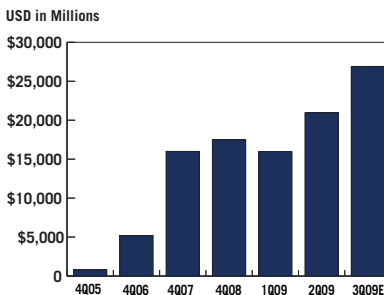


Fundamentals



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RAFI® Managed Assets*



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RIP VAN WINKLE'S INVESTMENT LESSON

“May you live in interesting times” is an oft-cited quote of supposed Chinese origin. While its origin is up for debate, few can question its relevance in the capital markets of the past two years. Correlations soaring, liquidity-based selling of unprecedented scale, three and four sigma returns across a host of unrelated assets, all seemed beyond the realm of possibility three years ago. Our theories of efficient markets and normal distributions indicated that these results were *possible...* but it could not plausibly happen to *us*. For all practical purposes, this past couple of years has seen the investment equivalent of “Land of the Lost,” the 1970s television show where the heroic “modern” family suddenly find themselves immersed in a world of creatures whose existence was thought impossible—dinosaurs, cavemen, and mythical beasts.

Following what we have termed the Take No Prisoners market of 2008 and early 2009, the Mother of all Recoveries market of 2009 continued in the third quarter. The seven-month rally from the lows at the end of February has been breathtaking. With a gain of 45.8%, it was the best seven months of performance for the S&P 500 Index since 1938. International stocks posted a seven month total return of 60.0%, the fourth best such period

for the MSCI EAFE Index. But international stocks weren't alone—it was the best seven month stretch ever for emerging markets stocks (+86.7% for the MSCI Emerging Markets Index), high-yield bonds (+45.1% for the BarCap US Corporate High Yield), and REITs (+75.1% for the FTSE NAREIT Index). Only long-term Treasuries, the lone double-digit winner of 2008, failed to make the black. Last Christmas, we suggested that 2009 would be an “ABT” (anything but Treasuries) year; we had no idea that this forecast would be so impressively true.

Amidst this remarkable environment, plan sponsors had impressive opportunities to either lock in losses or earn outsized returns. Naturally, most investors did the former, as the pain was too great, the uncertainty too unsettling, or the margin call too contractually binding! Only a few brave souls stepped up and embraced the forward-looking return opportunities embedded in wiped out asset classes—either through a simple rebalance to policy targets or, for the rare contrarians, a sizeable new commitment to risk assets—at the market troughs of November and March. Indeed, the average investor, given the tendency to sell out at the bottom, would have likely been better off sleeping through the

entire meltdown and post-crisis rally. In this issue we examine what the “Rip Van Winkle” investment strategy of buying at the start of 2008 and holding through 2009 tells us about asset allocation, risk premiums, and diversification.

Financial Crisis and Post Rally Total Returns

What would total returns look like if we combined the crisis of 2008 and the first nine months of 2009? As **Table 1** shows, only half of the asset classes were down on a cumulative return basis over this time period.

This period was a true bear market (down more than 20%) only for capitalization-weighted equity indexes, commodities, and REITs (which trade on the same exchanges as stocks). Fixed-income categories, even those with substantial credit exposure, posted reasonable gains. Indeed, long Treasuries led the way with a 14.1% gain, with long investment-grade credit (+13.1%) and emerging market bonds (+12.2%) also well in the black. Likewise, high-yield produced a double digit positive return with a cumulative gain of 10%.

Of course, these figures hide much of the sizeable short-term stress from deleveraging. Convertibles were at one point down more in the bear market

than equities. High-yield was down 26% in 2008, its worst year ever! Emerging market bonds fell 19% in September and October of 2008 alone. But each of these has survived the severe dislocations and, on the heels of the 2009 comeback, produced positive returns over the entire span. Meanwhile, despite historic rallies over the past seven months, equities still remain well under water. This is particularly true of cap-weighted indexes where price weighting ensured that the once-beaten down leaders, which have led the comeback rally, had minimum exposure just before the recovery. Within equities, the bear could have been avoided by simply using a better indexing approach as evidenced by the FTSE RAFI 1000 Index loss of “only” 15.8%!

