

SHARPER ♦ GRANITE



Optimal Portfolio Management

SUMMER
2004

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Of major concern to the financial markets this past quarter were the uncertainties associated with war, politics, and interest rates.

Final outcomes of the war and U.S. presidential election continue to be unclear. While these uncertainties certainly weigh upon investors' decisions, history shows that it is economic data that affects markets the most in the medium and long run.

In the 2nd quarter economists focused upon data that impacts interest rates. Chiefly, employment numbers were stronger than expected throughout most of the quarter. This increased expectations of relatively rapid interest rate increases and inflation. Employment data and other indications of the improving economy drove long-term interest rates up while short-term rates, which are controlled by the Federal Reserve Bank, remained virtually flat. This quarter's Economy Review discusses the short-term effects of rising interest rates on the stock market.

Just as important was the recent surge in oil prices. Last quarter we discussed why oil prices are so important to an efficient economy. Unfortunately, oil prices continued higher this quarter, contributing to higher expected inflation and lower expected corporate profits.

Oil prices and interest rates represent two types of risk that can impact the stock and bond markets. Additionally, several other types of risk exist in varying importance and historical frequency. This quarter we discuss how Sharper ♦ Granite balances portfolios to minimize the impact of different risk factors over time.

Financial Markets Summary

In the 2nd quarter of 2004 from April 2nd - June 30th, the S&P 500 Index ended almost even at -0.1%, while the Lehman Aggregate Bond Index was roughed up, finishing -2.4%.



The average of all Sharper ♦ Granite client portfolios finished -1.1% (net of fees) and maintained a risk level 18% less than the S&P 500 Index.¹ On a risk-adjusted basis, the average of all Sharper ♦ Granite portfolios underperformed the S&P 500 Index. This is just the second quarter in the last six that Sharper ♦ Granite portfolios underperformed on average.

Sharper ♦ Granite performance was impacted this quarter by the rapid increase in long-term interest rates which hurt all but extremely short-term bonds and impacted most real estate groups. Because Sharper ♦ Granite portfolios tend to invest more in real estate than is proportionally represented in the S&P 500 Index, Sharper ♦ Granite portfolios were negatively impacted by the interest-rate-sensitive data more than the S&P 500 Index. Please refer to the personal letter from your portfolio manager for a report on your performance this quarter. ●

Balancing Portfolios to Minimize Risk



Sharper ♦ Granite clients know that overall portfolio performance is based on both return and risk. Ultimately, we all want high return in exchange for low risk. However, in finance there is a fundamental rule which says that as your expected return goes up, so does your risk.

So then, does your investment choice really matter if you always "get what you pay for"? Yes, actually there are a few "free lunches" in the investment world, that is, opportunities to increase return without adding risk. The soundest investment strategies focus on utilizing these fundamentals rather than trying to outguess the market by timing stock and bond "picks". Three of these free lunches that academics agree investors should take advantage of are:

❶ Keeping costs low:

