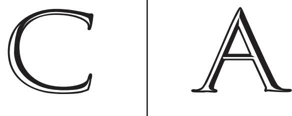


CAMBRIDGE ASSOCIATES LLC

FUNDAMENTAL INDEXING

2006

Eric Winig
Andrew Kim

Copyright © 2006 by Cambridge Associates LLC. All rights reserved.

This report may not be displayed, reproduced, distributed, transmitted, or used to create derivative works in any form, in whole or in portion, by any means, without written permission from Cambridge Associates LLC ("CA"). Copying of this publication is a violation of federal copyright laws (17 U.S.C. 101 et seq.). Violators of this copyright may be subject to liability for substantial monetary damages. The information and material published in this report are confidential and non-transferable. This means that authorized members may not disclose any information or material derived from this report to third parties, or use information or material from this report, without prior written authorization. An authorized member may disclose information or material from this report to its staff, trustees, or Investment Committee with the understanding that these individuals will treat it confidentially. Additionally, information from this report may be disclosed if disclosure is required by law or court order, but members are required to provide notice to CA reasonably in advance of such disclosure. This report is provided for informational purposes only. It is not intended to constitute an offer of securities of any of the issuers that are described in the report. This report is provided only to persons that CA believes to be "Accredited Investors" as that term is defined in Regulation D under the Securities Act of 1933. When applicable, investors should completely review all Fund offering materials before considering an investment. No part of this report is intended as a recommendation of any firm or any security. Factual information contained herein about investment firms and their returns which has not been independently verified has generally been collected from the firms themselves through the mail. CA can neither assure nor accept responsibility for accuracy, but substantial legal liability may apply to misrepresentations of results delivered through the mail. The CA manager universe statistics, including medians, are derived from CA's proprietary database covering investment managers. These universe statistics and rankings exclude managers that exclude cash from their reported total returns, and for calculations including any years from 1998 to the present, those managers with less than $50 million in product assets. Returns for inactive (discontinued) managers are included if performance is available for the entire period measured. Performance results are generally gross of investment management fees. CA does not necessarily endorse or recommend the managers in this universe.

Cambridge Associates LLC is a Massachusetts limited liability company headquartered in Boston, MA with branch offices in Arlington, VA; Dallas,TX; and Menlo Park, CA. Cambridge Associates Limited is a Massachusetts limited liability company headquartered in Boston, MA and registered in England and Wales (No. FC022523, Branch No. BR005540). Cambridge Associates Limited also is registered to conduct business in Sydney, Australia (ARBD 109 366 654). Cambridge Associates Asia Pte Ltd is a Singapore corporation (Registration No. 200101063G).

C O N T E N T S

Abstract 1
Summary 4

Exhibits

1 Cumulative Wealth of Various Indices: January 1, 1979 - September 30, 2006 11
2 Correlation Matrix of Various Indices 12
3 Cumulative Wealth of Various Indices: July 1, 1995 - September 30, 2006 13
4 Characteristics of Fundamental Indices 14

ABSTRACT

1. Fundamental indices are rules-based quantitative strategies that weight portfolios by fundamentals rather than by market capitalization. Proponents claim these strategies are superior to cap-weighted benchmarks, consistently delivering higher returns with lower volatility. While there is some merit to these claims—in particular the assertion that market-cap-weighted indices tend to *systematically* overweight expensive stocks and underweight cheap ones—much of the superior risk-adjusted returns for fundamental indices has come from a tilt toward value, a bias that can be easily replicated.

2. The two major players are Research Affiliates Fundamental Index (RAFI), founded by Rob Arnott, and WisdomTree℠ Asset Management, to which Jeremy Siegel has lent his name and advice. The RAFI and WisdomTree℠ indices are based on the same principle, but use different metrics. The RAFI 1000 weights constituents according to four metrics: book value, trailing five-year average free cash flow, trailing five-year average gross sales, and trailing five-year average gross dividend, then equal weights each metric to arrive at a composite weight, while WisdomTree℠ weights companies based on their contribution to the overall dividend stream.

