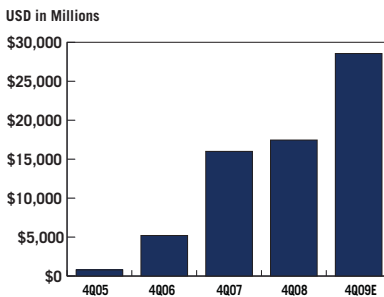


Fundamentals



Robert D. Arnott

RAFI® Managed Assets*



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



620 newport center drive, suite 900
 newport beach, ca 92660 usa
 phone +1 (949) 325-8700
 fax +1 (949) 554-0192
 info@rallc.com
 www.rallc.com

MEDIA CONTACT

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

LESSONS FROM THE “NAUGHTIES”

Last month, we examined the Lost Decade and learned that much of the pain of the past 10 years was caused by an overreliance on the equity risk premium and the corrosive effect of capitalization weighting our equity holdings. Simply bypassing these two practices would have delivered respectable 7–8% annual returns. But past is not prologue. History is littered with the folly of building yesterday’s army to fight tomorrow’s war.

In this issue we apply the lessons of the recent Lost Decade to current market conditions. From an asset allocation perspective, the outlook for the ubiquitous 60/40 blend remains bleak. Unfortunately, moving away from this standard mix to a broader toolkit of risk exposures is likely to be less profitable than it was in the past decade as yields from diversifiers like REITs, TIPS, and emerging market bonds are well below the levels of 10 years ago. The key to better returns will be to respond tactically to the shifting spectrum of opportunity, especially expanding and contracting one’s overall risk budget. This approach, combined with “better beta” choices like the Fundamental Index® concept (which currently sports an unusually deep discount, relative to capitalization weighting), should help us to achieve our targeted returns in what—we shudder to suggest—is likely to be another tough slog for investors.

Busting out the Crystal Ball

Naïve mean reversion would indicate that 10 lean years for the

60/40 blend (60% S&P 500/40% BarCap Aggregate) ought to be followed by a decade of relatively strong results, especially when the recent lean years delivered the first ever decade of negative real returns! Of course, this assertion can only be verified with a perfectly tuned crystal ball.

While we take great pride in our asset class forecasting, we unfortunately don’t have such a device buried in our research department.¹ But we can reasonably project likely future asset class returns by starting with their key Building Blocks. The long-term return on any investment can be broken down into income, growth in income, and changes in valuation levels. **Table 1** illustrates these components, save for changes in valuations levels (more on that later), for the S&P 500 and BarCap Aggregate Bond Index as of December 31, 1999, and December 31, 2009.

Let’s start with equities because we spent most of last month’s issue of Fundamentals on their Lost Decade. The dividend yield on the S&P 500 was 2.1% as of December 31, 2009. True, that’s almost double the rate at the end of the 1990s, but it’s still puny relative to a long-term average of 4.5% since 1900. If we add a historic growth rate to those dividends, we arrive at an annualized real long-term expected return of 3.3% for stocks, assuming no change in valuations. Clearly, 10 years of poor returns hasn’t materially impacted expected future returns. As some wags have

Table 1. Forward Looking Building Blocks—Then vs. Now

Return Components	S&P 500		BarCap Aggregate	
	12/31/99	12/31/09	12/31/99	12/31/09
Income*	1.13%	2.11%	7.16%	3.68%
Real Growth in Income**	1.20%	1.20%	-0.10%	-0.10%
Less Expected Inflation***	0.00%	0.00%	-1.94%	-1.81%
Change in Valuation Level	??	??	??	??
Building Blocks Real Return	2.33%	3.31%	5.12%	1.77%

*Dividend yield for S&P 500; yield to maturity for BarCap Aggregate.

**1900-2009 dividend growth for S&P 500; expected default rate for BarCap Aggregate.

***S&P 500 earnings expected to grow with inflation; breakeven rate between BarCap 1-10 TIPS and 5-year Treasury for bonds.

Source: Research Affiliates.

suggested, the Tech bubble discounted not only future growth but also growth in the hereafter.

