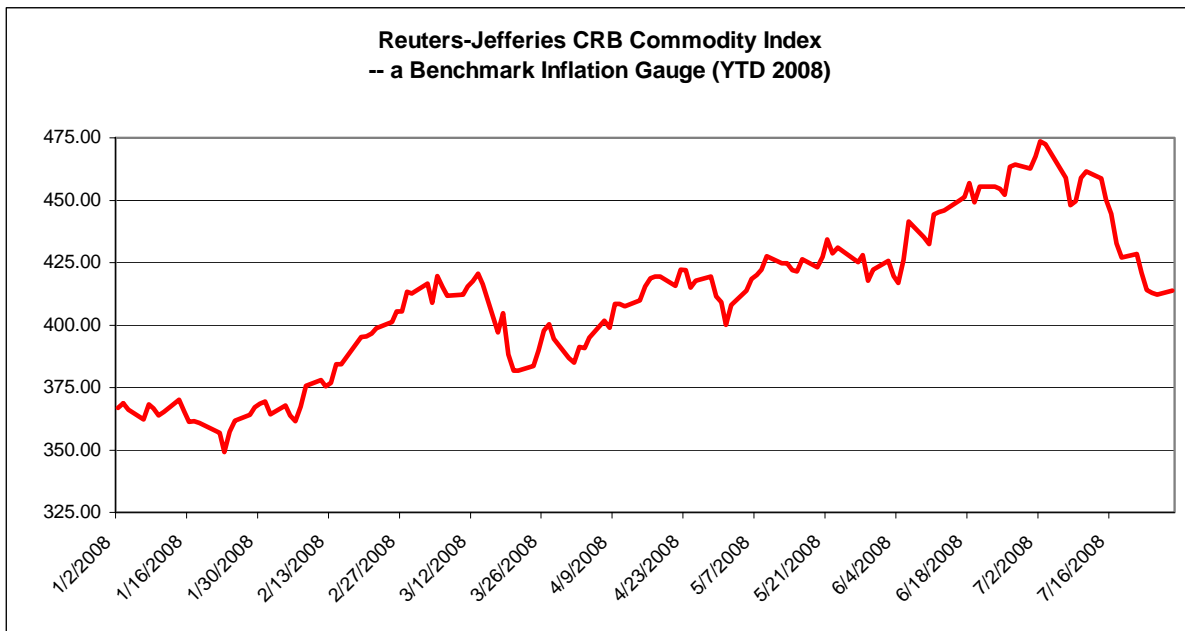
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with regard to housing finance? While we acknowledge there are other questions, the purpose of this essay is to proffer some answers in our look forward.

### The Fed is in a Box

While the First Quarter witnessed a dramatic sell off among almost all asset classes, the market was dichotomous during the Second – i.e., commodities appreciated to historic highs while consumer and credit-related sectors exhibited profound weakness. In our view, this bifurcation has applied enormous pressures on the economy and has effectively put central bankers in a bind. On one hand, they need to maintain sufficient liquidity in the system to facilitate a healing process among the banks. On the other, they must remain vigilant with respect to preserving price stability (i.e., “controlling inflation”).

Academics are welcome to debate *ad nauseam* (and they do) about the more relevant measure: core versus headline inflation. The core figure excludes the volatile food and energy components. Food and energy are certainly less discretionary, if not outright non-discretionary, expenses in a typical family’s budget. In a period of rapidly rising food and energy prices, families are forced to make certain adjustments, particularly when incomes fail to rise commensurate with these costs. From this perspective, inflation is certainly a “problem”:

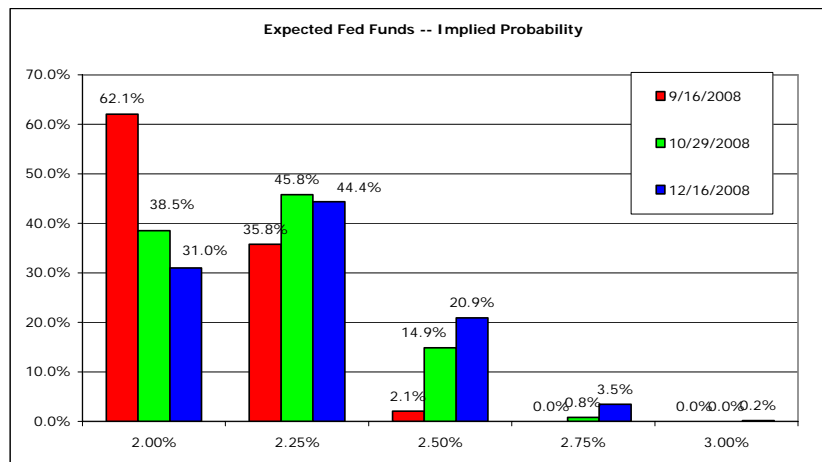


Note from the chart above that this gauge suggests a moderation in inflation since the end of the Second Quarter. We believe the extremely rapid rises in oil, grains, fertilizer, and coal prices reached a critical juncture – commodity price inflation eclipsed the point at which most

economies can absorb further increases. While the developed world frets primarily about an energy crisis, the developing world is tackling a more painful food crisis. Many nations have begun to implement policy responses, and we believe these corrective measures are good for the long term health of the markets. We further believe high prices will eventually temper demand for most commodities, lower prices in the near term, and encourage much needed investment in long term solutions. In the US, we are doubtful that the average consumer can withstand the overwhelming pressures on income, and we anticipate energy and food costs will “crowd out” spending in other discretionary areas. Behavioral adjustments have begun to accelerate, with conservation efforts growing in earnest, and we view this trend as favorable long term.