3. The difference between fundamental- and cap-weighted indices can largely be summed up as the difference between current conditions and future expectations. Fundamental indices, in other words, are based on the fundamentals of a company *today* and in the recent past, while cap-weighted indices incorporate investor perceptions of future conditions. The reason fundamental indices have outperformed cap-weighted indices is that in aggregate, investors tend to overestimate the profit potential of growth firms, and underestimate the prospects of value stocks.

4. Fundamental indices, therefore, have a strong value tilt, and will inevitably go through periods of severe underperformance relative to the broad market at one time or another (such as in 1998-99). As a result, they should not be considered a beta substitute for investors seeking passive equity exposure. Further, investors currently considering such strategies may want to tread cautiously given the recent run of value outperformance.

5. There has been a vigorous debate over whether fundamental indices should be considered true indices, or active management. Some have defined them as “quasi-active” or “quasi-passive,” often comparing them to enhanced indexing. Our view is that a market index is something that attempts to give as complete a picture of a given market as reasonably practical, while active management is any strategy designed to beat a market benchmark. Since fundamental indices are designed to outperform the broad market rather than define it, it seems most logical to define them as relatively low-octane quant strategies, similar to enhanced indexing but with different characteristics.

6. As would be expected, fees for fundamental index exposure are comparable to those of enhanced index managers. Fees should be a prominent consideration, given the relatively narrow historical annual performance gap between fundamental- and cap-weighted indices.

7. If investors buy into the fundamental indexing story, quant managers would likely increase their use of such factors, thus arbitraging away much of whatever advantages fundamental indices have historically enjoyed over cap-weighted value indices. While those already invested in fundamental index strategies would see a short-term benefit under such a scenario, the corresponding increase in valuation multiples would also serve to compress future expected returns. In short, fundamental indexing could become a victim of its own success, with the ability to generate enhanced returns not only diminishing as the concept takes root, but also doing so relatively quickly as the investment strategy is transparent and mechanical. However, we would continue to expect fundamental indices to outperform broad market-cap-weighted indices over the long term because of their value characteristics.

SUMMARY

Fundamental Indexing

The concept of "fundamental" investing—i.e., basing investment decisions on company fundamentals rather than market weights—is hardly new. Nonetheless, much attention has lately been paid to the idea of fundamental *indexing*—in short, rules-based quantitative strategies that seek to outperform cap-weighted indices by weighting portfolios by fundamentals rather than cap size. Proponents of the theory claim fundamental indices[1] are superior to market-cap-weighted benchmarks, consistently delivering higher returns and lower volatility. While there is certainly some merit to these claims—in particular the assertion that market-cap-weighted indices tend to *systematically* overweight expensive stocks and underweight cheap ones—much of the superior risk-adjusted returns for fundamental indices has come from a tilt toward value, a bias that can be easily replicated. Further, the dramatic outperformance of value stocks relative to growth over the past seven years, which has been an enormous contributor to fundamental indices' strong long-term returns, appears long in the tooth. Finally, as fundamental indices will be subject to periods of underperformance versus cap-weighted indices, particularly during strong bull markets, investors should carefully consider their tolerance for such events. In essence, while we believe fundamental indices are based on sound fundamental principles, we do not view them as particularly revolutionary, but rather as yet another tool for investors' kits. Given the lengthy recent run of value outperformance, meanwhile, now may not be the best time to allocate money to these strategies.

The Players

Fundamental indices burst on the scene in 2004 when Rob Arnott, Jason Hsu, and Philip Moore published a paper titled "Fundamental Indexation" in the *Financial Analysts Journal*. The authors showed that from 1962 through 2003, an index of stocks weighted by fundamentals (the Research Affiliates Fundamental Index [RAFI] 1000) would have outperformed the S&P 500 by 1.9% a year, and the Reference Capitalization Index (designed by Arnott et al. as a more representative benchmark for their strategy)[2] by 2.1%. Moreover, the fundamentals-weighted portfolio outperformed in virtually all market environments, with the one exception being speculative bubble markets such as in the early 1970s and late 1990s. Much of this, of course, is tautological. Market-cap-weighted indices will *by definition* increase exposure to market darlings, while concurrently reducing the weight of unloved equities; thus, these indices tend to do quite well in environments where expensive stocks are getting *more* expensive.

