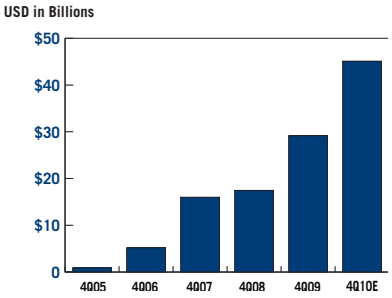
Fundamentals

Rob Arnott

RAFI® Managed Assets*



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THE BIGGEST URBAN LEGEND IN FINANCE

Stocks ought to produce higher returns than bonds in order for the capital markets to "work." Otherwise, stockholders would not be paid for the additional risk they take for being lower down the capital structure. It comes as no surprise, therefore, that stockholders have enjoyed outsized returns for their efforts for most—*but not all*—long time periods.

Ibbotson Associates, whose annual data compendium[1] covers U.S. stocks and U.S. bonds since January 1926, shows the S&P 500 Index compounding through December 2010 at an annual rate of 9.9% vs. 5.5% for long-term government bonds, an excess return of 4.4%. This return compounds exponentially with time. A $1,000 U.S. stock investment in 1926 would have ballooned to $3 million by December 2010 vs. $92,000 for an investment in long-term bonds, a 32-fold difference.

Emboldened by the 1980s and 1990s (when stocks compounded at 17.6% and 18.2% per annum, respectively), "Stocks for the Long Run" became the mantra for long-term investing, as well as a best-selling book. This view is now embedded into the psyche of an entire generation of professional and casual investors who ignore the fact that much of those outsized returns were a consequence of soaring valuation multiples and tumbling yields. In this issue we examine historical U.S. equity performance from a larger perspective and find that today's overwhelming equity bias is built on a shaky foundation, reliant on a short and unrepresentative time period.

Let's Talk Really Long-Term

For those willing to do the homework, longer-term stock and bond data exist for the United States. But that picture isn't quite as rosy as from 1926–2010; therefore, it doesn't receive as much attention from Wall Street optimists. From 1802–2010, U.S. stocks generated a 7.9% annual return vs. 5.1% for long-term government bonds.[2] Our realized excess return was cut to 2.8%—a one-third reduction—by adding 125 years of capital markets history!

Of course, many observers will declare 19th century data irrelevant. A lot has changed! The survival of the United States was in doubt during the early part of the century (War of 1812) and during the debilitating Civil War of the 1860s. The United States was an "emerging market"! The economy was notably short on global trade and long subsistence agriculture. Furthermore, there were three

continued on page two

major wars and four depressions—two were deeper than the Great Depression—between 1800 and 1870, a span when data on market returns were notably thin.

By the following century, the United States and its equity markets enjoyed good fortune. It was not invaded and occupied by a foreign power. It did not suffer a government overthrow… just ask Russian investors their return on capital after the Bolshevik Revolution! As Ben Graham might caution, beware the difference between the loss on capital (a drop in price, from which we can recover) and a loss of capital (100% loss, from which we cannot). Russia's stock market wasn't alone in the 20th century as three additional top 15 markets in 1900—Egypt, Argentina, and China—suffered a 100% loss of capital while Germany (twice) and Japan (once) came very close.[3]

Whether we use 200+ years or 80+ years, how many people are pursuing an investment program of that duration? No one, of course. Even "perpetual" institutions such as university endowments aren't exempt. As the late economic historian Peter Bernstein commented, "…this kind of long run will exceed the life expectancies of most people mature enough to be invited to join such boards of trustees."[4] *Relevant* horizons for all "long term" investment programs are significantly shorter—10 years or 20 years, maybe 30.

Shouldn't a span of one, two, or three decades be sufficient for investors to be rewarded for bearing the risk of holding stocks? As displayed in **Table 1**, trailing returns for stocks haven't come close to earning the excess returns that we've all come to expect, even after stocks worldwide doubled from the early March 2009 lows during the Global Financial Crisis! We'll save an exploration for how the Fundamental Index® concept radically reshapes this picture for another time.