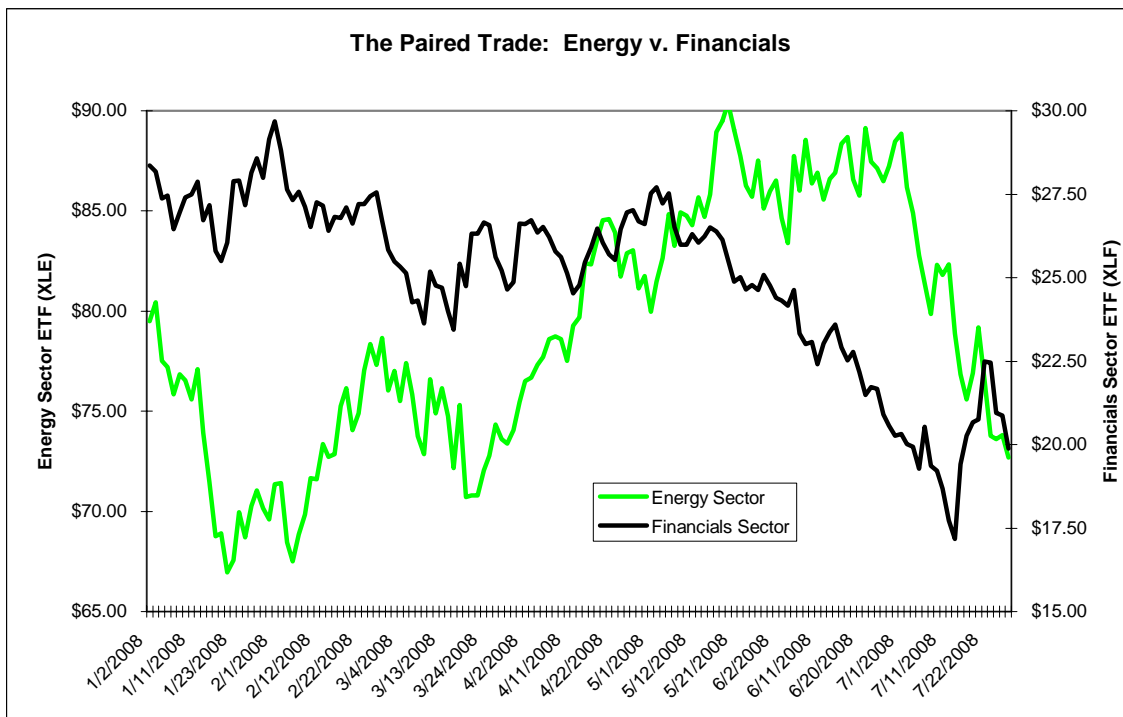
A study by British Petroleum pointed out countries which subsidize energy consumption accounted for 96% of the world’s increase in oil use last year. Indonesia, which is now a net importer of oil, spends six times as much on energy subsidies as it does on food. High energy prices are applying pressure on the Asian economies, in particular, with regard to these subsidies. Economic growth has been artificially supported in this regard, and since prices have risen so sharply, continuation of subsidies will result in a deterioration of fiscal surpluses. Thus, preserving their burgeoning reserves implies reduction of this form of social support, which should, in turn, result in waning demand. Meanwhile, in the US, demand destruction (i.e., a shift to conservation) has been in force for some time. Over the past seven months, the US Department of Transportation estimates that Americans have reduced driving by more than **40 billion miles**. In May, Americans drove 3.7% fewer miles than in 2007. This followed a similar 1.8% year-over-year drop in April.

The Fed maintains that inflation will solve itself – i.e., high energy prices will eventually result in global demand destruction, and prices should trend back to equilibrium. The market is not yet convinced:



The chart on the previous page depicts a market which has effectively “priced in” rate increases through the end of 2008 because of these building inflationary pressures – implying the Fed **HAS TO** act in this manner. By December, the market is convinced (i.e., 75% probability) of at least a **0.25%** hike.

We believe the Fed will need to maintain rates at the current level until the credit crisis reaches some form of resolution. While the collective financial situation has improved over the past few months, the banking system remains in a rather fragile state. Recent measures to promote stability and to discourage damaging speculation have restored stability to a certain degree. However, the de-leveraging process continues in force, and daily announcements of large asset impairments and write-downs will be the norm for some time. Nevertheless, we believe recent policy maneuvers have contributed to a short term unwind of the dominant “trade” of the Second Quarter – **sell Financials; buy Energy**. Note the reversal which began early July:



### Bear Stearns: an Historic Event

The evolution of the modern capital markets has resulted in a number of transformational shifts among the global investment banks during the industry’s history. With May Day 1975, as fixed price commissions were eliminated, the entire industry was forced to contend with the beginning of a long trend of collapsing margins for transactions. Volume gains more than offset

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the deflation in price per transaction as the markets became “democratized”. However, several firms did not survive the transition. The Crash of 1987 exposed the dependence of many banks on continually bullish equity markets. Likewise, there were firms that existed twenty years ago that ended up closing for business or merging with larger, better capitalized partners. The related Asian financial crisis of 1997 and the collapse of both the Russian economy and Long-Term Capital Management in 1998 unveiled the “moral hazard” implicit in central bank policy. That episode claimed its share of victims, one of which was nearly Goldman Sachs. The collapse of the dot-com and TMT bubbles, along with 9/11, resulted in much tighter regulations. The investment banks responded yet again with consolidation and business model transformation. They could no longer, for example, generate a banking/trading multiplier effect through relationships fostered by their research departments. The high margin IPO window has yet to return to the lofty TMT era volumes. Most importantly, the de facto repeal of *Glass Steagall* triggered by the approval of the Citibank-Travelers-Salomon Smith Barney merger demonstrated that scale was essential in order to compete globally, and this transaction arguably accelerated the disintermediation of the banking industry.

