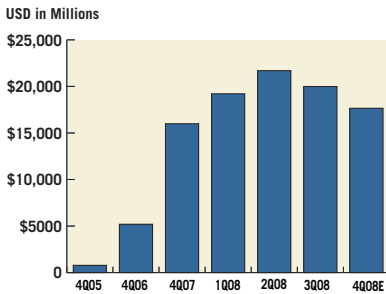


# rafi® fundamentals

## RAFI® Managed Assets\*



\*Includes RAFI assets managed or sub-advised by Research Affiliates® or RAFI licensees.

## DISCOUNTS AND RELATIVE PERFORMANCE

The Fundamental Index® advantage arises from breaking the link between prices and portfolio weights. Part of the historical advantage comes from the inherent value tilt associated with reweighting the growth stocks *down* to their economic scale and the value stocks *up* to their economic scale. But, a much larger contributor to the historical returns is that the Fundamental Index weight for a stock is very steady over time, providing an objective and rational *anchor* for rebalancing, for contratrading against the market's constantly shifting expectations, fads, speculations, bubbles, and crashes.

Over the short term, however, the Fundamental Index strategies take on much greater exposure in volatile markets to companies whose prices have significantly underperformed their relative economic size. The reason is this rebalancing toward the Fundamental Index weight for each company. Shifting money to yesterday's underperformers results in a portfolio that has a widening discount, as measured by common valuation measures, to the cap-weighted indexes. In this issue we explore the performance implications of the difference in relative valuation multiples.

The Fundamental Index methodology produces a model portfolio based on a company's recent footprint in the macroeconomy. This is inherently backward-looking. By allocating to each stock in accordance with its financial scale, measured over the past five years, the methodology allocates weights that broadly reflect each company's *recent* economic importance. The weights are determined by *observable* recent financial results. In contrast, capitalization-weighted indexes, such as the S&P 500 Index, represent Wall Street's best guess as to the composition of tomorrow's economy. In the cap-weighted methodology, price weights are driven by *expectations*. Naturally, Wall Street's assignments of companies' prospective values can and will shift much faster than the fundamental economic scale of the companies themselves.

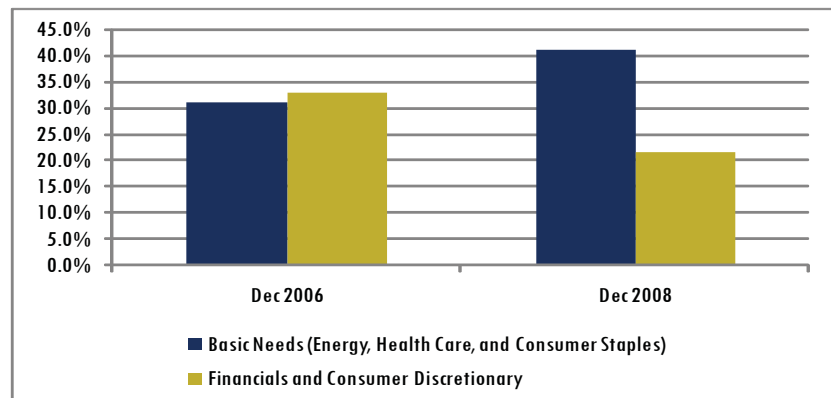
The U.S. stock market at the turn of this century provides a classic example of overly optimistic future expectations dominating present economic fundamentals. Operating results in this period were having little impact on stock prices, particularly for those enterprises in so-called old economy industries, such as makers of industrial



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Figure 1. Two Years of Drastic Change: S&P 500 Sector Allocations



Source: Research Affiliates

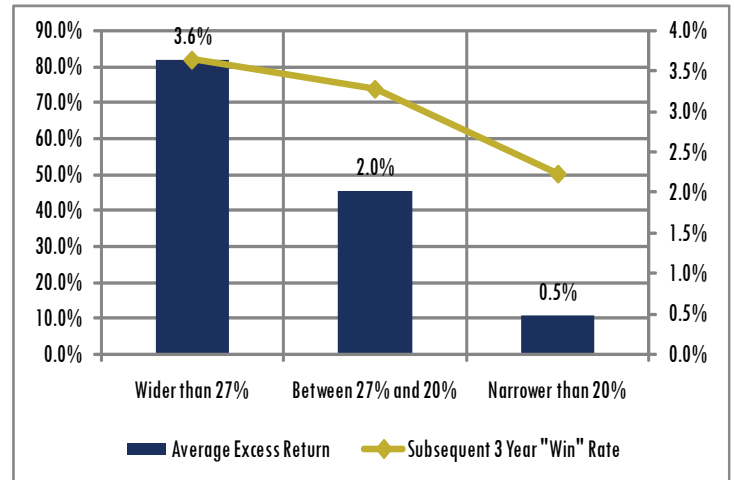
products. The information superhighway was the future, so the companies that would help build that highway, and ostensibly profit from it, were highly valued. Wild optimism about these companies' roles in the new economy was the largest determinant of stock prices in 1999 and early 2000.

