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ISSUE BRIEF

FROM MSCI ESG RESEARCH INC.

FOSSIL FUEL DIVESTMENT: A PRACTICAL INTRODUCTION

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EXECUTIVE SUMMARY

This brief is aimed at institutional investors facing the possibility or necessity of divesting from some type of fossil fuel holdings. Approaches to explicit divestment have multiplied since the early days of the Carbon Tracker 200[1] list, as investors now have a better understanding of mechanisms to manage carbon in portfolios, including using revenue and power generation data in addition to reserves ownership. Institutional investors considering a more nuanced low carbon strategy[2] may refer to our 2015 paper *Beyond Divestment: Using Low Carbon Indexes* , as the focus of this brief will detail common approaches to divestment. We found that the most common approaches are designed to optimize for fossil fuel elimination, carbon reduction, engagement, and stranded asset risk mitigation using narrow, moderate, or broad exclusionary criteria.

KEY TAKEAWAYS

- While the divestment movement once focused solely on fossil fuel reserves, many investors are now looking at additional business models and divesting based on revenue and/or power generation criteria. Goals and constraints vary, and actual divestments range from a handful of issuers to hundreds.
- For a portfolio replicating the MSCI ACWI Index, reserves based divestment could eliminate anywhere from 1.7% of securities by weight (thermal coal only) to 7.7% (all fossil fuel reserves owners).[3] A revenue-and-generation approach could eliminate from as little as 0.8% by weight (thermal coal only, at a 50% threshold)[4] to 10.1% (thermal coal at 30% plus oil & gas at 50%)[5] or more (with lower thresholds).
- Performance, risk, and return were not necessarily negatively affected by divestment. For November 2010 through May 2016, these figures were all slightly better for the MSCI ACWI ex Coal and MSCI ACWI ex Fossil Fuels indexes than the parent index.[6]
- In the context of divestment, current portfolio carbon footprints will typically see larger reductions through a revenue-and-generation approach than a reserves-only approach.

[1] http://gofossilfree.org/top-200/

[2] Low Carbon strategies seek to optimize allocations to minimize (but not completely eliminate) exposure to actual or potential carbon emissions within a set of constraints regarding investment characteristics such as tracking error.

[3] Based on data as of April 15, 2016. See Figure 8.

[4] Based on data as of April 15, 2016. See Figure 9.

[5] Based on data as of May 1, 2016. See Figure 10.

[6] Based on data for November 30, 2010 through May 31, 2016. See Figure 11 and Figure 12.

For a portfolio replicating the MSCI ACWI Index, divestment from companies generating 30% of revenues or power from coal would result in total portfolio carbon emissions 21% lower than the MSCI ACWI ex Coal Index, which eliminates coal reserves owners, and even 14% lower than the MSCI ex Fossil Fuels Index, which also eliminates oil & gas reserves owners.[7]

[7] Based on data as of June 30, 2016. See Figure 14 and Figure 15.

A 'BURNING' HOT TOPIC

There are numerous paths available to address carbon risks in investment portfolios. While some high profile institutional investors such as the California State Teachers' Retirement System[8] and the Swedish government pension fund AP4[9] have committed funds to a low carbon approach or focused on engagement, others are increasingly being urged, if not required, to explicitly divest from fossil fuel holdings. Organizations like Divest Invest and 350.org have played key roles in mobilizing support for divestment, especially on college campuses.

In January 2016, the California Department of Insurance (CA DOI) issued a request[10] that all insurance companies operating in the state voluntarily divest from coal, as well as report on investments in oil and gas. In April 2016, the Norwegian Sovereign Wealth Fund added many fossil fuel companies to its investment exclusion list[11]. Universities, foundations, and religious organizations have taken similar steps under pressure from constituents. The California State Legislature passed a law requiring the State's public pension funds to divest major coal holdings by mid-2017[12]; New York[13] and Vermont[14] are considering similar moves.

Whether out of concern for financial risk[15], the future of the planet[16], or both[17], the number of institutions under pressure to explicitly divest from at least some fossil fuel holdings has risen rapidly over the last eighteen months. With new commitments coming in quick

[8] http://www.calstrs.com/news-release/calstrs-commits-25-billion-low-carbon-index

[9] http://www.ap4.se/en/esg/climate-change-a-focus-area/ap4s-low-carbon-investments/

[10] https://www.insurance.ca.gov/0400-news/0100-press-releases/2016/statement010-16.cfm

[11] https://www.nbim.no/contentassets/08b0787eae8a4016bd06bfeba0067e32/20160414-grounds-for-decision---product-based-coal-exclusions.pdf

[12] http://www.latimes.com/politics/la-pol-sac-california-pension-divest-coal-20150930-story.html

[13] https://www.nysenate.gov/newsroom/press-releases/liz-krueger/senate-committee-votes-favor-fossil-fuel-divestment

[14] http://governor.vermont.gov/Divest-Vermont-Pension-Investment-Committee, http://www.burlingtonfreepress.com/story/news/politics/2016/03/08/vermont-divestment-bill-dies-committee/81485906/

[15] See, for example, https://www.insurance.ca.gov/0400-news/0100-press-releases/2016/statement010-16.cfm

