SHARPER ◆ GRANITE

Optimal Portfolio Management

SPRING 2005

Oil prices and rising interest rates presented a formidable headwind for stock, bond, real estate, money, and even gold markets in the first quarter of 2005.

In fact, of the 134 equity, bond and mutual fund categories that Sharper ◆ Granite tracks, 124 finished this quarter with negative returns. This erosion occurred in what is usually a strong calendar quarter.

IN THIS ISSUE

Looking toward the spring quarter we continue our focus on ascending oil prices and interest rates. In past letters we explored the economic impact of oil prices (see "Oil - our Most Important Commodity", *Spring 2004*) and interest rate changes (see "Impact of Current Monetary Behavior", *Winter 2004*) on the economy. See how these are currently affecting key sectors of the economy in this quarter's "Economy Review", and learn about the mechanics of how the Federal Reserve Board maintains a balanced economy by varying monetary policy in this issue's feature article.

Financial Markets Summary

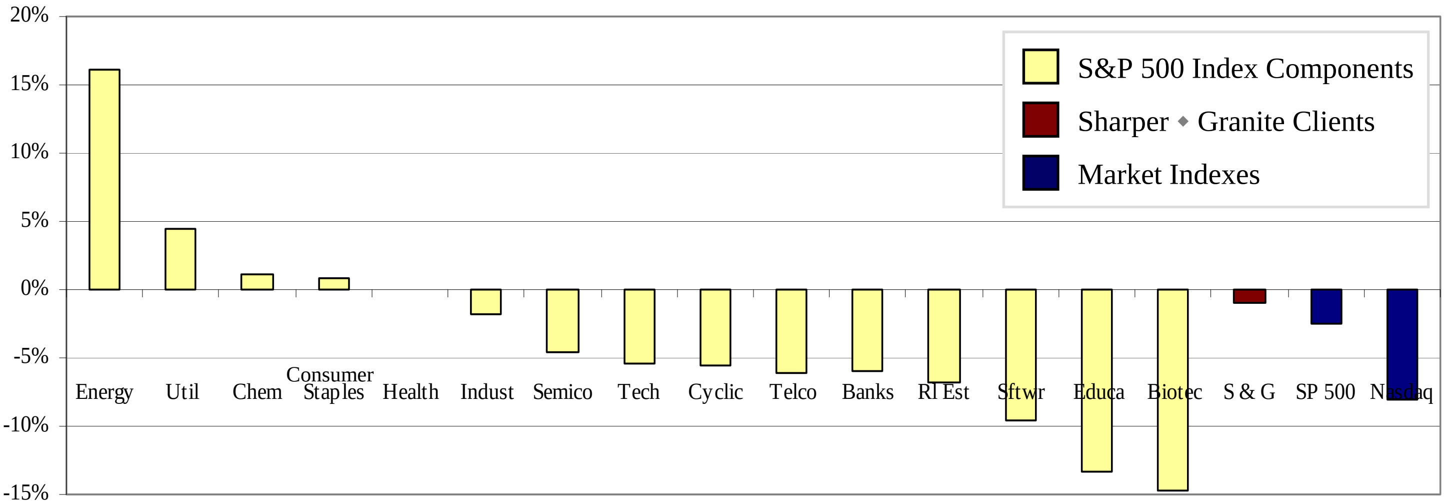
In the first quarter of 2005 from January 1 - March 31, the S&P 500 Index finished -2.1%, the worst performance since the first quarter of 2003. The NASDAQ finished -8.1%, the worst performance since the first quarter of 2001. The bond market also fell as the Lehman Aggregate Bond Index finished -1.9%.

2005 began with three straight down weeks for all three major equity indexes (S&P 500, Dow Jones Industrials, and the Nasdaq Composite) -- the first such start ever for a calendar year. While a positive February erased the January damage, March was full of widespread stock and bond market selling as oil prices rose into the $50/barrel range, and inflation concerns increased.

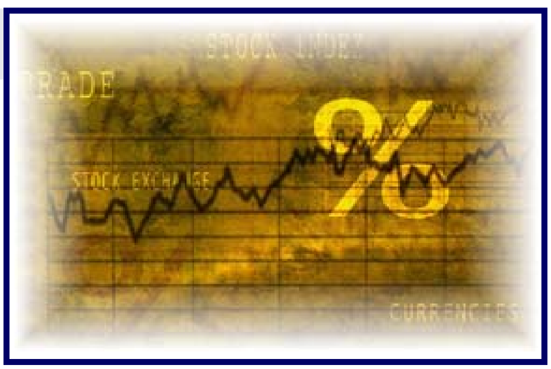
This quarter was particularly challenging for professional investors trying to beat the S&P 500 Index as most sectors were down significantly more than the Index, which was buoyed only by a surging energy sector and utilities dividends. This quarter was a perfect example of the value of investment balance in a market of many risks. Only managers tilting significantly toward energy could have hoped to achieve positive returns this quarter.

