THE EDUCATED INVESTOR

A PUBLICATION OF THE MICHAEL PRICE STUDENT INVESTMENT FUND AT THE NYU STERN SCHOOL OF BUSINESS

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A Margin of Safety

MPSIF Value Fund Grapples with a Definition of "Value"

By Tarek Hamid

MPSIF Value Analyst

One of the most basic questions we consider as we look at stocks for the MPSIF Value Fund is the deceptively simple question of "why is this a value stock?" While the investment literature contains literally hundreds of different definitions of what value investing is, there is no clear consensus. Many famous and successful investors, such as Michael Price and Warren Buffet, have their own subtly different definitions of value investing. Yet nearly all of these investors share a fundamental framework from which they developed their own style. This framework is found in the seminal works of Benjamin Graham, often referred to as the father of value investing.

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Seventh Inning Stretch?

How Much Longer Can Small Caps Continue to Outperform?

By David Haley

MPSIF Small Cap Analyst

It has been a great run for small cap stocks. 2004 will mark the sixth year in a row of small cap outperformance, as measured by both Russell and Standard and Poor's indices. In fact, "outperformance" is a dramatic understatement for the small-cap surge. The Russell 2000 small-cap index has returned 8.08% annualized returns for the last five years, compared to a annualized *loss* of -1.23% for the Russell 1000 large-cap index, and the outperformance of the more concentrated S&P 600 small-cap has been even more dramatic.

Can this outperformance continue? Possibly, but the performance of small-caps versus large-caps tends to follow a cycle, and these cycles rarely last longer than six years.

Beginning in 1990, small-caps outperformed large-caps until 1994 when rising interest rates – which make financing more expensive for small companies – temporarily halted the market's rise. From 1995 through 1998, large caps assumed leadership of the market, until the current small-cap leadership trend resumed in 1998.

What accounts for these cycles?

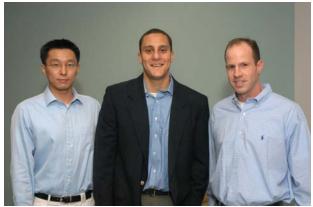
Theoretically, the stock market can be considered a leading indicator of the economy's future. And generally, because the earnings of small-cap companies are more sensitive to the direction of the economy, small-caps tend to rise more than large stocks during a bull market and fall more in bear markets. Furthermore, some of the more recession-resistant industries such as utilities, energy, and basic consumer goods are dominated by large companies which benefit from economies of scale. These stocks come into favor as the economy slows and investors anticipate a recession, which exacerbates the variance in performance.

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Central to Graham's philosophy on value investing is the concept of a "margin of safety." While most investors are by definition trying to buy stocks whose intrinsic value is greater than their current market price, Graham takes this a In Graham's mind, a rational investor understands that his estimates of the value of a stock are generally based on future expectations that cannot be quantified in a truly accurate manner. Therefore, rational investors buy stocks at a substantial discount to their estimates of value to protect themselves from unforeseen problems or issues. To paraphrase Warren Buffet, the goal of investing is to buy dollar bills for forty cents. If the dollar turns out to be worth only fifty cents, you are still making 25% on your money. More importantly, you haven't gone backwards. As simple as it sounds, not losing money is the key to long-term wealth creation. Consider this as an example: If you purchased a stock that immediately fell 50% (for instance a tech stock in 2000), it would take you 16 years of 10% annual gains to get back to where you started. The key purpose of Graham's concept of a margin of safety is to minimize catastrophic losses.