The collapse of Bear Stearns is yet another transformational event. Bear Stearns could be described as an investment bank which was a) overly dependent upon repurchase agreements for working capital; b) excessively leveraged; c) inadequately diversified across business lines; and d) entirely too dependent upon an increasing value of real estate collateral. They, along with most of their competitors, had become far too optimistic with respect to their collective ability to a) manage/disperse risk through structured products and derivatives and b) expand margins by boosting volume in specious securitizations. The business models became circular. The cycle of credit was virtuous as more capital boosted collateral values which spurred on greater leverage. Additionally, as investment banks increasingly served as hedge fund “incubators” (i.e., providing capital and “back office” services through their prime brokerage divisions), it is likely that some of their customers contributed to their own demise. Investment banks lent these hedge funds, many of which were “start ups” (sound familiar? – think dot-com), capital (e.g., margin loans and repurchase agreements) and back office support to, in effect, manufacture a distribution outlet for some of their structured products.

We maintain that the **technical bottom** for the market occurred with the Bear Stearns announcement. Similar to the 2002 market, several technical re-tests of market lows should be expected. Also, a technical bottom is **not** equivalent to fundamental improvement -- i.e., we anticipate the period of balance sheet repair for financial institutions to be quite extended. The de-leveraging of the financial markets could require several more years. The entire banking system needs to be recapitalized, and the uncertainty associated with that process will continue to hinder the market’s progress. **We also foresee a lengthy period of bank consolidation as weaker players are acquired by those with stronger balance sheets.** Further, we believe that a new system of controls and regulations will emerge. Policymakers want solutions to prevent future financial upheavals and to avoid the “moral hazard” embedded in the current system.

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## Fundamental Improvement

Our economy, like our banking system, is in transition. Shifting away from a dependence on the Consumer should promote long term sustainability. In introductory macroeconomics, one is taught the formula for GDP:

$$C + I + G + NX$$

where

- C = Consumption
- I = Business (Private) Investment/Savings
- G = Government Spending
- NX = Net Exports

Consumption, at nearly 70% of GDP, has become the dominant component. The US, as the wealthiest and most developed economy, should be expected to have an economy driven by domestic demand, especially when compared with less developed nations. However, such dependence has rendered the economy ultimately quite vulnerable. In order to sustain economic growth over shorter time frames, policy was, in effect, designed to promote consumption over savings and investment. The mechanism by which policy promoted growth was through low interest rates (i.e., cheap credit) and the consequent securitization of credit through the markets. When income gains failed to keep pace with cost of living increases (a trend that has been in place for the past ten years), consumers learned to depend on debt financing (e.g., home equity lines; cash out refinancings; credit cards) to bridge any shortfalls. Such a dynamic pre-supposes an uninterrupted supply of cheap, available credit. Otherwise, the model ultimately proves unsustainable, and recent events demonstrate that fact.

In the near term, we do not anticipate fundamental economic improvement until the housing market stabilizes. The markets will likely anticipate such a development and respond positively ahead of actual data supporting such a change in trend. We view recent legislative coordination between Congress and the Treasury department as important progress in that regard. We await the impact of the plan as it becomes effective in October.

Over time, however, we view the dependence on Consumption to wane. Given the magnitude of our fiscal imbalances, it is likely that G will rise in importance. We hope, however, that renewed investment and savings (i.e., the "I" component) will likewise rise. In particular, as is the case with most of the developing world, investment in infrastructure should help sustain economic growth for decades to come. We anticipate that a weak Dollar could help facilitate a "manufacturing renaissance" of sorts in the US. The decision by BMW to divert production

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from its Hamburg, Germany plant to Spartanburg, SC and the recent announcement of the Volkswagen plant in Chattanooga support this thesis. While high energy prices could ultimately claim its share of victims (e.g., domestic auto producers; airlines), **the US has become cost competitive with regard to production and sourcing for the first time in a decade.**

## Food for Oil

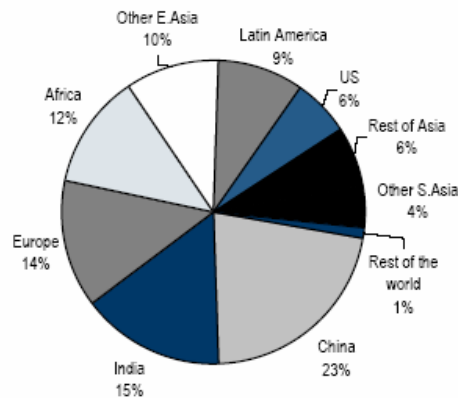
One of our key investment themes has been infrastructure. We have expanded our research in this sector to include agricultural infrastructure. Grains are harvested to provide the world with the “**3 F’s**”: **Food**; **Feed**; and **Fuel**. Our thesis is as follows:

*“Food self-sufficiency for large Asian nations is perhaps more important than energy self-sufficiency for many in the developed world.”* (Credit-Suisse report, June 2, 2008). Much of the food & energy inflation of the past eighteen months has been the outcome of accelerating forces within globalization. For inelastic goods such as grains and oil, incremental demand at the margin can result in sharp, upward price adjustments during periods of supply constraint.

It would appear as if the loss in spare capacity occurred overnight. Upon careful examination, these forces have been building for over five years. Some factors have been artificial (i.e., non market-based). For instance, global demand for oil has been supported by governmental subsidies, particularly in the Asian emerging economies and the oil exporting nations. For the oil exporters, petrodollar windfalls have been reinvested to boost domestic demand. For the Asian oil importers, large trade surpluses and foreign currency reserves were likewise reinvested internally to boost domestic consumption and to reduce dependence upon exports. China, for example, sought to invest rapidly in urban/industrial infrastructure development as a means of attracting foreign manufacturing contracts. Their five year plans seemed to emphasize a shift away from that nation’s agrarian roots, with anecdotal accounts of displaced farmers being sent to work in factories by the government.