More recently, WisdomTree℠ Asset Management created a family of indices based solely on dividend payments. The WisdomTree℠ Dividend indices weight stocks according to their contribution to the

[1] The term "fundamental indices" in this paper refers to any index based on fundamental characteristics; however, we have based our analyses on the RAFI 1000 and WisdomTree℠ LargeCap Dividend indices due to their pre-eminent status in the field.

[2] The Reference Capitalization Index is identical to the Russell 1000® Index except for being cap-weighted (as opposed to free-float-weighted), and rebalanced at year-end rather than mid-year.

overall dividend stream, with sub-indices broken out by cap size.[3] WisdomTree℠ has received a great deal of attention due to the involvement of Jeremy Siegel, who recently engaged in a published debate with John Bogle and Burton Malkiel in *The Wall Street Journal* over the merits of fundamental versus cap-weighted indices. The WisdomTree℠ and RAFI indices are based on the same principle, but use different metrics. The RAFI 1000 weights constituents according to four metrics: book value, trailing five-year average free cash flow, trailing five-year average gross sales, and trailing five-year average gross dividend, then equal weights each metric to arrive at a composite weight, while WisdomTree℠ weights companies based on their contribution to the overall dividend stream. (Siegel says this is because "all measures are ambiguous except dividends.") In backtested data, the RAFI 1000 has posted higher returns than the WisdomTree℠ index, but with higher volatility. Most importantly, both providers agree on the underlying message, namely that indices weighted by fundamentals rather than market cap have an inherent advantage that should allow them to provide superior risk-adjusted returns over time. Still, while there is certainly something "behind the curtain," it is clear that much of the attention garnered by these indices has been due to the starpower of their creators/promoters, and investors should take care to exclude such matters when evaluating these products.

Just Another Equity Index?

The difference between fundamental- and cap-weighted indices can largely be summed up as the difference between current conditions and future expectations. Fundamental indices, in other words, are based on the fundamentals of a company *today* and in the recent past, while cap-weighted indices incorporate investor perceptions of future conditions. This can be best illustrated by comparing the relative weights of two different companies in the relevant indices. Consider Wal-Mart and Procter & Gamble (P&G). As of December 31, 2005, Wal-Mart was accorded the sixth-heaviest weight in the RAFI 1000 (1.67%), but ranked only 15th by market cap, giving it a 0.93% weight in the Reference Capitalization Index. P&G, on the other hand, ranked 20th based on fundamentals (0.75% weight), but fifth by market cap (1.54%). In short, while Wal-Mart is a more significant company *today,* investors believe P&G will matter more *in the future*.

As stated above, this disparity comes from the difference between investor expectations (market cap) and current reality (fundamentals). The reason fundamental indices have outperformed cap-weighted indices is that in aggregate, investors tend to overestimate the profit potential of growth firms such as P&G, and underestimate the prospects of value stocks like Wal-Mart.[4] There are, of course, exceptions, and growth investors never tire of pointing to companies such as Microsoft and Dell and crowing that their price-earnings multiples have *always* looked high, yet were ultimately justified by future growth. Such companies, however, are few and far between, and should be considered the exceptions that prove the rule.

[3] We used the WisdomTree℠ LargeCap Dividend Index for our analysis, as it appears the most comparable to the RAFI 1000. The LargeCap Index includes the 300 largest stocks (by market cap) from the overall WisdomTree℠ Dividend Index; these stocks are then weighted by their percentage of the aggregate dividend stream.

[4] The tendencies to overrate the importance of recent information and blindly extrapolate past results into the future are well-established tenets of behavioral finance, and are discussed in detail in our 2000 paper *Behavioral Finance*.

Indices or Active Management?

There has been a vigorous debate over whether fundamental indices should be considered true indices, or rather active management. Some have defined them as "quasi-active" or "quasi-passive," often comparing them to enhanced indexing. Our view is that a market index is something that attempts to give as complete a picture of a given market as reasonably practical, while active management is any strategy designed to beat a market benchmark. Thus, the debate boils down to a couple of issues. First, what (if anything) are fundamental indices trying to define? And second, what investor purpose do they serve?

