

New York State Common Retirement
Fund (NYSCRF) Pays \$22B for Holding
on to Fossil Fuel Stocks:
A Corporate Knights Analysis

Corporate *Knights*

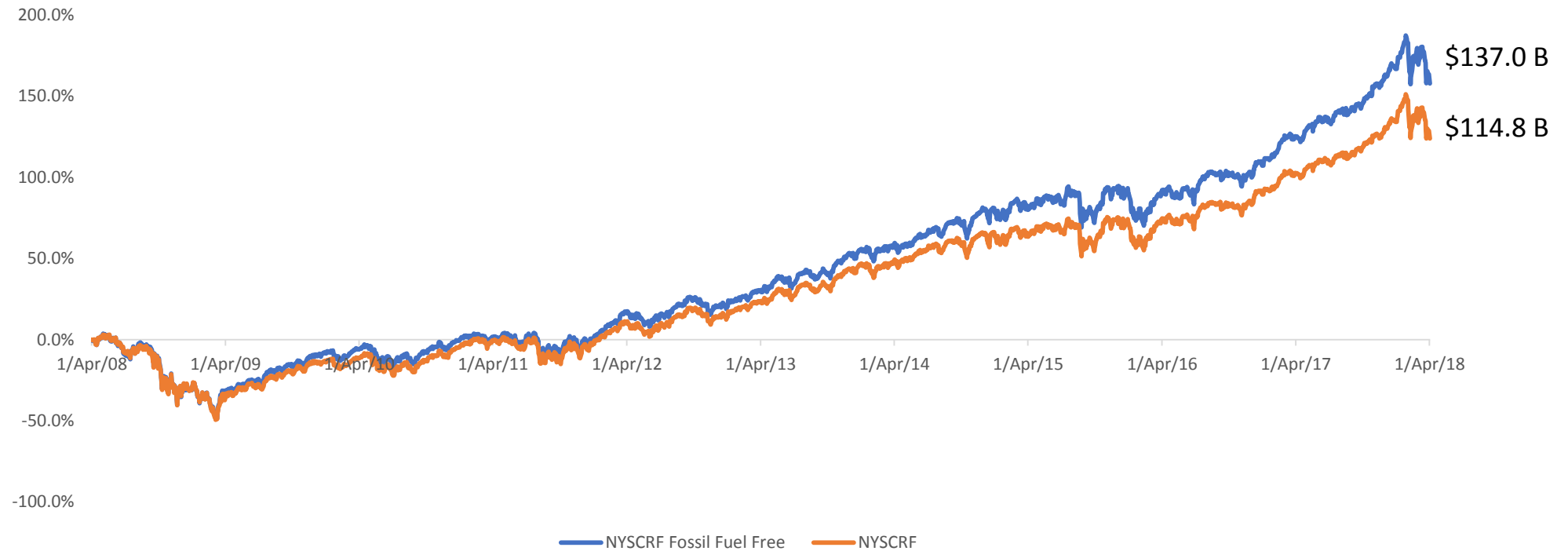
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Methodology

- 10-year data retrieval of NYSCRF's stock holdings, weights and valuations
 - Data from 13-F SEC filings & Comprehensive Annual Financial Report (CAFR)
- Plotted two scenarios using public data:
 - 1) NYSCRF fossil fuel free portfolio with fossil fuel stocks excluded. The weight of the removed companies was redistributed proportionately to the remaining companies in accordance with their relative weights
 - Exclusions include oil, gas, thermal coal mining or thermal coal power (See Appendix A to see how companies were qualified)
 - 2) NYSCRF current fossil fuel portfolio (reference portfolio) – no exclusions
- Performance comparison period commenced on April 1, 2008, using holdings, weights and valuation information as disclosed on March 31, 2008 (See Appendix B for valuations)
- Performance calculations performed with Bloomberg PORT Function, with rebalancing occurring each April 1, according to latest disclosures, valuations and weights obtained from 13-F SEC filings and the CAFR. Analysis accounted for net outflows arising from member contributions and pension retirement payments.

Results

- The New York State Common Retirement Fund (NYSCRF) would be an estimated \$22.2 billion richer had it decided to divest its fossil fuel stocks eleven years ago.
- A fossil fuel free version of the NYSCRF would have left each of its 1,122,626 members and retirees an additional \$19,820 richer at the end of the period of analysis.



NYSCRF Fossil Fuel Free versus NYSCRF

| Portfolio Statistics | April 1 2008 to March 30 2018 | April 1 2008 to March 30 2018 |
|---------------------------------|-----------------------------------|-------------------------------|
| | NYSCRF Fossil Fuel Free Portfolio | NYSCRF Portfolio |
| Total Return | 157.7% | 123.8% |
| Mean Return (Annualized) | 17.3% | 15.1% |
| Standard Deviation (Annualized) | 19.8% | 20.1% |
| Downside Risk (Annualized) | 14.1% | 14.4% |
| VaR 95% (ex-post) | -1.75% | -1.77% |
| Sharpe Ratio | 0.60 | 0.51 |
| Tracking Error (Annualized) | 2.7% | |

Which fossil fuel companies were biggest drag on NYSCRF performance?

| Fossil Fuel Stock | Total Return (April 1 2008-March 30, 2018) |
|---------------------------|--|
| GENERAL ELECTRIC CO* | -51% |
| SCHLUMBERGER LTD | -11.8% |
| EXXON MOBIL CORP | 11.9% |
| CONOCOPHILLIPS | 40.0% |
| OCCIDENTAL PETROLEUM CORP | 49.7% |

Source: Bloomberg

*General Electric earned 13.6% of its revenue from fossil fuel related businesses in F2017 including through its subsidiary Baker Hughes.