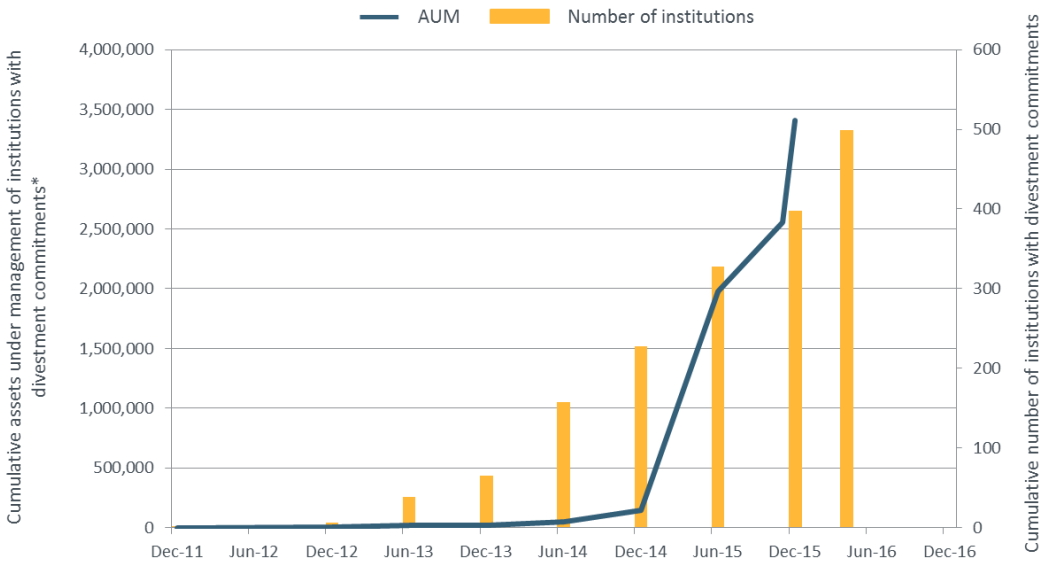
[16] E.g. http://www.theguardian.com/environment/2015/apr/30/church-of-england-ends-investments-in-heavily-polluting-fossil-fuels

[17] E.g. https://cdn.axa.com/www-axa-com%2Fa447a713-dfa1-4374-9b56-69d69e0e32c9_axa_coal_policy_b.pdf

succession (see Figure 1) and new government mandates emerging, the movement is likely to continue picking up steam.

Figure 1: Trend in Fossil Fuel Divestment Commitments

Description: Cumulative number of institutions committing to some form of fossil fuel divestment and the approximate assets under management (AUM) of those institutions, based on data from the Fossil Free Campaign. Among the institions counted, some have commited to divest only from a portion of their AUM. TotalAUM figures were not publicly available for all institutions commiting to divestment.



Data Source: Fossil Free campaign (gofossilfree.org/commitments)

APPROACHES TO FOSSIL FUEL DIVESTMENT

We've observed an increasing number of institutional investors pursuing strategies to address carbon risks, including explicit divestment, tilting and optimization, engagement, and shifting assets to companies developing clean technology solutions. This brief is aimed at those exploring an exclusionary divestment approach.

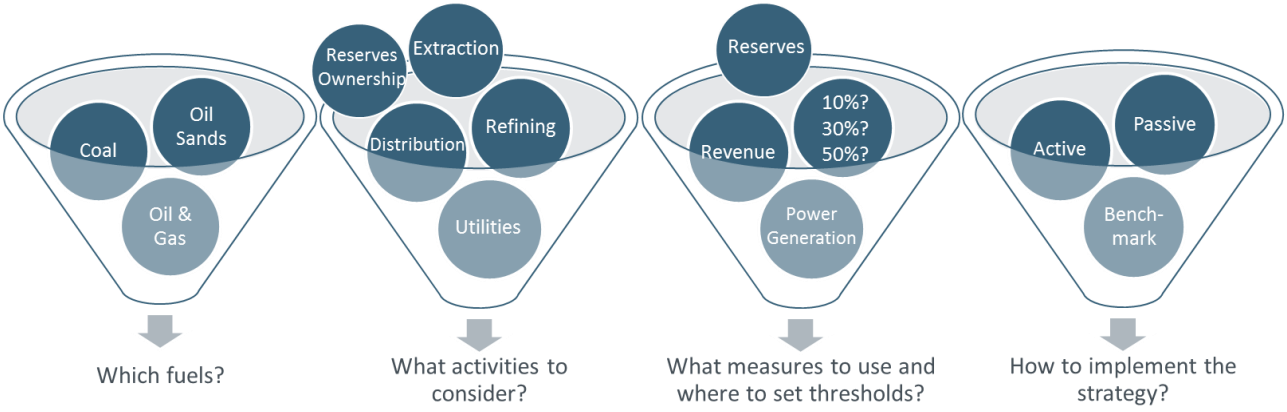
Institutional investors pursuing a divestment strategy may have multiple objectives, some of which may need to be balanced against each other, including:

- Minimizing short-term financial risk and deviation from standard market returns
- Mitigating long-term climate and financial risk posed by potentially stranded assets
- Minimizing stakeholder risk though simplicity of implementation and communication
- Sending a clear, strong message to the market
- Minimizing short-term porfolio carbon footprints

With those objectives in mind, investors typically consider the following questions when constructing divestment policies and mandates:

1) Which fossil fuel(s) should be targeted?
2) What types of involvement or business activities should be excluded?
3) What measures should be used and where should the divestment thresholds be set?
4) How should the strategy be implemented from an investment perspective?

