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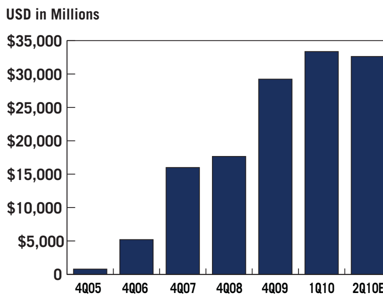
Fundamentals

John West

RAFI® Managed Assets*



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THE STYLE ROULETTE AND RAFI® STRATEGY

The first half of 2010 has been a roller coaster ride in global equity markets. The S&P 500 Index and MSCI All Country World Index posted gains of 5.4% and 3.2%, respectively, in the first quarter. But, as we've been suggesting for some months, the consequences of a global addiction to debt-financed consumption—sovereign, corporate, and household—started to take their toll in the second quarter, with the S&P 500 declining 11.4% and the MSCI All Country World falling 12.0% in U.S. dollar terms. Adding to this ride, value and growth styles have been flip-flopping in past years. If the current narrow value outperformance experienced in the first half of the year holds, 2010 will mark the fifth straight calendar year in which style leadership has shifted between growth and value.

This growth–value whipsaw is nothing new and begs several questions. Is there a better way to play the style game than splitting our equities evenly between growth and value? How reliable is the value premium? If we were able to magically win repeatedly in "style roulette," what would be the rewards over a buy-and-hold index? Where does the Fundamental Index® approach, with its inherent contra-trading against the market's most extreme bets, fit within all of this? In this issue we explore some of these facets of equity style investing.

The Value Premium

The size and value premiums have been well documented in the literature, culminating in Fama and French's highly regarded work in the early 1990s.[1] **Table 1** provides empirical evidence on the size and reliability of the value premium relative to the broad market through May 2010. As Table 1 shows, excess returns for value investors ranged between 0.6% and 1.8% per annum, depending on the market. However, the variability in these results—that

Table 1. Value Excess Returns

	United States (January 1979)	Non-U.S. Developed (January 1975)	Global All Country (January 1997)	Emerging Markets (January 1997)
Value Premium	0.62%	1.78%	0.68%	1.23%
Tracking Error	4.91%	3.42%	4.16%	3.76%
Information Ratio	0.13	0.52	0.16	0.33

Note: The US analysis uses Russell style indices: Russell 1000 and Russell 1000 Value. The Developed ex-US uses the MSCI EAFE and MSCI EAFE Value. The All Country World, which includes both developed and emerging markets, uses MSCI ACWI and MSCI ACWI Value. The Emerging Markets uses MSCI Emerging Markets and MSCI Emerging Markets Value. Ending date for all four series is May 2010.

Source: Research Affiliates.

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is, the tracking errors for value investing relative to the broad market—are substantial. Clearly, every so often a value approach will substantially underperform the capitalization-weighted broad market.

Of course, most U.S. investors experienced this first-hand during the tech bubble and collapse in the late 1990s and first part of the "Naughties." It was a boom or bust period depending on which side of the style fence our portfolio sat (and significantly contributed to the large tracking error figures above). To prevent being blindsided again by another volatile value–growth cycle, U.S. investors attempted to diversify their largest bet—domestic equities—employing both growth and value approaches. This strategy, of course, reduces the equity portfolio's variability to the broad cap-weighted market, but also gives up the value premium. So, what other choices are there for investors to win the style roulette game?

Winning the Style Roulette Game

Suppose we could perfectly time exposure to the winning equity style. If value wins in the year ahead, we'll be in value and if growth wins, we'll be in growth. To quantify a perfect run at the "style roulette wheel," we built portfolios that were always on the winning side of the style bet each year.

Not surprisingly, the perfect foresight value–growth strategy leads to wonderful excess returns for all four strategies tested. **Table 2** displays the premium such perfect timing portfolios would have produced. In U.S. large company equities, placing 100% of our funds in the winning style would have produced an annualized return of 16.5% for the 1979–2009 period—500 bps ahead of the cap-weighted broad market! Substantial excess returns also were available in global and non-U.S. strategies, measured in somewhat shorter time frames. These are impressive figures but, like a run of 20 straight "reds" at Monte Carlo, unattainable to us mere mortals.

