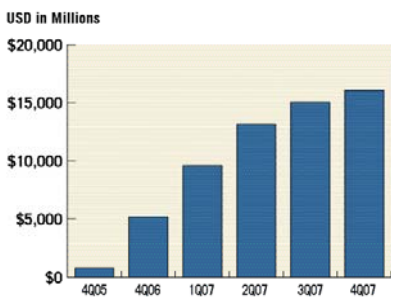
Fundamental Index® Newsletter · April 2008

rafi® fundamentals

RAFI® Managed Assets*



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

research® affiliates
155 n. lake avenue, suite 900
pasadena, ca 91101 usa
phone +1 (626) 584-2100
fax +1 (626) 584-2111
info@rallc.com
www.rallc.com

MEDIA CONTACT
Tucker Hewes
Hewes Communications
+1 (212) 207-9451
tucker@hewescomm.com

INDEXING IN INEFFICIENT MARKETS

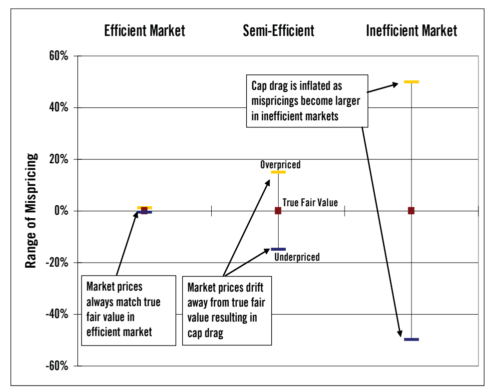
Market efficiency lies at the heart of the Fundamental Index® debate. Advisors and consultants have long advocated that market efficiency varies by equity market segment, with U.S. large companies being among the most efficient and emerging markets among the least efficient. Factors influencing the extent of mispricings within these markets include the flow and availability of information, analyst coverage, transaction costs, and the sophistication of local investors. In this issue we discover that the expected value added from the Fundamental Index strategy rises in inefficient markets, making it an attractive alternative to traditional active management.

By construction, stocks that trade above their eventual (but currently unknowable) fair value will comprise a larger portion of the cap-weighted index. Meanwhile, shares priced below fair value will comprise less of the cap-weighted index. As the overpriced subsequently underperform, their relative losses overwhelm the underpriced shares' outperformance because the overpriced comprise more of the portfolio. The resulting return drag was documented to be over 2% per annum in our original research on U.S. large companies.[1] The Fundamental Index concept was designed to eliminate this return drag by weighting stocks by financial measures of firm size.

U.S. large companies are largely considered the most efficient stocks. An extraordinarily mature market, accurate data on these companies extends back at least 40 years and is easily accessible from even widely used public Internet portals. Further, these companies receive the most research coverage—witness the 30-plus analysts on Wall Street that follow Intel with its $125 billion market cap versus the 3 analysts that research small-cap Avista Corporation (a $1 billion market cap Northwest utility.) Transaction costs are low and liquidity high in large-cap companies ensuring that traders can move quickly and efficiently to correct perceived mispricings. Other developed country equity markets are similarly efficient.

As we move away from large-cap, developed country equities, the various "frictions" increase and result in less efficient pricing of individual securities. The result is mispricings that are wider in magnitude. What happens to a cap-weighted index in such markets? Because weights are linked to price, even more weight is allocated to the overvalued and even less to the undervalued stocks. In this manner, as seen in **Figure 1**, the return drag from cap weighting rises in less efficient markets.

Figure 1. Return Drag of Cap-Weighted Indices



Source: Arnott, Robert D., and John M. West. 2006. "Fundamental Indexes: Current and Future Applications." *A Guide to Exchange Traded Funds and Indexing Innovations—Fifth Anniversary Issue*. Institutional Investor, (Fall):111-121.

Inefficient markets such as small-cap stocks and emerging markets also exhibit a higher frequency of mispricings. A greater number of stocks can be expected to be priced well above (below) fair value at any given point in time. With so many mispriced shares continuously reverting toward fair value, the return drag from cap weighting becomes more reliable in less efficient equity segments. These markets aren't dependent on a few big bubbles to generate excess returns as some critics assert.