Arnott claims the RAFI 1000 more closely reflects the (unknowable) true value of equities than do broad cap-weighted indices. In other words, while cap-weighted indices systematically over- and underweight the wrong stocks, the RAFI randomizes these errors by using different criteria to weight stocks, and thus comes *closer* to an overall true value for the market. While quite logical, this is not sufficient to qualify as a market index. Indeed, in their original paper, Arnott et al. wrote: "If the goal of earning higher returns with lower risk is the *raison d'etre* for the finance community, we find convincing evidence for indexing to these Fundamental Indexes." In short, the RAFI does not seek to define the market, it attempts to outperform it.

A true market index, by contrast, seeks to define the opportunity set available to a given investor, a need that is *by definition* filled by cap-weighted indices. As one market observer quipped when discussing this issue, "If I were really rich and wanted to buy the whole darn market, I'd pay the cap-weighted price." Indeed, in our view, fundamental indices are useful not as market benchmarks, but rather as vehicles that seek to deliver above-market returns with comparable volatility. (Not surprisingly, this attribute is generally the focus of presentations by fundamental index providers.) Thus, it seems most logical to define them as relatively low-octane quant strategies, similar to enhanced indexing but with different characteristics.

How Do You Define Value?

One of the more persistent criticisms of fundamental indices is that they are simply value indices in drag. Indeed, it is axiomatic that an index based on fundamentals rather than price will tend to overweight companies that are cheap relative to fundamentals, and underweight those that are expensive. However, it is also important to note that *there is no universal definition of value.*[5] Thus, while there is undoubtedly a value tilt to fundamental indices, it is difficult if not impossible to quantify this with any sort of accuracy. Nevertheless, fundamental and value indices are clearly based on similar assumptions, and as such will tend be intertwined to some degree. Indeed, the returns of fundamental and value indices have tracked each other quite closely over the past 25 years or so (Exhibit 1), and investors should therefore question whether they

[5] For an in-depth discussion of the different characteristics of various style indices, please see our August 2005 U.S. Market Commentary: *New Equity Indices Are Quite Stylish.*

can achieve results similar to fundamental indexing (but for lower fees) by passively tracking either one of the main value indices, or some combination of cap-weighted benchmarks.[6]

A value tilt does appear to explain a large percentage of fundamental indices' long-term performance, as well as their outperformance over broad cap-weighted indices. From the inception of the Russell style indices in 1979, for example, the RAFI 1000 and WisdomTree℠ indices have posted correlations with the Russell 1000® Value Index of 0.99 and 0.97, respectively (Exhibit 2). Correlations for the RAFI and WisdomTree℠ indices with the overall Russell 1000®, meanwhile, were 0.95 and 0.92, respectively, and with the Russell 1000® Growth Index, 0.85 and 0.81.

Still, fundamental indices have outperformed nearly all value indices over most of the time periods for which we have data, likely due to the fact that once value indices determine their constituents, they then weight them *by market cap.* Thus, while fundamental and value indices contain similar constituents, value indices, by weighting according to market cap, still tend to hold relatively large positions in the most expensive value stocks. Interestingly, the S&P/Citigroup Pure Value Style Index, which weights constituents according to the attractiveness of their growth or value score, has outperformed both the RAFI 1000 and WisdomTree℠ indices over the 11-plus years for which we have data, albeit with a higher standard deviation (Exhibit 3). In short, it appears fundamental indices have outperformed traditional value indices largely due to the cap-weighting methodology used in the majority of these indices, rather than through superior stock selection.

With regard to the recent outperformance of value, which has skewed the long-term return numbers of fundamental indices relative to broad cap-weighted indices, we are relatively sanguine. As discussed above, our view is that value stocks *should* outperform growth stocks over the long term, as the human tendency to overemphasize recent results and blindly extrapolate them into the future does create mispricings in the market, the Microsofts and Dells of the world notwithstanding. Thus, while the lengthy recent run of value outperformance serves to highlight the endpoint sensitivity inherent in *any* comparison of relative performance numbers, it does not detract from the sound theoretical underpinnings of fundamental indexing. However, we are concerned that the recent attention paid to fundamental indexing has been largely a result of this recent outperformance, and that some investors may buy into the strategy at exactly the wrong time, thus setting themselves up for disappointment (and the all-too-frequent second bad decision to bail out of the strategy after a period of underperformance). In short, investors who decide to place money in a fundamental indexing strategy should do so with full knowledge that their extraordinary recent performance is not only unlikely to be repeated anytime soon, but may well have laid the groundwork for a period of *under*performance.