A second central concept for Graham, and one that goes hand in hand with the margin of safety, is the importance of diversification. When Graham talks about diversification, you never hear him talk about modern portfolio theory, regression analysis, correlation, covariance and the rest of the statistical frameworks that we have been taught to rely on in Rather, Graham focuses on being an business school. investor in a basket of businesses with substantially different fundamentals; with the basket being large enough to absorb catastrophic losses in multiple investments. In many ways, Graham foresaw the "statistical trap" that was the downfall of Long-Term Capital Management and other investment funds in the 1990's - the reality that in truly bad markets all correlations converge on one. Moreover, efficient diversification protects you from the fact that no matter how careful you think you are in establishing an adequate margin of safety, the odds are that eventually you're going to be wrong. Minimizing the impact of the inevitable mistake is a key tenet employed in the approach of the MPSIF Value Fund. *



MPSIF analysts Jinsong Du, Tarek Hamid and David Haley were recently recognized for their stock-picking efforts (story at right).

Bull-Pen: Recognizing Strong Stock Pitches

New Honor Highlights Sub-Funds' Strongest Ideas

By Joshua Kennedy

Educated Investor Senior Editor

In a continuing effort to highlight the level of equity analysis conducted by Stern students on behalf of the Michael Price Student Investment Fund, each of the sub-funds' portfolio managers recently designated one of their analysts' research efforts as "Stock Pitch of the Month."

Tarek Hamid's analysis of telecommunications equipment supplier **Amphenol** (NYSE: APH) represented the Value Fund, while David Haley's recommendation of software maker **Open Solutions** (Nasdaq: OPEN) was the Small-Cap Fund's entry, and Jinsong Du convinced the Growth Fund with his examination of Hong Kong printed-circuit-board manufacturer **Kingboard Chemical** (PNK: KBDCY).

"The Pitch of the Month is not just about a solid idea, it's about a seamless delivery, and these guys have demonstrated some real talent" said MPSIF President Angela Chang.

Mr. Hamid started taking an interest in Amphenol when he observed the strength of the firm's two most important end markets: wireless equipment and military manufacturers. Amphenol was trading at discounted valuations relative to its peers and the broader market. Amphenol generates substantial free-cash-flow, and Mr. Hamid concluded that much of that free cash would soon be returned to shareholders.

Mr. Haley was attracted to Open Solutions because it demonstrated a classic double-whammy of growth investing: strong revenue growth and expanding margins. Open Solutions makes software for financial institutions, a market with growing demand. He became convinced that the MPSIF small-cap team should move on the company after examining the product, evaluating the management team, and noting the firm's strong balance sheet.

When Mr. Du looked at Kingboard Chemical, he saw a cyclical upturn underway for printed-circuit-boards, with strong end-market demand in consumer electronics and communications. His belief that circuit-board customers would be increasingly cost-focused led him to place a high value on Kingboard's low-cost Chinese manufacturing base. Margin pressure from customers, he argued, would be offset by Kingboard's vertical integration and superior raw materials supply management.

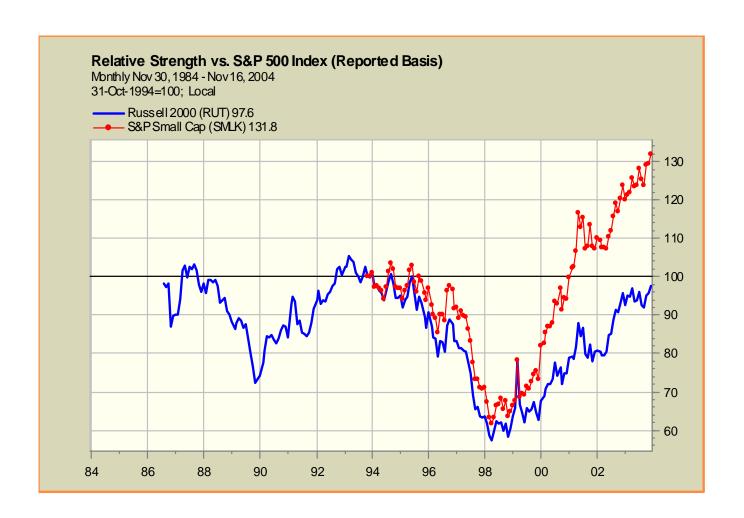
Each of the three pitches included a detailed discounted-cash-flow analysis, and each was delivered to the respective members of the three sub-funds, where a majority vote is required to take a position in a stock. The reports are online: http://pages.stern.nyu.edu/~mpsif. ❖

With the economy and market recovery still in the relatively early stages, some further near-term outperformance by small-caps seems likely. However, signs are clearly indicating that we are in the later stages of the small-cap cycle. To use a baseball analogy, we are probably in the seventh or eighth inning of the cycle.

