SHARPER ◆ GRANITE

Optimal Portfolio Management

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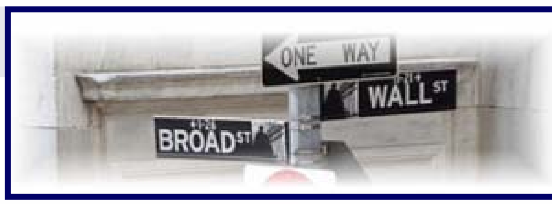
In our spring, 2004 letter we highlighted oil prices and interest rates as the two chief challenges facing the U.S. economy. We also ranked as leading risks the residential home market, the U.S. trade deficit and the U.S. budget deficit. These five factors are reviewed below in the "Third Quarter 2006 Economy Review".

Oil declined this quarter to near $60/barrel. Due in part to this price decrease, the Federal Open Markets Committee (FOMC) left the target short-term Fed Funds rate at 5.25% at both meetings during this quarter while long-term rates declined significantly. The 10-year Treasury rate ended the quarter near an astonishingly low 4.7%. This rate decline provided a strong return for bond holders while keeping mortgage rates low.

While the decline of oil prices and long-term interest rates is helpful to many segments of the overall economy, as always there are both winners and losers when prices swing in a given asset class. Lower oil prices help the stock and bond markets in general, but they hurt energy stocks. At the proprietary trading desks of large banks and at hedge funds, bets are freely placed on the direction of stocks, bonds, commodities, and other more obscure asset classes. Many such investors, especially hedge funds, have been burned by recent, sudden commodity price movements. To learn more about how hedge funds work and how they have performed lately, please read "The Hedge Fund Investment Option" below.

Financial Markets Summary



We have discussed in past letters that either an oil price decline or a substantial pause in interest rate hikes could spawn both a stock and bond market rally. Both events occurred this quarter driving the Dow Jones Industrial Average near an all-time high in the final week of the quarter. The S&P 500 Index finished up 5.6% (including dividends). This was the best quarterly gain since 4Q03 and the best third-quarter gain since 1995. Meanwhile, the Leman Aggregate Bond Index, which Sharper ◆ Granite uses as the benchmark for its taxable bond investment performance, returned 4.2% (including interest payments) to bondholders, the best quarterly gain in over four years.

The superb gain by the markets this quarter was a bit of a surprise given that the third quarter tends to be the weakest, especially in the second year of a presidential cycle. Because of these factors, along with certain economic concerns, Sharper ◆ Granite took a safer than usual stance in most client portfolios this quarter. The average of all Sharper ◆ Granite client portfolios gained 3.7% (net of fees) this quarter and maintained a risk level 24% less than the S&P 500 Index. If normalized to the same level of risk as the S&P 500 Index, Sharper ◆ Granite client portfolios would have finished 4.5% (net of fees).[1]

The Hedge Fund Investment Option

During September stock and bond markets were on their way to one of the best performing quarters in recent years. So how could one of the world's largest hedge funds at Amaranth Advisors, which boasts a world-class risk management system, lose $6 billion of its $9 billion value in a matter of days? [2]

Hedge funds have gained a glamorous reputation based on their high required minimum investments and potential for astronomical returns. Hedge funds may also provide performance that is uncorrelated with other asset classes because of the way they may short investments, use leverage, or place bets on obscure asset classes. Hedge funds, unlike mutual funds, are largely unregulated by the Securities and Exchange Commission (SEC). Thus, they do not have to report investment buys and sells and other key information to the government or even to their investors as mutual funds do.

Hedge funds are also differentiated by their fee structures. Rather than charging clients a small fixed rate of 1 to 2% of managed assets as mutual funds do, they typically charge 20% of the gain a fund achieves. If a fund loses money, the fee could be 0%. Additionally, they often charge a fixed rate of 1 to 3% of managed assets.

If you invested in a hedge fund in January, 2005, there's a 11.4% chance that your fund has closed due to poor performance and returned to you a fraction of your initial investment.[4]

At first glance this pricing system appears attractive in that it seems to create incentive for positive performance. One must realize though that this system also generates incentive to take high risks. After all, if the fund goes up substantially, then managers take 20% of that upside while the investors take 80%. But if the fund declines substantially, then the managers' loss is 0% while the investors take 100% of the damage. Thus, hedge funds serve as a call option for the managers, with investors shouldering the concurrent downside risk. That is, as hedge fund managers' upside is unlimited and their downside is minimal, they have incentive to take high risks and swing for the fences.

