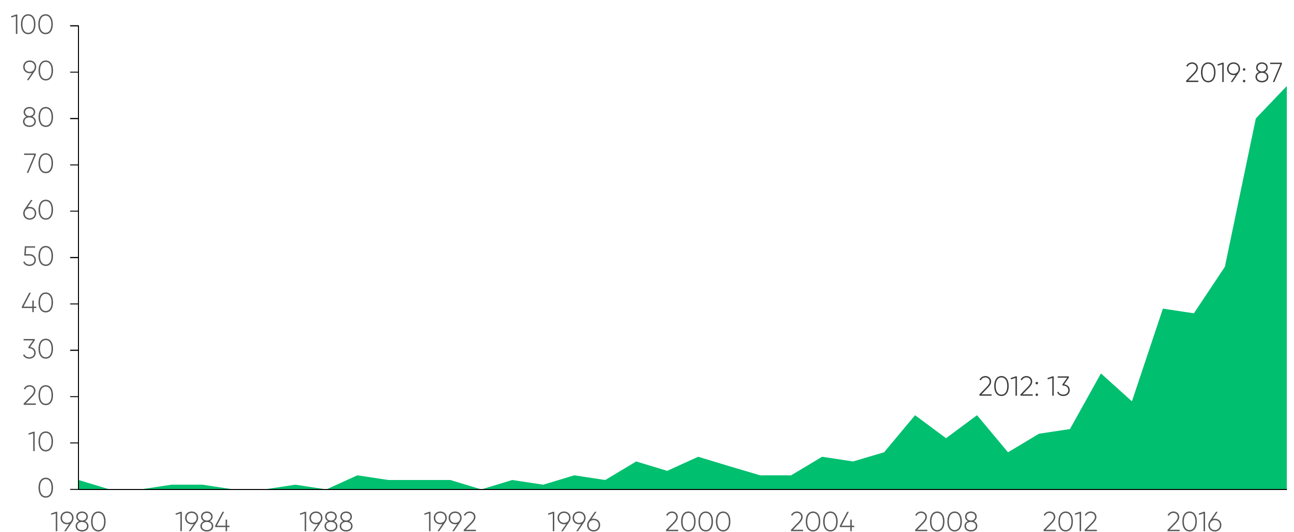
OPPORTUNITIES IN LOW-CARBON INVESTMENTS

KEY POINTS:

- **Low carbon and fossil-fuel free strategies are growing in demand among institutional investors.**
- **Overly restrictive approaches to carbon divestments may limit opportunity set.**
- **Opportunities exist in low-carbon investments when viewed at the macro level.**
- **Fisher Investments (FI) strategically integrates low-carbon themes into investment process.**

Incorporating carbon considerations as part of an overall investment process has been led by large European institutional investors, but is fast becoming more popular. As shown in Exhibit 1, demand for low carbon products has grown dramatically over the last 40 years, illustrating the importance investors put behind carbon factors. Alongside traditional analysis of companies' financial statements and corporate strategy, assessing emissions data, fossil fuel and clean technology exposure are among nonfinancial factors that investors are emphasizing.

Exhibit 1: Increasing Low-Carbon & Fossil-Fuel Free Strategy Demand



*Source: Morningstar Direct, accessed *December 2019. Shows absolute, non-cumulative count of products incepted by calendar year for All Managed Investments, filtered through the "Low Carbon/Fossil-Fuel Free" data point. Search is restricted to user defined primary share classes and surviving investments only.*

In particular, thermal coal (a type of carbon-based fuel that is burnt to generate electricity using steam turbines) has risen to be one of the most widely criticized carbon-based asset as it is the largest single source of global carbon emissions. Altogether, the combustion of thermal coal accounts for 40% of the total man-made CO2 emissions and 29% of the total manmade greenhouse gas emissions[i]. As a result, many investors agree that focusing on thermal coal is the most effective low-carbon investment opportunity.

FI is cognizant of potential effects of transitioning to a lower-carbon economy and views climate change as a long-term consideration with the potential to impact equity markets primarily through legislative action and innovative energy efficient solutions. In making investment decisions we are also willing to partner with our clients to accommodate specific carbon mandates (see page 6 for more information).

i Source: International Energy Agency, as of March 2019.