Equally weighting 16 of these asset classes, as we have done in previous issues of *Fundamentals*, leaves an investor down about 3.4%.¹ True diversification—well beyond the conventional 60/40 illusion of diversification—has served us very well again.

What Did We Learn?

We assert this combined 2008–09 return analysis has several key takeaways for long-term investors. While these conclusions are

Table 1. Asset Class Cumulative Returns January 2008–September 2009

| Asset Class | Benchmark | Cumulative Return Jan 2008-Sep 2009 |
|---------------------------------|---------------------------------------|-------------------------------------|
| Long Treasury | BarCap US Treasury Long TR USD | 14.1% |
| Long Credit | BarCap US Long Credit TR USD | 13.1% |
| Emerging Market Bonds | JPM EMBI Plus TR USD | 12.2% |
| Core Bonds | BarCap US Agg Bond TR USD | 11.3% |
| High Yield Bonds | BarCap US Corporate High Yield TR USD | 10.0% |
| Short-Term Bonds | ML US Corp&Govt 1-3 Yr TR USD | 8.3% |
| TIPS | BarCap Gbl Infl Linked US TIPS TR USD | 6.9% |
| Emerging Local Currency | JPM ELMI+ TR USD | 6.3% |
| Bank Loans | Credit Suisse Leveraged Loan USD | -0.4% |
| Convertibles | ML Convertible Bonds All Qualities | -2.5% |
| Equally Weighted 16 Asset Class | EW Asset Classes | -3.4% |
| 60-40 | 60% S & P 500 - 40% BarCap Aggregate | -11.0% |
| Large Co US Fundamental Index | FTSE RAFI US 1000 TR USD | -15.8% |
| Equal Weight US Equities | S & P Equal Weight Index | -17.2% |
| Small Cap US Equities | Russell 2000 TR USD | -18.9% |
| Emerging Market Equities | MSCI EM GR USD | -22.8% |
| Large Cap US Equities | IA SBBI S&P 500 TR USD | -24.9% |
| Developed ex US Equities | MSCI EAFE GR USD | -26.2% |
| REITs | FTSE NAREIT All REITs TR | -26.2% |
| Commodities | DJ UBS Commodity TR USD | -29.8% |

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

drawn over an admittedly short horizon (it sure felt far longer than 21 months!), we are confident that these themes have merit for those with 10-year, 15-year, and even perpetual time horizons.

First, equity risk dominated once again. Look at the performance of the traditional 60/40 mix in Table 1. Downside equity volatility swamped the 40% allocation to bonds. The BarCap Aggregate went up, but not enough. The dominance of equity risk is a persistent pattern, as shown in **Figure 1**.² Note how the 60/40 portfolio, on average, captures 60% of the equity downside, which brings us to the follow on point.

As we have noted before, most investors have relatively poorly diversified portfolios. They rely too heavily on equity for their risk premiums, but there are other risk premiums out there! High-yield bonds, emerging market bonds, commodities, and even investment-grade credit all offer premiums for bearing risk that, at times, can be in the ballpark of equities. And they offer diversification! Yet most investors continue to rely on equities as the primary growth engine in their portfolios despite a risk premium that is far from reliable.