Amaranth placed bets on, among other things, the direction of natural gas prices. Natural gas prices are historically volatile and have been especially volatile in recent months. When the September hurricane season turned out lighter than expected, natural gas prices slid 40% in six weeks. As prices slid, Brian Hunter, the 32-year-old chief energy trader at Amaranth, repeatedly used borrowed money to double-down on his bets. When these paper losses became severe enough, lenders began to request their money back. At that point the positions were forced into sale and the losing bets were recorded.[2] In fact, once the slide began, some banks began to place predatory bets against Amaranth positions in order to push prices lower and force emergency asset sales. JPMorgan Chase, Citigroup and Citadel Investment Group were among the leading sharks sweeping in to feed on the asset "fire sale".[3]

Hedge funds like Amaranth often play on the momentum of hot sectors, sometimes with tragic results. Vega Asset Management, which managed one of the largest hedge funds as of two years ago at $12 billion, is since down $9 billion due to a bad bet on the direction of U.S. Treasury bond rates.[4] While treasuries are the most traded asset class in the world, guessing the direction of treasury interest rates is every bit as challenging for the experts as the direction of natural gas or pork bellies. See also "Dangers of Using Interest Rates for Market Prediction", *Winter 2005*. All past letters may be found at www.sharpergranite.com.

Jack Meyer, the former investment manager of Harvard University's endowment assets, set a record by raising $6 billion for his new hedge fund, Convexity Capital. But it has produced returns of only 1% this year. Another high-profile start-up, a $6 billion fund launched by Dinakar Singh, who previously ran Goldman Sachs' in-house trading, is up 3% this year.[5]

The main hedge fund run by famous investor Louis Bacon at Moore Capital Management is up only 1.5% in 2006 while Moore's bond fund is down 3%. Paul Tudor Jones' $4.7 billion Tudor B.V.I. Global Fund which makes bets on global "macro" trends is up 3%, and Richard Chilton's $800 million Chilton International fund is down 3% this year.[5]

Ravinder Mehra's Vega funds, which were the largest in Europe at $12 billion in 2004, are now worth only $5 billion. Vega's largest fund is down 17% this year after a series of poor bets on global bonds.[6]

In fact, Merrill Lynch's Hedge Fund Index is up only 4% this year,[5] and the Hedge Fund Research Composite Index is up 6.9%.[4] By comparison the S&P 500 Index is up 8.5% on the year. Over the long-term, from 1995 through April 2006, hedge funds returned 9% per year, less than the S&P 500's 11.6%.[7]

While some studies report higher hedge fund returns, they often do not consider the poorly performing funds that have closed. This effect is called "survivor bias". Since January 2005, 1,071 hedge funds have closed due to poor performance; that represents 11.4% of the funds in operation at that time.[4]

2006 Pension Protection Act

In August President Bush signed into law the 2006 Pension Protection Bill. This 1,304 page bill is a mixed bag of new rules designed to promote and preserve saving. The points most relevant to Sharper ◆ Granite clients are summarized below. If you have further questions regarding the effects of this legislation, please contact your Sharper ◆ Granite advisor.

➢ The high IRA and 401(k) contribution limits that were set to expire in 2010 have been extended.

Made permanent were the annual IRA contribution limit of $4,000 ($5,000 if over 50 years old) and the annual 401(k) limit of $15,000 ($20,000 if over 50 years old). In addition, beginning in 2008 these limits will rise with inflation.

➢ The 529 college savings plan tax status that was set to expire in 2010 has been made permanent.

➢ Employers will now be encouraged to enroll employees automatically into 401(k) plans and to direct the default options away from either low-return money market plans or high-risk company stock plans, neither of which are generally an individual's best central investment option.

➢ Roth 401(k)'s will be permitted. But they are likely to be offered by few major corporations due to their administration cost. Further, we see only a few situations where Roth 401(k) plans fit the best interest of a client.

One popular strategy that seeks to capture the benefits of hedge funds while reducing the risk that can come with a single fund has been to invest in a basket of hedge funds, called funds-of-funds. But studies show that funds-of-funds' performance is actually worse than the average performance of all hedge funds because the funds-of-funds approach introduces an extra layer of management fees. According to the *Wall Street Journal* the funds-of-funds approach often has a total cost of over 5% per year.[5]

Finally, other restrictions make hedge funds even more undesirable. Information on the funds' investments is often shielded from investors. As they are unregulated, they do not have to report their actions or holdings as mutual funds do. Also, purchase and redemption opportunities are frequently limited. These funds may invest in illiquid assets such as real estate or options with associated required holding periods. Thus, they often limit the windows whereby clients may add or withdraw money. Finally, even low minimum-investment hedge funds require at least $25,000 to play.