Ironically, the US, on account of its huge current account deficit, has become more export dependent, a large proportion of which is agriculture. At risk is uncontrolled inflation as Asian growth overwhelms the ability of the rest of the world to provide supply on pace. As the chart on the next page indicates, Asia is the largest regional consumer of food, and its lack of self-sufficiency applies pressure to the global demand-supply dynamic for grains. Combined with the dislocation of corn supply related to the US Renewable Fuels mandate, the reverberations associated with these dynamics could take years, if not decades, to resolve.

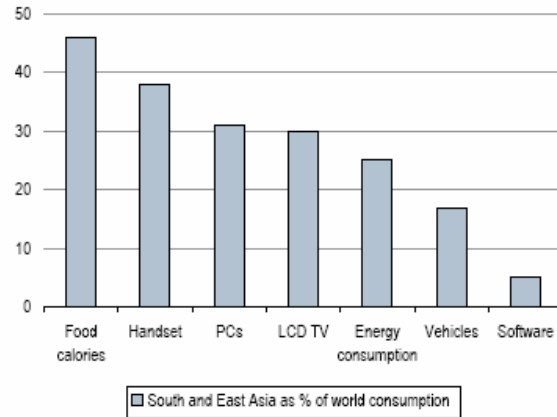
**Figure 7: Asia ex. Japan accounts for nearly 50% of global calorie intake**



CS Asia ex. Japan includes China, India, most of Other East Asia (with the exception of Japan) and Pakistan in the South Asia category in the chart above.

Source: USDA, Credit Suisse estimates

**Figure 8: Food is one of the few items where the region accounts for almost half of world consumption**



Note: Japan is included for all electronic items but excluded from the rest. Source: Credit Suisse estimates

This was not always the case. The Green Revolution, an effort by several non-profit foundations to assist in boosting agricultural productivity, had an immensely positive impact. Research efforts in this area allowed for food production to keep pace with worldwide population growth. From the early 1970s through 2000, Asian self-sufficiency was established, and several nations managed to lift their populace out of extreme poverty and enter the global trade market for grains.

### What happened?

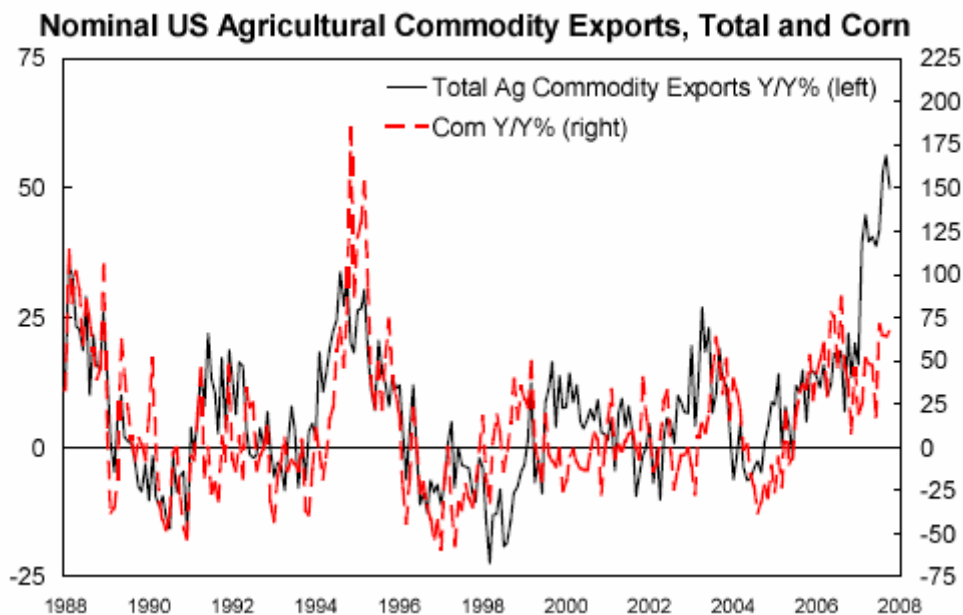
It is difficult to identify a precise cause as numerous forces were at work. It seems abundantly clear, however, that through a combination of geopolitics, corruption, and mis-allocated capital, Asia's ability to "feed itself", while once relatively secure, has been squandered. The diversion of resources to urban infrastructure and manufacturing has placed a strain on natural resources, and the lack of infrastructure renders near term solutions unfeasible.

As a case study, India, for example, is second only to the US in terms of arable land. Yet, in quite a dramatic regression, its economic growth currently outpaces its ability to remain self-sufficient. According to a recent *New York Times* article, India faces daunting problems with regard to its agricultural sector and one of the principal causes is inadequate irrigation -- "groundwater has depleted at alarming rates." Further, "today, only 40 percent of Indian farms are irrigated. In Punjab, more than three-fourths of the district extracts more groundwater than is replenished by nature." The article describes the current condition as contrary to the vision of Dr. Norman Borlaug (Nobel winner considered the founder of the Green Revolution) – farmers

whose incomes have fallen so low that there is a disincentive to invest in measures to boost productivity; farmers who are relegated to the whims of Mother Nature with regard to their water needs. Responses by the government have not provided assistance; in fact, fixed price mandates for grains created dis-incentives to boost production. Throughout Asia, the responses have been either ineffective or arguably negligent. Many governments have sought to impose tighter regulations and export restrictions, while failing to boost production. For example, “total acreage has only grown at 0.3% per annum since 1990.”