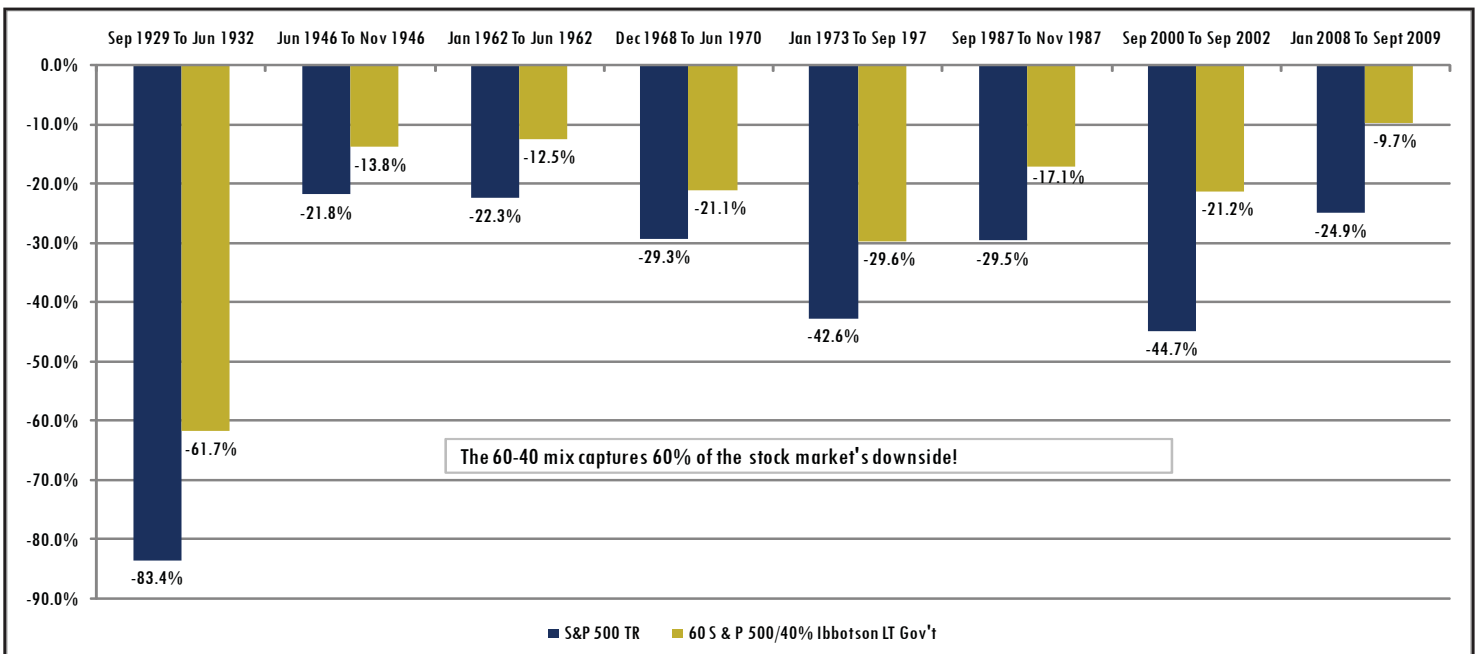
The 2008–09 experience was also a tutorial on compounding. Consider emerging markets equities, which returned (as measured by the MSCI Emerging Markets Index) –53.2% in 2008, but came roaring

back with a nine-month return of +64.9% in 2009. Does this mean emerging markets equities have a net gain over the entire period? Of course not! A 50% loss translates to a required 100% gain on your remaining capital to “break even.” No wonder Charles Ellis recently wrote, “Large losses are forever—in investing, teenage driving, and infidelity. If you avoid large losses with a strong defense, the winnings will have every opportunity to take care of themselves.”³ In our minds, the easiest way to play defense is to diversify more broadly and, absent very compelling valuations, lessen one’s equity exposure. Note how an equally weighted portfolio in Table 1 would have incurred a very small loss, nearly 800 bps better than the traditional 60/40 portfolio.

The benefits of rebalancing *within* equities also proved of minimal value. Regardless of style or geography, traditional cap-weighted equity index returns were tightly clustered in the –20% to –30% range, as evidenced in **Figure 2**. Meanwhile, price indifferent approaches, whether it be a Fundamental Index® approach like RAFI® or equal weighting, fell in the –10% to –20% range. Why the discrepancy? Because they rebalance! As we have written before, rebalancing is a relatively inexpensive way of capturing added value.