Figure 2: Considerations in Establishing a Fossil Fuel Divestment Strategy

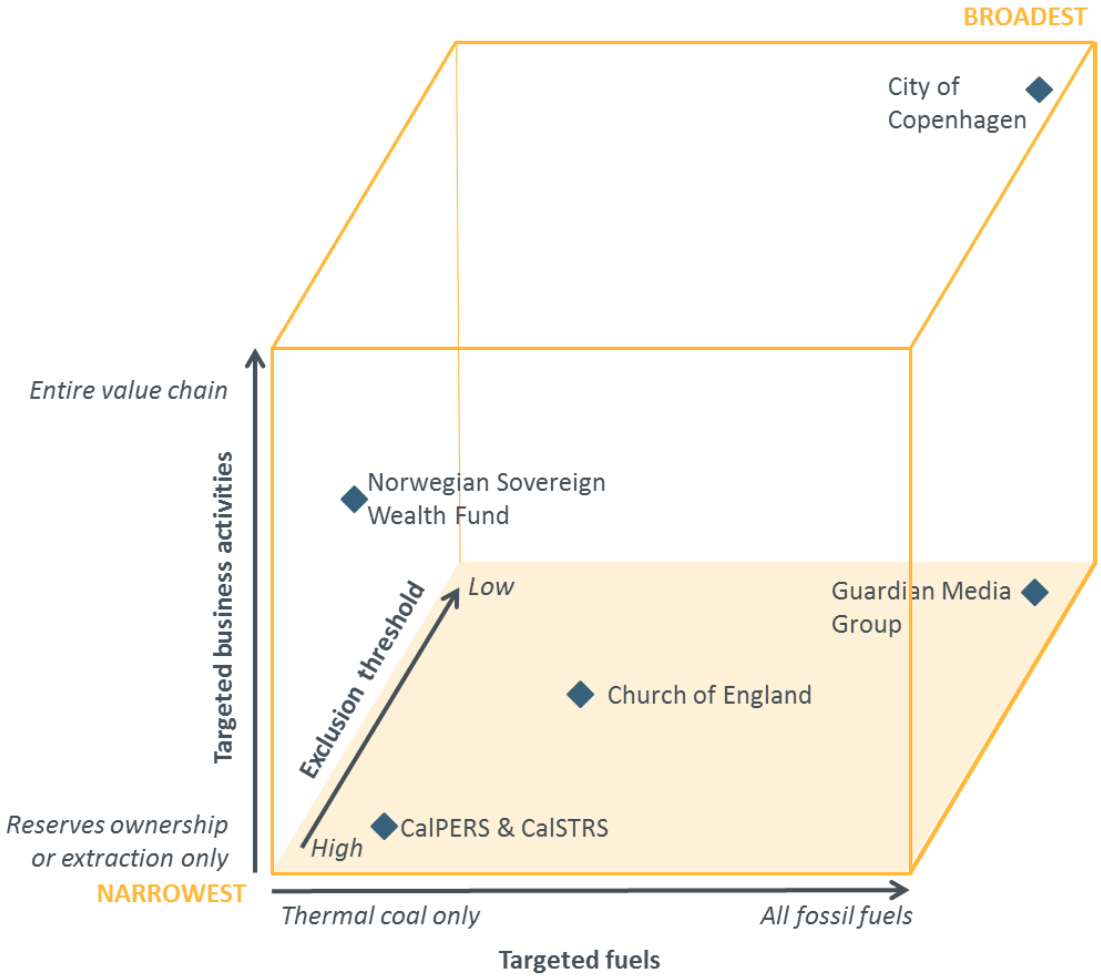


All of these questions center around the dilemma of how wide a net to cast in identifying business models and issuers ineligible for investment. While the net has three possible dimensions (see Figure 3) and we see considerable variation in how different investors and mandates approach these questions, the resulting decisions fall along a rough spectrum in terms of the extent of divestment.

The narrowest approaches, such as those applied by CalPERS and CalSTRS, focus only on thermal coal and set a high threshold (e.g. ≥50% of revenue or power generation) for divestment. At the other end of the spectrum are investors such as the City of Copenhagen, taking a comprehensive approach across the value chain and across fuels with a low threshold (e.g. 5%) for exclusion. See Figure 3 and Figure 6 for examples.

Figure 3: How Wide A Divestment Net to Cast: Decisions in Three Dimensions

Description: In determining how many or how few issuers they wish to exclude in a divestment strategy, institutional investors must consider the scope of their approach to questions #1-3: which fuels, which business activities, and what thresholds to apply. Example investors are plotted according to the decisions they have made. For details on the listed investors and additional examples, see Figure 6.



WHICH FUELS?

Many investors have targeted thermal coal[18] in their divestment approaches. Thermal coal is widely used and produces more carbon dioxide per unit of energy produced than do most other fossil fuels. Some have focused their divestment on thermal coal plus oil sands, which in addition to having a high CO_2 content when burned are also more energy intensive to extract and refine. Still other investors are considering divestment from all fossil fuels. Many university campaigns in particular have taken aim at all fossil fuels.[19]

Figure 4: Greenhouse Gas Potency of Different Fossil Fuels

Fuel	CO_2 Content (kg per GJ)
Oil sands and oil shale	106.7
Thermal coal	96.4
Metallurgical coal	94.6
Crude oil	73.3
Natural gas	56.1

Source: MSCI ESG Reserch and IPCC, 2014. We calculated CO_2 from thermal coal combustion per the IPCC's methodology.

WHAT ACTIVITIES TO CONSIDER?

The divestment movement began with a sole focus on ownership of fossil fuel reserves and the idea that these assets could or should become 'stranded'[20]: If global warming is to be contained within two degrees Celsius, many of these reserves cannot be extracted

MSCI ESG Research's Stranded Assets Definition: A stranded asset is the term used to describe an investment that loses its value well ahead of its anticipated useful life because of the impact of various transformational changes. Examples include products like camera film (think of Kodak) and industries like nuclear power (think of Japan and Germany).The term has also been applied to the fossil fuel sector.

[18] The term 'thermal coal' refers to coal that is burned for heat or energy, in contrast to metallurgical coal, which is used in steel production.

[19] See, for example, https://campaigns.gofossilfree.org/petitions/near/new?category=fossil-fuel-divestment-colleges-universities

[20] For more information on stranded assets, see: http://www.carbontracker.org/wp-content/uploads/2014/09/Unburnable-Carbon-Full-rev2-1.pdf as well as MSCI's 2014 issue brief on the subject: Stranded Assets as Investment Opportunities, https://www.msci.com/www/research-paper/msci-esg-issue-brief-stranded/023385463

and burned. Environmentalists pushed to 'keep it in the ground' while financial risk analysis pointed out that if these reserves could never be burned, they were overvalued.