Reciprocally, today's bleak expectations dominate any good news that may arise as the economy eventually turns. Pessimistic visions of tomorrow indicate we should expect a "basic needs economy," with bare-bones credit markets and little in the way of consumer discretionary spending. Reflecting this dire outlook, the cap-weighted S&P 500 now has 41% allocated to the three economic sectors serving basic needs—namely, energy, health care, and consumer staples. This percentage is almost twice the size of the financials and consumer discretionary sectors, which were collectively slightly larger than the basic needs sectors a scant two years ago as displayed in **Figure 1**.

In unstable markets, when fast-changing expectations outpace the slower moving changes in company fundamentals, the Fundamental Index approach will deviate more sharply from capitalization weighting than in stable times. This divergence manifests itself in different valuation levels between indexes based on company fundamentals and cap-weighted indexes, as evidenced in **Figure 2**. Figure 2 depicts the relative price-to-book ratio (P/B) discount of the RAFI® US Large Company Index to the S&P 500 dating back to 1964. The peak in difference was reached in 1999 at 45%. As of December 31, 2008, the RAFI US Large had a P/B of 1.25 versus the P/B of 1.72 for the S&P 500, implying a discount of 27.4%. Only in three periods has the discount been larger than 27%—the Nifty Fifty era of the early 1970s, the biotechnology stock run-up in the early 1990s, and the tech-induced mania of 1999.

What do these relative valuation multiples imply about forward-looking relative return prospects for the Fundamental Index approach? We attempt to answer this question by looking at historical three-year excess returns of RAFI US Large over the S&P 500, subsequent to periods of wide divergence in P/Bs. As **Figure 3** shows, there is a link between P/Bs and subsequent returns. Wide discounts bode well for future Fundamental Index performance. From 1964–2008, the RAFI US Large achieves an average

Figure 3. RAFI Discount to S&P 500



Source: Research Affiliates

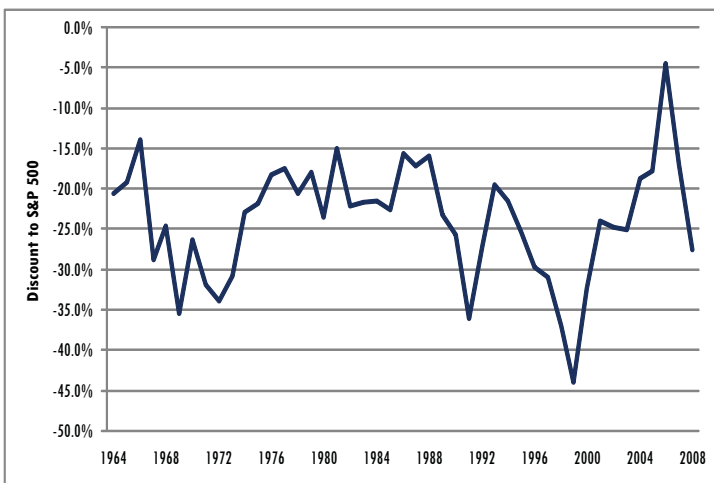
annualized excess return of 3.6% when its P/B is at a 27% discount or more to the S&P 500. Furthermore, it does so with consistency, as evidenced by its "batting average"—winning 82% of the time and losing just 18% of the time. The next tier—discounts ranging from 20% to 27%—approaches the long-term historical average excess return for the Fundamental Index strategy of 2.0%, with a still-impressive 74% batting average. Discounts narrower than 20% lead to relative modest outperformance and only a 50/50 win rate.