Sharper ◆ Granite insulates client portfolios against oil price risk and 13 other macro-economic risk components (see "Balancing Portfolios to Minimize Risk", Summer, 2004). Sharper ◆ Granite tilted slightly toward the energy and utility sectors this quarter, contributing to total return performance. See Sharper ◆ Granite's recommended tilt toward energy and utilities in "Tilting Portfolios to Improve Performance", *Fall 2004*.

1Q05 S&P 500 Sector Performance [2]



The Mechanics of Interest Rates



On the morning of July 5, 1996, the stock market traded near its all-time high, but interest rates had been rising, giving traders cause for concern. Then the U.S. unemployment results were announced. The unemployment rate reached a six-year low of 5.35%. Wages grew by nine cents/hour, the biggest increase in thirty years. President Clinton proclaimed, "We have the most solid American economy in a generation; wages for American workers are finally on the rise again."

Instantly, the S&P 500 fell 1.5%, and European stock markets fell more than 2%. Bond prices in the U.S. and around the world collapsed 3.3% as rates on long and short-term bonds climbed a quarter point. Within seconds world equity and bond markets lost $400 billion.

This episode demonstrates that what most interpret as "good" news often causes security prices to fall. This phenomenon occurs frequently with strong economic reports, especially employment data, because of its strong political significance and the attention it gets from government officials, including the Federal Reserve Board members (see "The Irony of Employment in the Economy", *Spring 2004*).

It surprises the general public and often the financial press when a strong economic report actually sends the stock market lower. But economic growth is a double-edged sword that pushes the stock market in opposite directions. A strong economy not only increases future corporate earnings expectations, but also increases expectations of higher interest rates.

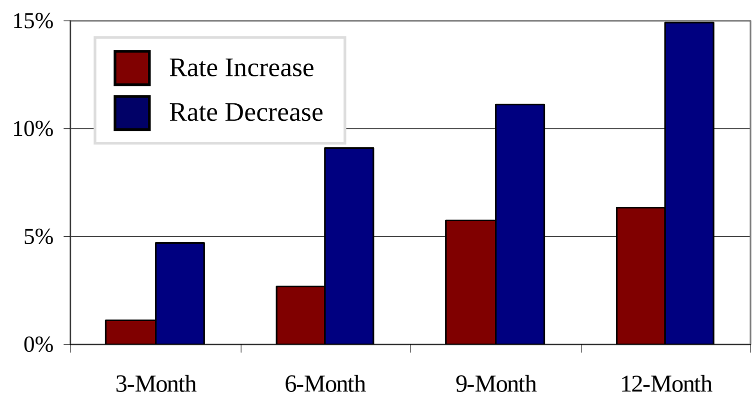
The Federal Reserve Board influences rates as it balances the need to fuel economic growth with the need to fight inflation. How do actions of the Federal Reserve Board translate to the economy and how much does it really matter to stocks and bonds?

The Decision Makers

The Board of Governors is the main policy-making arm of the Federal Reserve System. Seven Board members, including a chairman, are chosen by the President and confirmed by the Senate. Their tenure is 14 years and their policy decisions are final and not subject to review or veto by any congressional or executive body.

The Board has the power to set the *discount rate*, the rate at which the U.S. government lends funds to banks. This rate receives a lot of attention but is largely symbolic. This is because incidences of banks borrowing funds from the government are rare. A large bank like Citibank may "go to the Fed window" one day every year or two after inadvertently loaning more money than it takes in at the end of a given day. However, the *discount rate* is widely watched as an indicator of where the *federal funds rate* is headed. The *discount rate* is currently 3.75%.

S&P 500 Index Performance Following Federal Funds Rate Changes [2]



The real power of the Fed lies in its ability to control money supply reserves and the *federal funds rate* target, which we will discuss in a moment. The committee that performs these operations is the Federal Open Market Committee (FOMC). The FOMC consists of the seven board members and the presidents of the twelve regional or district Federal Reserve banks. While all twelve presidents sit on the committee, only five vote. The president of the New York Bank has a permanent seat while the other four seats rotate on one-year terms. The FOMC meets eight times a year to determine interest rate policy. It is at these meetings that the *federal funds rate* target is set and the *discount rate* is set.