Another factor indicating that the small-cap/large-cap cycle may be about to turn is relative valuation. Small-cap valuations, while still reasonable given the market's dramatic earnings growth, are not as overly compelling relative to large caps as they have been in the past. As veteran small-cap expert Jack Laporte wrote earlier this year, "Small-cap valuations are no longer at their usual discount to large-caps." Furthermore, the aggregate price-earnings ratio of Laporte's T. Rowe Price New Horizon Fund – long considered a small-cap stock yardstick – is at "the highest level in decades with the brief exception of the 1999-2000 bubble period."

So what should an investor do? Although we may be in the late innings of small-cap market leadership, trying to time the market is extremely challenging. It requires making a series of correct predictions against pretty long statistical odds. But the risk of being out of small-caps altogether can be significant. A number of academic studies show that small-caps outperform large-caps over the long term. According to Ibbotson Associates, small-caps grew at a 12.4% annual rate from 1926 through 2000, versus 11.1% annually for large-caps. Over 75 years, the 1.3% differential is extremely significant!

Of course, as Lord Keynes put it, "In the long run, we're all dead." For those who do wish to position their portfolio to take advantage of an upcoming shift in market leadership from small-caps to large-caps, it makes sense to maintain core positions in both small and large-caps. Forecasting is always hard to do, and the correlations between large and small-caps are not perfect. Within the MPSIF Small-Cap Fund, we continue to believe that our bottom-up fundamental research process will lead to superior performance, and we remain optimistic about the fund's prospects for this year and beyond. •



Logically Placing Your Bets

The Challenge of Handling Risk in a Long-Only Environment

By Brian Leu

MPSIF Growth Analyst

Modern portfolio theory teaches us that all of the company-specific risk in stocks can be effectively removed with proper diversification. The only risk that should remain in a well-diversified portfolio of stocks is the risk associated with the overall movement in the market – the beta.

Investors, however, are paying actively managed funds to beat the market by taking this company-specific risk that indexed funds would normally avoid. The majority of money managers, but particularly growth-oriented managers, are expected to predict what trends will likely emerge in the market and to take advantage of such trends by placing strategic "bets." Only by strategically underweighting and overweighting specific sectors or companies can a portfolio manager earn excess returns to the market benchmark and the coveted alpha. But, of course, with this additional excess return comes additional risk – residual risk to be specific.

Hedge funds, through the use of derivatives and long/short positions, are able to hedge much of the undesired residual risk away, leaving only the desired risk of a more targeted bet. This is one of a hedge fund's greatest advantages. For example, by buying puts and calls, a hedge fund can limit downside risk while retaining nearly unlimited upside potential on a bet on the direction of the underlying stock. Similarly, by pairing long/short stock combinations, such as buying Google (GOOG) and selling short Yahoo (YHOO), a hedge fund manager can make the targeted bet that Google will outperform Yahoo without taking the additional risk of internet stocks as a whole.

But unlike hedge funds, most mutual funds and other investment firms (not to mention MPSIF) are prohibited from using derivatives and short selling to help remove undesired portions of residual risk. Nevertheless, at right are a few long-only strategies that managers can and do use to help hedge away undesired company-specific risk and more logically place bets on future trends. While specific examples are used to illustrate the mechanics, each strategy can be easily generalized to other bets in other industries. ❖

Find Current Fund Holdings and Updated
Performance Figures at:
http://pages.stern.nyu.edu/~mpsif/

STRATEGIES TO DIVERSIFY RISK IN A LONG-ONLY FUND

1. Investing in Distant Cousins

<u>The Bet</u>: Oil demand from China and worldwide will continue to increase demand for oil exploration and production.

