

CAPITAL MANAGEMENT GROUP, INC.

Alternative Investment Strategies

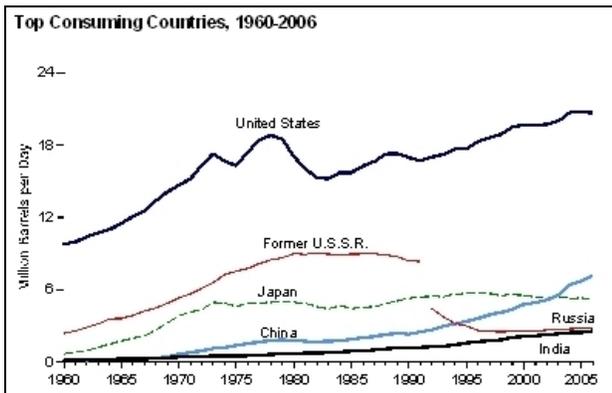
2008 Second Quarter Review: The Perfect Storm

The Perfect Storm: the phrase has gained significant popularity since being used as the title for Sebastian Junger's 1997 novel. Junger coined the phrase after a meteorologist for the National Weather Service, Bob Case, used the term to describe the confluence of weather conditions that led to the 1991 Halloween Nor'easter. Although the weather in the Northeast this summer has been quite calm, a Perfect Storm has been brewing in the U.S. economy not seen for close to three decades. As the first quarter of the year concluded and investment banks swore that they had written down the worst of their losses, investors thought they could see the light at the end of the tunnel. That optimism carried markets into a short-term high in May. Unfortunately, that optimism once again turned to extreme fear and pessimism as the Perfect Storm of stagflation reared its ugly head and sent market indices into bear market territory. The major indices finished the quarter at the lows of the year with the DJIA down 14.44% YTD, the NASDAQ Composite down 13.55% YTD and the S&P 500 down 11.91% YTD. The second quarter started with a bullish rally the burned out by mid-May and finished with the worst June performance for the Dow since 1930. In June alone, the DJIA was off 10.19%, the NASDAQ Composite was down 9.10% and the S&P 500 lost 8.43%. International markets fared no better with the MSCI EAFE index posting an 8.31% loss in June, bringing the YTD return to down 12.70%. After rising close to 100% in 2007, Chinese markets are down over 50% YTD.

Stagflation, a combination of slow growth (if any at all) and inflation, has become a very real prospect for a U.S. economy that is already in recession. The combination of the real estate bubble bursting, a crippled banking system and skyrocketing headline inflation has created an environment that could see the U.S. in a more prolonged recession than some market observers had initially predicted. Globally, inflationary pressure is also building, especially for net importers of commodities like China where inflation is close to 10%. With respect to credit, banks and insurance companies continue to write down illiquid assets and raise fresh capital. Citigroup is expected to write another \$8 billion on top of the \$40 billion they have already written down, while Merrill Lynch is expected to mark down \$4.5 billion in the second quarter adding to speculation that the firm will have to raise capital. European banks are also expected to take more losses with analysts predicting

write downs for Deutsche Bank (\$5.6 billion), Credit Suisse (\$2 billion), and Societe Generale (\$3 billion). UBS is expected to write down another \$5 billion on top of the \$36 billion already written down. According to Reuters, banks have written down over \$330 billion in losses since the sub-prime crisis began last year with European banks accounting for \$150 billion. Other estimates put the global total closer to \$400 billion. What is particularly disturbing about this round of write downs is that they are no longer just sub-prime related assets; they include leveraged loans and other asset-backed securities that are becoming stressed. Moreover, banks have not given any indication that the end is in sight. We expect to see continued losses for the financial sector going out into early 2009 as the full effects of the economic slowdown have not been factored into non sub-prime assets such as commercial real estate, auto loans and credit card receivables.

The prospects for recovery look dimmer than most would have expected, even at the market lows in March. While sub-prime write downs stole the headlines in the first quarter, it is the topic of oil that is on everyone's mind as we reach the half-way point of 2008. Not since the OPEC oil embargo of the late 1970's have oil prices been so closely watched by Americans. Back then, it was easier to pin the blame on OPEC, whereas the current environment is a little murkier. A recent CNBC poll asked investors, "Who's to blame for America's oil crisis?" Congress (35%) and speculators (25%) get most of the blame while OPEC (4.6%) and Big Oil (4.1%) surprisingly have the smallest share of blame. Somewhere in between the extremes is the consumer, who respondents have assigned 15% of the blame. When you compare the consumption of the United States with the next four largest consumers of oil (see chart below), perhaps the consumer is more to blame than anyone else. Currently, the U.S. consumes about a quarter of the world's oil. The impact of higher oil prices is being felt most directly at the pump, but the big three auto manufacturers in the U.S. are getting hit hard and are trading near all time lows. Ford is now trading under \$5 per share and GM shares fell to a 54 year low. Chrysler appears to be the weakest of the big three as it has been slower to restructure and is saddled with a huge amount of debt from the buy out by private equity firm, Cerberus. Bankruptcy is a very real possibility for all three as they attempt to restructure their businesses to adjust to a rapid shift by consumers away from SUVs.