MSCI ESG Research observes that these arguments continue to carry weight with some investors and many divestment campaigners, and numerous investors are divesting based on reserves ownership. However, over the last year we have increasingly seen institutional investors and government mandates targeting activities across other parts of the fossil fuel value chain. While companies that own reserves may also be involved in exploration and extraction as well as in midstream[21] and downstream[22] activities, a reserves-based divestment approach may not comprehensively exclude those business models. Yet with their assets and infrastructure dedicated to fossil fuels, these companies are as much at risk from stranding as the extraction companies. Equipment & services companies may be in the same situation. A reserves approach also will likely not exclude utilities, which are the largest direct users of fossil fuels, unless they are vertically integrated (e.g. Tata Power Company, Korea Electric Power Corp.). Yet fossil fuel-powered utilities face increasing regulatory risk and are the biggest present day contributors to climate change. Investors concerned with these risks and considerations may therefore choose to target a wider swath of the value chain.

CHOOSING MEASURES AND SETTING DIVESTMENT THRESHOLDS

Reserves: For an institutional investor with an explicit divestment approach and whose main focus is avoiding ownership of stranded assets and/or limiting investments in future carbon emissions, excluding companies that own fossil fuel reserves (whether only of coal, coal and oil sands, or all fossil fuels) may make sense. Once this decision is made, the subsequent question is whether to exclude all reserves-owning companies or only those with reserves over a certain volume. While this approach may send a message to the market and stakeholders, it may also have downsides relative to other possible objectives (e.g. limiting short term risk, minimizing portfolio carbon footprint).

Revenue and generation: We've seen many institutional clients concerned with a wider array of business models use a percentage of revenue as their metric of choice. Sometimes this was paired with a percentage of power generation for utilities (which is typically easier to obtain than fuel-specific revenues). In addition to shifting the focus from future potential emissions to current activities, these approaches allow for the investor to fine-tune the exclusion list for both level of involvement and scope of business activities.

[21] I.e. transportation, storage, and wholesaling

[22] I.e. refining, processing, marketing & distribution

Figure 5: Summary of Fossil Fuel Divestment Options & Scope Decisions

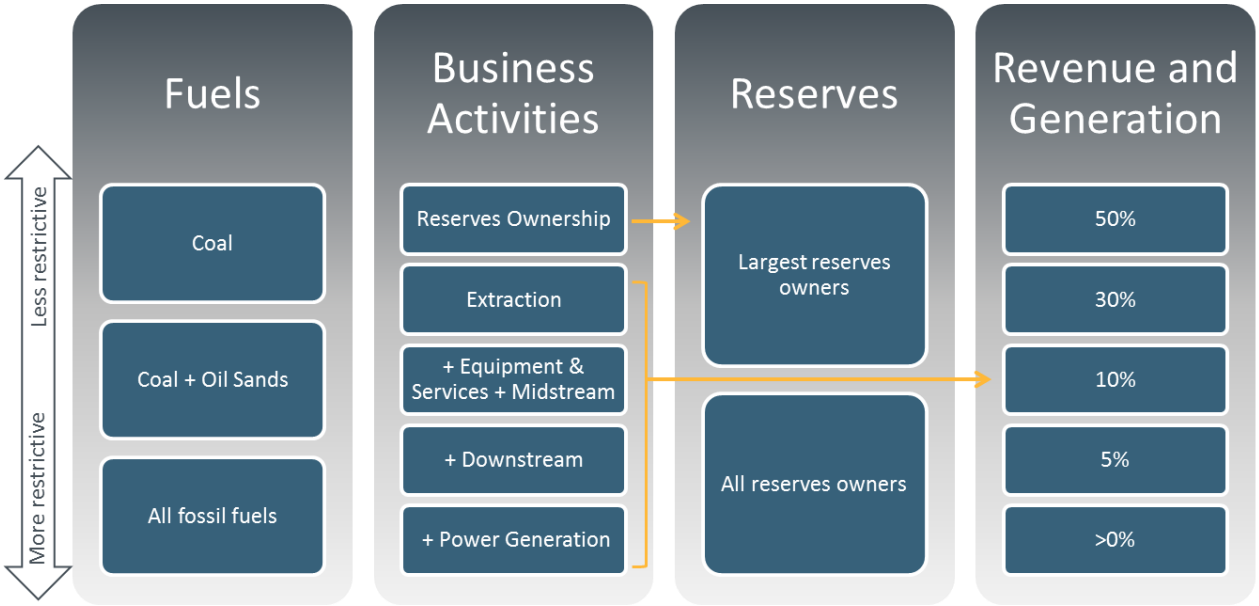


Figure 6: Examples of Institutional Investors' Divestment Approaches

Investor	Divestment Approach
California Public Employees Retirement System (CalPERS) and California State Teachers' Retirement System (CalSTRS)	Divest from companies deriving >50% of revenue from **thermal coal** extraction by July 1, 2017. Divestment mandated by California State Legislature.
AXA SA	Divest from companies that derive >50% of revenues or generate >50% of electricity from **thermal coal**.
Norwegian Sovereign Wealth Fund	Divest from companies deriving >30% of revenue or generated >30% of power from **thermal coal**. Divestment mandated by Parliament.
Insurance companies subject to California DOI directive	Divest from companies deriving >30% of revenue or generated >30% of power from **thermal coal**.
Church of England	Divests companies deriving >10% of revenue from extraction of **thermal coal** or **oil sands**.
Stanford University	Divest from approximately 100 companies "whose principal business is **coal**" extraction. (Under pressure to further divest from top 100 oil & gas companies by reserves.)
Guardian Media Group	Divest from top 200 fossil fuel companies (**coal** + **oil & gas**) by reserves.
University of Massachusetts	Divest from top 200 fossil fuel companies (**coal** + **oil & gas**) by reserves.
City of Copenhagen	Divest all companies earning 5% of revenue from coal, oil, and gas prospecting, extraction, refining, and equipment & services.