**What is the point?**

**It is clear that the US is in a powerful position from the standpoint of global trade. The US, despite its status as a net exporter, remains both the largest exporter and the largest importer of all agricultural goods.** The chart from Citigroup below depicts the explosive growth rate of US agricultural exports over the past three years. **To the extent that Asia remains dependent upon imports over the intermediate term, there are investment opportunities throughout the entire supply chain. The risk to this dynamic, of course, is the growing populist and protectionist sentiment, both in the US and abroad.**



In order to develop a sound and “actionable” investment strategy, an understanding of the inter-country dynamics for various crops is essential. **In a sense, we agree with Credit-Suisse’s argument that “agricultural developments are likely to assume far more importance for equity investors in the years ahead.”** Further, “we (i.e., Credit-Suisse) see measures to

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**improve food grain yields as a strong medium-term investment theme in larger Asian countries from here onward."**

### Similarities with Oil:

Interestingly, the parallels between oil and food are strong in terms of decades of underinvestment, neglect, and mis-allocation of capital/resources. After a decade of extremely low prices for both oil and grains (i.e., the 1990s), the world is now paying the price for complacency. Whether one believes in the "Peak Oil theory" or a Malthusian doomsday wherein the world runs out of food, there is a clear connection between these two global commodities sectors.

The US depends on many trade partners for crude oil. Many other nations depend on US agriculture exports. Certain oil producers that export to the US also depend on imports of US grains. Applying Ricardo's concept of comparative advantage, it would appear that a global trade dynamic is taking shape – one which could increasingly influence geopolitics and drive economic performance for the next few decades. To the extent the US strives for energy independence, the emerging economies will likewise seek to return to self-sufficiency with regard to their food supplies. Neither goal is attainable in the short term. Both will require massive amounts of investment, and ironically, both are somewhat dependent upon oil prices remaining elevated.

## EXPANDED INVESTMENT THEMES

**Financials:** selective inclusion of certain franchises with solid balance sheets and sustainable business models. We believe sentiment regarding this sector is entirely too pessimistic, but we acknowledge the high probability of more negative news and the likelihood of more failures. We feel it is important to maintain limited exposure to this sector, but we do not advocate complete avoidance.

**Energy:** important long term sector with occasional spurts of excessive speculation. We tend to view corrections as opportunities, but we are mindful of the lagged impact of high energy prices on economic activity. We intend to broaden our exposure upon pull backs.

**Agriculture:** another important long term sector. We are investigating investment opportunities along the entire “food chain”: hybrid seeds; fertilizer; equipment; processing; storage. Driven by commodities prices, this sector is also prone to occasional price spikes that render valuations unjustified. We seek short-term corrections as opportunities to accumulate exposure to this group.

**Water:** perhaps the most important environmental and economic issue facing the world. We believe investment in all aspects of water development -- irrigation; sanitation; delivery; purification – are vital.

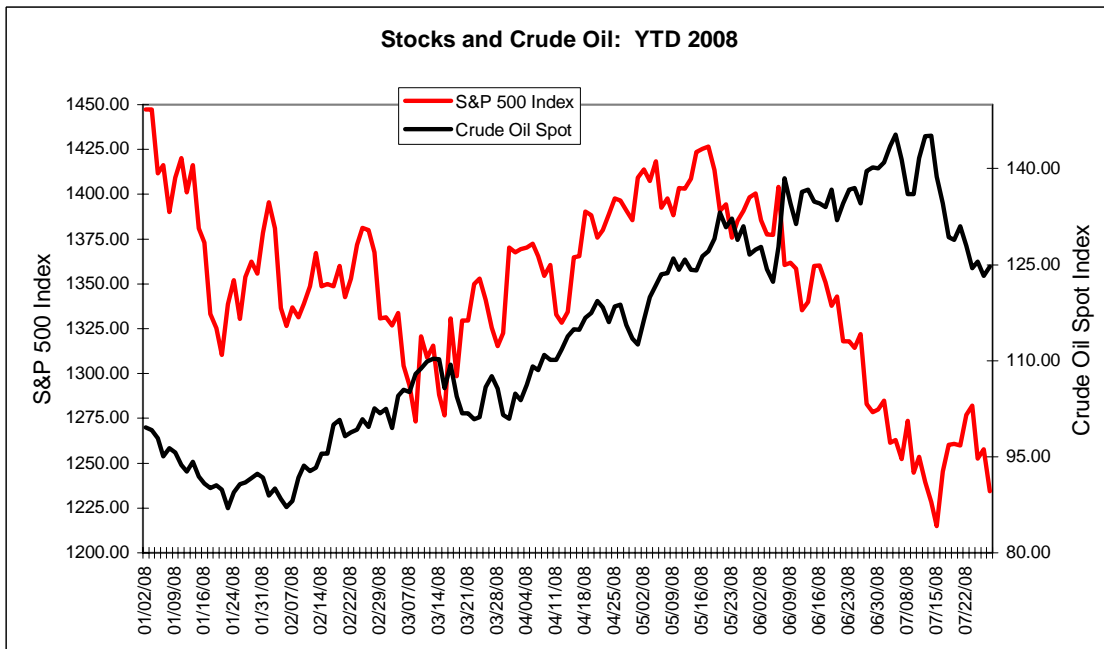
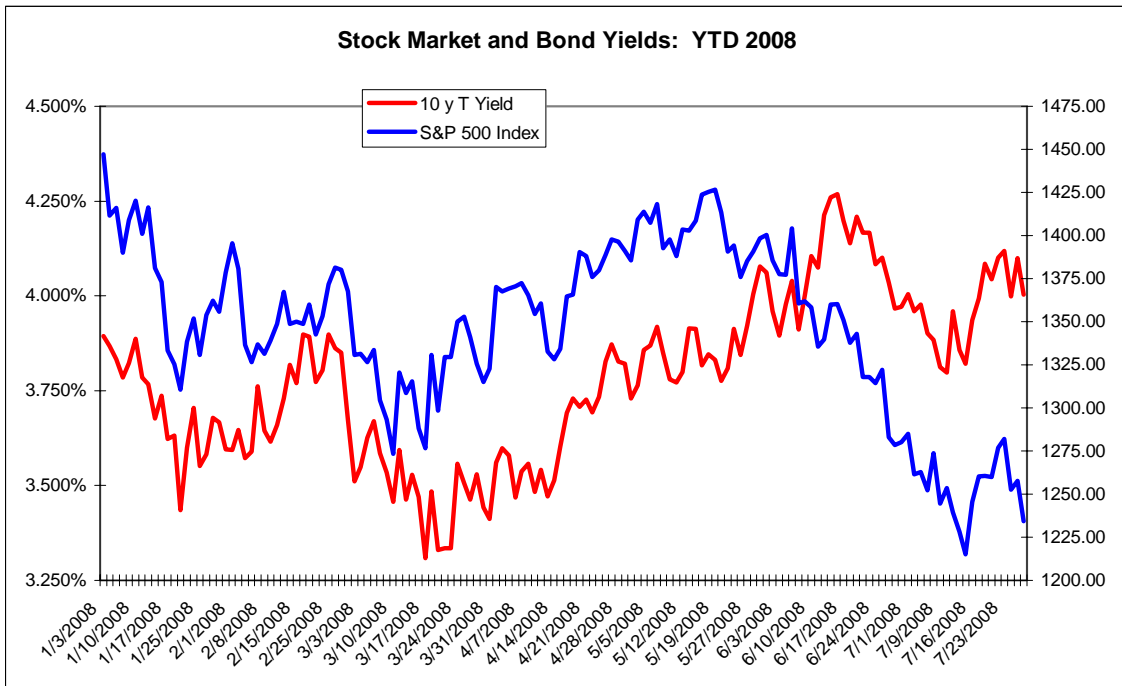
**Alternative Energy:** until a particular type of energy source becomes prevalent, we favor a “basket” approach using diversified ETFs. However, we feel that this sector, too, represents an important long term investment allocation.