This leads us to another issue, specifically investor tolerance for lengthy periods of underperformance relative to cap-weighted indices. In short, investors considering fundamental indices as a

[6] We should note that there does not appear to be *any* combination of cap-weighted indices that would have provided the same combination of return and standard deviation as fundamental indices over the period for which we have data. While investors could have achieved similar returns, they would have come at the expense of heightened volatility; conversely, similar volatility necessitated lower returns.

replacement for passive exposure to broad cap-weighted indices should not do so unless they can withstand months or years of underperformance, almost certainly during periods when popular indices are soaring to new heights. In 1998-99, for example, the S&P 500 returned 55.6%, while the Nasdaq Composite rose 159.1%, and the Nasdaq 100 soared an astounding 274.2%. The RAFI 1000 and WisdomTree^SM indices, meanwhile, returned 33.5% and 22.9%, respectively. Further, the intense media coverage of equities during this period put enormous pressure on investors whose returns lagged. Indeed, even sophisticated investors lost patience with value managers of all stripes in 1998 and 1999—right before value stocks began their historic run of outperformance. The lesson, of course, is that while fundamental indices *do* have a built-in advantage over cap-weighted indices that makes them quite likely to outperform over time, they are *not* substitutes for passive equity exposure, and will inevitably go through periods of severe underperformance relative to broad cap-weighted indices at one time or another.

Imitators, Fees and Turnover (Oh My!)

Indeed, given that fundamental indices are effectively active strategies, but (unlike traditional active manager strategies) clearly defined and thus easily replicated, it is worth considering the effect of imitators. Put simply, the growing influence of quantitative money managers—i.e., model-driven processes where final decisions are made by computer programs—should not be underestimated.[7] If investors buy into the fundamental indexing story, quant managers would likely increase their use of such factors, thus arbitraging away much of whatever advantages fundamental indices have historically enjoyed. While those already invested in fundamental index strategies would see a short-term benefit under such a scenario, the corresponding increase in valuation multiples would also serve to compress future expected returns. In short, fundamental indexing could become a victim of its own success, with the ability to generate enhanced returns not only diminishing as the concept takes root, but also doing so relatively quickly as the investment strategy is transparent and mechanical.

Such an outcome is far from certain, of course. Still, even if we assume fundamental indices will continue to outperform broad and value-oriented cap-weighted benchmarks as they have in the past, fees should be a prominent consideration given the relatively narrow margin of historical outperformance. As noted, the two main players in the space are the RAFI 1000 and the WisdomTree^SM family of dividend-weighted indices. Due to a licensing agreement with FTSE, Research Affiliates no longer offers a passive version of the RAFI 1000, so fees will vary based on provider. Given that providers must pay a licensing fee of about 10 basis points (bps) for the RAFI 1000, total fees are likely to be in the neighborhood of 30 bps to 40 bps depending on size of account. (The RAFI 1000 is also available as an ETF [NYSE: PRF], but fees of roughly 75 bps are prohibitive.) The WisdomTree^SM indices are generally cheaper, with fees on their large-cap index starting at 25 bps, and dropping to 15 bps for very large (>$100 million) accounts. Overall, fees seem reasonable for these products; by comparison, the median fee for the enhanced index managers we follow is about 35 bps.

[7] For more information on quant managers and their processes, please see our 2006 report: *Demystifying Quantitative Investing.*

We would also note that while turnover will almost certainly be higher for fundamentals-weighted products than for cap-weighted benchmarks, the impact on relative returns is likely to be small. In their original study, Arnott et al. calculated the annual turnover for the RAFI 1000 to be 10.6%, versus 6.3% for the reference portfolio. Even assuming a 2% round-trip transaction cost (a relatively high estimate), this would have knocked only 14 bps off the annual alpha for the RAFI 1000.