On the bond side, the current yield to maturity is an excellent predictor of future long-term returns. Accordingly, bonds helped the 60/40 portfolio in the Lost Decade as they started with a yield of over 7%. Today the yield is about half as large. Backing out today's breakeven rate,² we see a core bond portfolio can be reasonably expected to achieve only an annualized 1.8% real return.

So, a reasonable expectation for a standard 60% stock and 40% bond mix over the next 10 years is a real return of 2–3% per year, again assuming no change in valuations. Yikes! The Lost Decade has most assuredly not paved the way for easy times in the years ahead. We're still in a low return environment. This is a commonplace observation but most observers refer to low returns relative to the 1980s and 1990s, not the last decade.

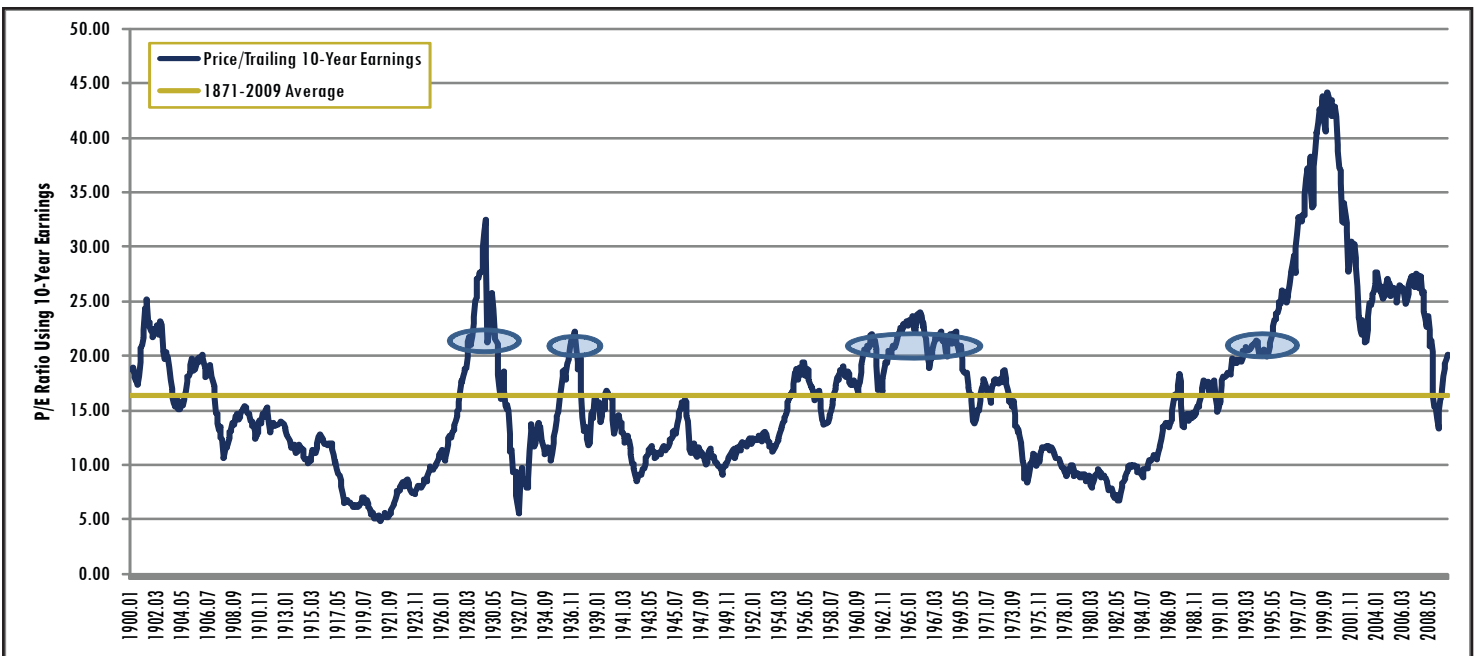
The Impact of Valuations—The BIG Wildcard

But valuations do change and have large multiplier effects on 10-year returns from asset classes, especially stocks. Consider that during the Naughties a rise in dividend yields from 1.1% to 2.1% implies a 48% drop in the value that the market was willing to pay for each dollar of dividends. That works out to a 6.5% annualized drop in valuation multiples. If we examine Table 1, we find that a valuation change of 6.5% pulls our annualized real return down from 2.3% to -4.2%. What was the actual result? A whole lot closer to the latter: -3.6%!