**Global Infrastructure:** much hinges on the continued rapid expansion and build out of emerging Asia, particularly China and India. We believe many US companies are well positioned to provide the resources necessary for the Eastern hemisphere to improve its standard of living.

**Tax-Free Municipals:** given US fiscal pressures, we anticipate higher tax rates in the future. High quality tax-free municipal bonds could provide a stable source of income with attractive nominal, as well as taxable equivalent, yields.

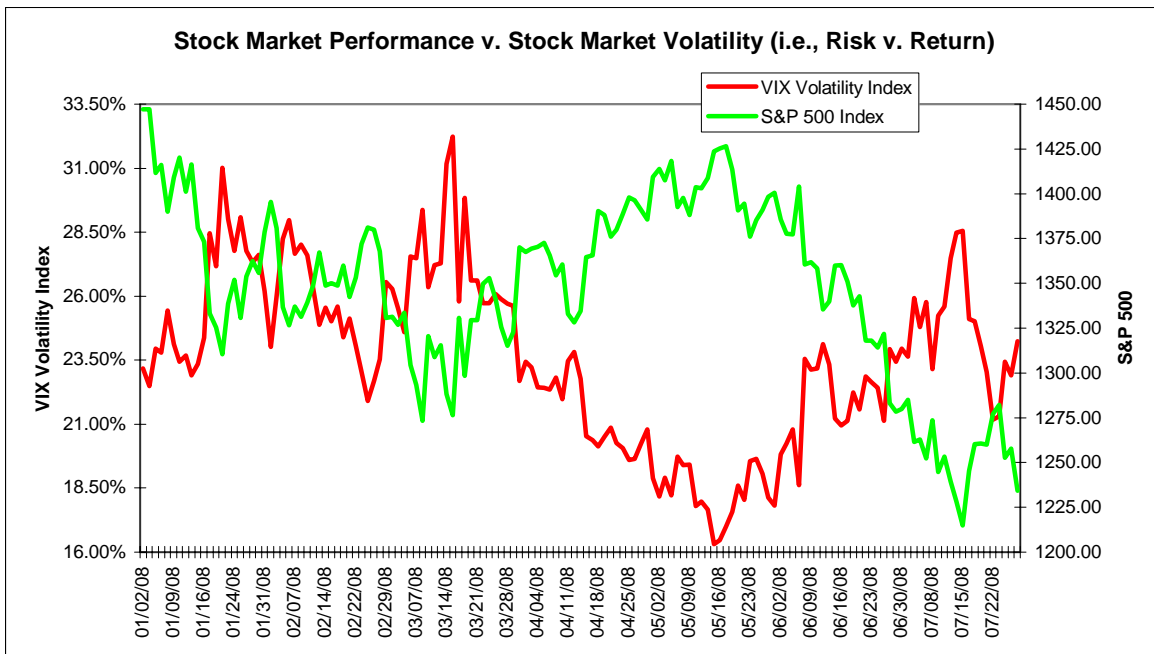
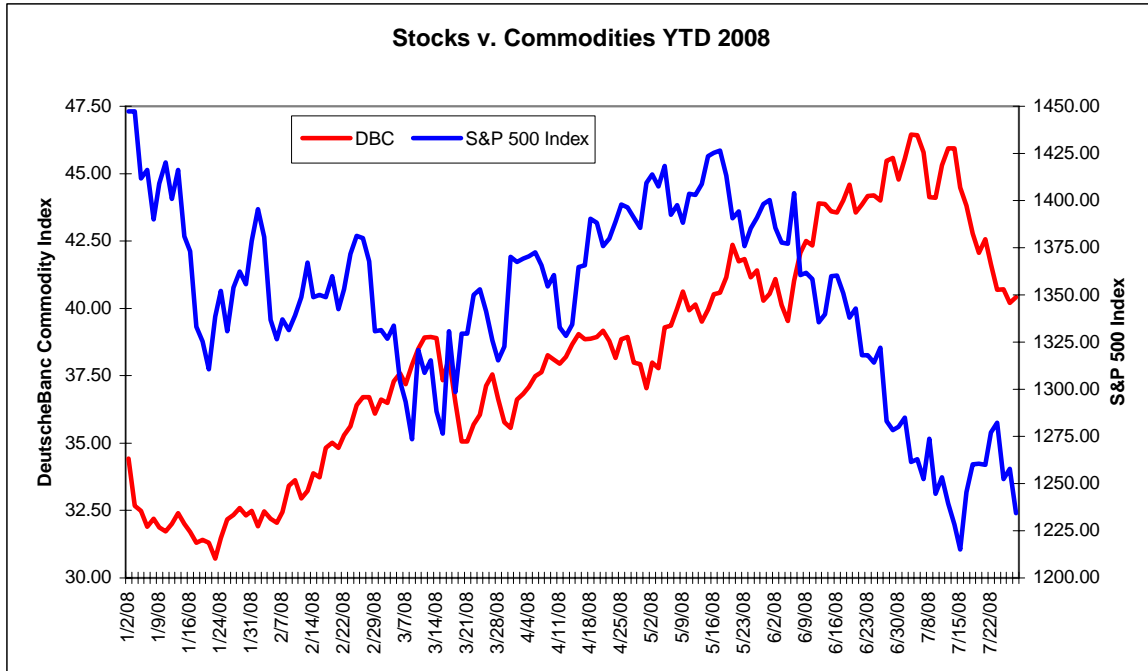
**International:** no economy will be immune from a global slowdown, but we feel certain countries are better positioned long-term than others. Brazil, in particular, has the potential to become both an agricultural and an energy superpower.