So, what is the winning style roulette strategy? Use the RAFI methodology to contra-trade against whichever style tilt is most currently in vogue.

How can something that's always got a value tilt beat an approach that always has the winning growth or value tilt? The answer: By having a deep value tilt when value is really cheap, and sharply trimming the value tilt when it's more fully priced. Consider **Figure 1**, which graphically explores this contra-trading by style. Here, we compare the two-year excess return of value or growth with a Value Tilt index. For the Value Tilt index, a value of "1" indicates a value tilt approximately equal to the All Country World Value Index, while a "0" indicates a neutral style bias approximating a broad cap-weighted All Country World Index.

What's this worth? In the United States, the Fundamental Index approach produces an excess annualized return of 220 bps, equivalent to 43% of the perfect style roulette strategy, for the 1979–2009 period studied (see Table 2). This result is nearly half of a clairvoyant, and unattainable, style timer! Not bad, but look at what happens to the non-U.S., global, and emerging markets strategies. Remarkably, the RAFI methodology captures more than 100% of a perfect style timing strategy! Of course, there is more to the Fundamental Index methodology than systematic contra-trading between styles; dynamic exposures to size (small versus large), economic sectors, countries and regions also are additive to portfolio returns.

The intuition behind why the Fundamental Index approach is so successful is simple. Remember what happens in the cap-weighted index when one style outperforms meaningfully—it comprises more of the index! Thus, when growth was taking off

Table 2. Winning in Style Roulette

Region	Start Date	Cap-Weight (Core)	Cap-Weight (Value)	Perfect Timing	RAFI	RAFI Capture Ratio
U.S. Large Company	Jan-79	11.5%	12.1%	16.5%	13.7%	43.5%
Developed ex-U.S.	Jan-84	9.9%	11.8%	13.3%	13.7%	111.4%
All Country World	Jan-97	5.2%	6.0%	9.2%	10.4%	130.4%
Emerging Markets	Jan-97	8.5%	9.7%	11.2%	19.6%	404.7%

Note: Note: We used the same indexes as in Table 1, except we add the corresponding growth index (i.e. Russell 1000 Growth Index) to calculate the perfect timing portfolios. All analyses end on December 31, 2009.

Source: Research Affiliates.

globally in the late 1990s, the weights for the tech and telecom winners increased in the cap-weighted index. The comparable weights in a Fundamental Index portfolio, paying no attention to rising valuations, were pared back at the annual rebalance point to be in line with each company's fundamental size. The resulting Fundamental Index portfolio looked more and more like a deep value index (note the yellow line briefly goes above "1" during this time period).

Meanwhile, when value goes on an extended winning streak (as seen in the early 1990s and mid-2000s), the Fundamental Index portfolio lightens its value orientation. How? The same way it extended it in the late 1990s— it trims its recent winners back to their fundamental size! (The yellow line troughs in the 0.2 range). The changing nature of the RAFI value exposure—resembling a deep value portfolio after strong growth runs and a mild value orientation after value outperformance—certainly appears to add value to portfolio returns when mean reversion occurs.