The annualized contribution of changing valuations to equity returns has ranged from +11% to -7% over the past six decades. So where are we today in the stock market? Figure 1 shows the performance of the Shiller P/E ratio over time. The Mother of All Recoveries has pushed equity valuations, marginally cheap in a historical context back in February 2009, back into the low 20s, a 25% premium to the long-term average.

As you can see in Figure 1, equities traded at the same P/E ratios as they did in early January 2010 in four distinct time periods (highlighted): 1928–1930, 1936–1937, much of the 1960s, and 1992–1995. Table 2 shows the subsequent average 10-year equity returns, inflation, and ending P/E ratios from each of these periods. Not surprisingly, the subsequent 10 years after 1928–1930 (even to those who slept through American history classes) showed negative nominal returns and deflation due to the Great Depression. The 10-year periods following 1936–1937 and the 1960s showed average annual inflation in the 4%

Figure 1. “Shiller” P/E Ratio 1900–2009



Source: Research Affiliates based on data from Robert Shiller.

Table 2. Subsequent S&P 500 Index 10-Year Returns from Starting P/E Ratios of 20–22

	Starting Periods of 20–22 P/E Ratios			
	1928–1930	1936–1937	1960s	1992–1995
Average Subsequent 10-Year Return	-1.6%	6.1%	6.3%	10.6%
Average Subsequent 10-Year Inflation	-1.9%	3.7%	4.7%	2.4%
Average Ending P/E Ratio	13.4	15.5	14.3	25.2

Source: Research Affiliates based on data from Morningstar and Robert Shiller.

range, well higher than we’ve seen in the past 25 years. With equity P/E ratios contracting into the 14–15 range, against a headwind of inflation, stock investors suffered skinny real returns of 1.5–2.5%. Only following the early 1990s did 10-year returns bump into double digits, as low inflation and rising valuation multiples allowed the S&P 500 to average 10.6% per annum, gains that were subsequently lost.

If we believe in higher long-term inflation over the next decade,³ then equity valuations are likely to contract, meaning our Building Blocks return forecast for stocks and bonds may be too high. Stocks will produce less due to the downward pressure on valuation multiples, while higher inflation eats into today’s skinny nominal bond yields. So, one lesson of the Lost Decade is likely to hold true—an equity-centric mix of mainstream stocks and bonds is likely to disappoint. Again. Net of inflation, it could even be worse than the past 10 years.

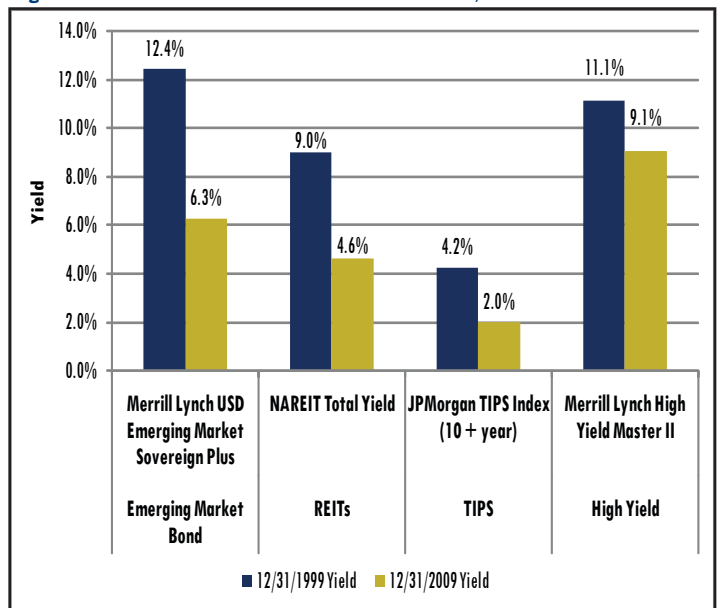
Diversification and Alternative Assets—With No Fat Pitch, Think Tactical

A key tonic to the past 10 years was a more diversified, less equity-centric approach. A risk premium over government bonds isn’t restricted to equities; plenty of assets offer premiums in line with stocks and occasionally higher. In the last issue we used the 16-asset class portfolio⁴ to illustrate the benefits of diversifying across a wider spectrum of asset classes. For the decade 2000–2009, this more-diversified approach achieved an annualized return of 6.8%, a 450 bps premium over 60/40. Abandon cap weight for stocks and the return jumps to 8.5%, nearly matching most investors’ targeted returns.