Our research results confirm these two claims: the Fundamental Index advantage widens and becomes more consistent as we move down the "efficiency curve." **Table 1** shows the results for a RAFI® portfolio versus representative cap-weighted indices in selected market segments. Starting with U.S. large cap stocks, we see an annualized excess return of 2.0% with a "batting average"

[1] Arnott, Robert D., Jason Hsu, and Philip Moore. 2005. "Fundamental Indexation." *Financial Analysts Journal*, vol. 61, no. 2. (March/April):83–99. www.rallc.com/ideas/pdf/fundamentalIndexation.pdf

continued on page two

of 73.9% over rolling three-year periods. In other words, the RAFI strategy beat the S&P 500 in nearly three quarters of all of the three-year periods rolled monthly since inception. The developed equity markets outside the United States are arguably less efficient.[2] In this area, the Global ex U.S. RAFI portfolio shows 3.3% annualized value added over the MSCI EAFE Index while the three-year batting average increases to nearly 90%. A similar excess return advantage accrues to both U.S. and Global ex U.S. small-cap Fundamental Index investors with a premium of 3.4% and 4.5% at a remarkably reliable three-year win rate of over 99% and nearly 95%, respectively.

Emerging markets, intuitively the most inefficient equity market of all given the history of high transaction costs and economic turbulence, extends the Fundamental Index premium to an astonishing 10.7% annually and has yet to experience a three-year performance shortfall since the inception of our data in 1994.

In conclusion, the Fundamental Index strategy is a tremendously useful tool for less efficient equity market applications. The value-added relative to the cap-weighted indexes is consistent with active manager expectations. For example, the Lipper Small-Cap Core Mutual Fund Universe top quartile fund sported a 10-year excess return of 2.8% over the Russell 2000 Index as of December 31, 2007.[3] Yet, unlike active managers, the Fundamental Index strategy maintains the broad coverage, high capacity, and low fees reflecting the positives of index implementation. It is a unique proposition and one that deserves serious consideration as a one-stop alternative for filling an investor's international, small company, and emerging market allocations.

[2]One manner to gauge a market's efficiency is to compare the returns of active managers to the cap-weighted index. On this measure, international markets appear to be as efficient as U.S. large caps over the past five years.

[3]Based on data from eVestment Alliance.

Table 1. RAFI Performance through December 2007

	Start Date	Return	Volatility	Value Add	% 3-Year Wins
RAFI U.S. Large	1962	12.3%	14.4%	2.0%	73.9%
S&P 500	1962	10.3%	14.6%		
RAFI Japan	1984	7.2%	19.1%	2.8%	90.1%
MSCI Japan	1984	4.3%	19.4%		
RAFI Europe	1984	17.8%	16.2%	3.0%	93.7%
MSCI Europe	1984	14.8%	16.1%		
RAFI Global ex U..S.	1984	15.6%	15.7%	3.3%	88.5%
MSCI EAFE	1984	12.3%	16.7%		
RAFI U.S. Small	1979	16.2%	18.6%	3.4%	99.7%
Russell 2000	1979	12.8%	19.0%		
RAFI Global ex U.S. Small	1999	17.1%	13.3%	4.2%	94.5%
MSCI EAFE Small	1999	12.9%	15.2%		
RAFI AP ex Japan	1988	17.2%	21.1%	4.5%	70.7%
MSCI Pacific ex Japan	1988	12.7%	19.3%		
RAFI EM	1994	19.4%	23.3%		100.0%
MSCI EM	1994	8.7%	22.4%		

Performance Update*

TOTAL RETURN AS OF 3/31/08	BLOOMBERG TICKER	YTD	12 MONTH	ANNUALIZED 3 YEAR	ANNUALIZED 5 YEAR	ANNUALIZED 10 YEAR	ANNUALIZED 10 YEAR VOLATILITY
FTSE RAFI® 1000 Index[A]	FR10XTR	-9.81%	-8.66%	6.20%	13.96%	7.10%	13.96%
S&P 500[B]	SPTR	-9.44%	-5.08%	5.85%	11.32%	3.50%	14.68%
Russell 1000[C]	RU10INTR	-9.48%	-5.40%	6.19%	11.86%	3.83%	14.85%
FTSE RAFI® US 1500 Index[D]	FR15USTR	-8.73%	-12.05%	6.60%	18.72%	10.03%	18.14%
Russell 2000[E]	RU20INTR	-9.90%	-13.00%	5.06%	14.90%	4.96%	19.87%
FTSE RAFI® Developed ex US 1000 Index[F]	FRX1XTR	-8.88%	-0.56%	15.58%	24.41%	10.58%	14.71%
MSCI EAFE[G]	GDDUEAFE	-8.82%	-2.27%	13.79%	21.90%	6.56%	14.70%
FTSE All World Series Developed ex US[H]	FTS5DXUS	-8.70%	0.07%	14.91%	22.72%	7.40%	14.83%

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.

*In November 2008 performance returns for all prior periods were restated to reflect a change in calculation methodology from using a 365 day period to annualize returns to a return calculation based on using monthly returns as of the last business day of each month to create a geometric return for each period.

Source: Based on price data from Bloomberg.