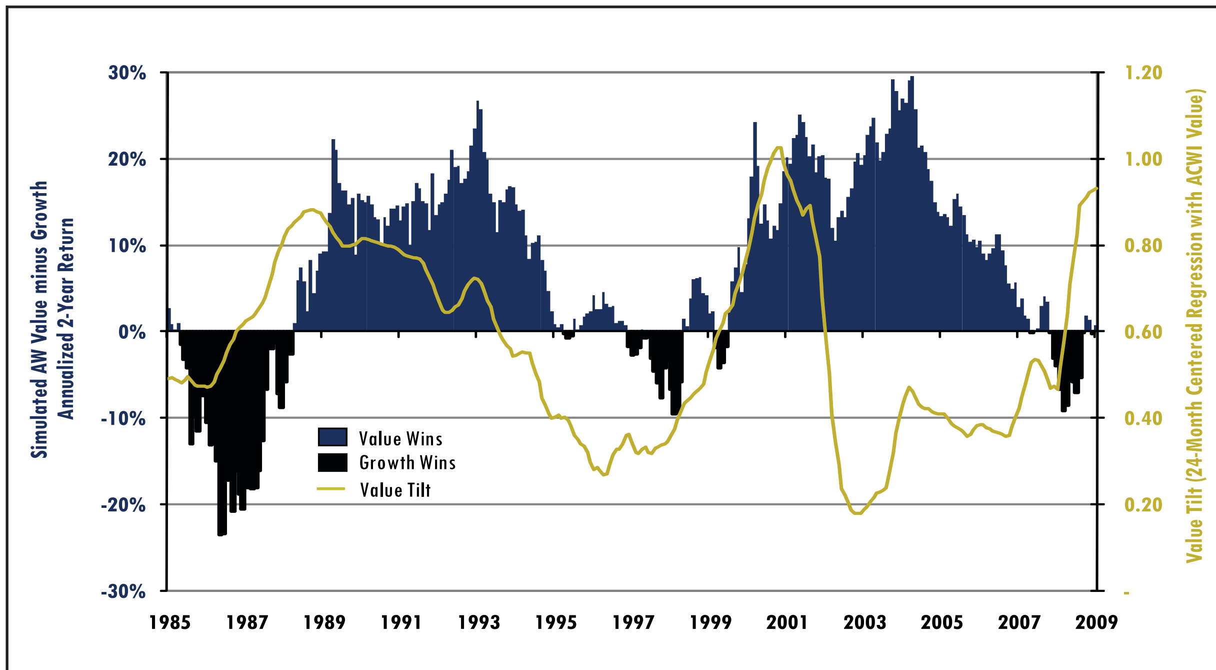
Conclusion

Legendary gambler Nick "the Greek" Dandalos once said: "Remember this: The house doesn't beat the player. It just gives him the opportunity to beat himself." The style merry-go-round similarly provides ample opportunity for investors to be their own worst enemy, even within the supposed balanced broad market indexes. Make no mistake—cap-weighted index funds are stealthy returns chasers loading up on past winners.

The Fundamental Index concept contra-trades against the market's recent popularity contest winners. This approach clearly means that we sell whatever is newly most beloved and buy what is newly most loathed, which can hardly be easy or comfortable. This simple periodic realignment back to financial size remarkably captures over 100% of a perfect style timing strategy in three major non-U.S. equity asset classes. So, rather than play the roulette wheel at our own risk, we'll take our chances at the rebalancing table.

The author would like to thank Himanshu Surti in our Research Department for valuable insight and analytics used in this piece.

Figure 1. The Changing Nature of the RAFI Value Tilt – RAFI Global All World Index



Note: Value Tilt—Rolling regression coefficient of Simulated RAFI AW 3000 against [Simulated AW Cap-Weight Value minus Simulated AW Cap-Weight Growth]/2

Source: Research Affiliates.

Endnotes

1. Eugene F. Fama and Kenneth R. French. 1992. "The Cross-Section of Expected Stock Returns." *Journal of Finance*, vol. 47, no. 2 (June):427-465.