Looking forward, the outlook is not as “attractive” as it was in 2000. Today, yields on most of these diversifying assets are well off the rich premium levels at the turn of the century. Back then, NASDAQ-induced neglect led to a whole spectrum of alternative asset classes, favorably priced for attractive long-term returns. Today, we aren’t so lucky as many off-the-beaten path categories sport rock bottom yields (and, therefore, low forward-looking returns). **Figure 2** provides a quick snapshot of “Then Versus Now” in four asset classes: REITs, TIPS, emerging market bonds, and high-yield bonds.

Emerging markets bonds, REITs, and TIPS offer half of their Y2K yields. Even high-yield bonds, whose 1999 yields were pushed down due to heavy issuance by adored tech and telecom players, show significantly lower yields

Figure 2. Then Versus Now—Alternative Asset Yields, 1999 and 2009



Source: Research Affiliates based on data from Bloomberg.

today. The fat pitch of diversification into risk premiums beyond mainstream stocks and bonds is largely gone.

So what to do? Manage the asset mix! Vitally important in this exercise is to shift risk postures. Too often asset allocation programs are governed by a relatively constant risk tolerance, say on par with a 60/40 stock/bond mix. This approach encourages swapping one risky asset class out for another (e.g., non-U.S. developed stocks for emerging markets stocks, REITs for U.S. stocks, etc.). But in the current environment, when all asset classes are rich, shouldn’t we consider a more conservative posture? This approach isn’t market timing but risk budgeting. We choose to take long-term risk when risk-bearing is likely to be rewarded, and a conservative, well-diversified posture when it is not. Rich forward-looking risk premiums typically prevail when investors are terrified, as they were in early 2009. As Warren Buffett suggests, we should be “greedy when others are fearful and fearful when others are greedy.”

Out-of-mainstream markets can still add value if we use them tactically and opportunistically. Inevitably, investors sell the assets they least understand when times get rocky and buy them when conditions are calm. Thus, diversification can still be powerful, but only if we practice diligent tactical asset allocation.

Outlook for Equities? Depends on your Index!

Stocks were terribly disappointing during the Naughties, but the results of the Fundamental Index approach (and, for that matter, equal weighting) illustrate that the shortfall was largely attributable to the cap-weighted construction of traditional indexes. The destruction of capitalization weighting wasn’t restricted to the two bookend years as evidenced in **Table 3. A**

global, all country Fundamental Index (FTSE RAFI® All World 3000) portfolio beat the representative global, all country cap-weighted portfolio (MSCI ACWI) 9 years out of 10, falling short by a scant 30 bps in 2008. Even equal weighting, the most naïve of all price-indifferent approaches, managed to win by 600 bps per annum and did so consistently (8 years out of 10).

Table 3. Capitalization Weighting's Shortfall, 2000–2009

	Annualized Return	“Winning” Years
Globally		
FTSE RAFI All World 3000	7.84%	9
MSCI ACWI	0.89%	1
U.S.		
FTSE RAFI US 1000	4.74%	8
S&P Equal Weight	5.14%	8
S&P 500	-0.95%	2

Source: Research Affiliates based on data from Bloomberg.