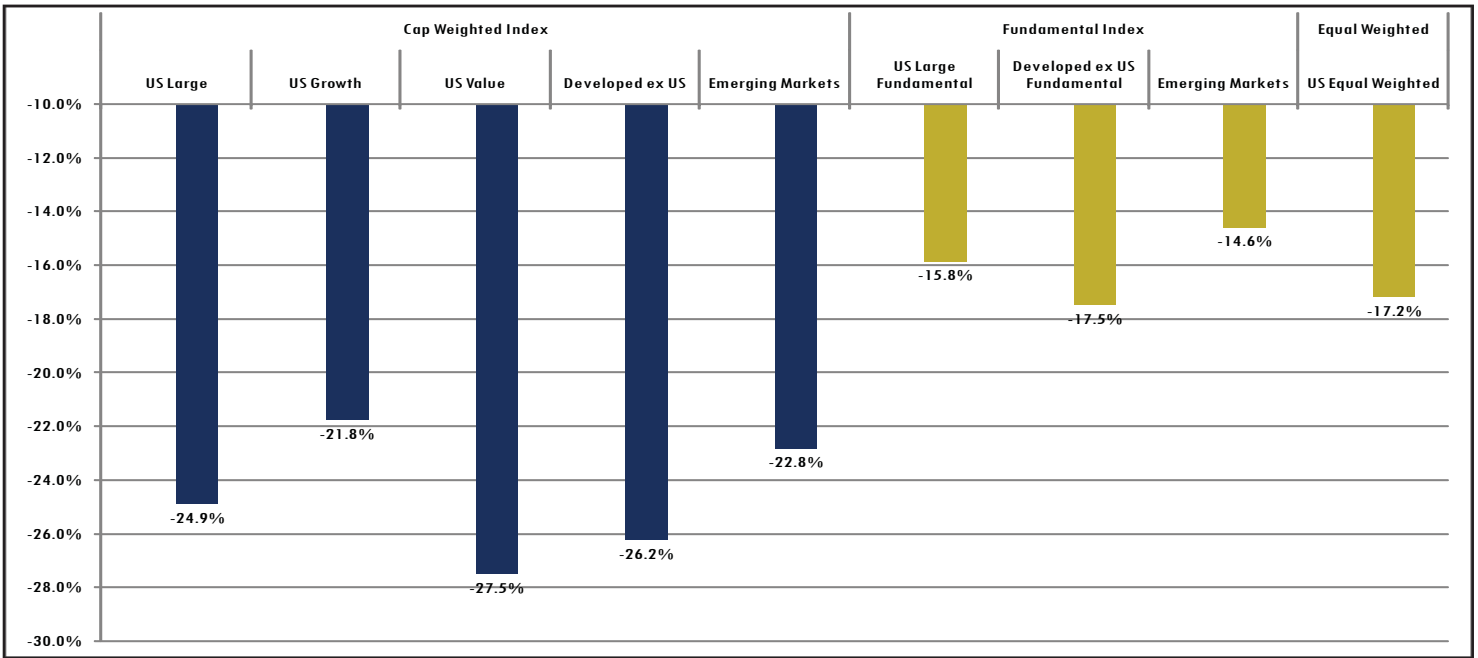
These results support our view that it is time for investors to diversify their equity exposure

Figure 1. Equity Bear Market Performance, January 1, 2008 through September 30, 2009



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

Figure 2. Cumulative Equity Returns, January 1, 2009–September 30, 2009



Notes: Cap-weighted Indexes used: US Large—S&P 500; US Growth—Russell 1000 Growth; US Value—Russell 1000 Value; Developed ex US—MSCI EAFE-GD; Emerging Markets—MSCI EM-GD. Fundamental Indexes used: US Large Fundamental—FTSE RAFI US 1000; Developed ex US Fundamental—FTSE RAFI Developed ex US 1000; Emerging Markets—FTSE RAFI Emerging. Equal-Weighted Index used: S&P 500 Equal-Weighted.

Source: Research Affiliates, based on data from eVestment Alliance.

by passive orientation in addition to by style and geography. Indeed, *simply blending index approaches in the United States would have provided more diversification over the past 21 months than by blending five different cap-weighted style and geographic mandates.* Is this certain to repeat? Of course not. But it does illustrate that this kind of passive diversification be addressed, perhaps on the same priority level as other equity structure discussions.

Conclusion

As investors look back on this remarkable period in the capital markets, they may be tempted to break the combined period into two distinct periods—the Take No Prisoners market of 2008 and the Mother of All Recoveries in 2009. We feel that would be a mistake. Short-term, temporary dislocations

shouldn't drive long-term portfolio decision making. Yet how many portfolio decisions were made in the fall of 2008 or early 2009? And how many of these decisions added value over and above a "Don't just do something, stand there!" strategy? A scant few.