Performance Update

TOTAL RETURN AS OF 6/30/10	BLOOMBERG TICKER	YTD	12 MONTH	ANNUALIZED 3 YEAR	ANNUALIZED 5 YEAR	ANNUALIZED 10 YEAR	ANNUALIZED 10 YEAR VOLATILITY
FTSE RAFI® 1000 Index[A]	FR10XTR	-3.52%	24.17%	-7.82%	1.26%	4.54%	17.85%
S&P 500[B]	SPTR	-6.65%	14.43%	-9.81%	-0.79%	-1.59%	16.16%
Russell 1000[C]	RU10INTR	-6.40%	15.24%	-9.54%	-0.56%	-1.22%	16.47%
FTSE RAFI® US 1500 Index[D]	FR15USTR	-0.65%	34.27%	-4.37%	4.09%	10.11%	22.81%
Russell 2000[E]	RU20INTR	-1.95%	21.48%	-8.60%	0.37%	3.00%	21.05%
FTSE RAFI® Developed ex US 1000 Index[F]	FRX1XTR	-14.19%	6.94%	-11.08%	3.38%	4.26%	19.38%
MSCI EAFE[G]	GDDUEAFE	-12.93%	6.38%	-12.94%	1.35%	0.56%	18.10%
FTSE All World Series Developed ex US[H]	FTS5DXUS	-12.07%	7.79%	-11.76%	2.38%	1.51%	18.33%
FTSE RAFI® Developed ex US Mid Small[I]	FRSDXUS	-7.73%	14.00%	-8.43%	3.58%	7.81%	18.25%
MSCI EAFE Small[J]	MCUDEAFE	-8.30%	9.99%	-15.10%	-0.99%	2.85%	19.93%
FTSE RAFI® Emerging Markets[K]	TFREMU	-5.35%	25.30%	1.77%	18.21%	19.63%	25.32%
MSCI Emerging Markets[L]	GDUEEGF	-6.04%	23.48%	-2.22%	13.07%	10.33%	24.99%
FTSE RAFI® Canada[M]	FRCANTR	-1.62%	14.55%	-1.40%	7.13%	8.90%	14.31%
S&P/TSX 60[N]	TX60AR	-3.28%	7.90%	-3.54%	6.06%	2.85%	16.48%
FTSE RAFI® Australia[O]	FRAUSTR	-11.80%	14.91%	-6.16%	5.19%	8.65%	12.97%
S&P/ASX 200 Index[P]	ASA51	-9.93%	13.15%	-7.85%	4.52%	6.95%	13.47%
FTSE RAFI® Japan[Q]	FRJPNTR	-6.26%	-7.41%	-18.69%	-2.84%	-1.17%	18.51%
MSCI Japan[R]	GDDLJN	-7.46%	-7.47%	-21.16%	-4.44%	-4.99%	18.39%
FTSE RAFI® UK[S]	FRGBRTR	-8.47%	15.52%	-7.55%	2.14%	3.09%	17.12%
MSCI UK[T]	GDDUUK	-7.55%	19.55%	-5.94%	2.76%	1.19%	14.99%
RAFI Investment Grade[U]		6.22%	15.54%	8.74%	6.08%	7.23%	6.03%
Merrill Lynch US Corporate Master[V]	C0A0	6.09%	16.32%	7.12%	5.16%	6.96%	6.20%
RAFI High Yield[W]	RAFIHY	4.76%	26.97%	10.15%	8.70%	10.00%	11.22%
Merrill Lynch US High Yield BB-B Rated[X]	H0A4	4.60%	21.76%	5.34%	6.14%	6.44%	10.19%

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; (U) The RAFI® Investment Grade Master Index is a U.S. investment-grade corporate bond index comprised of non-zero fixed coupon debt with maturities ranging from 1 to 30 years issued by publicly traded companies. The issuers held in the index are weighted by a combination of four measures of their fundamental size—sales, cash flow, dividends, and book value of assets; (V) The Merrill Lynch U.S. Corporate Master Index is representative of the entire U.S. corporate bond market. The index includes dollar-denominated investment-grade corporate public debt issued in the U.S. bond market; (W) The RAFI®High Yield Master is a U.S. high-yield corporate bond index comprised of non-zero fixed coupon debt with maturities ranging from 1 to 30 years issued by publicly traded companies. The issuers held in the index are weighted by a combination of four measures of their fundamental size—sales, cash flow, dividends, and book value of assets; (X) The Merrill Lynch U.S. High Yield Master II Index is representative of the U.S. high yield bond market. The index includes domestic high-yield bonds, including deferred interest bonds and payment-in-kind securities. Issues included in the index have maturities of one year or more and have a credit rating lower than BBB-/Baa3, but are not in default.

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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