Of course, yesterday’s winners typically become tomorrow’s laggards. However, a comparison of current valuation discounts for Fundamental Index strategies versus cap-weighted ones indicates that avoiding the negative alpha of capitalization weighting is likely to still be profitable at today’s valuation levels. Previously, we noted that when RAFI US Large trades at a price/book ratio 27% or more “cheaper” to the S&P 500, the odds are good for subsequent outperformance—in the United States, the RAFI portfolio beats the S&P 500 in over 80% of subsequent three-year periods, with an average of 3.6% of additional return.⁵

So where does this discount stand today? Despite achieving its second best year ever of relative outperformance in 2009, the FTSE RAFI US 1000 still trades at a discount of 48% to the S&P 500. Similar discounts can be had elsewhere, including 38% for a global all country application as evidenced in Table 4. These approach the historical peak discounts seen at the top of the Tech bubble in early 2000.

It’s not realistic to expect another 10 years of 600–700 bps per annum return drag from capitalization weighting. Nonetheless, given today’s discount levels, we expect continued sizeable gains from non-cap-weighted indexes and, therefore, continued benefits from using a Fundamental Index approach.

Conclusion

“Lost and Found” will not describe investment results for the first two decades of this millennium, as sizeable real returns will prove to be difficult for the second 10-year stretch in a row. Most investors will fall short of their goals, as almost all asset classes—whether mainstream or alternatives—are priced richly relative to historical norms. But odds can be tilted back in our favor by tactically altering our portfolio risk based on measures as simple as yields and yield spreads. The most successful investors are those with the discipline to shun risk when the markets seem tranquil, and the fortitude to seek risk when others are terrified. The best path to future success marries risk management—tactical asset allocation—with a more efficient beta like the Fundamental Index methodology and a full toolkit of alternative markets.

Table 4. Fundamental Index Portfolios Valuation Discounts, January 2010

1/31/2010	Price/Sales	Price/Book	Dividend Yield	Weighted Average Market Cap (billions)
FTSE RAFI US 1000	0.57	0.99	1.7%	\$59.8
S&P 500	1.11	1.91	2.0%	\$78.1
RAFI Discount	-47%	-48%	15%	
FTSE RAFI US MS 1500	0.37	1.14	1.0%	\$1.0
Russell 2000	0.75	1.47	1.3%	\$1.0
RAFI Discount	-51%	-23%	30%	
FTSE RAFI Developed ex-US 1000	0.46	1.05	2.8%	\$41.7
FTSE Developed ex-US	0.75	1.54	3.0%	\$45.9
RAFI Discount	-39%	-32%	5%	
FTSE RAFI Dev. ex-US MS 1500	0.46	1.05	2.5%	\$1.8
FTSE Developed Small ex-US 1500	0.59	1.29	2.3%	\$1.8
RAFI Discount	-22%	-19%	-9%	
FTSE RAFI Emerging Markets	0.39	1.58	1.9%	\$23.8
FTSE Emerging Markets	0.92	2.17	2.1%	\$31.1
RAFI Discount	-58%	-27%	13%	
FTSE RAFI All World 3000	0.50	1.08	2.3%	\$45.5
FTSE All World	0.88	1.74	2.5%	\$56.4
RAFI Discount	-43%	-38%	8%	

Notes: The index version of the RAFI methodology, or the FTSE RAFI Indexes, is licensed globally by our partner the FTSE Group. Indexes are unmanaged and cannot be invested in directly.

Source: Research Affiliates based on data from Bloomberg.

Endnotes

1 Ironically, many of our turn-of-the-century predictions proved remarkably—and sadly—prescient. Early drafts of “The Death of the Risk Premium” (published in early 2001) were circulated as early as February 2000. Before the top! But, even a good crystal ball doesn’t assure success with clients. The mid-decade bull market caused some shorter term investors to bail out of asset allocation programs, despite their eventual reliability over the full decade. Many paths can be taken to achieve a spot-on 10-year forecast. Successfully managing expectations is often harder than successfully managing assets!

2 Admittedly, breakeven rates are a poor predictor of future inflation as they can be influenced by many things. In 2000, the relative newness of TIPS and the tech bubble allowed TIPS yields to briefly cross 4%. On the flip side, the liquidity based sell-off in the fall of 2008 disproportionately hurt TIPS versus nominal Treasuries.