While some very famous money managers run hedge funds, their success is never guaranteed. Studies show that these money managers rarely have exclusive opportunities or inside information that permits them unique market gains. In the end they are subject to the same challenges that allow only 15% of all money managers to beat the S&P 500 Index in a given 15 to 20-year time period.[8]

"the biggest secret of portfolio management, including hedge funds, is that there isn't any secret"

— Bert Whitehead, MBA, JD, Cambridge Advisors, author of *Facing Financial Dysfunction: Why Smart People do Stupid Things with Money*

While some hedge funds may have a particular focus that serves as a building block in a larger client strategy, hedge funds are rarely needed to achieve clients' long-term goals. Risk can usually be lowered through more efficient techniques. Further, their high fee structures run against our overall philosophy. For that reason hedge fund positions rarely appear in Sharper ◆ Granite client portfolios.

As always, the best way to address economic risks such as oil price volatility, interest rate changes, and declining real estate values is to build a diversified portfolio with a mix of asset classes that offers solid returns over time with some assets gaining when macro-economic factors are moving one direction and other assets gaining when these factors move in the opposite direction. This process of precise diversification is the most significant investing "free lunch". The Sharper ◆ Granite process for achieving this with precision is outlined in "Balancing Portfolios to Minimize Risk", *Summer, 2004*.

Third Quarter 2006 Economy Review

The decline of oil prices and associated freezing of the Fed Funds target rate by the FOMC this quarter supported strong rallies in both the stock and bond markets. We maintain as we have since the beginning of 2004 that the primary challenges facing the economy are, in order of importance, high oil prices, interest rate uncertainty, the residential home market cycle, the U.S. trade deficit and the U.S. budget deficit.

Oil prices: At the outset of 2004 we first became concerned about the risk of increasing oil prices (see "Oil - our Most Important Commodity", *Spring 2004*). But some good news finally arrived this quarter for oil-product consumers. Oil prices retreated to near $60/barrel after three-and-a-half years of steady increases.

The significant oil price drop this quarter was due to an abatement of supply-side risks, including a milder than expected gulf hurricane season, reduced U.S. – Iran tensions, as well as a positive oil drilling technology announcement. Chevron, Devon Energy, and Norway's Statoil announced a positive drilling test that should enable access to a mammoth oil field 175 miles off the Louisiana coast, which is over five miles below the ocean surface, including more than a mile of ocean depth. Previously, drilling to this extreme depth was impossible. Other parts of the world that seemed beyond the pale may also become accessible including the North Sea off Britain, the Nile River Delta of Egypt, and the Brazilian coastline.[9]

A price drop of 20% from the third to the fourth quarter could increase overall Q4 GDP by a full percentage point.[9] However, if the price of oil drops much below $60, many experts believe that OPEC may attempt to cut production, possibly providing something of a floor for oil prices. The Saudis have already quietly reduced crude output by about 300,000 barrels per day.[11]

Interest rates: The declining price of oil was a key reason for the FOMC decision to hold interest rates constant this quarter, breaking a string of 17 consecutive 0.25% increases at FOMC meetings. The FOMC's indication at the September, 20th meeting was that it is leaning more toward a rate increase than a decrease for its next rate change; however , the lending markets disagree. They are firmly projecting that the next interest rate move will be down based on the inverted yield curve and fed funds futures pricing. See also "The Mechanics of Interest Rates" *Spring 2005*.

The 10-year treasury finished the quarter at a remarkably low 4.7% yield. Low interest rates help stocks in three ways. First, they make it easier for businesses to borrow money to invest and thus fuel growth. Second, when rates are low, bonds offer less competition to stocks for each investment dollar. Finally, and most importantly, in the calculus of Wall Street analysts, stock valuations increase because the value of a company's future earnings is worth more today if the interim opportunity cost of capital is lower. For example, the earnings from a business' operations two years from now are worth more if the alternative is to put the investment money into a *low-rate* CD. Or, if money is borrowed to invest in the stock, the return from owning the stock would be higher if the money was borrowed at a low rate.