Figure 7: Example of a Divestment Directive: Summary of the California Department of Insurance Carbon Risk Initiative

Part I: Coal Divestment Request	Part II: "Data Call" on Oil & Gas Investments
• Applies to all admitted California insurers • Requests voluntary divestment from holdings of companies that derive 30% or more of their revenue from thermal coal extraction or utilities that generate 30% or more of their electricity from coal • Will publish names of companies that divest and those that do not (as of June 1, 2016)	• Applies to insurers writing at least USD 100 million in premiums in the US • Requires disclosure by June 2016 of investments in a) companies that derive 50% or more of their revenue from oil & gas, including pipeline companies, b) companies that derive 30% or more of their revenue from thermal coal extraction or refining, and c) utilities that generate either 30% or more of their electricity from coal or 50% from all fossil fuels

IMPLEMENTING THE INVESTMENT STRATEGY

Having considered the questions above, the next step for an institutional investor is to decide how to implement the divestment strategy, which may be managed actively or passively. The most common options include:

- **Active**: Using data to match the desired approach, or starting with a fossil fuel-free index to define the eligible investment universe, an investor may take an active approach to portfolio construction. An active strategy affords the investor the ability to customize their approach in terms of companies eligible or ineligible for investment.
- **Passive**: Construct a portfolio that tracks a fossil fuel-free index such as the MSCI ACWI ex Coal Index or MSCI ACWI ex Fossil Fuels Index. This approach provides the benefits of index-based passive investing, though the investor must be comfortable with the methodological approach of the selected index.
- **Benchmarking**: Investors may compare their performance and risk against a standard market index. In the context of fossil fuel divestment, they may also want to monitor and analyze the financial characteristics of their portfolios against a fossil fuel-free index as the gauge of their investment strategy.

An alternative strategy to divestment as described in this paper would be to take a low carbon approach, significantly reducing – but not completely eliminating – exposure to fossil fuel reserves and carbon emissions while managing tracking error. Large institutional

investors such as CalSTRS and AP4 have taken this approach. For more information, see our 2015 paper *Beyond Divestment: Using Low Carbon Indexes*[23].

IMPACT ON INVESTMENTS

The investment impact of fossil fuel divestment may vary depending on the precise nature of the divestment strategy. A narrow focus (for example, requiring only divestment of thermal coal with a high revenue threshold) is likely to have a more limited impact, both in terms of the number of issuers that must be avoided as well as the deviation in performance from a benchmark. A wider focus (for example, divesting large portions of the energy and utilities sectors) is likely to have a more substantial impact. These impacts include shrinkage of the universe eligible for investment, possible differences in performance, and reductions in portfolio carbon footprints.

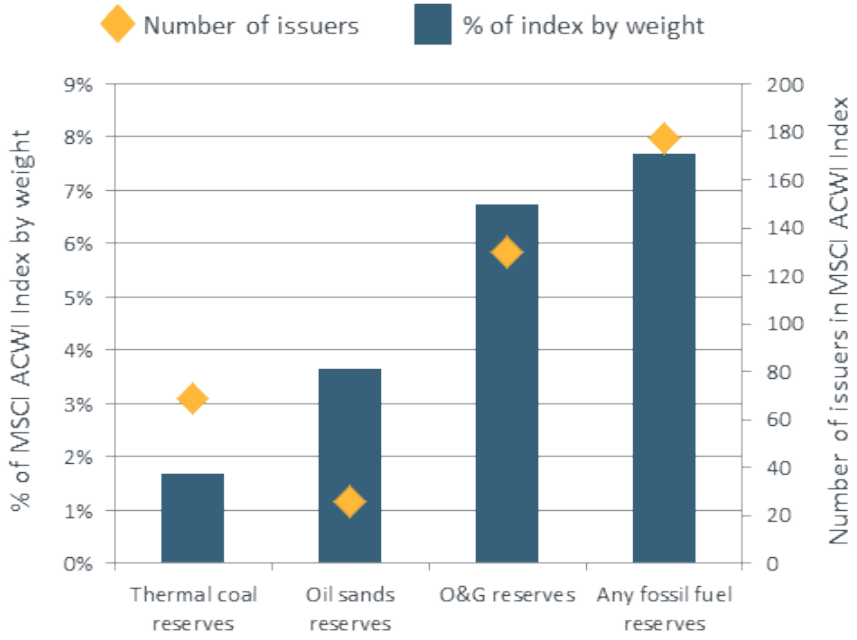
INVESTABLE UNIVERSE

Divestment commitments by definition narrow the pool of issuers eligible for investment. The figures below illustrate the portion of the MSCI ACWI Index by weight that would become ineligible under various divestment scenarios.

[23] Research Insight Beyond Divestment Using Low Carbon Indexes, MSCI Research Insight, 2015.

Figure 8: Potential Impact of Reserves-Based Fossil Fuel Divestment

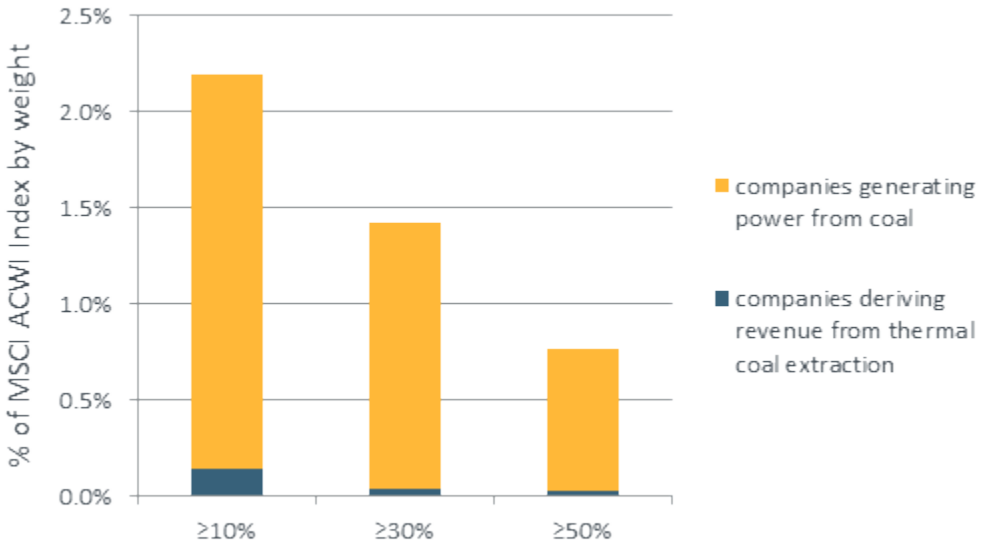
Description: The chart shows the potential impacts on a sample portfolio based on the MSCI ACWI Index of reserves-based fossil fuel divestment focused on thermal coal, oil sands, oil & gas, or all fossil fuels. The percent of the index by weight and number of issuers indicate the portion of the universe that would become ineligible for investment. Data as of April 15, 2016.