Conclusion

Fundamentally weighted indices should be viewed as another tool to be utilized by investors—no more, no less. There is an undeniable logic to their construction, and unless human nature changes, they are quite likely to outperform broad cap-weighted indices over long periods. As much of that outperformance is linked to their style tilt, however, investors may be able to gain lower-cost exposure through passively tracking a value index. Indeed, given the relatively narrow annual performance gap between fundamental- and cap-weighted indices, fees should be a prominent consideration. Further, investors currently considering such strategies may want to tread cautiously given the recent run of value outperformance. In other words, while these indices should outperform cap-weighted indices *in the long run*, this may not be the best time to get in. Finally these strategies should *not* be considered indices in the traditional sense; rather, they should be viewed as quantitative active management, with the stated goal of outperforming cap-weighted indices, and thus subject to periodic bouts of underperformance relative to cap-weighted benchmarks.

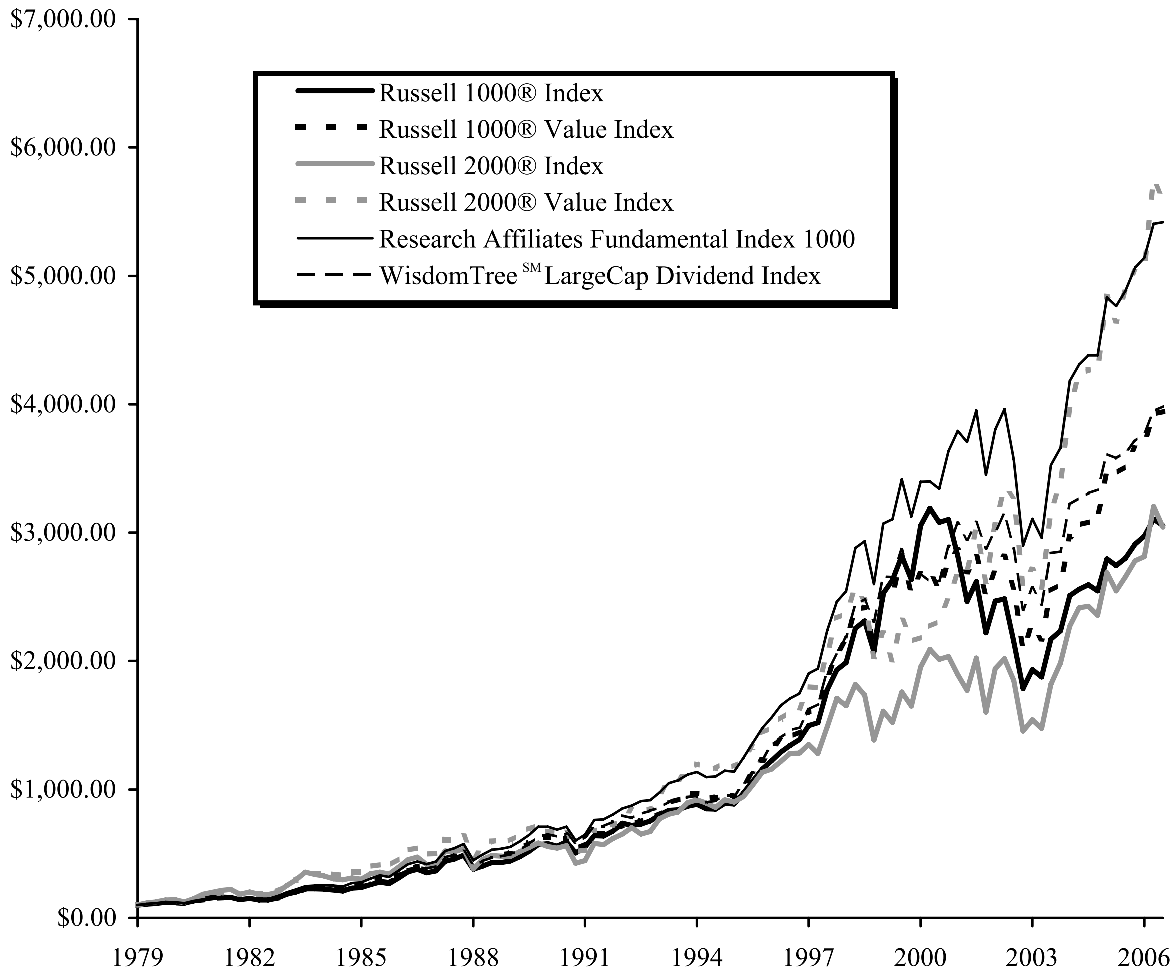
EXHIBITS

Exhibit 1

CUMULATIVE WEALTH OF VARIOUS INDICES

January 1, 1979 - September 30, 2006

(December 31, 1978 = $100)