Table 1. Stocks For the Long Run—Where's the Reward?

	Annualized Returns		
	10-year	20-year	30-year
S&P 500	1.41%	9.14%	10.71%
Ibbotson US LT Govt	6.64%	8.44%	10.18%
US Equity Risk Premium	-5.23%	0.70%	0.53%
MSCI EAFE Net	3.50%	5.85%	
JPM GBI Global ex US TR USD	7.64%	7.07%	
Intl Equity Risk Premium	-4.14%	-1.22%	

Source: Research Affiliates, LLC, based on data from Morningstar Encorr.

Where is the wealth creation implied by the Ibbotson data? Stock market investors took the risk—riding out every bubble, every crash, every spectacular bankruptcy and bear market, over a 30-year stretch. How much were they compensated for the blood, sweat, and tears spilled with all this volatility? A measly 53 basis points per annum! Indeed, investors who have incurred the ups and downs over the past decade have lost money compared to what they could have earned from long-term government bonds. They've paid for the privilege of incurring stomach-churning risk. Not only did Treasury bond investors sleep better, they ate better too!

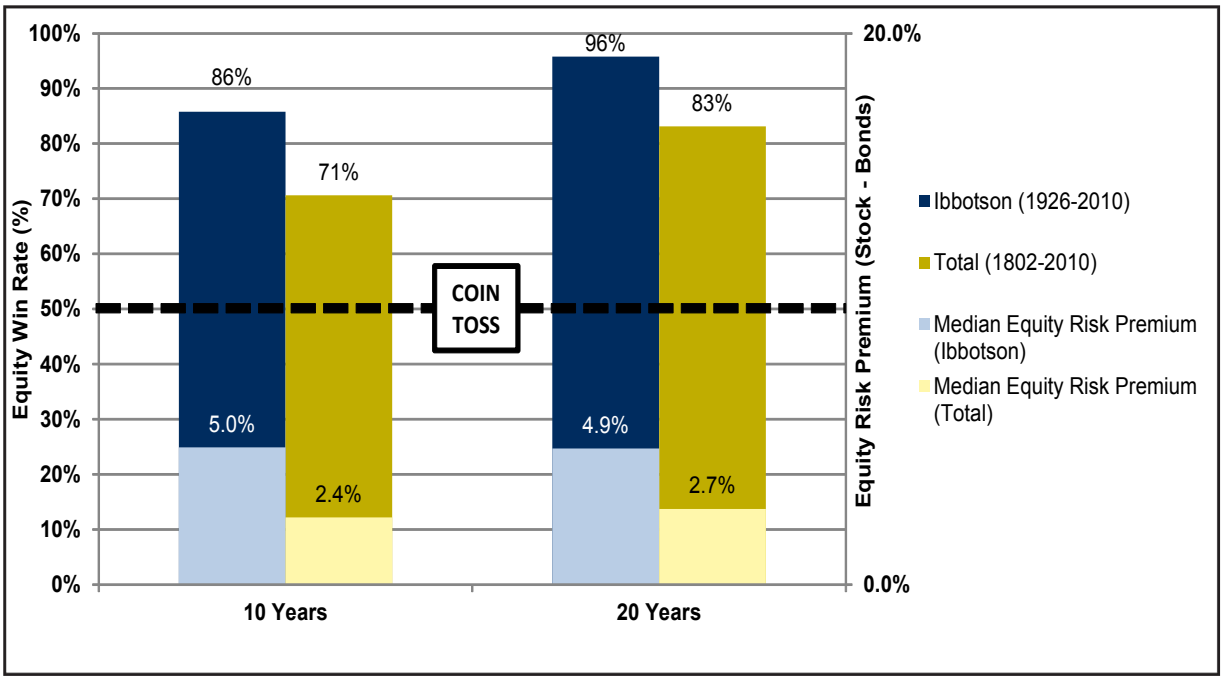
A 30-year stock market excess return of approximately zero is a huge disappointment to the legions of "stocks at any price" long-term investors. But it's not the first extended drought. From 1803 to 1857,[5] U.S. equities struggled; the stock investor would have received a third of the ending wealth of the bond investor. Stocks managed to break even only in 1871. Most observers would be shocked to learn there was ever a 68-year stretch of stock market underperformance. After a 72-year bull market from 1857 through 1929, another dry spell ensued. From 1929 through 1949, stocks failed to match bonds, the only long-term shortfall in the Ibbotson time sample. Perhaps it was the extraordinary period of history—The Great Depression and World War II—and the spectacular aftermath from 1950–1999, that lulled recent investors into a false sense of security regarding long-term equity performance.[6]