Housing market: Further contributing to the FOMC decision to halt the rate hikes is the continued decline in the housing market. As predicted in "The Residential Real Estate Bubble", *Summer 2005*, housing price changes on aggregate have flattened, and we expect aggregate prices to decline soon. Already, economic damage from the housing trouble has cost the U.S. gross domestic product (GDP) 1.0%.[12]

There has been an unprecedented increase in housing inventory over the last year-and-a-half.[12] Both the Housing Affordability Index and the National Association of Home Builders (NAHB) Housing Market Index, an indicator of homebuilder confidence, are near all-time lows.[13]

Finally, the types of loans used to finance the latest housing boom are dangerously insecure. Consider the following:[14]

- 32.6% of new mortgages and home equity loans in 2005 were interest-only, up from 0.6% in 2000.
- 43% of first-time home buyers (25% of all buyers) in 2005 put no money down.
- 15.2% of 2005 buyers owe at least 10% more than their home is worth.
- 10% of all homeowners with mortgages have no equity in their homes.
- In July, 2006 the home price to income ratio rose to a point 30% above its prior peak in the early 1980's.
- Non-prime mortgages made up 25% of conventional home purchase loans in 2005, versus 11.5% in 2004.
- Since 1999, house values have risen at an 11.0% average yearly rate while apartment rents (which inherently determine the value of a property) rose only 3.2% per year. This is unprecedented and unsustainable. Moreover, neither the cost of raw materials (2.9% annual increase) nor labor (2.5% annual increase) were big drivers of the home price increase. The increase, rather, had the earmarks of a mania, or bubble.[15]

U.S. trade deficit: The U.S. trade deficit has been mounting in recent years, and placing pressure on the U.S. dollar and credit markets. In the four years of this economic expansion, a widening trade deficit has subtracted anywhere from 0.3 to 0.7% from the U.S. GDP.[16] Below are five key reasons for optimism in this area based on recent economic trends.

First, growth outside the U.S. is picking up even as American growth is easing. Foreign economic cycles tend to trail that of the U.S., and this is what has been occurring lately. Second, the dollar continues to decline as it generally has since early 2002. This makes U.S. produced goods more attractive to foreign buyers. This effect is taking place already in high-tech capital goods and business services.

Third, low global interest rates should remain low, supporting foreign demand. Key Japanese and European interest rates sit below those of the U.S. Fourth, globally low risk premiums (the spread between the yields on safe government bonds and those from riskier corporations) indicate accommodative borrowing conditions for global companies. Finally, the recent drop in energy prices could stimulate household purchasing around the world.[17]

U.S. budget deficit: With just one month to go in the budget year the U.S. budget deficit is running 14.1% below the pace of last year.[18] The Congressional Budget Office is forecasting that the deficit for the entire year will be $260 billion, with September seeing a sizable surplus. This is an improvement from last year's deficit of $319 billion, the third highest debt level in history.

These five factors are the most significant long-term themes facing our economy. Other factors we use to understand the economy in the short term are reviewed below.

Leading Economic Indicator Summary

Strong
Mildly Strong
Neutral
Mildly Weak
Weak

Market Cycle: The fourth quarter is upcoming and tends to be the strongest of each year. November and December have been the strongest months for the S&P 500 Index since World War II.[19]

Political Cycle: We are in the final quarter of the second year of President George W. Bush's second term. Historically, the second year in the presidential cycle brings only average returns for the stock market.[19] This is in part because the presidential office and Congress, when not facing re-election, are more likely to push laws that help the economy in the long-term but are unpopular in the short-term.

Since World War II, the second year of the cycle has seen the S&P 500 Index post an average gain of 9.7%, overall and 11.0% under Republican presidents. When the data is reviewed back to 1888, second years average only 8.2% and 8.3% under Republican presidents.[19]

GDP Growth: Gross Domestic Product (GDP) is the official measure of the U.S. economy. It is a measure of all goods and services produced in the United States. 2Q06 GDP was revised upward to a 2.9% annual rate.[20] This rate is neither high enough to fuel inflation fears nor low enough to fuel recession fears. This represents the 19th consecutive quarter of expansion, or positive economic growth, since the official recession of 2001.

- **Purchasing and Manufacturing:** The Institute of Supply Management (ISM) Index, the key manufacturing indicator, is hovering in the region of modest growth.[21] This was the eleventh consecutive quarter of expanding manufacturing activity.

  The Philadelphia Fed Index, which is a less broad measure, rattled the markets on September 22nd by reporting a decline in mid-Atlantic region manufacturing for the first time since April, 2003.[22]

- **Inflation Control:** The most widely accepted measurement of inflation is the Consumer Price Index (CPI). The core CPI, which excludes volatile food and energy prices, advanced at a rate in the upward range of that targeted by the FOMC. As of July the twelve-month core CPI rate is 2.7%.[23] The Fed's preferred measure of consumer prices, the core personal consumption index, rose at an annualized rate of 2.9% in the second quarter, the highest rate since 1994.[24]

  However, the bond market expectations for average inflation over the next ten years fell from 2.7% to 2.4% this quarter.[25] While current inflation readings continue to drift higher, the Fed is weighing this against the lagging effect of its previous 17 interest rate hikes as it considers future rate changes.