The Mechanics

The Fed changes interest rates by changing the supply of money floating around the economy. When the Fed wants to tighten money supply, it sells government bonds in the open market. When the Fed sells bonds, it debits the reserve account of the bank of the customer to whom the Fed sold the bond. A *reserve account* is a large pool of money that each bank must maintain at the Federal Reserve in order to satisfy reserve requirements and facilitate check clearing. In this way, the money that someone uses to buy a treasury bond disappears from circulation, leaving that much less money the given bank has available to lend. As with any product, when the supply falls, the price (or loan rate) increases.

When the Fed buys and sells treasuries, it adjusts the level of reserves in the banking system. There is an active market for the cash in these reserves among the various banks, where billions of dollars are bought and sold each day. This market is called the *federal funds market,* and the interest rate at which these funds are borrowed and lent for one day is called the *federal funds rate.* While the Fed does not directly have the power to declare the value of the *federal funds rate*, through the sale and purchase of treasury bonds it can accurately drive the price, or rate, to a given declared target. Today, that target is 2.75%.

Although federal funds are borrowed for only one day, the interest rate on federal funds anchors all other short-term interest rates including the prime rate, Treasury bill rates, LIBOR, and Eurodollar lending rates, upon which trillions of dollars of loans are based. That is why mortgage and auto loan rates increase when the Fed targets a higher *federal funds rate* by selling treasury bonds.

The Effect

Sharper ◆ Granite studies many factors that impact the stock, bond, cash, and real estate markets. In the short and intermediate-term, interest rates are the single most important influence on all four of these markets. In the last 50 years there have been 105 *federal funds rate* target increases and 98 *federal funds rate* target decreases. The chart above shows the average effect on the stock market in the months following these rate changes. Stock market performance following rate increases vs. decreases differs significantly. Over the last 50 years the total returns on stocks have averaged 6.4% in the twelve months following rate increases and 14.9% in the twelve months following rate decreases.[2] Furthermore, the impact of the effect is strongest in the first three months, then dissipates with time.

All four major markets face a headwind with rising rates. Bonds compete with stocks for investment funds and become more attractive when interest rates rise, so investors sell stocks until their return again becomes attractive relative to bonds. Previously held bonds decrease in value as investors would rather buy new bonds with higher yields. Investors are less likely to invest in real estate at higher loan interest payments, and cash is eroded by the higher inflation associated with high rates.

Nevertheless, predicting performance in these markets based on rates is not so straightforward today. Markets respond not just to rate increases or decreases, but to whether the policy shift is an appropriate action given economic conditions. The trend over the last 15 years is for stock and bond performance to become less and less correlated to rate movement.

For example, recent bumps in long-term interest rates occurred during June - August 2003 and March - June 2004 while the Fed was holding the *federal funds rate* constant. During those time periods markets believed the economy was hotter than the Fed realized. Then from June 2004 - February 2005, the Fed began increasing the short-term *federal funds rate,* but long-term rates actually declined, indicating that markets believed the economy to be cooler than the Fed realized.

This type of behavior is becoming more and more common. Bond traders now often punish the Fed for insufficient tightening by selling bonds, thereby raising interest rates and depressing equity prices. The fact that stock market volatility is relatively low over the past two years [3] is partly due to the Fed's masterful monetary policy. The better the Fed does of keeping the economy on an even keel, the less the markets react to policy changes.

First Quarter 2005 Economy Review

Oil prices ended the quarter at $55/barrel and remain, along with rising interest rates, the biggest threat to equities. High oil prices hit the economy with a double-whammy: slowing corporate growth and consumer spending while also spurring inflation. Every $2/barrel increase costs the U.S. Gross Domestic Product (GDP) 0.1%/year.[4] $50/barrel vs. $25/barrel for a year would cut the U.S. GDP by one-third.

Furthermore, we believe oil will persist in the $40 to $60/barrel price range due to demand during this global growth phase.

In March the Federal Reserve increased short-term interest rates by 0.25% as expected. Long-term rates bumped up on unexpected Fed governor language implying that inflation may increase in the near-future.