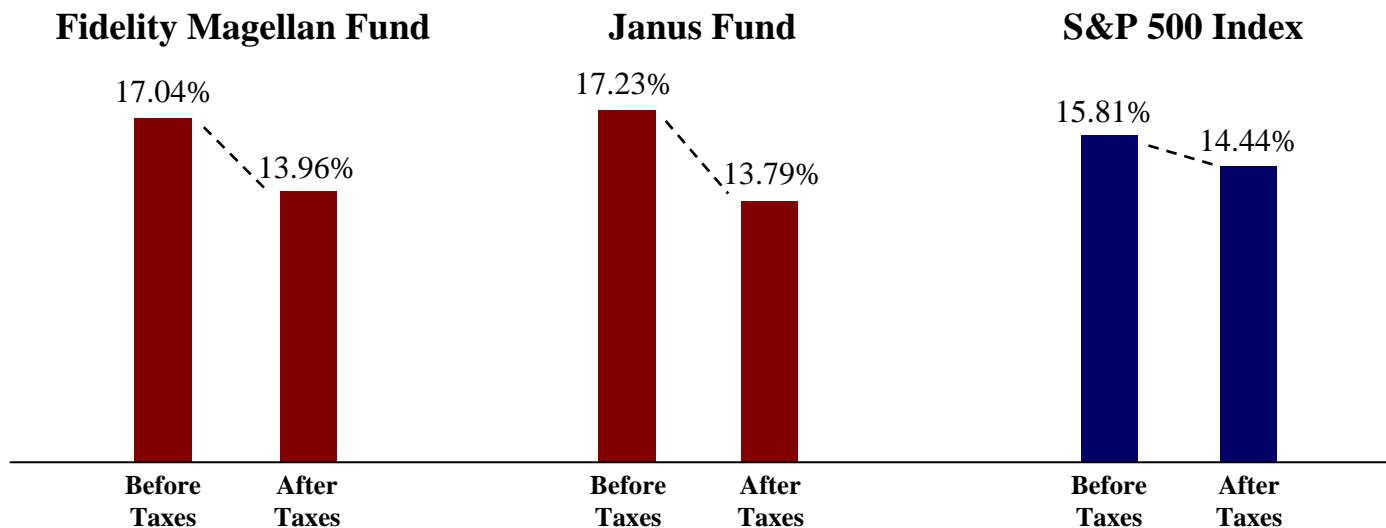
- ▶ Avoid brokers that charge per trade commissions over \$12/trade
- ▶ Avoid mutual funds with sales commissions (loads), expense ratios over 1%, or turnover ratios ² over 40%
- ▶ Utilize index mutual funds and ETF's (exchange traded funds)

❷ Keeping taxes efficient:

- ▶ Manage trading to take advantage of lower long-term capital gain and qualified dividend tax rates
- ▶ Closely manage children's college accounts to take advantage of 529 plans and UTMA accounts, which feature limited tax-free capital gains and low child tax rates
- ▶ Avoid mutual funds with low tax efficiency ratings ³ or high turnover ratios

Undesirable tax effects within mutual funds can be significant. Look at two of the most successful funds, Fidelity's Magellan Fund and Janus' Janus Fund. Over this 15 year period their performance is excellent, but when taxes are factored, even these star funds lagged behind the S&P 500 Index.

Pre and Post-Tax Average Annual Returns, 1986 - 2000



- ③ Minimizing portfolio risk through asset allocation:
 - ▶ Invest in the right proportions across industries, geographies, and stock and bond classes
 - ▶ Minimize risk across entire net worth, factor *all* assets

This sophisticated process is accomplished for large corporations and retirement trusts by investment firms using risk management software such as that from BARRA. Sharper ♦ Granite accomplishes this for its private clients utilizing proprietary RiskPoint Software, co-developed with a group of leading finance professors from the Kellogg Graduate School of Business.

One gains significant risk return advantages by optimally diversifying assets. During this process, Sharper ♦ Granite finds the combination of assets that minimizes portfolio risk for a client's given target return.

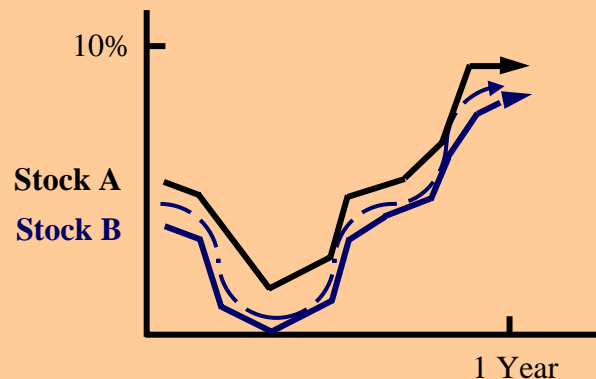
The objective is to find assets that all increase nicely over the long-term but that tend to make their gains at different times. In this manner the sum total of the portfolio will be less volatile, or less risky. The idea is to build the best portfolio "team" rather than just find the best "players".