OVERLY RESTRICTIVE APPROACHES TO CARBON DIVESTMENTS MAY LIMIT OPPORTUNITY SET

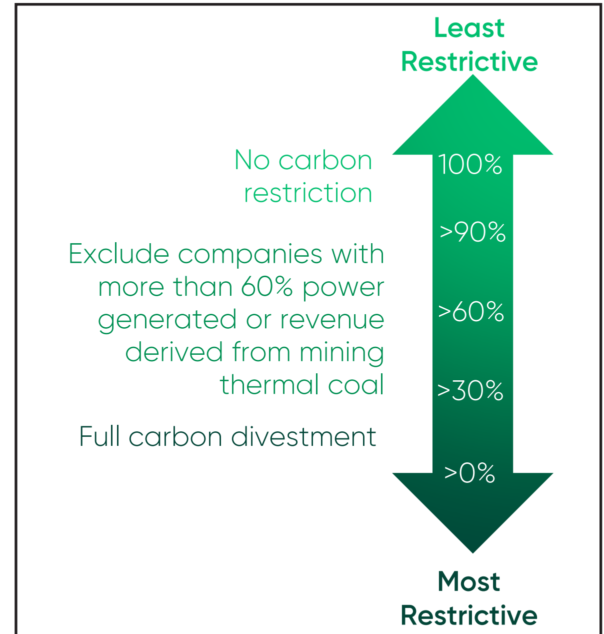
For institutional investors that are facing the possibility or necessity to divest from carbon, there are multiple approaches. Investors may construct their divestment strategy by answering the following questions:

1. **What type of carbon-based fuel should be excluded?**
   - Thermal coal
   - Oil
   - Natural gas
   - Biofuels
2. **Which metrics should be used?**

   Examples:
   - Revenue derived
   - Power generated
   - MSCI environmental rating
   - Reserves ownership
3. **What threshold level should be set?**

   Examples:
   - Divest companies with ≥60% of power generated or revenue derived (Exhibit 2)
   - Divest companies with BBB rating or above
   - Divest companies with oil reserves

Exhibit 2: Thermal Coal Threshold Level



Depending on the answer to each of the above questions, various types of divestment strategies can be implemented - from restricting a small list of companies to a longer, more general list. The divestment parameters act as a lever influencing the number of constituents in the investable universe. Therefore, an investor should be mindful that an overly restrictive approach to divestment may limit opportunities. For example, divestment of companies that derived all of its revenue from carbon-based fuels will exclude large portions of the energy and utility companies. As a result, performance may also deviate substantially from the benchmark and lead to an increase in portfolio risk.

FISHER INVESTMENTS' DIVESTMENT APPROACH

FI believes in constructing a carbon divestment strategy that restricts the worst offenders while offsetting portfolio risks. The following details how our research group constructed our divestment strategy:

1. **Type of carbon-based fuels: Thermal Coal**

   Like many investors, we also believe in excluding thermal coal because it produces the most CO_2 emissions per unit of energy than any other fuels.
2. **Metrics: Power Generated or Revenue Derived**

   Our objective is to choose a metric that directly isolates thermal coal business activity. Initially, the ownership of thermal coal reserves metric seemed to be suitable. Many investors believe withdrawing financial capital from the suppliers means that thermal coal reserves would not be extracted for fuel. However, this metric is not comprehensive enough to identify companies with other business activities related to thermal coal such as exploration activities, midstream operations (transportation, storage, and wholesaling) and downstream operations (refining, processing, marketing and distribution).

Metrics continued…

We believe in restricting thermal coal based on *power generated* or *revenue derived. Power generated* captures companies that use thermal coal as a source of fuel, and *revenue derived* isolates companies with considerable income from selling thermal coal. In looking at these two metrics, we are able to restrict companies either by upstream or downstream activities.