The Odds

Fortunately for the capital markets and equity investors, an examination of history shows that, yes, stocks have a high tendency to outperform government bonds over 10-year and 20-year periods. **Figure 1** illustrates rolling 10- and 20-year "win rates" for equities versus government bonds. We break the data into Ibbotson (1926–2010) and Total (1802–2010). The Ibbotson timeframe confirms investor behavior in the 30 years since Ibbotson and Sinquefield published their groundbreaking study.[7] For the vast majority of periods—86% for 10 years and 96% for 20 years—equities outperform bonds. But the longer term data are less convincing. For 10-year periods, equities outperform in 71% of the observations, rising to 83% for 20 years.

A 70% or 80% win rate still offers pretty good odds. In professional basketball, those are average to above-average free throw percentages. But the

Figure 1. No Sure Thing—Percent of Time Equities Outperform Long-Term Government Bonds Over Monthly Rolling Periods



Source: Research Affiliates.

relatively small probability of failure masks the magnitude of a miss. Just as a single missed free throw can cost a basketball championship, so too can an equity "miss" lead to drastic consequences, as the past 10 years have shown. There is no guarantee of superior equity returns, which begs the question: Why does our industry act like there's one? More important, why take all that risk for a skinny equity premium?

Conclusion

We aren't saying that we should expect bonds to beat stocks over the next 10 or 20 years. Rather, this brief history lesson illuminates that the much-vaunted 4–5% risk premium for stocks is unreliable and a dangerous assumption on which to make our future plans. In our view, a more normal economic environment would suggest 2–3%, which is the historic risk premium absent the rise in valuation multiples in the past 30 years. But these are not normal times. Today's low starting yields, combined with the prospective challenges from our addiction to debt-financed consumption and aging population, would put us closer to 1%.

It would be foolish to act as if the past 200 years is fully representative of the future. For one thing, the United States was an emerging market for much of that period, with only a handful of industries and an unstable currency. In the past century, we dodged challenges and difficulties that laid waste to the plans of investors in many countries. Nassim Taleb points out that "Black Swans"—unwelcome outliers that exceed the bounds of normalcy—are a recurring phenomenon; the abnormal is, indeed, normal. Our own stock market history is but a single sample of a large and unknowable population of potential outcomes.

Peter Bernstein relentlessly reminded us there are things we can never know, that prosperity and investing success are inherently "risky"; they can disappear in a flash. Uncertainty is always with us. The old adage puts it succinctly: "If you want God to laugh, tell him your plans." Concentrating the majority of one's investment portfolio in one investment category, based on an unknowable and fickle long-term equity premium, is a dangerous game of "probability chicken."