Which companies boosted returns the most for the Fossil Fuel Portfolio?*

| Fossil Fuel Stock | Total Return (April 1 2008-March 30, 2018) |
|----------------------------|--|
| APPLE INC | 773.5% |
| AMAZON.COM INC | 661.7% |
| HOME DEPOT INC | 559.5% |
| ALPHABET INC-CL A | 334.5% |
| MICROSOFT CORP | 284.9% |
| INTEL CORP | 206.8% |
| COMCAST CORP-CLASS A | 200.8% |
| JPMORGAN GROWTH ADVANTAG-I | 197.0% |
| VISA INC-CLASS A SHARES | 193.5% |
| MCDONALD'S CORP | 177.6% |

Source: Bloomberg

*Both the Fossil Fuel Free NYSCRF and NYSCRF included the above companies. The Fossil Fuel free version, however, had higher exposure to these companies as a result of reallocating weights from fossil fuel stocks.

Companies that diversified beyond fossil fuels generated superior returns for investors

- **Neste Oil**, a traditional fossil fuel refiner from Finland now earns 25% of its annual €11.7 billion revenues (and close to half its profits) from refining biofuels.
 - Over the past five years to Sept 30, 2018, Neste Oil has generated a total return of 328%, outpacing the S&P Global Oil Index benchmark's performance by more than a factor of 40. (See Appendix C)
- Over the course of a decade, the **Danish National Oil and Gas Company** invested heavily in onshore and offshore wind to the point where renewable power now comprises 60% of its revenue.
 - Rebranded as **Ørsted**, the company has generated a 97.6% total return since its IPO in 2016 to Sept 30, 2018, beating its traditional benchmark--S&P Global Oil Index—by 65.7% over the same period. (See Appendix D)

Conclusions

- Energy transition is happening faster than investors expected, investors with substantial fossil fuel holdings may be taking on risks they do not fully appreciate.
- The Fossil fuel free portfolio generated superior returns with a higher Sharpe ratio and lower volatility over the past ten years. Outperformance was driven by lower exposure to underperforming fossil fuel stocks combined with higher exposure to strong performers from tech and other sectors.
- General outperformance of fossil fuel free investment strategies over the past decade is proving resilient even an environment of rising oil prices.
- The two most prominent cases of fossil fuel companies diversifying into renewables have generated outsized returns for investors in comparison to the S&P Global Oil Index.
- Hence 985 institutional investors with \$6.24 trillion in assets under management have committed to divest from fossil fuels, up from \$52 billion four years ago (Arabella Advisors, 2018).*

* Arabella Advisors. (2018). *The Global Fossil Fuel Divestment and Clean Energy Investment Movement*. Retrieved from <https://www.arabellaadvisors.com/wp-content/uploads/2018/09/Global-Divestment-Report-2018.pdf>

Appendix A

- Oil, gas, thermal coal mining or thermal coal power stocks were identified using [Bloomberg's Equity Screening function \(EQS\)](#) for companies to screen out companies with any revenue from coal power generation, thermal coal mining or oil and gas activities.
- Companies classified by FactSet RBICS Economy classification as “Energy” (minus companies in the uranium mining industry) were screened out of the fossil fuel portfolio.

Appendix B: NYSCRF Values

| Year | Date | Total Equity Portfolio AUM | Domestic | INTL | Total AUM |
|------|-----------|----------------------------|---------------|---------------|----------------|
| 2008 | 31-Mar-08 | \$ 83,153,742 | \$ 58,582,079 | \$ 24,571,663 | \$ 153,877,718 |
| 2009 | 31-Mar-09 | \$ 47,870,996 | \$ 34,332,034 | \$ 13,538,962 | \$ 108,960,662 |
| 2010 | 31-Mar-10 | \$ 72,673,981 | \$ 51,495,373 | \$ 21,178,608 | \$ 132,500,204 |
| 2011 | 31-Mar-11 | \$ 79,944,953 | \$ 55,720,380 | \$ 24,224,573 | \$ 147,237,006 |
| 2012 | 31-Mar-12 | \$ 79,059,160 | \$ 55,888,530 | \$ 23,170,630 | \$ 150,658,883 |
| 2013 | 31-Mar-13 | \$ 83,049,487 | \$ 56,948,897 | \$ 26,100,590 | \$ 160,660,829 |
| 2014 | 31-Mar-14 | \$ 93,191,734 | \$ 65,281,392 | \$ 27,910,342 | \$ 176,835,136 |
| 2015 | 31-Mar-15 | \$ 94,293,532 | \$ 67,219,661 | \$ 27,073,871 | \$ 184,502,044 |
| 2016 | 31-Mar-16 | \$ 90,755,406 | \$ 61,544,070 | \$ 29,211,336 | \$ 178,639,701 |
| 2017 | 31-Mar-17 | \$ 103,688,363 | \$ 69,851,696 | \$ 33,836,667 | \$ 192,410,603 |
| 2018 | 31-Mar-18 | \$ 114,797,051 | \$ 75,771,363 | \$ 39,025,688 | \$ 207,415,970 |

Source: NYSCRF CAFR

Appendix C: Neste vs. S&P Global Oil Index



Source: Bloomberg

Appendix D: Ørsted vs. S&P Global Oil Index



Source: Bloomberg