

CAPITAL MANAGEMENT GROUP, INC.

Alternative Investment Strategies

2008 First Quarter Review

When seasoned financial professionals are asked the question: what was the worst day you've seen in the stock market over the past 20 years, the answer is inevitably Black Monday in October 1987. While the fear and panic of that day cannot be understated, imagine that sentiment expanded over a full quarter. In the first quarter, it was not necessarily that the major market indices posted their worst quarterly performance since 2002, but that the level of fear amongst global investors reached Black Monday levels as the U.S. banking system narrowly avoided a complete collapse. The DJIA, S&P 500 and NASDAQ Composite Indices finished the quarter -9.94%, -7.55% and -14.07%. However, during the quarter, the indices were down as much as 11.49%, 13.06% and 18.21% on an intraday basis in mid-March. In addition, the decoupling story also took a beating as international markets, developed and emerging, posted worse losses than U.S. markets. The U.K., Germany and France finished -11.69%, -18.99% and -16.16% while the BRIC (Brazil, Russia, India and China) nations finished the quarter -7.34%, -10.56%, -22.88% and -23.69%. International markets may have become more independent from the U.S., but recent events once again show how important the U.S. financial system is. Global concerns about U.S. banking liquidity sent equity markets tumbling while a weakening U.S. dollar sent commodities skyrocketing.

In our last newsletter we wrote about the prospect of a banking holiday in light of the liquidity crunch major banks were facing worldwide and the inability of regulators and central banks to identify how these instruments would impact financial markets. A legacy of deregulation has created nebulous derivative risks that have permeated not just investment banks, but insurance companies, investment firms, hedge funds and indirectly private equity companies. The collapse and subsequent bailout of Bear Stearns frightened investors and led short sellers to circle around Lehman Brothers over the past couple of weeks due to speculation of their collapse. While Bear Stearns is the largest casualty of the current crisis, the risks that engulfed Bear are indicative of the broader risks faced by the other major investment banks, namely risky assets stressing capital reserves that back a highly levered balance sheet.

Goldman currently has the largest asset base of approximately \$1.1 trillion dollars of assets with capital reserves of approximately \$40 billion, indicating a

levered exposure of about 27 times equity. Merrill Lynch is even more highly levered at about 40 times their equity base of \$28 billion. Clearly the sub-prime losses already written down by most banks have reduced capital reserves, but the markets are just now starting to appreciate the write-down risks associated with other bank assets such as leveraged loans, CMBS (Commercial Mortgage Backed Securities) and derivative securities backed by dubious auto and credit card receivables. In addition, many banks continue to hold high yield debt used to fund private equity buyouts with few investors willing to purchase that debt. As is the case in the Clear Channel Communications deal, banks are looking to modify the terms of existing deals or, as some rumors indicate, looking to bust the deals altogether. Most of the buyout deals by definition are highly levered transactions, and with deteriorating economic conditions, investors are right to discount the bonds that are issued to fund the buyouts. The response of banks and lenders, including Lehman Brothers, UBS and Washington Mutual has been to dilute current investors by raising more capital. Will it be adequate enough to support any additional deterioration in their asset bases?

The government's response to the crisis has been historic. The actions of Federal Reserve Chairman Bernanke have been wide ranging, from lowering the discount rate and the Fed Funds rate to allowing banks to post MBS against loans through the term auction facility. A more sweeping proposal came recently from the U.S. Treasury, captained by Henry Paulson, in the form of the *Blueprint for Financial Regulatory Reform*. Expect heated debate of the proposal in the next couple of weeks from market participants as they prepare themselves for a new regulatory environment.

In stark contrast to global equity markets, commodities surged as precious metals, agriculture and oil spiked to multi-year highs. The fundamental story for commodities remains intact as we are in the early stages of a long-term bullish cycle. Commodities investors are getting a second tailwind in the form of a weak dollar as the Fed has sent a clear signal that they will do anything to provide liquidity to banks. An accommodative interest rate environment and massive liquidity injections have cheapened the dollar and the next several quarters could see a choppy trading environment. In the short-term, the dollar is certainly oversold but the Fed has not signaled an end to rate cuts. However, the lagging

effects of the credit crisis may yet force the ECB (European Central Bank) to cut rates, driving investors back to the U.S. to find cheap equities with a favorable exchange rate. The Fed's quandary is further complicated by the prospects of food and energy inflation; while they are injecting liquidity, which is typically inflationary, they must not lose sight of their mandate to fight inflation itself. The desire to hedge against these inflationary actions and the weaker dollar has channeled investors into commodities.