3 See “3-D Hurricane Force Headwind,” *Fundamentals*, November 2009. http://www.rallc.com/ideas/pdf/Fundamentals_200911.pdf Incidentally, this longer term near inevitability of inflation probably isn’t going to be an issue shorter term—next 12–24 months—as a weak recovery and falling rents will put pressure on CPI figures. But on a 10-year outlook (the minimum planning horizon for institutional investors and most retirement programs), our bet is on higher inflation. Perhaps even far higher.

4 The equally-weighted portfolio comprises the following 16 indexes, rebalanced monthly: ML US Corporate & Government 1–3 Year; LB US Aggregate Bond TR; LB US Treasury Long TR; LB US Long Credit TR; LB US Corporate High Yield TR; Credit Suisse Leveraged Loan; JPM EMBI + Composite TR; JPM ELMI + Composite; ML Convertible Bonds All Qualities; LB Global Inflation Linked US TIPS TR; FTSE NAREIT All REITs TR; DJ AIG Commodity TR; S&P 500 TR; MSCI Emerging Markets TR; MSCI EAFE TR; Russell 2000 TR.

5 “Discounts and Relative Performance,” *Fundamentals*, February 2009. http://researchaffiliates.com/ideas/pdf/Fundamentals_200902.pdf

Performance Update

TOTAL RETURN AS OF 1/31/10	BLOOMBERG TICKER	YTD	12 MONTH	ANNUALIZED 3 YEAR	ANNUALIZED 5 YEAR	ANNUALIZED 10 YEAR	ANNUALIZED 10 YEAR VOLATILITY
FTSE RAFI® 1000 Index ^A	FR10XTR	-2.59%	54.73%	-5.74%	2.19%	4.86%	17.84%
S&P 500 ^B	SPTR	-3.60%	33.14%	-7.24%	0.18%	-0.80%	16.10%
Russell 1000 ^C	RUT0INTR	-3.60%	34.81%	-7.10%	0.57%	-0.44%	16.35%
FTSE RAFI® US 1500 Index ^D	FR15USTR	-2.75%	71.53%	-3.11%	4.31%	10.59%	22.29%
Russell 2000 ^E	RU20INTR	-3.68%	37.82%	-7.74%	0.61%	3.29%	21.58%
FTSE RAFI® Developed ex US 1000 Index ^F	FRX1XTR	-5.00%	52.79%	-4.49%	5.92%	6.08%	19.04%
MSCI EAFE ^G	GDDUEAFE	-4.40%	40.39%	-7.19%	3.47%	1.80%	17.79%
FTSE All World Series Developed ex US ^H	FTSDXUS	-4.77%	42.59%	-6.11%	4.41%	2.58%	18.04%
FTSE RAFI® Developed ex US Mid Small ^I	FRSDXUS	-2.18%	60.44%	-4.24%	4.91%	8.92%	18.02%
MSCI EAFE Small ^J	MCUDEAFE	-1.04%	51.52%	-10.59%	0.79%	4.18%	19.74%
FTSE RAFI® Emerging Markets ^K	TFREMU	-5.13%	87.51%	8.81%	20.19%	18.61%	25.37%
MSCI Emerging Markets ^L	GDUEEGF	-5.56%	80.66%	3.79%	14.49%	9.40%	24.98%
FTSE RAFI® Canada ^M	FRCANTR	-4.23%	45.44%	0.72%	8.48%	10.44%	14.28%
S&P/TSX 60 ^N	TX60AR	-6.26%	27.70%	-2.08%	7.53%	4.81%	16.94%
FTSE RAFI® Australia Index ^O	FRAUSTR	-6.05%	41.69%	-1.18%	7.52%	10.05%	12.73%
S&P/ASX 200 Index ^P	ASA51	-6.18%	35.16%	-3.37%	6.69%	8.34%	13.28%
FTSE RAFI® Japan ^Q	FRJPNTR	-0.21%	21.40%	-15.82%	-0.60%	0.10%	18.03%
MSCI Japan ^R	GDDLJN	-0.77%	17.41%	-18.19%	-2.46%	-4.53%	17.87%
FTSE RAFI® UK Index ^S	FRGBRTR	-3.69%	36.19%	-3.20%	3.70%	5.87%	17.00%
MSCI UK ^T	GDDUUK	-4.07%	30.94%	-2.21%	4.92%	1.97%	14.74%

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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