<u>The Undesired Risk</u>: Company specific missteps; extreme sensitivity to oil prices.

The Strategy: Combine traditional integrated oils, like ConocoPhillips (COP) and Amerada Hess (AHC), with companies like Maverick Tube (MVK) – a producer of steel pipes that carry oil, and CHC Helicopter (FLI), which provides transportation services to offshore oil production facilities. Both are good examples of fundamentally solid companies that will benefit if oil demand and production remain strong, but are less sensitive to oil prices. In general, look for distantly related companies, possibly along the supply chain, that will equally benefit from the trend.

2. Betting On Every Horse

<u>The Bet:</u> Treatments for female sexual dysfunction could be next blockbuster Viagra ... for women.

<u>The Undesired Risk:</u> Obsolescence – the risk of a superior product from a competitor; litigation risks – don't want to buy the next Vioxx.

The Strategy – Bet on all the horses in this race. Specifically, invest in the handful of small biotechs that are in late stage developments of treatments for this indication – BioSante (BPA), Cellegy (CLGY), Vivus (VVUS), and Novavax (NVAX). P&G (PG) is also developing a patch treatment and may also be added to the group. These small biotechs are trading more like call options than stocks with the ultimate winner(s) likely to take home a handsome return. By investing in all the leading firms competing for a potential treatment, money managers will likely win big on at least one of these stocks. Also, by diversifying with competing treatments, managers will also be diluting litigation risk. In general, companies with few competitors and large potential upside for success are best suited for this strategy.

3. Your Trash, My Treasure

<u>The Bet:</u> Over the near term, fertilizer demand and pricing will remain strong because of increased agricultural production and rationalized supply balance.

The Undesired Risk: Rising fertilizer input prices, namely natural gas in light of a potentially cold winter and higher oil prices.

The Strategy: Buy a company like Terra Nitrogen (TNH), a major ammonia fertilizer product producer, which captures increasing fertilizer prices on the top line but uses natural gas as its main input. In addition, buy a strong natural gas company, like Kinder Morgan (KMI). If natural gas prices rise during the winter, TNH may likely lose earnings power while KMI will undoubtedly benefit. In general, companies on opposite ends of a food chain, supplier and consumer, may be negatively correlated to each other and thus help hedge undesired risk.

A Message from the President

Treating the Michael Price Fund as One of Stern's Greatest Assets

The fiscal year ended August 31, 2004 was a challenging year for the Michael Price Student Investment Fund (MPSIF, or "the Fund"), as the U.S. equity markets proved exceptionally volatile, with robust gains in the first half slowly eroded by rising commodity prices, an increasing interest rate environment and pre-election uncertainty. Nonetheless, despite a difficult year for MPSIF's money managers, in June 2004 the Fund paid out a record distribution of \$96,440 to the University of Oklahoma and has outpaced its benchmark by a significant margin on a cumulative basis since inception.

We continue to make significant progress in raising the profile of the Fund, both at Stern and the investment management community. *The Educated Investor* is a key initiative in that effort, and we are pleased to have a new forum to spotlight the analysis that underlies every MPSIF investment. Our vision for the Fund is as a unique incubator of talent in investment management, and as one of the premiere student-managed funds. We expect that *The Educated Investor* can grow to become a helpful conduit between the current managers of the Fund and MPSIF alumni, the Fund's directors, and the investment management community at large.

MPSIF differentiates itself from other student investment funds by assigning the management of sizable assets to its student participants. This freedom to drive performance of the Fund and the evolution of its operations is central to the learning process, and is enhanced further by the input of our resource faculty and faculty advisor. It is a unique and practical educational experience which will serve us well as we embark on careers in investment management. On behalf of all MPSIF members, I would like to express our sincerest thanks to Michael Price for his generous gift, which, in our view, remains one of Stern's greatest assets. ❖

Sincerely,

Angela Chang, MPSIF President

A Small Step Toward A New Voice at Stern

A Newsletter that Tells What We Hope Is a Real Growth Story

There is a certain subset of business school students -- a counter-culture -- who proceed through every class with the same underlying question: "How can I use this information to value stocks?" These are the market junkies: they gather in dimly-lit Village bars to argue the merits of DCF assumptions, and they tinker with their own meager portfolios and brag to each other about the results.