3. Threshold level: More than 30%

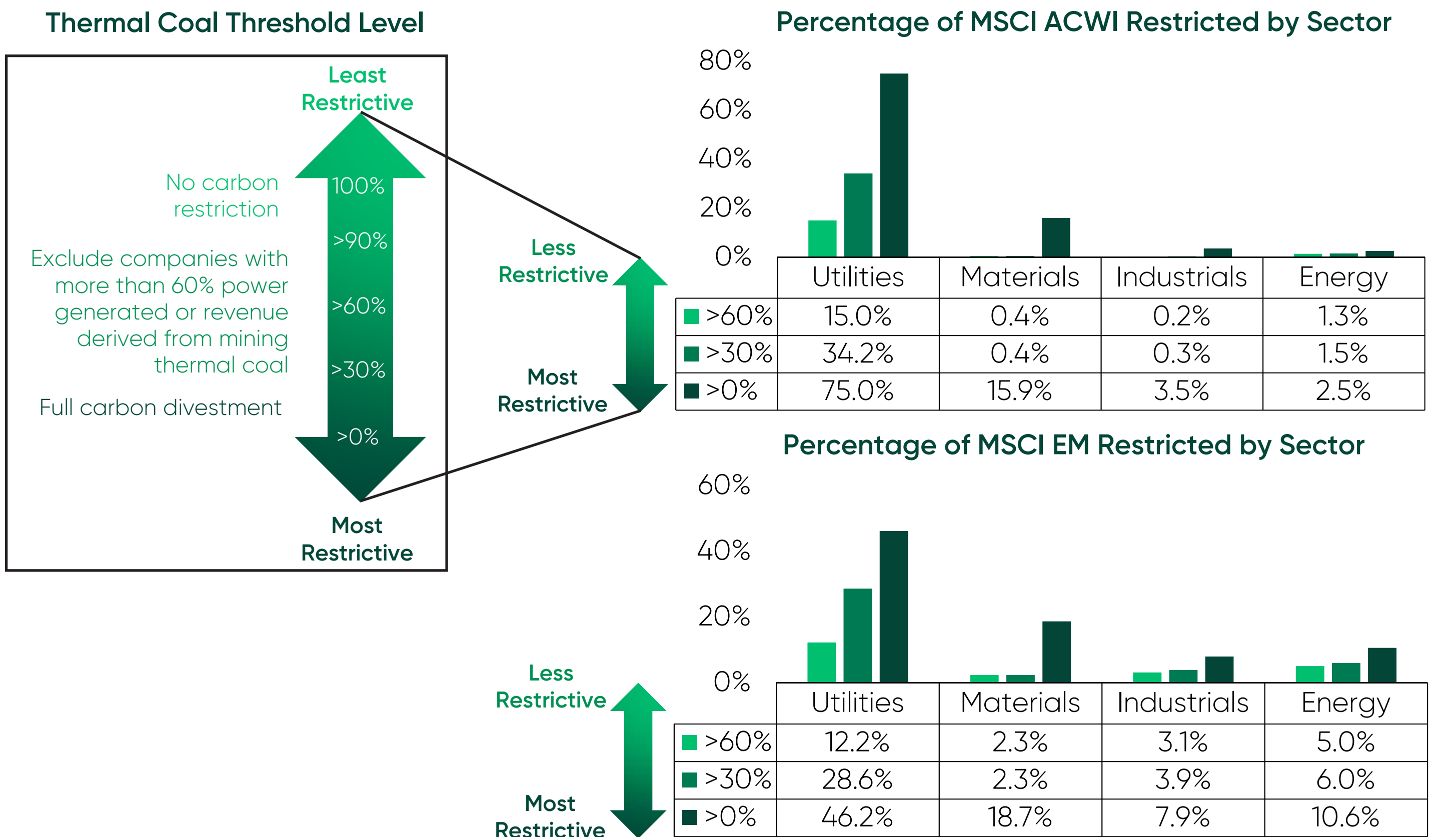
Determining an appropriate restriction threshold is paramount as restrictions have varied affects across sectors. Sectors with business activities directly related to the carbon-based fuel industry like Energy, Utilities, Materials and Industrial have varying degrees of impact. For example, complete divestment from thermal coal restricts 75% of the Utilities sector in MSCI ACWI (Exhibit 3). In contrast, restriction at the 30% threshold only limits 34% of the Utilities sector.