Intuitively, we can interpret these results as follows. When expectations change rapidly, investors often let the pendulum swing too far. They extrapolate the good news (e.g., thinking the new economy growth stocks in 1999 would crowd out the old economy stocks for years to come) and the bad news (e.g., thinking the meltdown in financials and consumer discretionary companies in 2008 presage many years of depression). We don't mean that the market routinely gets things wrong. In fact, recent research shows that growth stocks do indeed deliver better operating results and value stocks deliver poorer results, on average.<sup>1</sup> Nevertheless, we have also discovered that although investors, on average, have been able to determine the future growers, they have done a terrible job of assigning the right price to that growth. Thus, future growth tends to be overpriced and future disappointment tends to be underpriced. We believe that expectations that are right in direction but overly optimistic or pessimistic are *mispricings*.

By design, the Fundamental Index approach avoids the return drag caused by capitalization weighting. It anchors a company's weight on fundamental measures of company size and rebalances back to these measures annually. Rebalancing, whether among asset classes or within asset classes, is a proven investment tool that reduces risk and increases return over long periods. Over the short term, rebalancing proves frustrating because markets can take some time to revert to their mean returns. (Ask anyone who rebalanced into stocks at the end of 2000, 2001, and again in 2002!) But, reversion to the mean eventually takes place and rewards the disciplined investor who rebalances. Faith in rebalancing combined with a highly discounted current RAFI portfolio portends a bright horizon for those equity investors willing to stray from the cap-weighted indexing convention.

<sup>1</sup>Arnott, Robert, Feifei Li, and Katrina Sherrerd. (Forthcoming 2009). "Clairvoyant Value and the Value Effect," *Journal of Portfolio Management*.

Figure 2. P/B Discount, RAFI vs S&P 500



Source: Research Affiliates

Performance Update

TOTAL RETURN AS OF 1/31/09	BLOOMBERG TICKER	YTD	12 MONTH	ANNUALIZED 3 YEAR	ANNUALIZED 5 YEAR	ANNUALIZED 10 YEAR	ANNUALIZED 10 YEAR VOLATILITY
FTSE RAFI® 1000 Index <sup>A</sup>	FRI1OXR	-10.61%	-43.63%	-13.76%	-4.57%	0.93%	15.47%
S&P 500 <sup>B</sup>	SPTR	-8.43%	-38.63%	-11.78%	-4.24%	-2.65%	15.27%
Russell 1000 <sup>C</sup>	RUI0INTR	-8.16%	-39.04%	-12.03%	-4.05%	-2.27%	15.51%
FTSE RAFI® US 1500 Index <sup>D</sup>	FRI5USTR	-11.70%	-41.90%	-15.83%	-3.91%	5.93%	19.63%
Russell 2000 <sup>E</sup>	RU20INTR	-11.12%	-36.84%	-14.31%	-4.06%	1.68%	20.68%
FTSE RAFI® Developed ex US 1000 Index <sup>F</sup>	FRX1XTR	-10.44%	-44.65%	-11.24%	0.64%	3.87%	16.84%
MSCI EAFE <sup>G</sup>	GDDUEAFE	-9.80%	-43.42%	-11.84%	-0.26%	0.18%	16.72%
FTSE All World Series Developed ex US <sup>H</sup>	FTSDXUS	-9.54%	-43.55%	-11.27%	0.32%	1.06%	16.91%
FTSE RAFI® Developed ex US Mid Small <sup>I</sup>	FRSDXUS	-6.84%	-41.42%	-13.95%	0.00%	NA	NA
MSCI EAFE Small <sup>J</sup>	MCUDEAFE	-6.47%	-46.44%	-19.13%	-3.12%	NA	NA
FTSE RAFI® Emerging Markets <sup>K</sup>	FREM	-7.98%	-46.53%	-4.97%	11.91%	NA	NA
MSCI Emerging Markets <sup>L</sup>	MXEF	-6.42%	-49.95%	-9.96%	5.85%	NA	NA
FTSE RAFI® Canada <sup>M</sup>	FRCANTR	-4.53%	-30.13%	-7.06%	2.70%	NA	NA
S&P/TSX 60 <sup>N</sup>	TX60AR	-3.15%	-30.35%	-5.92%	4.06%	NA	NA
FTSE RAFI® Australia Index <sup>O</sup>	FRAUSTR	-6.41%	-32.96%	-6.00%	5.37%	7.42%	11.52%
S&P/ASX 200 Index <sup>P</sup>	ASS1	-4.88%	-34.32%	-6.56%	6.00%	6.57%	12.76%
FTSE RAFI® Japan <sup>Q</sup>	FRJPNTR	-7.89%	-39.57%	-19.04%	-2.46%	NA	NA
MSCI Japan <sup>R</sup>	GDDUJN	-6.80%	-30.77%	-13.77%	-0.74%	NA	NA
FTSE RAFI® UK Index <sup>S</sup>	FRGBRTR	-8.26%	-31.13%	-8.80%	1.53%	NA	NA
MSCI UK <sup>T</sup>	GDDUUK	-6.22%	-46.79%	-13.48%	-2.44%	NA	NA