To complete this process effectively, it is best to factor client assets held outside of the Sharper ♦ Granite portfolio accounts. For example, one could hold real estate, company stock and options, 401(k)'s, etc. Optimal portfolios are constructed to balance the risks and tendencies of these other assets.

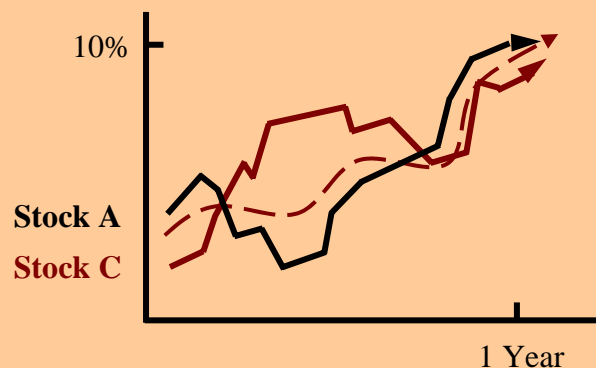
Sharper ♦ Granite also looks at several different categories of risk and their likelihood of occurrence given the current economic cycle and geopolitical state. Portfolios are then "tilted" more toward assets that tend to perform better at that time as well as "defend" against certain risks that are more apparent at that time.

The chart on page 4 shows the taxonomy of risk categories tracked and studied at Sharper ♦ Granite. Risk is broken down into components relating to company/industry and to the general market.

Higher Risk Portfolio



Lower Risk Portfolio (Preferred)



The example above shows how sophisticated risk management can benefit a portfolio. Stocks A, B and C all historically return 10%. But which pair would you rather have together in a portfolio?

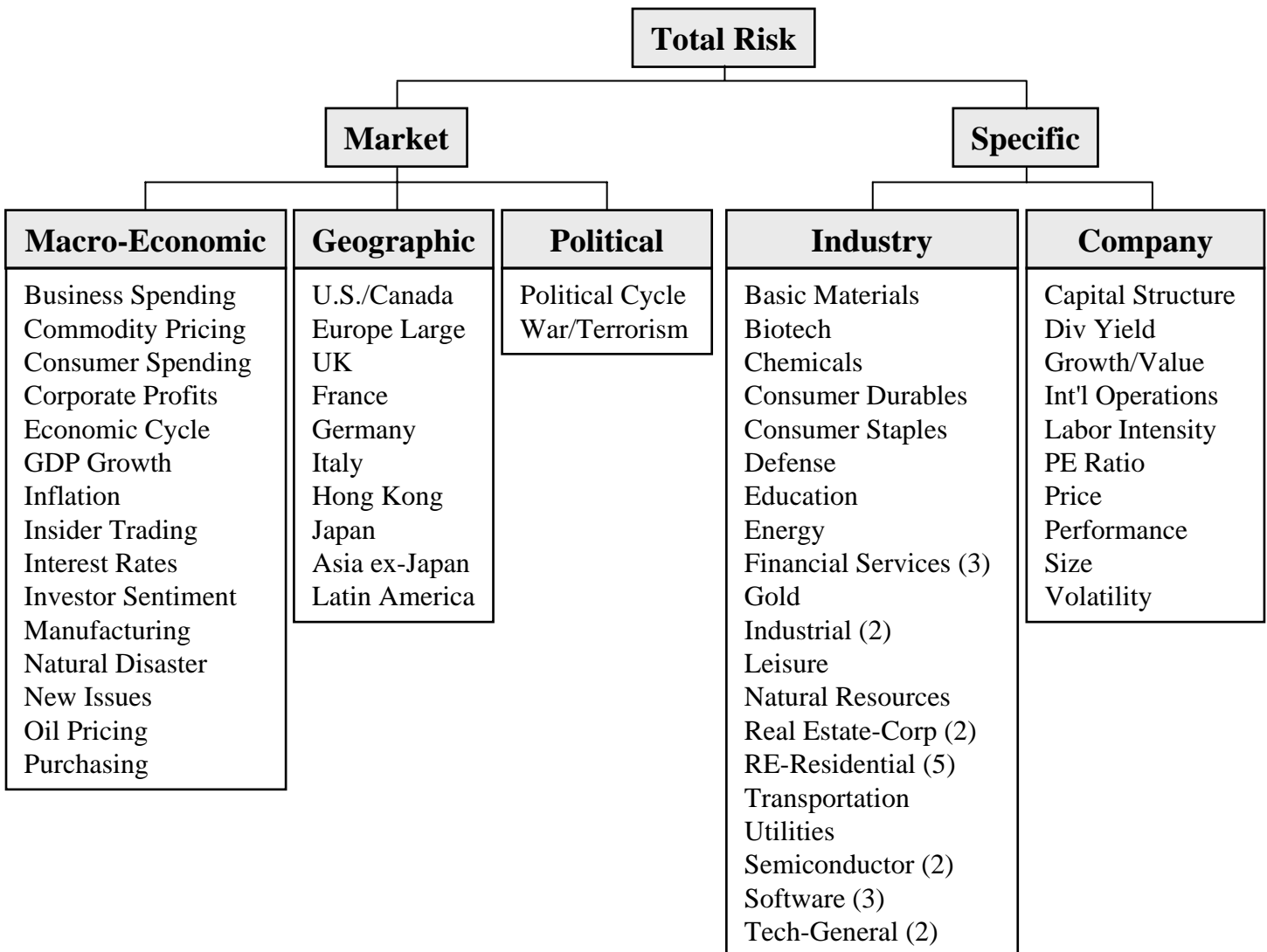
Stocks A and B tend to move together (perhaps they are in similar industries), while Stocks A and C tend to move independently of one another.

