Parametric™
Engineered Portfolio Solutions

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FOSSIL FREE INVESTING

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Parametric has several options for investors interested in constructing fossil free portfolios. In this brief we explain some of the implementation considerations of the various approaches in order to help investors decide what best suits their needs.

A BRIEF INTRODUCTION TO FOSSIL FREE INVESTING

Fossil free investing refers to a strategy that eliminates investments in companies that own or produce fossil fuels, namely coal, oil, and natural gas. It focuses on excluding sources of potential *future* carbon emissions, unlike a "low carbon" strategy which is concerned with minimizing investments in companies which are sources of *current* carbon emissions. In addition to producers such as ExxonMobil or Peabody Energy, owners of fossil fuel reserves could also include vertically integrated utilities, materials, or industrial companies that own a fuel source, usually coal. However, service providers to the energy industry, or companies that are heavy consumers of fossil fuel, would *not* be excluded as they do not typically own any reserves. This means that a fossil fuel divestment strategy will generally exclude a substantial portion of the energy sector exposure in the portfolio along with some non-energy specific exposure.

The rationale for fossil fuel divestment ranges from simply avoiding companies with objectionable activities, to attempting to positively impact the environment or send a political message, to making an active call on the future of fossil fuel owners. Yet most investors are similarly concerned about the potential impact of this decision on a portfolio's risk and return. Historically, this impact has appeared to be fairly moderate, but not entirely inconsequential. For taxable investors, an additional consideration of divesting is potential gain realization, particularly for those with long-term, appreciated holdings.

▸▸ FOSSIL FREE INVESTING AT PARAMETRIC

Regardless of motivation, Parametric is committed to helping investors find the best method for achieving their fossil fuel divestment goals. Although we welcome the opportunity to create a customized approach, we typically find that investors are most interested in one of three primary options: (1) apply a fossil free screen, (2) apply an energy sector screen, or (3) track a fossil free index.

The benefit of a screen, which can be applied against any index or active strategy of the investor's choosing, is that it enables greater flexibility in terms of the nature of the underlying exposure than might be available in a fossil free index. Some fossil free indexes may contain additional constraints or features besides the exclusion which may or may not be appealing to investors.

The fossil free screen excludes a large number of energy related securities as well as some outside the energy sector, in line with the typical divestment approach described above. The energy sector screen is an alternative approach for investors who would like to exclude all energy related companies, even if they don't own reserves, and continue to include reserve owning companies outside the energy sector. In this vein, an investor could also exclude the transport sector if they

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wanted to minimize exposure to companies that are heavily dependent on fossil fuels. Although this is a broader interpretation of divestment, it is something that can be accommodated for any domestic or global investment portfolio at Parametric.

▸▸ PORTFOLIO IMPACT

In examining the historical data, we find that divestment can be achieved with minimal impact on portfolio return or volatility over the long-run. In other words, an investor can track a standard broad market index reasonably well even while excluding fossil fuel related securities. However, one should bear in mind that the magnitude of this impact varies by market and by time period. In particular, the higher the share of an investment universe that is excluded, the greater the potential impact on the portfolio.

We analyzed historical performance for hypothetical portfolios based on the S&P® 500 Index and the MSCI® EAFE Index with both a fossil free and an energy sector screen, as well as a portfolio tracking an S&P 500-based fossil free index. Tracking error was generally higher for the energy sector exclusions compared to the fossil fuel exclusions, and for the screened S&P 500 portfolios when compared to the screened MSCI EAFE portfolios. This is not surprising given the more comprehensive nature of the energy sector exclusion and the higher share of energy related securities in the S&P 500 Index. However, the average return and volatility for all the screened and fossil free index-based portfolios was not meaningfully different from the standard index. Table 1 summarizes the results.[1]

Table 1: Historical Annualized Return, Volatility and Tracking Error

		S&P 500 PORTFOLIOS				MSCI EAFE PORTFOLIOS	
	S&P 500 Index	Screened: Energy	Screened: Fossil Free	Tracking: Fossil Free Index US	MSCI EAFE Index	Screened: Energy	Screened: Fossil Free
JAN 2004 - DEC 2014							
Average Return	7.60%	7.32%	7.42%	8.37%	5.96%	6.02%	6.07%
Average Volatility	14.31%	14.48%	14.55%	14.54%	17.58%	17.63%	17.44%
Tracking Error		1.84%	1.39%	1.50%		1.07%	0.93%
JAN 1994 - DEC 2014							
Average Return	9.79%	9.57%	-		5.77%	5.69%	-
Average Volatility	15.25%	15.58%	-		16.47%	16.69%	-
Tracking Error		1.62%	-			1.10%	-