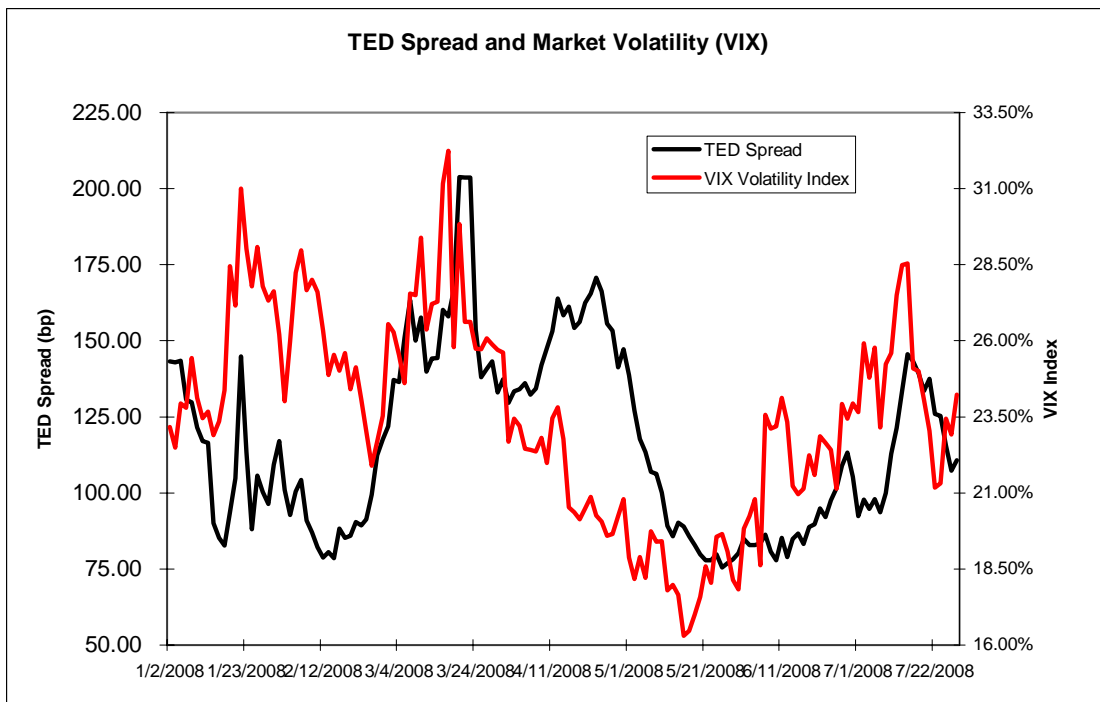
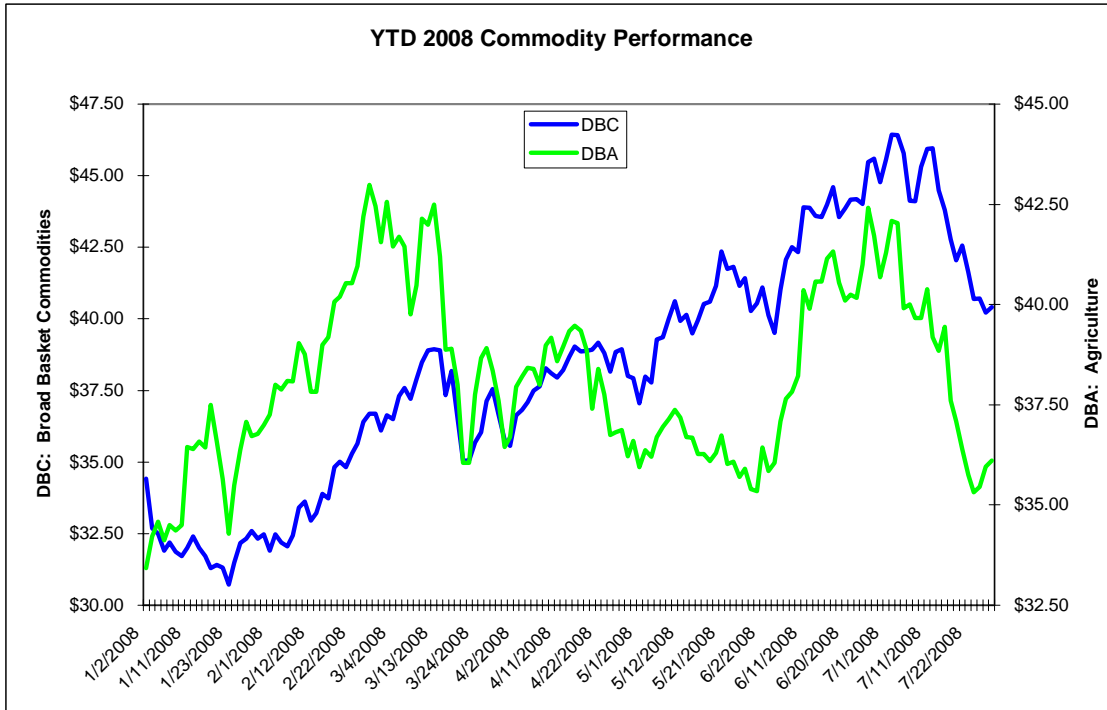
CHART BOOK