Source: MSCI ESG Research

Figure 9: Potential Impact of Revenue- and Generation-Based Thermal Coal Divestment

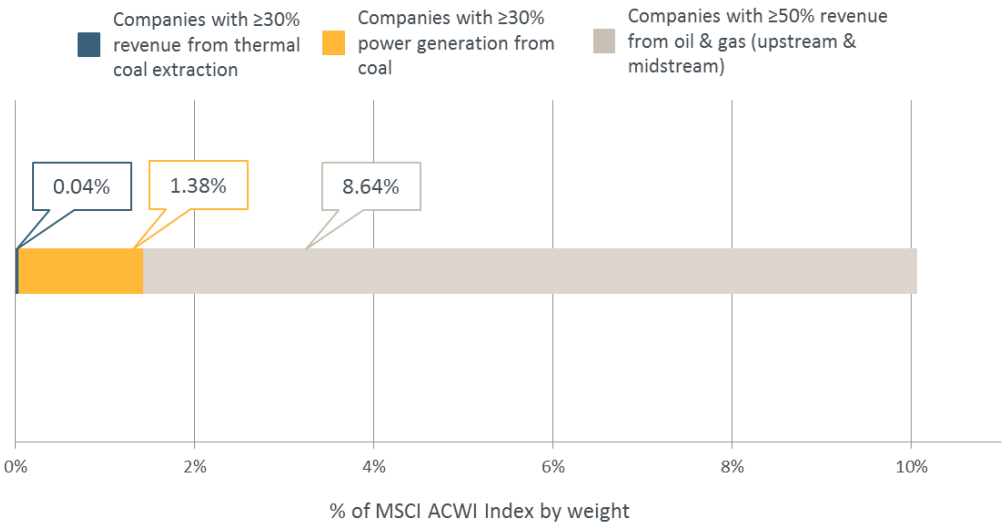
Description: The chart shows the potential impact on a sample portfolio based on the MSCI ACWI Index of thermal coal divestment based on revenue and power generation at the 10%, 30%, and 50% thresholds. The percent of the index by weight indicates the portion of the universe that would become ineligible for investment. Data as of April 15, 2016.



Source: MSCI ESG Research

Figure 10: Potential Impact if California DOI Reporting Requirements Became Divestment Requirements

Description: The chart shows the potential impacts on a sample portfolio based on the MSCI ACWI Index of fossil fuel divestment if the reporting requirements of the California Department of Insurance directive were to become divestment requirements. The percent of the index by weight indicates the portion of the universe that would become ineligible for investment. Data as of May 1, 2016. See Figure 7 above for a description of the requirements.

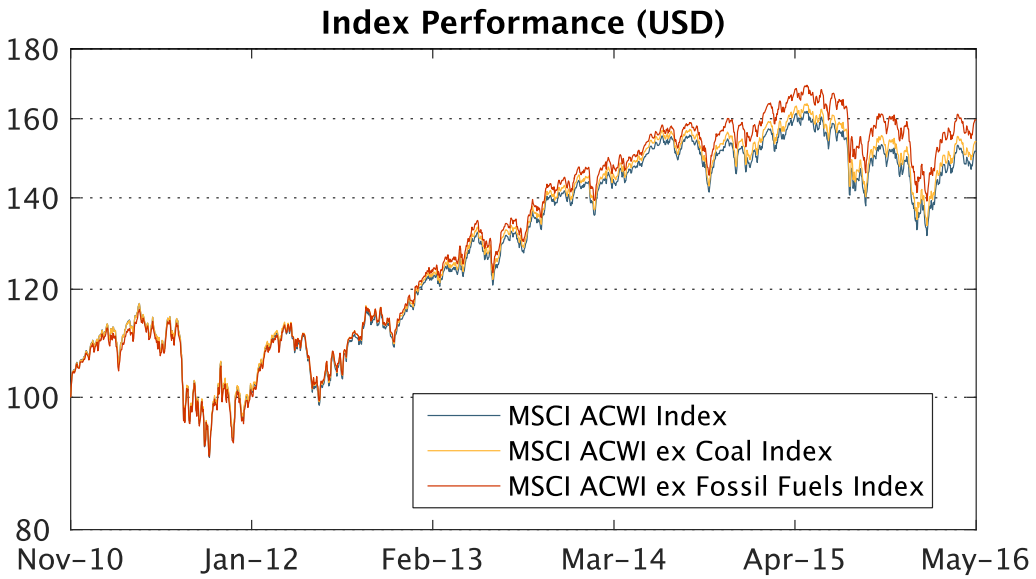


Source: MSCI ESG Research

PERFORMANCE

The MSCI ACWI ex Coal Index and the MSCI ACWI ex Fossil Fuels Index respectively exclude any company with either coal reserves or fossil fuel reserves of any type but otherwise follow the methodology of the MSCI ACWI Index. Their performance over the last five years suggests that eliminating holdings in companies that own fossil fuel reserves did not compromise investment performance in an otherwise diversified portfolio during that period. The performance impact over longer historical periods may vary, depending on the performance of the excluded companies owning fossil fuel reserves.