- **Consumer Spending:** Economists watch consumer spending closely because it accounts for two-thirds of all U.S. economic activity. Consumer spending has been strong during the past three-and-a-half years but is now showing some signs of slowing. This quarter showed increasing strength, especially through July and August, aided by strong back-to-school sales.[26] However, in September consumer spending flashed the first decrease since Hurricane Katrina a year ago.[27]

  According to both the Conference Board[28] and the University of Michigan Consumer Confidence Survey,[29] consumer confidence ticked upward in July, then plunged in August and recovered in September due to falling gasoline prices.

- **Capital Spending:** Cash as a percentage of stock-market value for the S&P Industrial companies is at its highest level since September, 1988, generating great potential for more capital spending.[30]

  Business orders for computers and electronic products were especially strong in June and July.[31] In fact, capital goods orders have been rising since summer, 2001. Strong foreign demand for capital goods and other items is powering gains in manufacturing. Export growth has been robust as growing global businesses are building factories, warehouses and offices.[27]

- **Investor Sentiment:** Investor sentiment has been generally high since September, 2003. This extreme situation has cooled consistently this year through August, which is an improving sign as it indicates that plenty of investor cash may be on the sidelines and available to push the stock market higher.[32]

- **Corporate Earnings:** S&P 500 company profits are now trading at 16 times the past year's earnings.[32] By this P/E measure, stocks are showing their best value in over ten years.[33] Forward-looking expected PE's for the next twelve months and for 2007 are both under 13, far below the 10-year average of 18.[34] In 1Q06, pretax profits for U.S. companies were 12.1% of GDP, the highest level in 40 years.[33] This suggests that if corporate earnings estimates hold, stocks may have future price increases to match historical P/E value levels.

- **Insider Trading:** Insider buying has been occurring at a higher than normal level from May through September. This is a positive sign in that company managers may be bullish on their own business prospects.[35]

Investor Cash Potential: Cash levels within mutual funds continue to be low, under 7%. So much cash already in the market implies that there is more potential for outflow from stock investment than there is for inflow. In the ten years since 1965 when mutual fund cash levels rested below 7%, the stock market returned only 1.8% on average. Possibly offsetting this is the large global savings glut. Foreign investors may well continue to increase investment in U.S. companies.[36]

Merger and Acquisition Activity: Through the third quarter, U.S. merger and acquisition activity is on pace for a deal total of $1.4 trillion in 2006, which would be the strongest year since 2000.[37] There have already been 13 mega-deals of over $10 billion, and buyers are paying higher-than-usual price-to-sales ratios than in the past five years.[38] This activity indicates that big buyers, at least, are willing to bet that stocks are cheap, which is positive for the stock market.

Notes and Acknowledgements:

1. Arithmetic average used for return measurement. Asset-weighted average beta used for risk adjustment to market-risk level within each portfolio. Performance includes assets tracked for clients that lie outside Sharper ◆ Granite direct management, which amount to less than 10% of total assets. All client portfolios weighted equally in calculation
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6. "Top Global Trader is Suddenly Losing Investors", *Wall Street Journal*, October 16, 2006
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11. "How Low Can It Go?", *Business Week*, September 25, 2006
12. Ben Bernanke, FOMC Chairman, speaking to the Economy Club, CNBC, October 4, 2006
13. FactSet, July 31, 2006 as reported by Charles Schwab on September 21, 2006
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15. *Barron's*, September 18, 2006
16. Merrill Lynch as reported in *Barron's*, September 18, 2006
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18. U.S. Treasury Department, September 12, 2006
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21. Institute for Supply Management (ISM), October 2, 2006
22. Philadelphia Fed Index as reported in *Barron's*, September 25, 2006
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24. Commerce Department as reported in the *Wall Street Journal*, August 26, 2006
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26. *BusinessWeek*, September 4, 2006
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30. Standard and Poor's as reported in the *Wall street Journal*, May24, 2006
31. *Business Week*, September 11, 2006
32. UBS (Union Bank of Switzerland) Index of Investor Optimism as reported in *Barron's*, September 25, 2006
33. *Wall street Journal*, August 1, 2006
34. Thomson Financial as reported by *USA Today,* August 8, 2006
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36. Ned Davis Research, October 2, 2006
37. Standard & Poors, Thomson Financial as reported in *Barron's*, July 24, 2006
38. "Welcome, Barbarians!", *Money,* October, 2006

Questions?
Contact us at:
questions@sharpergranite.com