Leading Economic Indicator Summary

- Strong
- Mildly Strong
- Neutral
- Mildly Weak
- Weak

- **Market Cycle:** The 2nd quarter of each year is typically strong, historically averaging an annualized return of 10.9% with April tending to be the strongest month.[5]

  As discussed above, stock, bond, cash and real estate markets all continue to battle a period of increasing interest rates. Stock market returns since 1970 have averaged only 8.7% in calendar years of increasing interest rates as compared to 18.5% in years of declining interest rates.[6]

- **Political Cycle:** We are in the 1st year of President George W. Bush's second term. Traditionally, the 1st year in the presidential cycle is the weakest. Since World War II, the 1st year of the presidential cycle has seen the S&P 500 Index post an average gain of 9.1%, and only 3.4% under Republican presidents. Only eight of the 15 post-WW II 1st years have been positive. When the data is reviewed back to 1888, 1st years are still the worst performers. However, the market has performed better during times of a Republican-controlled Congress, which we have currently.[5]

- **GDP Growth:** Gross Domestic Product (GDP) is the official economic measure of the U.S. economy. It is a measure of all goods and services produced in the United States. 4th quarter 2004 GDP was 3.8%. This is solid, steady growth and in line with a healthy, growing economy. It was the 13th consecutive quarter of expansion, or positive economic growth, since the official recession of 2001. For all of 2004, the U.S. economy grew at 4.4% .[7]

- **Purchasing and Manufacturing:** The Institute of Supply Management (ISM) Index, the key manufacturing indicator, expanded through the 1st quarter, in January and February and flattened in March.[8]

  The Philly Fed index expanded at the slowest pace in 20 months during March.[9]

Factory activity remained generally high as U.S. factory capacity utilization reached its highest level since December, 2001. In addition, industrial production has grown now the last five months through February.[9]

- **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, continued to advance at the gradual and manageable pace targeted by the Federal Reserve Board. The January and February CPI readings were slightly higher than expected. Additionally, the longer oil prices stay in the $50 plus range, the greater the threat of inflation.[10]

- **Consumer Spending:** Economists keep a close eye on consumer spending because it accounts for two-thirds of all U.S. economic activity. The Consumer Confidence Index decreased slightly in February and March but remains relatively high, continuing an overall positive pattern since March, 2003.[11] Same-store retail sales were strong at the outset of the 2nd quarter.

- **Capital Spending:** Overall capital spending behavior continued to show strength this quarter. Corporate balance sheets are relatively strong and rich with cash.

- **Investor Sentiment:** Investor sentiment remains high as it has since September, 2003. In December, 2004, sentiment reached its most exuberant point yet. This extreme situation cooled a bit in the 1st quarter but still represents a significant headwind against the market as it indicates that professional investors, who first place their bets, then tell the world their opinion, have already pushed much of their available capital into the market.[12]

- **Corporate Earnings:** Corporate profits leap 13.4%, the biggest gain since 1987.[13] Early in the 2nd quarter, earnings announcement warnings have been at a relatively low level despite high-profile warnings from GM, Ford and Siebel.

- **Insider Trading:** Insider trading measures have been unusually bearish over the last 18 months. In the 1st quarter insider sell-to-buy ratios remained high and are increasing in the currently hot energy sector.

- **Investor Cash Potential:** Initial public offerings (IPOs) and mergers & acquisitions (M&A) activity slowed in March and April.[14] Only eight offerings occurred in the 1st quarter, the fewest since the 3rd quarter of 2003. In addition, money market funds have declined significantly over the last two months, leaving less cash to be potentially pushed into the stock market.[15] Additionally, tech mutual funds saw their 17th straight week of outflows.[16] On a positive note, Goldman Sachs raised an $8.5 billion private equity fund, the largest private equity fund ever.

Notes and Acknowledgements:

1. Arithmetic average used for return measurement. Asset-weighted average beta used for risk adjustment to market-risk level. 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
2. Sharper ◆ Granite Research
3. The S&P 500 volatility index, VIX, fell from an average of 26 during 1999 - 2003 to 15 during 2004. *Bloomberg Wealth Manager*, March, 2005
4. Merrill Lynch, April, 2003
5. Jeremy J. Siegel, Professor of Finance, Wharton School of Business at Penn University
6. TDWaterhouse Research
7. U.S. Commerce Department, March 29, 2005
8. Institute for Supply Management (ISM) – Chicago, April 1, 2005
9. Philadelphia Federal Reserve Bank, March 17, 2005
10. U.S. Department of Labor, March 18, 2005
11. The Conference Board, March 22, 2005
12. Investors Intelligence, April 1, 2005
13. VentureOne, March 2005
14. *Wall Street Journal*, April 1, 2005
15. First Call, April 1, 2005
16. CNBC, March 30, 2005

Questions?
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