While the U.S. Bureau of Labor Statistics may be at liberty to exclude food and energy prices from the CPI indicator, most Americans are grappling with the reality of higher gas and food prices. Oil prices are hovering around \$100, about \$30 more than the 2007 average of \$72 per barrel. In the past year, prices of corn have gone up over 70% (due to ethanol demand) while soybeans are up 64% and wheat prices have doubled in the past 12 months. All three commodities have set record highs in the past year. Internationally, the effects are magnified as the increase in food prices relative to wages is more dramatic than in the U.S., most notably in China, where core inflation hit a 12 year high at 8.7% year over year in February. Inflation numbers were affected by the worst snowstorms in 50 years in February, but Chinese officials still have reason for concern as food prices rose 20% (YOY) with vegetable prices jumping 46% and pork prices increasing an astounding 63%. Some of the price increases can be attributed to one-off events, but persistence in inflationary pressures could force the PBOC (People's Bank of China) to tighten monetary policy, leading to a harder economic landing, much like the late 1980s and early 1990s. The massive growth in money supply could add further inflationary pressure and make the PBOC's job of promoting growth even more difficult. Ultimately, inflationary pressures may prompt the PBOC to revalue the Yuan faster than originally intended.

In addition to China, other Asian nations are feeling the effects of food inflation as the price of rice has hit record prices worldwide, rising over 40% in the last quarter alone, as global supplies continue to fall short of demand. A fear of shortages has prompted a curb on exports in China, India and Vietnam while the Philippines is working to secure import guarantees from neighboring countries to appease domestic unrest. Curbing of exports and price caps may help feed mouths in the short term, but the longer term supply problems may be exacerbated as some farmers will choose to switch to crops with better economics and no price caps, further stressing supply. If leaders in countries such as Indonesia, where the president has a doctorate in agricultural economics, cannot establish sustainable agricultural programs, many leaders could be paying the price in the next election. The World Bank estimates 33 countries face potential social unrest as a result of increasing food and energy costs.

Global demand growth, led by China and India, has fueled seven straight years of commodity price gains. Investors who have not invested in commodities and feel like they are late to the party can't help but heed the warnings of financial journalists predicting a massive correction. While commodity markets are overbought in the short term, there are still ways to play the longer term theme, namely by looking at the most important commodity of all: water.

Presently, there are several supply/demand dynamics that will support a long-term fundamental bullish trend for water. UN Water, the program that coordinates water related issues across UN agencies and other NGOs, such as the WHO (World Health Organization) have made the challenges of providing clean water and sanitation a key aspect of meeting the UN's Millennium Development Goals, set in 2000. The probability of meeting many of those goals, including the reduction of poverty, hunger and disease, could be greatly enhanced by increasing access to potable water. Although, sub-Saharan Africa and the Middle East are the most water scarce regions, it is Asia which represents the majority of people living without clean water and sanitation, with over 600 million people lacking drinking water and another one billion in need of proper sanitation. Clearly, if economic growth is expected to continue, emerging countries will need to focus government resources on coordinating water infrastructure development for consumers as well as for agriculture and broader industry. Most of these countries have not allocated the proper resources to resolve water management issues stemming from poor irrigation management of river systems and in many situations, most glaringly China, significant ecosystem degradation caused by industrial pollution is intensifying the challenge. Poor governance, much like it has exacerbated the current food supply problems in Asia, has also contributed to water scarcity in many of these countries. Agriculture already accounts for over 70% of global water usage and one can only imagine what the price of agricultural commodities would be if water resources are stressed further through mismanagement or as a result of a natural disaster. Populations are expanding at amazing rates in these countries and their governments will need to find ways to expand arable land, further straining irrigation systems.