Source: FactSet, Fossil Free Indexes as of 12/31/2014. The Energy screen excludes the GICS Energy sector. The Fossil Free screen excludes the 200 largest owners of coal, oil and gas reserves, as determined by Fossil Free Indexes. The Fossil Free Index US is maintained by Fossil Free Indexes and applies a fossil free screen against the S&P 500 with a maximum security weight of 1.25% at quarterly reconstitution. The market capitalization constraint accounts for the tracking error and performance difference between the Screened Fossil Free S&P 500 portfolio and the Fossil Free Index US portfolio. Hypothetical performance is for illustrative purposes only, does not represent actual returns of any investor, and may not be relied upon for investment decisions. Actual client returns will vary. All investments are subject to loss. Indexes are unmanaged, cannot be invested in directly and do not reflect the deduction of fees or expenses. Please refer to the Disclosure included at the end of this material for additional important information.

[1] Please note, the tracking error presented in Table 1 is simply the standard deviation of the difference between the return streams for a standard index and a screened portfolio, or specialized index, realized over time. It does not include the impact on tracking error from any optimization, tax-management, use of ADRs, or other implementation aspects, and is different from a predicted tracking error based on a risk-model.

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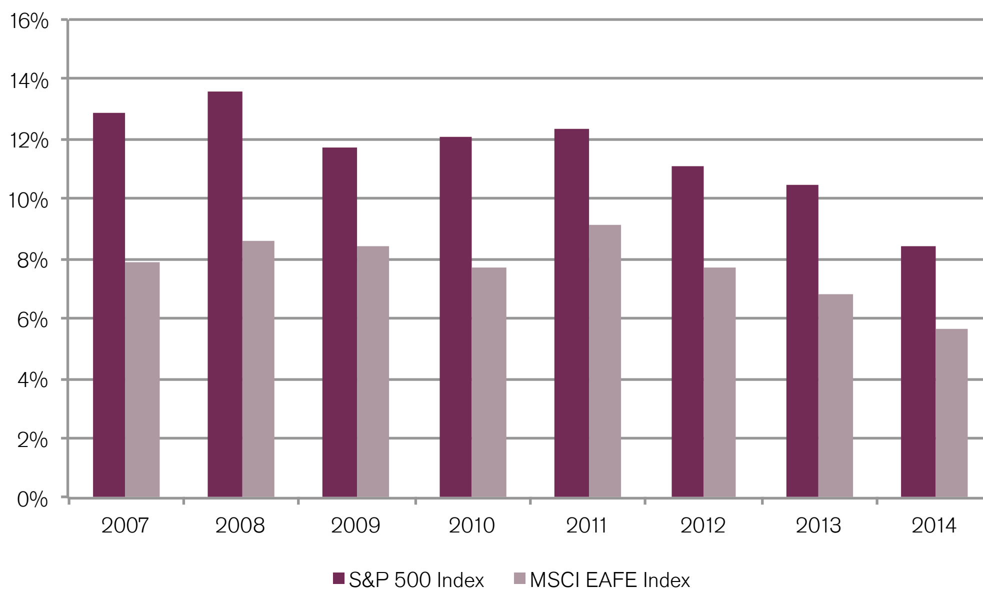
As indicated by the average return figures, performance differences between the screened and standard portfolios tend to cancel out over the long run, resulting in fairly comparable results. However, the differences can accumulate during shorter time periods. In the periods analyzed for Table 1, trailing 12 month return differences grew as large as 4%-5% for the S&P 500 based portfolios and 2%-3% for the MSCI EAFE based portfolios. Some commentators have interpreted these short-term results as proof of the ongoing superiority or inferiority of an exclusion strategy. We would advise investors instead to focus on the long-term results and be cautious of any expectations of permanent return differences. Ultimately, the critical take-away for investors striving for broad equity exposure is that it does not appear that a fossil free screen is necessarily incompatible with that goal.