Stocks A and C are the preferred pair because they result in lower total risk, or variability. The dashed lines represent the resultant portfolio. Note the dashed line in the bottom chart takes a smoother path to its 10% gain.

RiskPoint Software looks at these interactions across hundreds of diverse securities in order to construct optimal portfolios with minimum risk for a given target return. It then recommends portfolio rebalances at ideal times.

About 52% of a stock's movement can be explained by industry and company specific risk. Most of this risk can be eliminated with thoughtful diversification. The other 48% of a stock's movement can be explained by factors that move the entire market, such as economic, geographic or political events. The market risk effects are much harder to diversify away, but even these risks can be ameliorated through the diversification process. ●

Total Risk Decomposition



Second Quarter 2004 Economy Review

At the end of the quarter, the Federal Reserve increased short-term interest rates by 0.25% as expected. This initiated what will be an upward rate trend designed to ensure that inflation is kept in check and that the economy does not expand too rapidly. Current predictions as defined in the futures market are for 0.25% increases at each of the two remaining 2004 Fed meetings.

During this phase of the economic cycle stocks are typically powered by improving earnings; however, rate increases provide a balancing headwind. So, historically how have stocks performed during times of Fed policy changes toward higher rates?



Four Fed tightening periods have been initiated since 1973: January 15th, 1973; August 30th, 1977; February 4, 1994; and July 1st 1999. Based on these four case studies, one month after a shift in policy toward rate increases, the market has never been up, and has averaged a loss of 2.8%. Three months later the average loss has expanded to 5.4%. Six months out is worse yet with an average loss of 9.7%. After that, the markets either tend to level out or rise if the economy is good (1978 and 1994), or falter if the economy is bad (1973 and 2000).

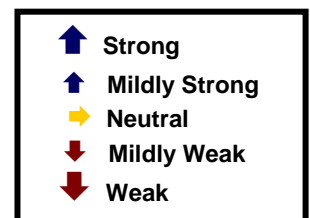
Leading Economic Indicator Summary

↓ **Market Cycle:** Based in part on the interest rate change effects discussed above, the market may be in for a short-term decline.

Furthermore, summer stock market performance, as measured by the Dow Jones Industrial Average peak to trough, trails that of every other season. While summers on average do show market improvement, it is less than during other seasons. Since 1965, winters average 13.6%, springs 10.9%, falls 10.6% and summers 9.4%.⁴ September, the final month of our upcoming quarter, is historically the worst month of the year for stocks.