Endnotes

1. *Ibbotson® SBBI® 2011 Classic Yearbook: Market Results for Stocks, Bonds, Bills, and Inflation 1926–2010*, Morningstar.
2. For much of this section, we rely on the data that Peter Bernstein and I assembled for "What Risk Premium is 'Normal'?" *Financial Analysts Journal*, March/April 2002. We are indebted to many sources for this data, ranging from Ibbotson Associates, the Cowles Commission, Bill Schwert of Rochester University, and Bob Shiller of Yale. For the full roster of sources, see the *FAJ* paper.
3. See Arnott and Bernstein (2002).
4. See Peter Bernstein, "What Rate of Return Can You Reasonably Expect… or What Can the Long Run Tell Us about the Short Run?" *Financial Analysts Journal*, March/April 1997.
5. 20-year bonds were used whenever possible but the longest maturities tended to be 10 years for much of the nineteenth century. Also, in the 1840s, there was a brief span with no government debt (we should be so lucky!), hence no government bonds. Under these circumstances, the equivalent to today's Government Sponsored Enterprises, railway and canal bonds, were used as these projects typically had the tacit support of the government.
6. For more on this, see Robert Arnott, "Bonds: Why Bother?" *Journal of Indexes*, May/June 2009.
7. Roger G. Ibbotson and Rex A. Sinquefield, "Stocks, Bonds, Bills and Inflation: Year-by-Year Historical Returns (1926–1974)," *Journal of Business*, January 1976.

Performance Update

FTSE RAFI® Equity Index Series*

TOTAL RETURN AS OF 2/28/11	BLOOMBERG TICKER	YTD	12 MONTH	ANNUALIZED 3 YEAR	ANNUALIZED 5 YEAR	ANNUALIZED 10 YEAR	ANNUALIZED 10 YEAR VOLATILITY
FTSE RAFI® All World 3000[1]	TFRAW3	5.77%	24.23%	3.13%	6.98%	9.71%	18.85%
MSCI All Country World[2]	GDUEACWF	4.59%	22.13%	0.40%	3.93%	4.82%	17.37%
FTSE RAFI® Developed ex US 1000[3]	FRX1XTR	7.24%	23.29%	0.29%	5.28%	8.14%	20.11%
MSCI World ex US Large Cap[4]	MLCUWXUG	6.21%	20.64%	-1.83%	3.44%	5.15%	18.42%
FTSE RAFI® Developed ex US Mid Small[5]	TFRDXUSU	3.43%	27.25%	6.73%	7.39%	14.27%	18.81%
MSCI World ex US Small Cap[6]	GCUDWXUS	3.40%	31.60%	2.57%	3.69%	10.78%	20.52%
FTSE RAFI® Emerging Markets[7]	TFREMU	-0.79%	23.85%	4.45%	14.37%	22.85%	24.72%
MSCI Emerging Markets[8]	GDUEEGF	-3.59%	21.23%	0.80%	9.94%	15.26%	24.33%
FTSE RAFI® 1000[9]	FR10XTR	6.11%	25.44%	5.68%	5.23%	6.02%	18.19%
Russell 1000[10]	RU10INTR	5.97%	23.54%	2.66%	3.17%	3.09%	16.32%
S&P 500[11]	SPTR	5.88%	22.57%	2.19%	2.87%	2.62%	16.12%
FTSE RAFI® US 1500[12]	FR15USTR	5.99%	33.36%	12.86%	7.60%	12.44%	22.69%
Russell 2000[13]	RU20INTR	5.21%	32.60%	7.79%	3.80%	7.06%	21.02%
FTSE RAFI® Europe[14]	TFREUE	6.15%	21.91%	1.28%	1.98%	3.94%	19.16%
MSCI Europe[15]	GDDLE15	4.15%	15.54%	0.07%	1.40%	1.99%	17.09%
FTSE RAFI® Australia[16]	FRAUSTR	3.25%	5.59%	1.32%	4.74%	9.30%	13.11%
S&P/ASX 200[17]	ASA51	2.54%	8.65%	-0.26%	4.00%	8.24%	13.54%
FTSE RAFI® Canada[18]	FRCANTR	5.08%	20.20%	8.22%	8.21%	9.99%	14.23%
S&P/TSX 60[19]	TX60AR	6.10%	22.61%	3.59%	6.90%	7.93%	14.85%
FTSE RAFI® Japan[20]	FRJPNTR	6.21%	10.28%	-6.95%	-6.48%	1.63%	18.66%
MSCI Japan[21]	GDDLJN	5.76%	8.28%	-9.24%	-8.77%	-1.40%	18.35%
FTSE RAFI® UK[22]	FRGBRTR	2.79%	16.04%	4.06%	4.16%	4.76%	17.23%
MSCI UK[23]	GDDLUK	2.40%	15.48%	4.67%	4.43%	3.77%	15.16%

*To see the complete series, please go to: http://www.ftse.com/Indices/FTSE_RAFI_Index_Series/index.jsp.