Much like with other commodities there are direct and indirect ways to invest in water. The most direct would be to buy a futures contract or water rights. A futures contract would indicate the actual value of water itself, as is the case with oil or precious metals. The Australian Stock Exchange and the Sydney Futures Exchange are developing a futures market, but it is based on the risk of water availability and will be tied to a series of state water indexes. These futures contracts will trade more like insurance products or weather derivatives rather than as a price of the commodity itself. Indirectly, the major tailwind for water is global infrastructure investing. The

Global Water Partnership estimates that total water infrastructure spending needs to increase from current levels of \$75-\$80 billion per year to \$180 billion per year globally. That translates into an estimate of \$4.5 trillion from 2000-2025. Although, emerging markets require the most significant investments, the United States is an example of a Western nation where infrastructure also needs rebuilding and extensive maintenance. The EPA has conducted Water Infrastructure Gap Analysis and conservatively estimates that the U.S. will need to spend about \$76 billion over the next twenty years to insure the water infrastructure network is updated as a significant portion is reaching the end of its design life. Other estimates are as high as \$500 billion to \$1 trillion in the U.S. alone. To meet these funding gaps, regulated water utilities may have to increase prices as many states and municipalities are unable to budget for such massive investment outlays. As infrastructure renewal plans take hold, the demand for pipes, chemicals and filtration technologies for the water industry will increase as most of the industry's capital is spent on these materials.

Agriculture may be the most obvious sector to be impacted by water shortages or price increases, but the price of water affects everything from the beef and poultry industries (amazingly, it takes 15,000 liters of water to produce 1 kg of beef) to beverage companies and chip manufacturers who rely on water to clean silicon wafers and cool tools. In Las Vegas, where drought-like conditions surround the gaming oasis, casinos and resort operators are working to improve water efficiency for their aqua parks and extravagant fountains. Imagine going to Vegas and getting a water surcharge on your hotel bill. The U.S. continues to diversify itself away from oil with alternative fuels with ethanol and nuclear energy often mentioned as solutions to the nation's oil dependency. Ethanol may not be the most efficient alternative fuel as it requires approximately 12,000 liters of water to produce while nuclear power plants rely on massive amounts of water to keep cool. As water supplies continue to be strained, the cost of many goods and services could increase dramatically as the price of water is reflected in those goods.

In 1999, Boone Pickens and a group of over 100 Panhandle landowners formed Mesa Water to consolidate water rights and find a market for surplus water from the massive Ogallala Aquifer in the Texas panhandle. The Ogallala Aquifer is the largest aquifer in North America, but significant investment in infrastructure and transportation is needed before it can supply a broader area of customers. Mesa Water estimates it is capable of providing 320,000 acre-feet of water per year to North Central Texas and the San Antonio area, enough to satisfy the annual water needs of over 1.5 million Texans. Few investors have been as savvy when it comes to investing in natural resources, and specifically oil, as Boone Pickens. Today, Boone

Pickens is talking about peak oil and looking for new opportunities in alternative energy, namely by intending to build the world's largest wind farm and he is further diversifying himself with water. Mesa Water may be his next big investment and investors should take notice as Mr. Pickens has been a natural resource sage. For those who have missed the first leg of the commodity boom, investing alongside Mr. Pickens could prove to be very profitable.

The value of water has been a topic for some of the greatest thinkers to muse including Nicolaus Copernicus, John Locke and Adam Smith. Over 200 years ago, Smith was credited with presenting the Paradox of Value, often known as the diamond-water paradox. Smith sought to explain the apparent contradiction that although water is on the whole more essential for survival than diamonds, diamonds commanded a higher price on the market. Ultimately, Smith determined that the paradox was driven by the amount of labor needed to bring a diamond to market while water was abundant and easily accessed. As emerging markets continue to grow at exponential rates, water demand, for consumption, agriculture and industry, will drive the price of water up from current levels and ultimately may force it to be reflected in the true costs of goods and services. Much like oil has shaped global foreign policy over the last 100 years; water will be the commodity that shapes policy for the next 100 years. There is a good chance this millennium will prove Smith's paradox obsolete.