Most investment committees would have been better off, like Rip, sleeping through the past 21 months of tumultuous activity. Of course, an even better course of action would have been to embrace risk—in distressed asset classes and sectors within equities—during the dark days. Admittedly, such a step up is near impossible given the human tendency to shy from pain unless, of course, it was previously embedded in a portfolio through a disciplined global tactical asset allocation process or an automatically contratrading Fundamental Index approach.

Endnotes

- 1 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.
- 2 In Figure 1, we utilize the Ibbotson Long Term Government Bond series as the 40% bond allocation instead of the BarCap Aggregate due to the longer history of the Ibbotson series (1926) versus the BarCap (1976).
- 3 Charles Ellis. 2005. "Investing Success in Two Easy Lessons." *Bold Thinking on Investment Management: The FAJ 60th Anniversary Anthology* (September) :114–116. <http://www.cfapubs.org/doi/abs/10.2469/op.v2005.n1.4641>.

Performance Update

| TOTAL RETURN AS OF 9/30/09 | BLOOMBERG TICKER | YTD | 12 MONTH | ANNUALIZED 3 YEAR | ANNUALIZED 5 YEAR | ANNUALIZED 10 YEAR | ANNUALIZED 10 YEAR VOLATILITY |
|--|------------------|--------|----------|-------------------|-------------------|--------------------|-------------------------------|
| FTSE RAFI® 1000 Index ^A | FR10XTR | 40.25% | 6.32% | -2.37% | 4.03% | 5.49% | 17.72% |
| S&P 500 ^B | SPTR | 19.26% | -6.91% | -5.43% | 1.02% | -0.15% | 16.24% |
| Russell 1000 ^C | RUT0INTR | 21.08% | -6.14% | -5.10% | 1.49% | 0.41% | 16.49% |
| FTSE RAFI® US 1500 Index ^D | FR15USTR | 52.68% | 9.33% | 0.77% | 6.57% | 11.53% | 22.08% |
| Russell 2000 ^E | RU20INTR | 22.43% | -9.55% | -4.57% | 2.41% | 4.88% | 21.61% |
| FTSE RAFI® Developed ex US 1000 Index ^F | FRX1XTR | 47.10% | 15.83% | 1.58% | 10.28% | 7.20% | 19.12% |
| MSCI EAFE ^G | GDDUEAFE | 29.58% | 3.80% | -3.12% | 6.57% | 2.94% | 18.11% |
| FTSE All World Series Developed ex US ^H | FTSDXUS | 32.09% | 4.43% | -2.05% | 7.49% | 3.80% | 18.31% |
| FTSE RAFI® Developed ex US Mid Small ^I | FRSDXUS | 52.71% | 25.78% | 0.25% | 8.81% | NA | NA |
| MSCI EAFE Small ^J | MCUDEAFE | 45.04% | 12.46% | -5.95% | 4.93% | NA | NA |
| FTSE RAFI® Emerging Markets ^K | TFREMU | 68.42% | 24.70% | 14.31% | 23.70% | NA | NA |
| MSCI Emerging Markets ^L | GDUEEGF | 64.88% | 19.44% | 8.27% | 17.68% | NA | NA |
| FTSE RAFI® Canada ^M | FRCANTR | 40.70% | 9.93% | 5.06% | 10.34% | NA | NA |
| S&P/TSX 60 ^N | TX60AR | 28.64% | -0.53% | 2.95% | 9.59% | NA | NA |
| FTSE RAFI® Australia Index ^O | FRAUSTR | 36.33% | 12.69% | 3.88% | 10.54% | 10.83% | 12.60% |
| S&P/ASX 200 Index ^P | ASA51 | 32.53% | 8.34% | 1.66% | 9.99% | 9.75% | 13.20% |
| FTSE RAFI® Japan ^Q | FRJPNTR | 9.50% | -13.74% | -13.92% | -0.35% | NA | NA |
| MSCI Japan ^R | GDDLJN | 8.07% | -16.03% | -16.03% | -1.82% | NA | NA |
| FTSE RAFI® UK Index ^S | FRGBRTR | 30.40% | 17.30% | 0.09% | 7.43% | NA | NA |
| MSCI UK ^T | GDDUUK | 20.49% | 10.01% | -1.11% | 6.06% | NA | NA |

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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