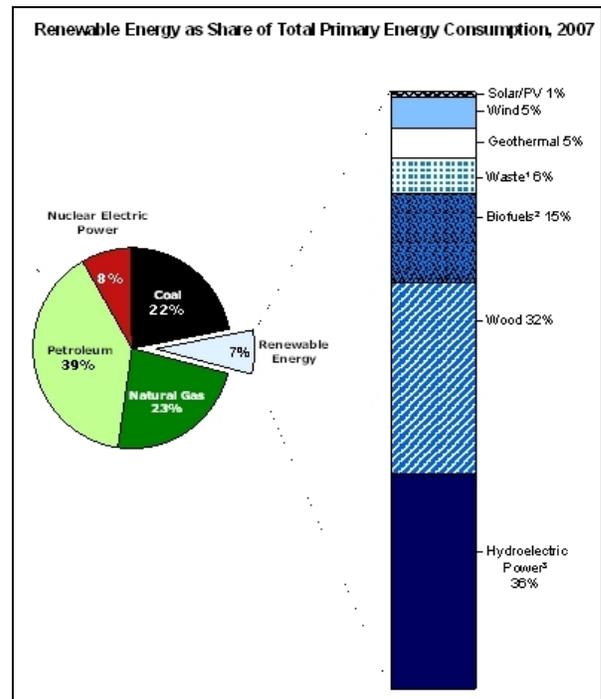


(Source: US DOE 2007 Energy Review – June 2008)

Ultimately, their fate could be determined by the price of oil in the next six to twelve months. A retreat in oil prices could provide the respite needed for the companies to push through changes, but a spike to \$200 could bring SUV and truck sales to a grinding halt, further stressing the firms' balance sheets. That risk level is high.

The current oil crisis has not occurred in the last six months, or even in the past year or two. The grim reality of higher oil prices has been staring the U.S. and the global economy in the face for many years now but domestically, U.S. leaders have failed to act to prevent the current crisis. Although U.S. oil consumption is actually expected to decrease in 2008 due to dramatic rise in prices, demand in emerging markets has created a global supply/demand imbalance with little spare capacity. World oil consumption is projected to grow by one million bbl/d (barrels per day) and as a middle class begins to grow in many emerging countries, the desire to purchase an automobile will only push demand higher. For example, the U.S. has approximately 750 cars per 1,000 people, while China currently has about 50 cars per 1,000 people. If China comes anywhere close to the U.S. level, the demand for oil will increase dramatically. On the supply side, non-OPEC nations, including Mexico, the UK and Norway, are unable to keep up production and ongoing geopolitical concerns in Nigeria, Venezuela, Iraq and Iran have further contributed to oil price volatility. Almost all global spare capacity is located in Saudi Arabia and nobody outside the kingdom truly knows how much they have. Russia, the world's second largest oil producer, may actually see production decline due to aging fields, rising costs and increasingly remote new deposits. Fortunately there are other energy sources, both traditional and alternative, but they need economic and political support to be viable on a meaningful scale. Some of the most viable energy alternatives include wind, solar and nuclear power. With respect to transportation, the headline concern for most consumers is how to lower gas prices. In addition to hybrid technology, automobile manufacturers are developing a number of technologies, with the most promising being a fully electric plug-in automobile.

Most of the alternatives mentioned above have been around for years, but their recent attractiveness as legitimate business models has venture capitalists and corporations funneling money into the space not unlike the internet boom of the 1990's. There are opportunities in each of the alternatives mentioned above but not without drawbacks or limitations. At present, renewable energy accounts for just 7% of the total energy consumption in the U.S. Some sources such as hydroelectric already contribute a significant source of energy but are not able to grow capacity as quickly as other alternative sources.



(Source: US DOE 2007 Energy Review – June 2008)

Recently, the biggest headlines have come in wind and solar as the cost of the resources themselves is zero. In May, T. Boone Pickens announced a deal with GE to build the largest wind farm in the world. GE alone expects to sell \$6 billion worth of turbines this year and global wind power capacity is growing at 30% annually. This growth should continue as wind turbines are becoming larger, more efficient (primarily due to the use of more sophisticated materials) and more reliable. The ultimate effect has been to reduce the cost of wind power to just 8 cents a kilowatt, a cost that makes it competitive with natural gas. To put that in perspective, the cheapest source of electricity presently is coal power, which costs about 5 cents per kilowatt. Solar power, specifically the common photovoltaic cell variety, is currently the fastest growing alternative energy, increasing at 50% per year. Decades of research have brought the cost of solar power down to below 20 cents, but more work is necessary before it can compete with coal and wind. Current R&D is focused on enhancing the materials that capture the sun's rays to increase efficiency but also to lower the

cost of production by diversifying away from the traditional cells that are made of silicon. Some companies are using a mixture of metals rather than silicon to make solar panels cheaper. Ultimately, consolidation will occur as someone will come up with the magic recipe of materials. However, both wind and solar power have similar drawbacks, specifically their inability to generate power 100% of the time, their reliance on geographic location to be successful and the fact that they are a bit of an eyesore - most people don't want a wind farm in their backyard anymore than they want a new refinery. All of these hurdles can be overcome if the transmission of that energy can be made to work over long distances and can be stored more efficiently.