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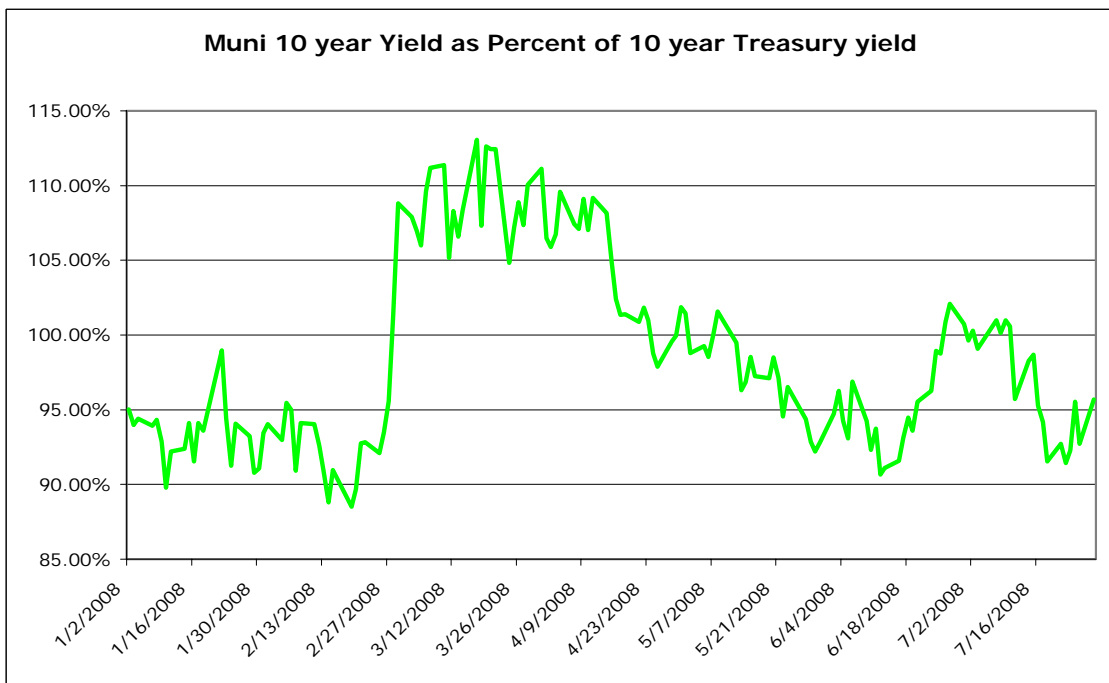
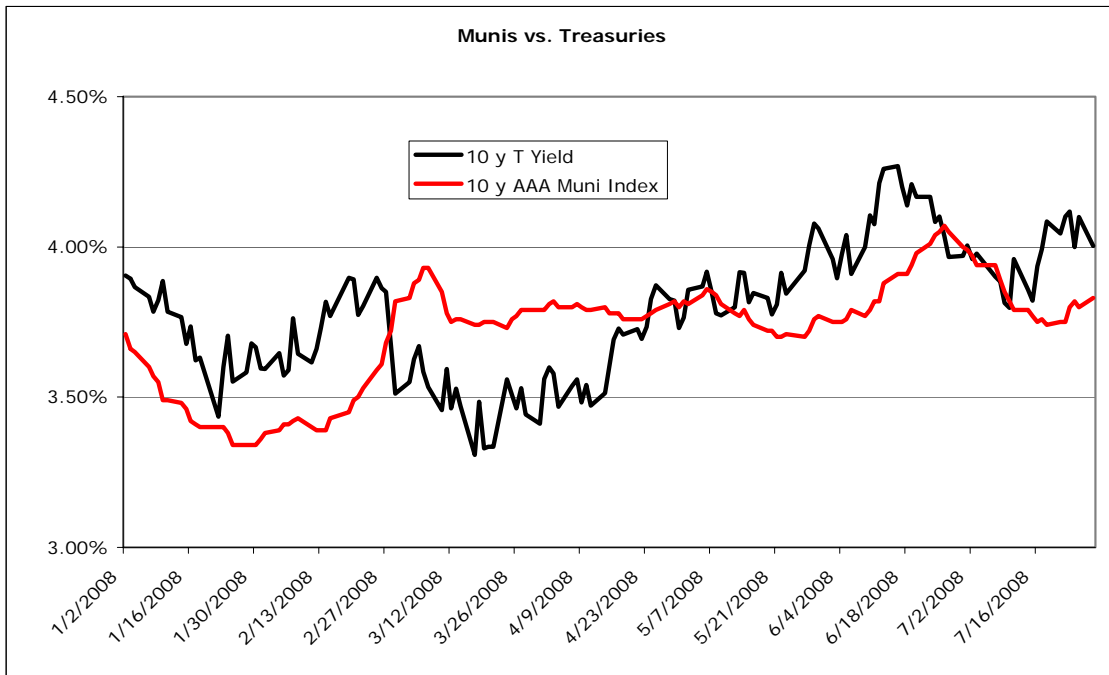
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