Figure 11: Historical Performance of MSCI ACWI ex Coal Index and MSCI ACWI ex Fossil Fuels Index vs MSCI ACWI Index



Source: MSCI

The historical risk and return profiles of these two indexes also compared favorably to the MSCI ACWI Index, albeit to a modest degree. Not surprisingly, the MSCI ACWI ex Fossil Fuels Index had a higher tracking error than the MSCI ACWI ex Coal Index, as it excluded more issuers.

Figure 12: Historical Key Index Metrics for the MSCI ACWI ex Coal Index and MSCI ACWI ex Fossil Fuels Index compared to the MSCI ACWI Index

Key Metrics

	MSCI ACWI Index	MSCI ACWI ex Coal Index	MSCI ACWI ex Fossil Fuels Index
Total Return* (%)	7.8	8.1	8.9
Total Risk (%)	13.4	13.3	13.0
Return/Risk	0.58	0.61	0.68
Sharpe Ratio	0.57	0.60	0.67
Active Return (%)	0.0	0.3	1.0
Tracking Error (%)	0.0	0.3	1.0
Information Ratio	NaN	1.19	1.00
Historical Beta	1.00	0.99	0.97
Turnover** (%)	2.8	3.1	3.3
Price To Book***	1.9	1.9	2.0
Price to Earnings***	15.8	15.9	16.4
Dividend Yield*** (%)	2.6	2.6	2.5

Period: 30-Nov-2010 to 31-May-2016

* Gross returns annualized in USD

** Annualized one-way index turnover over index reviews

*** Monthly averages

The definitions of all statistical parameters are available in the Appendix

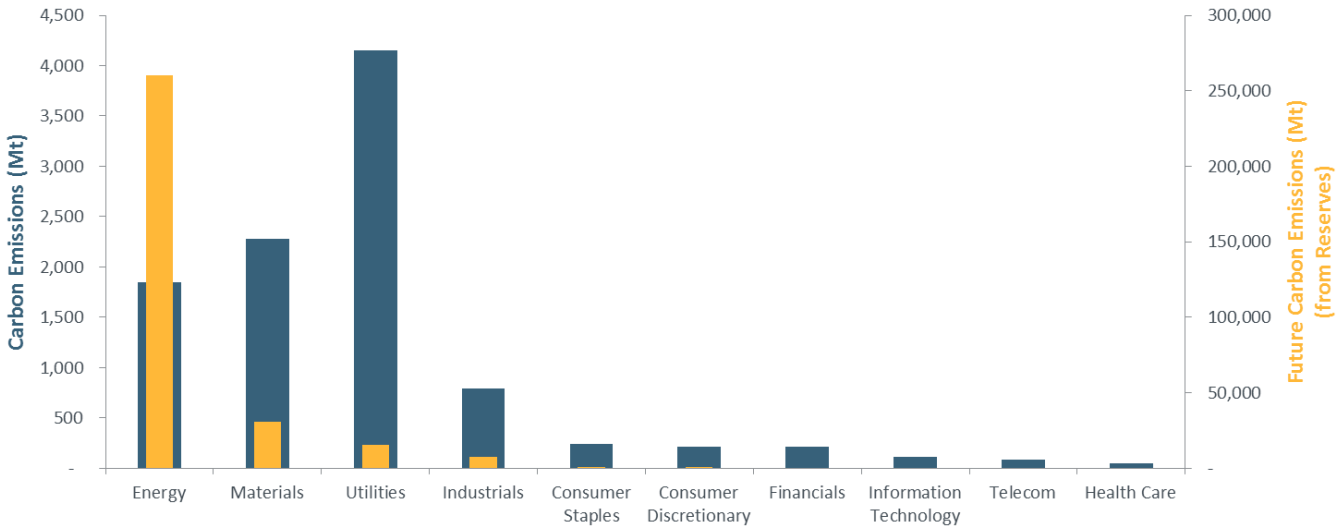
Source: MSCI

PORTFOLIO CARBON FOOTPRINT IMPACT

Almost any type of fossil fuel divestment approach will likely decrease present-day portfolio carbon footprints, but there are some differences to point out. A reserves-based approach to divestment takes aim primarily at holdings with a high amount of future potential emissions (i.e. those that would result if reserves were burned). In contrast, a revenue-and-generation approach also targets the utilities sector, which is responsible for a large portion of present day carbon emissions. A revenue-and-generation approach to divestment therefore is more likely to take a larger bite out of a portfolio's current carbon footprint while also decreasing its future potential emissions (though typically not completely eliminating them, as a reserves-based divestment approach could do).

Figure 13: Actual and Future Potential Emissions by Sector

Description: The chart shows total actual scope 1 and 2 carbon emissions (in blue) and total potential future emissions if reserves were to be burned (in yellow) by sector for the MSCI ACWI Index using data published by MSCI ESG Research as of July 5, 2016.