Nuclear power was once considered the most viable alternative energy but its image was tarnished after a big scare on Three Mile Island and the disaster at Chernobyl. However, nuclear power is recovering as time has passed and public scrutiny is now focused on carbon emissions and the cost of energy. Perception has changed so much that Patrick Moore, one of Greenpeace's founders, is now a consultant for nuclear power. Advancements in safety have brought nuclear energy back into the alternative discussion and its cost of 6.5 cents per kilowatt is comparable to coal, without leaving a carbon footprint. Carbon emissions are a big part of the cost discrepancy between alternatives and traditional energy sources like coal and if carbon taxes were placed on those resources, alternative energy would look even more attractive. Given the current energy crisis, the chances of a carbon tax being levied on coal are slim, so the focus must be on making alternatives more cost efficient.

Few companies have been as innovative in the past decade as Google. Fortunately, their resources are not limited to the internet as they are making a commitment to making cheaper energy through renewable sources a reality. Google.org is currently working on solving our energy problem with a project called RE<C: Renewable Energy that is cheaper than Coal. Google's objective with the project is to create 1 gigawatt of renewable energy - enough to power a city like San Francisco, by focusing on solar, wind and geothermal power (power derived from the earth's heat). Through strategic grants and investments and the application of its many innovations, Google hopes to solve this problem in a matter of years. As if that wasn't ambitious enough, Google.org is also working towards creating commercially viable electric plug-in vehicles. The ability to plug in and recharge electric vehicles through the power grid could present the greatest opportunity for significantly reducing the global demand for oil.

Imagine coming home and plugging your car into a standard 120 volt outlet for a charge rather than filling up at the gas station. Sounds strange, but that is the goal for

plug-in hybrids: a fully electric vehicle that is powered through the electric grid. If that electricity is also produced through renewable energy, carbon emission could be reduced even further. Given the current oil crisis, the more immediate goal, however, is to reduce the demand for oil by increasing the MPG that such a vehicle could attain. The commercialization of plug-ins is a bit further off as current utility infrastructure could not support a massive shift to these vehicles. While biofuels, such as ethanol, are an excellent short-term option, they would not be as practical as the plug-in long term. Biofuels are a prime example of how government policies have been counterproductive. Ethanol production from sugar cane is a rapidly growing business in Brazil and is greener and cheaper than corn ethanol which has been widely publicized in the U.S. Rather than embracing a cheaper supplier, politicians have added a 54 cent per gallon tax on Brazilian ethanol while at the same time subsidizing corn ethanol in the Midwest while corn prices have soared due to massive floods.

What is most profound about alternative energy is the business opportunity it presents now and the job growth potential for a U.S. economy struggling with rising unemployment. Oil prices are providing the motivation for the private sector, from oil companies to venture capitalists, to invest heavily in technology to solve the current energy problems facing the United States. In addition to the research and development needed to make these ideas commercially viable, utility infrastructure will need a massive upgrade and will be labor intensive. Unfortunately, that same type of leadership is lacking at the highest levels of the public sector where the debate has been limited to drilling offshore or in ANWAR. The crisis cannot be solved by drilling for more oil alone. The solution to the longer term problem of oil dependency needs to be addressed in a cohesive energy policy that explores all options, traditional and alternative. Furthermore, the positive effects of a strong commitment to alternative energy are not limited to economics. The U.S. has for too long been reliant on foreign governments for oil, knowing full well those countries share little of our democratic values and our commitment to free markets.

The current economic crisis will not be easy to overcome as many components of the economy are struggling, but there is reason to be optimistic as storm too will pass. The banking system will recover with a little help from the Fed and the housing market is showing some signs of recovery. That is one of the truly great things about this nation, its ability to be flexible, innovative and genuinely optimistic. Despite its flaws, the U.S. political system has an amazing ability to recalibrate and focus on new initiatives faster than any other country. With markets tumbling into bear market territory, Independence Day could not have come at a better time. The opportunity to spend time with family and recharge could be what Americans and the equity markets needed as fear and

pessimism have sent investors running for cover. It is worthwhile to reflect on the risks our founding fathers took to create this country and the ability of the American people to look inward for strength and leadership. The U.S. has been the sole global superpower since the end of the Cold War. If it is to retain its status politically, it must address its economic problems with the same ingenuity and entrepreneurship that has helped it create world class industries in the past.

For too many years, Americans have been sending their dollars to China and other manufacturing nations. The result has been a weak dollar, a massive trade deficit and a flat savings rate. Energy is critical to solving many of those problems and creating a foundation for economic growth. The world is growing more competitive every day and if the U.S. does not assume a leadership role in alternative energy, foreign countries and corporations will.