↑ **Political Cycle:** We are in the 4th year of President George W. Bush's term. Traditionally, the 3rd year in the presidential cycle is the strongest, but the 4th year is second best. Since World War II, the 4th year of the presidential cycle has seen the S&P 500 Index post an average gain of 8.6%. Eleven of the 14 post-WW II 4th years have been positive.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. 1st quarter GDP was revised downward to 3.9% from 4.4%.⁶ It was the tenth 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, remained strong through April and May then fell significantly in June.⁷ The May increase in industrial production was the largest since August, 1998. This quarter continues a strong overall trend that began January, 2002. Another measure that we watch, factory output, had its best gain since April, 2000.⁸

↑ **Inflation Control:** The most widely accepted measure of inflation is the Consumer Price Index (CPI). The core CPI, which excludes volatile food and energy prices, rose a modest 0.2% in the first two months of the quarter. But over the past three months core prices have climbed 3.3%, the most in nine years. In addition, high energy costs drove the total CPI up to 0.6% in May, the biggest gain since January, 2001. As long as oil prices remain high, they will continue to drag on the economy. Despite these indications of increasing inflation, inflation is still relatively low by historical measures.

"...inflationary pressures are not likely to be a serious concern in the period ahead..." the Fed will likely be able to raise rates at a "measured pace"

- Alan Greenspan, June 15th, 2004 Senate Banking Committee Hearing

↑ **Consumer Spending:** The Consumer Confidence Index improved sharply in May and June, reaching its most optimistic point in two years.⁹ Retail sales, however, showed a volatile quarter with declining April and June numbers sandwiching May's gain, which was the strongest monthly gain since 1993.⁶

↑ **Capital Spending:** Information technology spending by businesses is reported to reach \$742 billion in 2004. This is \$74 billion more than the next largest year in history, the technology bubble year 2000.¹⁰

↓ **Investor Sentiment:** Investor sentiment is an important contrarian indicator, meaning that market conditions are actually more favorable when "expert" newsletters hold negative outlooks. This is true for two reasons. First, studies show that "experts" seeking to time the market are consistently wrong more often than they are right. Second, professional investors put their money into or pull it out of the market first, then tout their directional picks. For example, a professional stock analyst who is speaking positively about the market's future has likely already bought his stocks, leaving less money to be pushed into the market later to generate demand.

Bullish sentiment readings returned to extreme levels this quarter, where they have been for the most part since September, 2003.¹¹ This represents yet another headwind against the market.

↓ **Insider Trading:** Insider trading measures whether corporate executives are buying or selling their own company stock. Insider sales continued in the 2nd quarter at relatively high levels, which is a bad sign.¹²

Notes and Acknowledgements:

1. Arithmetic average used for return measurement. Asset weighted average beta used for risk-adjustment to market risk level. All client portfolios weighted equally in calculation
2. Turnover Ratio is the ratio of new assets at the end of the year to total assets at the beginning of the year. Brokerage fees, price concessions, and "bid-ask spreads" compose per trade frictional transaction costs. These average 0.5% for mutual funds with a 100% turnover rate according to *Financial Analysts Journal*, "Trading Cost: The Critical Link Between Investment Information and Results," Thomas F. Loeb, June, 1993
3. Mutual funds are tax-disadvantaged based on their requirement to release capital gains annually in a taxable event. These average 0.3% per year of cost for mutual funds with a 100% turnover rate according to Vanguard Group
4. Stock Trader's Almanac
5. Jeremy J. Siegel, Professor of Finance, Wharton School of Business at Penn University
6. U.S. Commerce Department
7. Institute for Supply Management (ISM) – Chicago, June 17, 2004
8. Federal Reserve Board
9. Conference Board, June 30, 2004
10. Economic Business Council, June 30, 2004
11. Investors Intelligence, June 30, 2004
12. Thomson Financial, June 30, 2004

Questions?
Contact us at:
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