Definition of Indices: (A) The FTSE RAFI® 1000 comprises the 1000 largest companies selected and weighted using our Fundamental Index methodology; (B) The S&P 500 Index is an unmanaged market index that focuses on the large-cap segment of the U.S. equities market; (C) The Russell 1000 Index is a market-capitalization-weighted benchmark index made up of the 1,000 highest-ranking U.S. stocks in the Russell 3000; (D) The FTSE RAFI® 1500 comprises the 1001st to 1500th largest companies selected and weighted using our Fundamental Index methodology; (E) The Russell 2000 is a market-capitalization weighted benchmark index made up of the 2,000 smallest U.S. companies in the Russell 3000; (F) The FTSE RAFI® Developed ex US 1000 Index comprises the largest 1000 non US-listed companies by fundamental value, selected from the constituents of the FTSE Developed ex US Index; (G) MSCI EAFE (Morgan Stanley Capital International Europe, Australasia, Far East) is an unmanaged index of issuers in countries of Europe, Australia, and the Far East represented in U.S. dollars; and (H) The FTSE All World ex-US Index comprises Large and Mid-Cap stocks providing coverage of Developed and Emerging Markets excluding the United States. It is not possible to invest directly in any of the indexes above; (I) The FTSE RAFI® Developed ex US Mid Small Index tracks the performance of small- and mid-cap equities of companies domiciled in developed international markets (excluding the United States), selected based on the following four fundamental measures of firm size: book value, cash flow, sales, and dividends. The equities with the highest fundamental strength are weighted according to their fundamental scores. The Fundamentals Weighted® portfolio is rebalanced and reconstituted annually. Performance represents price return only; (J) The MSCI EAFE Small Cap Index targets 40% of the eligible small-cap universe (companies with market capitalization ranging from US\$200 to US\$1,500 million) in each industry group of each country in the MSCI EAFI Index; (K) The FTSE RAFI® Emerging Markets Index comprises the largest 350 companies selected and weighted using the Fundamental Index® methodology; (L) The MSCI Emerging Markets Index is an unmanaged, free-float-adjusted cap-weighted index designed to measure equity market performance of emerging markets; (M) The FTSE RAFI® Canada Index comprises the Canadian stocks represented among the constituents of the FTSE RAFI® Global ex US 1000 Index, which in turn comprises the 1,000 non-U.S.-listed companies with the largest fundamental value, selected from the constituents of the FTSE Developed ex US Index; (N) The S&P/Toronto Stock Exchange (TSX) 60 is a cap-weighted index consisting of 60 of the largest and most liquid (heavily traded) stocks listed on the TSX, usually domestic or multinational industry leaders; (O) The FTSE RAFI® Australia Index comprises the Australian stocks represented among the constituents of the FTSE RAFI® Global ex US 1000 Index, which in turn comprises the 1,000 non-U.S.-listed companies with the largest fundamental value, selected from the constituents of the FTSE Developed ex US Index; (P) The S&P/ASX 200 Index, representing approximately 78% of the Australian equity market, is a free-float-adjusted, cap-weighted index; (Q) The FTSE RAFI® Japan Index comprises the Japanese stocks represented among the constituents of the FTSE RAFI® Global ex US 1000 Index, which in turn comprises the 1,000 non-U.S.-listed companies with the largest fundamental value, selected from the constituents of the FTSE Developed ex US Index; (R) The MSCI Japan Index is an unmanaged, free-float-adjusted cap-weighted index that aims to capture 85% of the publicly available total market capitalization of the Japanese equity market; (S) The FTSE RAFI® UK Index comprises the U.K. stocks represented among the constituents of the FTSE RAFI® Global ex US 1000 Index, which in turn comprises the 1,000 non-U.S.-listed companies with the largest fundamental value, selected from the constituents of the FTSE Developed ex US Index; (T) The MSCI UK Index is an unmanaged, free-float-adjusted cap-weighted index that aims to capture 85% of the publicly available total market capitalization of the British equity market

Source: All index returns are calculated using Total Return data from Bloomberg except for the FTSE RAFI Developed ex US Mid Small (FRSDXUS) and the MSCI EAFE Small (MCUDEAFE) which uses price return data.

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