Russell Fundamental Index® Series*

TOTAL RETURN AS OF 2/28/11	BLOOMBERG TICKER	YTD	12 MONTH	ANNUALIZED 3 YEAR	ANNUALIZED 5 YEAR	ANNUALIZED 10 YEAR	ANNUALIZED 10 YEAR VOLATILITY
Russell Fundamental Global Index Large Company[24]	RUFGLTU	6.54%	25.73%	4.09%	6.91%	9.70%	17.57%
MSCI All Country World Large Cap[25]	MLCUAWOG	4.69%	20.92%	0.00%	3.83%	4.09%	17.10%
Russell Fundamental Developed ex US Index Large Company[26]	RUFDXLTU	7.64%	24.25%	1.50%	6.18%	10.00%	18.50%
MSCI World ex US Large Cap[27]	MLCUWXUG	6.21%	20.64%	-1.83%	3.44%	5.15%	18.42%
Russell Fundamental Developed ex US Index Small Company[28]	RUFDXSTU	3.90%	25.92%	5.47%	5.94%	13.14%	18.65%
MSCI World ex US Small Cap[6]	GCUDWXUS	3.40%	31.60%	2.57%	3.69%	10.78%	20.52%
Russell Fundamental Emerging Markets[29]	RUFGETRU	-2.25%	26.78%	6.09%	14.43%	21.58%	24.64%
MSCI Emerging Markets[8]	GDUEEGF	-3.59%	21.23%	0.80%	9.94%	15.26%	24.33%
Russell Fundamental US Index Large Company[30]	RUFUSLTU	6.77%	24.93%	5.90%	5.39%	6.81%	16.62%
Russell 1000[10]	RU10INTR	5.97%	23.54%	2.66%	3.17%	3.09%	16.32%
S&P 500[11]	SPTR	5.88%	22.57%	2.19%	2.87%	2.62%	16.12%
Russell Fundamental US Index Small Company[31]	RUFUSSTU	6.56%	35.72%	13.91%	8.75%	13.43%	21.02%
Russell 2000[13]	RU20INTR	5.21%	32.60%	7.79%	3.80%	7.06%	21.02%
Russell Fundamental Europe[32]	RUFEUTE	5.58%	24.84%	3.49%	3.62%	6.66%	18.15%
MSCI Europe[15]	GDDLE15	4.15%	15.54%	0.07%	1.40%	1.99%	17.09%

*To see the complete series, please go to: http://www.russell.com/indexes/data/Fundamental/About_Russell_Fundamental_indexes.asp.

Fixed Income/Alternatives

TOTAL RETURN AS OF 2/28/11	BLOOMBERG TICKER	YTD	12 MONTH	ANNUALIZED 3 YEAR	ANNUALIZED 5 YEAR	ANNUALIZED 10 YEAR	ANNUALIZED 10 YEAR VOLATILITY
RAFI® Bonds Investment Grade Master[33]		0.77%	7.46%	7.53%	6.90%	6.52%	6.02%
ML Corporate Master[34]	C0A0	0.95%	8.04%	6.81%	6.11%	6.32%	6.21%
RAFI® Bonds High Yield Master[35]		3.34%	15.63%	13.40%	11.07%	10.04%	11.05%
ML Corporate Master II High Yield BB-B[36]	H0A4	3.19%	16.49%	10.26%	7.97%	7.30%	9.95%
RAFI US Equity Long/Short[37]		2.17%	8.13%	9.56%	5.91%	12.62%	12.81%
1-Month T-Bill[38]	GB1M	0.02%	0.13%	0.40%	2.02%	2.04%	0.48%
FTSE RAFI® Global ex US Real Estate[39]	FRXR	2.18%	20.35%	-4.80%	0.87%	9.46%	22.54%
FTSE EPRA/NAREIT Global ex US[40]	EGXU	1.39%	18.93%	-8.27%	-2.02%	6.24%	20.53%
FTSE RAFI® US 100 Real Estate[41]	FRUR	8.59%	38.52%	2.61%	-2.08%	7.22%	27.12%
FTSE EPRA/NAREIT United States[42]	UNUS	7.45%	33.58%	-0.82%	-2.05%	5.72%	25.48%