	Russell 1000® Index	Russell 1000® Value Index	Russell 2000® Index	Russell 2000® Value Index	Research Affiliates Fundamental Index 1000	WisdomTree SM LargeCap Dividend Index
AACR	13.31	14.41	13.12	15.71	15.70	14.47
Std Dev	15.99	14.40	21.60	19.02	14.90	13.20
Sharpe Ratio	0.47	0.58	0.39	0.54	0.64	0.62

Sources: Frank Russell Company, FTSE International Limited, Merrill Lynch & Company, Research Affiliates LLC, Thomson Datastream, and WisdomTree SM.

Exhibit 2

CORRELATION MATRIX OF VARIOUS INDICES

March 31, 1979 - September 30, 2006

	Russell 1000® Index	Russell 1000® Value Index	Russell 2000® Index	Russell 2000® Value Index	Research Affiliates Fundamental Index 1000	WisdomTree^{SM} LargeCap Dividend Index
Russell 1000® Index	1.00					
Russell 1000® Value Index	0.94	1.00				
Russell 2000® Index	0.90	0.87	1.00			
Russell 2000® Value Index	0.80	0.88	0.95	1.00		
Research Affiliates Fundamental Index 1000	0.95	0.99	0.91	0.90	1.00	
WisdomTree^{SM} LargeCap Dividend Index	0.92	0.97	0.81	0.82	0.97	1.00

Sources: Frank Russell Company, FTSE International Limited, Research Affiliates LLC, Thomson Datastream, and WisdomTree^{SM}.

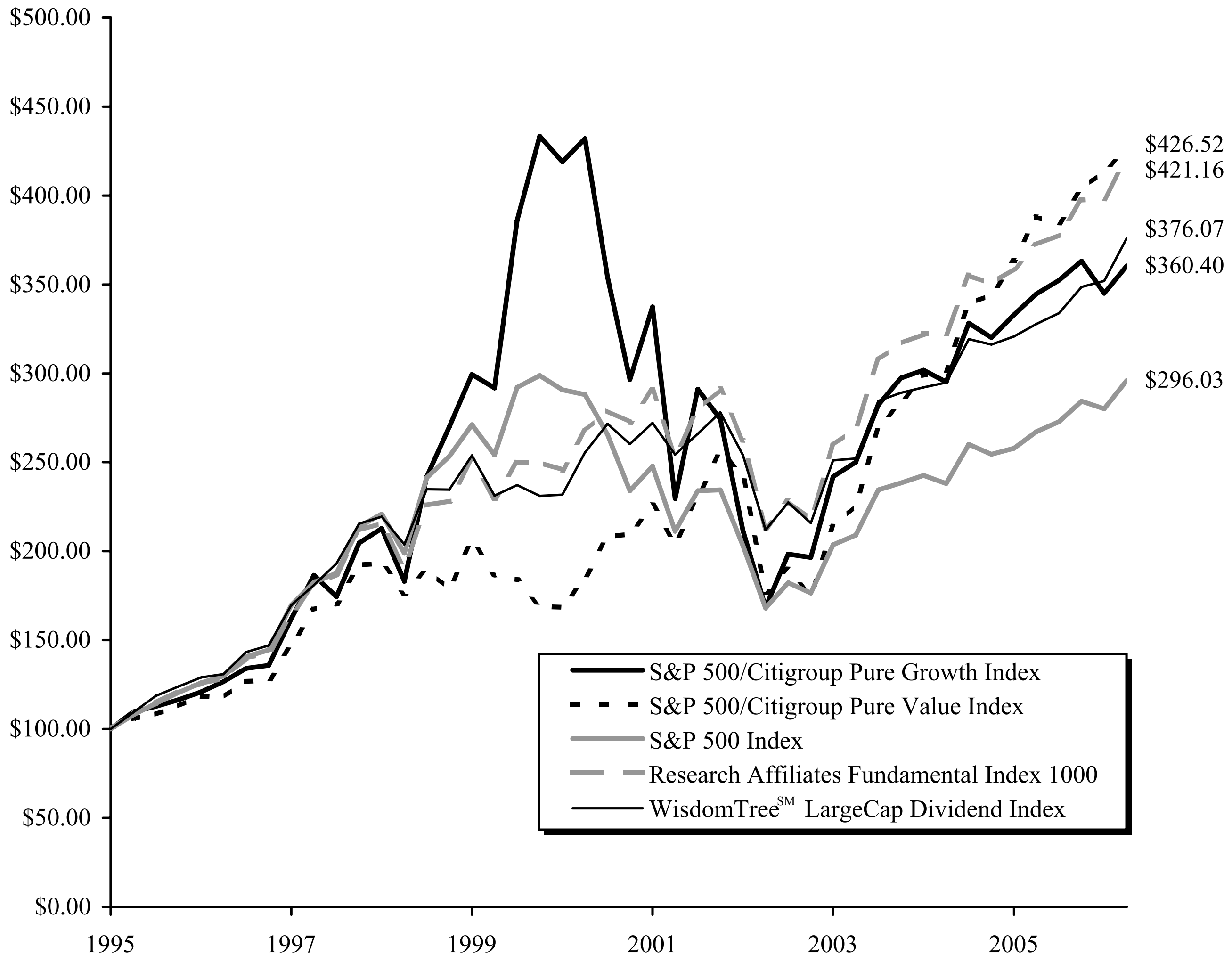
Note: Correlation figures are based on quarterly returns.