It is for these students that the Michael Price Fund is such a brilliantly-conceived capstone course. For these students, the chance to work on the Michael Price Fund is a privilege and a gift.

And it is in that spirit that we introduce *The Educated Investor* as a forum for those arguments and ideas. To help the students who love to talk about stocks find their peers, and to help the stakeholders of the Fund -- the directors, advisers, alumni and guardians of NYU's endowment – understand the respect and zeal that the Fund's managers have for their appointment.

Joshua Kennedy

The Educated Investor, Senior Editor

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MPSIF at a Glance

Web Page: http://pages.stern.nyu.edu/~mpsif/

As of 8/31/04

Assets Under Management: \$1.75 million Cumulative Mandated Distributions: \$365,000 Cumulative Return Since March 2000: 19.3% Total Fund Portfolio Allocation:

Fixed Income: 29.8% Small-Cap: 29.6% Value: 26.0% Growth: 14.6%

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MPSIF Fund Holdings

As of November 30, 2004

MP Growth Fund

A11 G 4	ADDE
Adobe Systems	ADBE
Affymetrix	AFFX
Amgen	AMGN
Cytyc Corp.	CYTC
Chico's Fashion	CHS
Cisco Systems	CSCO
Doral Financial	DRL
First Data Corp.	FDC
iShares Russell 1000 Growth	IWF
Hain Celestial Group	HAIN
Harley Davidson	HDI
Iron Mountain	IRM
MBNA Corp.	KRB
Medtronic	MDT
Rightnow Technology	RNOW
Varian Medical Systems	VAR
Kingboard Chemicals Holding	KBDCF
XM Satellite Radio	XMSR
Weight Watchers International	WTW

MP Value Fund

Apria Healthcare	AHG
Altria Group	MO
Amphenol Corp.	APH
Citigroup	\mathbf{C}
Engelhard Corp.	EC
Goldman Sachs Group	\mathbf{GS}
Interstate Bakery Corp.	IBCIQ
Lifepoint Hospitals	LPNT
Merck & Co.	MRK
Nextel Communications	NXTL
National Oilwell	NOI
Nokia Corp.	NOK
Pulte Homes	PHM
PPL Corp.	PPL
Public Service Enterprise Group	PEG
Rent-A-Center	RCII
United Technologies	UTX
Wells Fargo & Co.	WFC

MP Small-Cap Fund

American Home Mortgage Investment	AHM
Archipelago Holdings	AX
Advo Inc.	AD
Briggs & Stratton	BGG
Daktronics	DAKT
Fred's Inc.	FRED
First Advantage Corp.	FADV
Hollis-Eden Pharmaceuticals	HEPH
iShares Russell 2000	IWM
J&J Snack Foods	JJSF
KCS Energy	KCS
LCA Vision	LCAV
LKQ Corp.	LKQK
Multimedia Games	MGAM
Oriental Financial Group	OFG
Open Solutions	OPEN
Owens-Illinois	OI
Priority Healthcare	PHCC
Quiksilver	ZQK
Retalix	RTLX
Sanderson Farms	SAFM
Trex	TWP
Westar Energy	WR

MP Fixed-Income Fund

PIMCO Total Return Mortgage	PTRIX
iShares GS Investop Corporate	LQD
iShares Lehman 1-3 Treasury	SHY

Disclaimer: Holdings in the Michael Price Student Investment Funds may have changed since November 30, 2004, and may change at any time. Holdings are not intended as buy or sell recommendations for independent investors.



The Michael Price Student Investment Fund

The Funds

Growth Small Cap Value Fixed Income



The Michael Price Student Investment Fund 44 West Fourth Street New York, NY 10012 http://pages.stern.nyu.edu/~mpsif/