Definition of Indices:

(1) The FTSE RAFI® All World 3000 Index is a measure of the largest 3,000 companies, selected and weighted using fundamental factors; (sales, cash flow, dividends, book value), across both developed and emerging markets.
(2) The MSCI All Country World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.
(3) The FTSE RAFI® Developed ex US 1000 Index is a measure of the largest 1000 non U.S. listed, developed market companies, selected and weighted using fundamental factors; (sales, cash flow, dividends, book value).
(4) The MSCI World ex US Large Cap Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets, excluding the United States.
(5) The FTSE RAFI® Developed ex US Mid Small Index tracks the performance of small and mid-cap companies domiciled in developed international markets (excluding the United States), selected and weighted based on the following four fundamental measures of firm size: sales, cash flow, dividends and book value.
(6) The MSCI World ex US Small Cap Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of small cap developed markets, excluding the United States.
(7) The FTSE RAFI® Emerging Markets Index comprises the largest 350 Emerging Market companies selected and weighted using fundamental factors (sales, cash flow, dividends, book value).
(8) The MSCI Emerging Markets Index is an unmanaged, free-float-adjusted cap-weighted index designed to measure equity market performance of emerging markets.
(9) The FTSE RAFI® 1000 Index is a measure of the largest 1,000 U.S. listed companies, selected and weighted using fundamental factors; (sales, cash flow, dividends, book value).
(10) 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.
(11) The S&P 500 Index is an unmanaged market index that focuses on the large-cap segment of the U.S. equities market.
(12) The FTSE RAFI® US 1500 Index is a measure of the 1,001st to 2,500th largest U.S. listed companies, selected and weighted using fundamental factors; (sales, cash flow, dividends, book value).
(13) The Russell 2000 is a market-capitalization weighted benchmark index made up of the 2,000 smallest U.S. companies in the Russell 3000.
(14) The FTSE RAFI® Europe Index is comprised of all European companies listed in the FTSE RAFI® Developed ex U.S. 1000 Index, which in turn is comprised of the largest 1,000 non U.S. listed developed market companies, selected and weighted using fundamental factors; (sales, cash flow, dividends, book value).
(15) The MSCI Europe Index is a free-float adjusted market capitalization weighted index that is designed to measure the equity market performance of the developed markets in Europe.
(16) The FTSE RAFI® Australia Index is comprised of all Australian companies listed in the FTSE RAFI® Developed ex U.S. 1000 Index, which in turn is comprised of the largest 1,000 non U.S. listed developed market companies, selected and weighted using fundamental factors; (sales, cash flow, dividends, book value).
(17) The S&P/ASX 200 Index, representing approximately 78% of the Australian equity market, is a free-float-adjusted, cap-weighted index.
(18) The FTSE RAFI® Canada Index is comprised of all Canadian companies listed in the FTSE RAFI® Developed ex U.S. 1000 Index, which in turn is comprised of the largest 1,000 non U.S. listed developed market companies, selected and weighted using fundamental factors; (sales, cash flow, dividends, book value).
(19) 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.
(20) The FTSE RAFI® Japan Index is comprised of all Japanese companies listed in the FTSE RAFI® Developed ex U.S. 1000 Index, which in turn is comprised of the largest 1,000 non U.S. listed developed market companies, selected and weighted using fundamental factors; (sales, cash flow, dividends, book value).
(21) 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.
(22) The FTSE RAFI® UK Index is comprised of all UK companies listed in the FTSE RAFI® Developed ex U.S. 1000 Index, which in turn is comprised of the largest 1,000 non U.S. listed developed market companies, selected and weighted using fundamental factors; (sales, cash flow, dividends, book value).
(23) 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.
(24) The Russell Fundamental Global Index Large Company is a measure of the largest companies, selected and weighted using fundamental factors; (adjusted sales, retained cash flow, dividends + buybacks), across both developed and emerging markets.