Exhibit 3

CUMULATIVE WEALTH OF VARIOUS INDICES

July 1, 1995 - September 30, 2006

(June 30, 1995 = $100)



	S&P 500/Citigroup Pure Growth Index	S&P 500/Citigroup Pure Value Index	S&P 500 Index	Research Affiliates Fundamental Index 1000	WisdomTree SM LargeCap Dividend Index
AACR	12.07	13.76	10.13	13.63	12.50
Std Dev	26.93	17.71	16.65	15.54	13.53
Sharpe Ratio	0.42	0.61	0.43	0.66	0.66

Sources: FTSE International Limited, Merrill Lynch & Company, Research Affiliates LLC, Standard & Poor's, Thomson Datastream, and WisdomTree SM.

Note: Graph shows cumulative wealth from June 30, 1995 to September 30, 2006 on a quarterly total return basis.

Exhibit 4

CHARACTERISTICS OF FUNDAMENTAL INDICES

	Research Affiliates Fundamental Index 1000	WisdomTree^{SM} LargeCap Dividend Index	FTSE Global Wealth Allocation U.S. Index
Index Reconstitution	Annual	Annual	Quarterly
Fundamental Factors	4	1	3
Factors	Book Value Five-year average cash flow Five-year average gross sales Five-year average gross dividends	Dividends	Net Profit Cash Flow Book Value
Universe	All publicly traded companies within the United States.	Must list shares on NYSE, AMEX, or Nasdaq, is incorporated in the United States, and must have paid dividends within the past 12 months.	FTSE All-World U.S. Index.
Weighting	Rank all companies according to four metrics: book value, cash flow, sales, and dividends. Select the 1,000 largest by each metric and weights by relative metric weight. Combine (in equal proportion) the weights for each company to arrive at a composite weight (RAFI fundamental value).[1]	Weighting is determined by the company's contribution to the overall "dividend stream."	Weighting is determined by ranking each company by three metrics (net profit, cash flow, and book value), then taking the average of the three weights.[2]
Membership Criteria	Rank all stocks in descending order and select the 1,000 largest companies by RAFI fundamental value.	The 300 largest component companies of the universe by market capitalization.	All Companies listed in the FTSE All-World U.S. Index.

Sources: FTSE International Limited, Global Wealth Allocation Limited, Research Affiliates LLC, and WisdomTree^{SM}.

[1] A stock that has not paid a dividend in the past five years will have a percentage representation of zero for dividends. To calculate the RAFI fundamental value take the average of the three percentage representation figures (sales, cash flow, and book value).

[2] If a company does not report a factor then the percentage representation for that factor will equal the weight percentage in the FTSE All-World U.S. Index.