For a rough indication of the potential portfolio impact of a fossil divestment, investors can consider the share of the benchmark that is allocated to the energy sector. We focus on the energy sector share as this data is readily available and the portion of the index falling under a fossil free screen should generally be related, but smaller, depending on the level of vertical integration within heavy users of fossil fuel.

The first thing to note is that the share of energy related securities in any investment universe tends to be fairly stable, but it does fluctuate over time both due to changes in the market cap of current constituents as well the addition and removal of constituents. Figure 1 shows the average energy sector share in 2014 was actually at an eight-year low for both the S&P 500 and MSCI EAFE Index at 8.4% and 5.7%, respectively. However, the current S&P 500 share is still higher than that seen between 1998 and 2005, when the share went as low as 6%. If benchmark energy exposure were to change meaningfully from historical levels, the realized tracking error for the screened portfolios presented in Table 1 may become less useful in setting relative performance expectations. For investors considering benchmarks outside of the S&P 500 and MSCI EAFE, currently, energy sector exposure tends to be lower in small-cap indices and higher in emerging market indices.

Figure 1: Average Energy Sector Share in S&P 500 and MSCI EAFE Index over Time



Source: Parametric, FactSet as of 12/31/2014.

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REINVESTING A DIVESTMENT

Once a portfolio has been divested, a natural question is how to reinvest the proceeds. The simplest option is to reallocate the funds across the fossil free portfolio. Investors who want something a bit more targeted and who prefer to utilize public equities may be inclined to turn toward various climate or clean energy focused indices as a replacement. However, these indices are fairly heterogeneous and may overlap heavily with the existing portfolio. Additionally, they tend to be heavily tilted towards companies in the industrial, technology and utilities sectors, with a very different risk profile from the companies that were divested. Therefore, although such investments may be convenient vehicles towards increasing exposure to certain desired activities, they could potentially increase the tracking error of the divested portfolio relative to its non-divested benchmark.

SUMMARY

Investors who seek to remove fossil fuel owners, or energy sector exposure in their portfolios can do so at Parametric by applying an exclusionary screen or tracking a fossil free index. Although either approach will produce differences in return and volatility from the benchmark, these do not appear to be meaningful over the long run, given the current level of exposure to the excluded securities found in standard indices.

About Parametric

Parametric, headquartered in Seattle, WA, is a leading global asset management firm, providing investment strategies and customized exposure management to institutions and individual investors around the world. Parametric offers a variety of rules-based, risk-controlled investment strategies, including alpha-seeking equity, alternative and options strategies, as well as implementation services, including customized equity, traditional overlay and centralized portfolio management. Parametric is a majority-owned subsidiary of Eaton Vance Corp. and offers these capabilities through investment centers in Seattle, WA, Minneapolis, MN and Westport, CT (home to Parametric subsidiary Parametric Risk Advisors LLC, an SEC-registered investment adviser).

Disclosure

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The hypothetical portfolio results do not represent the actual experience of any client or investor and may not be relied upon for investment decisions. Actual client portfolio performance will vary. The hypothetical portfolio returns are unaudited, are calculated in U.S. dollars, reflect the reinvestment of dividend and interest income, but exclude transaction costs and management fees. The deduction of such fees would adversely affect the results shown.

No representation is being made that any client account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved by any particular trading program. One of the limitations of hypothetical performance results is that they are generally prepared with the benefit of hindsight. In addition, simulated trading does not involve financial risk, and no simulated trading record can completely account for the impact of financial risk in actual trading. For example, the ability to withstand losses or to adhere to a particular trading program in spite of trading losses are material points which can also adversely affect actual trading results. There are numerous other factors related to the markets in general or to the implementation of any specific trading program which cannot be fully accounted for in the preparation of hypothetical performance results and all of which can adversely affect actual trading results. Because there are no actual trading results to compare to the hypothetical performance results, investors should be particularly wary of placing undue reliance on these hypothetical results. Perspectives, opinions and testing data may change without notice. Detailed portfolio data is available upon request. No security, discipline or process is profitable all of the time. There is always the possibility of loss of investment.

Indexes are unmanaged and cannot be invested in directly. The MSCI EAFE Index (Europe, Australasia, Far East) is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the U.S. & Canada. The S&P 500 Index represents the top 500 publicly traded companies in the U.S.

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