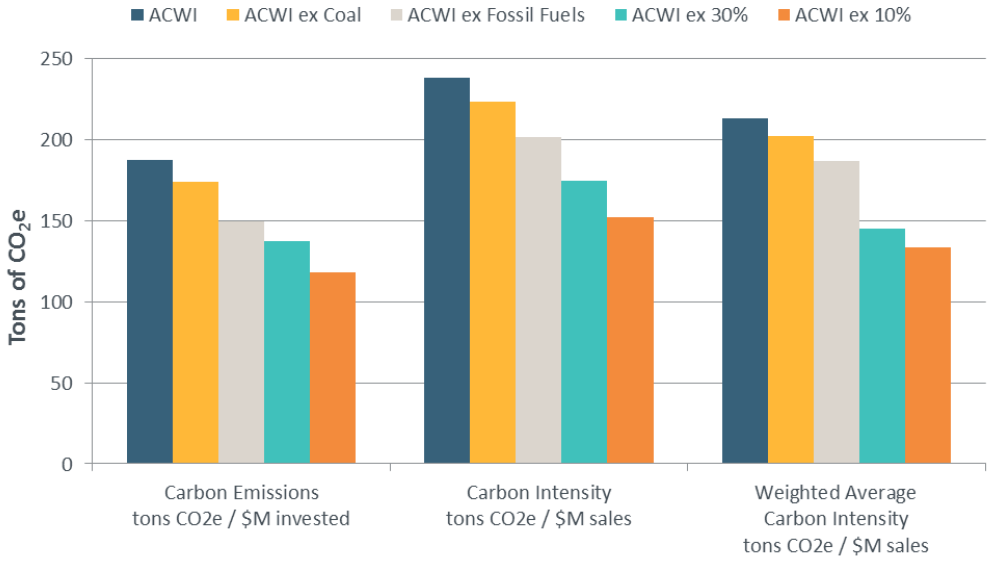


Source: MSCI ESG Research

The reduction in portfolio carbon footprint also varied by the specifics of the approach. Divestment only from companies with coal reserves had less of an impact on the porfolio carbon footprint than divestment from companies with any type of fossil fuel reserves. Likewise, divestment using a lower revenue-and-generation threshold may shrink a portfolio's carbon footprint more than a higher threshold.

Figure 14: Comparison of Portfolio Carbon Footprint Metrics

Description: The chart shows the three key portfolio carbon footprint metrics across five hypothetical portfolios. ACWI, in blue represents a portfolio replicating the MSCI ACWI Index. ACWI ex Coal, in yellow, represents a portfolio replicating the MSCI ACWI ex Coal Index, while ACWI ex Fossil Fuels, in grey, does so for the MSCI ACWI ex Fossil Fuels Index. ACWI ex 30%, in green, represents a portfolio based on the MSCI ACWI Index that had divested companies with 30% of revenues or 30% of power generation from coal, while ACWI ex 10% does the same with a 10% threshold. Data as of June 30, 2016.



Source: MSCI ESG Research

Figure 15: Detailed Comparison of Portfolio Carbon Footprint Metrics

Description: The table provides details regarding the metrics shown in Figure 14.

	Carbon Emissions tons CO2e / $M invested	Total Carbon Emissions tons CO2e	Carbon Intensity tons CO2e / $M sales	Weighted Average Carbon Intensity tons CO2e / $M sales
ACWI Coverage by Portfolio Weight[2]	**187.0** 99.3%	**187,046** 99.3%	**238.1** 99.3%	**213.2** 99.8%
ACWI ex Coal Coverage by Portfolio Weight[2]	**173.6** 99.4%	**173,560** 99.4%	**223.1** 99.4%	**201.9** 99.9%
ACWI ex Fossil Fuels Coverage by Portfolio Weight[2]	**149.2** 99.4%	**149,206** 99.4%	**201.1** 99.3%	**186.5** 99.9%
ACWI ex 30% Coverage by Portfolio Weight2	**137.0** 99.3%	**136,992** 99.3%	**174.6** 99.3%	**145.2** 99.8%
ACWI ex 10% Coverage by Portfolio Weight2	**118.1** 99.3%	**118,092** 99.3%	**152.0** 99.3%	**133.4** 99.8%

Aim / Purpose	***What is my portfolio's normalized carbon footprint per million dollars invested?***	***What is my portfolio's total carbon footprint?***	***How efficient is my portfolio in terms of carbon emissions per unit of output?***	***What is my portfolio's exposure to carbon intensive companies?***
Description	Normalized measure of a portfolio's contribution to climate change that enables comparisons with a benchmark, between multiple portfolios, and over time, regardless of portfolio size.	Measures the carbon footprint of a portfolio – i.e. the total carbon emissions for which an equity portfolio is responsible – by summing up the proportionate carbon emissions of portfolio companies based on the investor's ownership share.	Expresses the carbon efficiency of the portfolio and allows investors to measure how much carbon emissions per dollar of sales are generated by portfolio companies. This metric adjusts for company size and is a more accurate measurement of the efficiency of output rather than a portfolio's absolute footprint.	Since companies with higher carbon intensity are likely to face more exposure to carbon related market and regulatory risks, this metric indicates a portfolio's exposure to potential climate change-related risks relative to other portfolios or a benchmark. Agnostic to ownership share, it also facilitates comparison with non-equity asset
Calculation	$\left(\frac{\sum_n^i \frac{\$\,investment_i}{Issuer's\,full\,mcap_i} * Issuer's\,emissions_i}{Portfolio\,mkt\,value_i}\right) * 1{,}000{,}000$	$\sum_n^i \frac{\$\,investment_i}{Issuer's\,full\,mcap_i} * Issuer's\,emissions_i$	$\frac{\sum_n^i \frac{\$\,investment_i}{Issuer's\,full\,mcap_i} * Issuer's\,emissions_i}{\sum_n^i \frac{\$\,investment_i}{Issuer's\,full\,mcap_i} * Issuer's\,sales_i}$	$\sum_n^i Portfolio\ weight_i * \frac{Issuer's\,emissions_i}{Issuer's\,sales_i}$

Source: MSCI ESG Research

CONCLUSION

Pressure to divest is on the rise and the options for doing so are multiplying. Institutional investors and regulatory bodies considering this action face a number of decisions in defining their approach and strategy. They often consider how wide or narrow a net they

wish to cast in identifying companies to exclude from their holdings, consider which fuels are of highest priority to them and how broadly they want to look at the fossil fuel value chain, and determine where to set thresholds for involvement. They would then determine the type of investment strategy they wish to use to implement their divestment approach (active, passive, or benchmark), or whether to rethink pure divestment and take a more nuanced low carbon approach. The investment impact can vary considerably depending on how these decisions are made. Divestment may affect only a few holdings or a substantial portion of a benchmark; likewise, investment characteristics such as risk, return, performance, and tracking error may be held close to a benchmark or diverge significantly.

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