(25) The MSCI All Country World Large Cap Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.
(26) The Russell Fundamental Developed ex US Large Company is a subset of the Russell Fundamental Developed ex US Index, and is a measure of the largest non-U.S. listed developed country companies, selected and weighted using fundamental factors; (adjusted sales, retained cash flow, dividends + buybacks).
(27) The MSCI World ex US Large Cap Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of large cap-developed markets, excluding the United States.
(28) The Russell Fundamental Developed ex US Index Small Company is a subset of the Russell Fundamental Developed ex US Index, and is a measure of small non-U.S. listed developed country companies, selected and weighted using fundamental factors; (adjusted sales, retained cash flow, dividends + buybacks).
(29) The Russell Fundamental Emerging Markets Index is a measure of Emerging Market companies, selected and weighted using fundamental factors; (adjusted sales, retained cash flow, dividends + buybacks).
(30) The Russell Fundamental U.S. Index Large Company is a subset of the Russell Fundamental US Index, and is a measure of the largest U.S. listed companies, selected and weighted using fundamental measures; (adjusted sales, retained cash flow, dividends + buybacks).
(31) The Russell Fundamental US Index Small Company is a subset of the Russell Fundamental US Index, and is a measure of U.S. listed small companies, selected and weighted using fundamental measures; (adjusted sales, retained cash flow, dividends + buybacks).
(32) The Russell Fundamental Europe Index is a measure of European companies, selected and weighted using fundamental factors; (adjusted sales, retained cash flow, dividends + buybacks).
(33) The RAFI® Bonds 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.
(34) 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.
(35) The RAFI® Bonds 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.
(36) The Merrill Lynch Corporate Master II High Yield BB-B 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.
(37) The RAFI® US Equity Long/Short Index utilizes the Research Affiliates Fundamental Index® (RAFI®) methodology to identify opportunities that are implemented through long and short securities positions for a selection of U.S. domiciled publicly traded companies listed on major exchanges. Returns for the index are collateralized and represent the return of the strategy plus the return of a cash collateral yield.
(38) The 1-Month T-bill return is calculated using the Bloomberg Generic 1-month T-bill. The index is interpolated based off of the currently active U.S. 1 Month T-bill and the cash management bill closest to maturing 30 days from today.
(39) The FTSE RAFI® Global ex US Real Estate Index comprises 150 companies with the largest RAFI fundamental values selected from the constituents of the FTSE Global All Cap ex U.S. Index that are classified by the Industry Classification Benchmark (ICB) as Real Estate.
(40) The FTSE EPRA/NAREIT Global ex US Index is a free float-adjusted index, and is designed to represent general trends in eligible listed real estate stocks worldwide, excluding the United State. Relevant real estate activities are defined as the ownership, trading and development of income-producing real estate.
(41) The FTSE RAFI® US 100 Real Estate Index comprises of the 100 U.S. companies with the largest RAFI fundamental values selected from the constituents of the FTSE USA All Cap Index that are classified by the Industry Classification Benchmark (ICB) as Real Estate.
(42) The FTSE EPRA/NAREIT United States Index is a free float-adjusted index, is a subset of the EPRA/NARIET Global Index and the EPRA/NAREIT North America Index and contains publicly quoted real estate companies that meet the EPRA Ground Rules. EPRA/NARIET Index series is seen as the representative benchmark for the real estate sector.

Source: All index returns are calculated using total return data from Bloomberg, except for the real estate indices and benchmarks, which use price return data. Returns for all single country strategies and Europe regional strategies are in local currency. All other returns are in USD.