Overall, we have chosen to set a 30% divestment threshold level. By eliminating companies with more than 30% power generated or revenue derived from mining thermal coal, the worst carbon offenders are restricted and reduces the total carbon emissions of the investable universe by a third[ii].

This threshold level fulfills both a carbon divestment mandate and gives FI the flexibility to exercise our long-term investment decision process. Additionally, this approach is financially more practical in capturing a broader exposure to innovative and sustainable companies.

Exhibit 3: Varying Degrees of Impact to Sector Benchmark Holdings With Thermal Coal Power Generated or Revenue Derived Restrictions

> "COMPLETE DIVESTMENT FROM THERMAL COAL RESTRICTS 75% OF THE UTILITIES SECTOR IN MSCI ACWI. IN CONTRAST, RESTRICTION AT THE 30% THRESHOLD ONLY LIMITS 34%"



	Utilities	Materials	Industrials	Energy
>60%	15.0%	0.4%	0.2%	1.3%
>30%	34.2%	0.4%	0.3%	1.5%
>0%	75.0%	15.9%	3.5%	2.5%

	Utilities	Materials	Industrials	Energy
>60%	12.2%	2.3%	3.1%	5.0%
>30%	28.6%	2.3%	3.9%	6.0%
>0%	46.2%	18.7%	7.9%	10.6%

Source: MSCI ESG Manager, data as of December 2019.

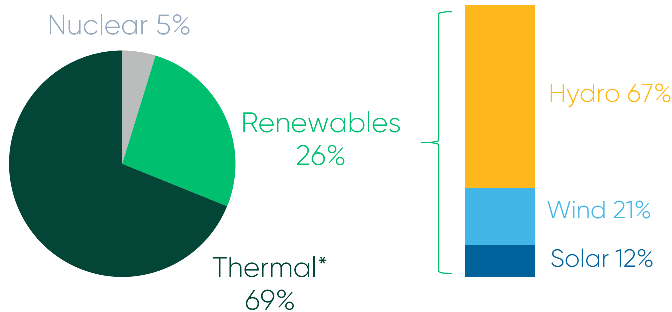
[ii] *Source: MSCI ESG Manager, data as of December 2019.*

OPPORTUNITIES IN LOW-CARBON INVESTMENTS EXISTS WHEN VIEWED AT THE MACRO LEVEL

A top-down investment process relies on analysis of a wide range of economic, political and sentiment drivers to formulate forecasts and develop portfolio themes. Integrating carbon factors when analyzing global political drivers provides insight on securities that are at risk of facing potential political or regulatory actions surrounding carbon-related issues. Similarly, monitoring multinational agreements on carbon reduction and various countries de-emphasizing the use of coal in favor of cleaner energy sources allows asset managers to uncover low-carbon investment opportunities.

For example, China is known as the world's largest polluter and uses coal as its primary source of electric power generation (Exhibit 4). However, in contrast, China is very aggressive in their goal to become more carbon-efficient as they recently increased its renewable energy production target to 35% by 2030. Currently, they are the world's largest producer of electricity from renewable energy sources (Exhibit 5).

Exhibit 4: Current Mix of Chinese Electric Power



*Source: China Energy Portal, data as of December 2019. *Thermal includes coal, gas, oil and biomass.*

Exhibit 5: Total Electricity Generation by Renewables

Renewable Source	China Rank
Hydro-Power Generation	1
Bio-Power Generation	1
Wind-Power Generation	1
Solar PV Capacity	1
Geo-thermal Heat Output	1

Source: REN21, data as of December 2018.

The Chinese government's influence on its market create an opportunity for it to drive rapid low-carbon initiatives uptake by both investors and issuers. In recent years, Chinese equities have grown to become a major component of the renewable electricity industry in the MSCI EM index (Exhibit 6). By monitoring carbon factors from a top-down perspective, investors have an advantage in identifying key opportunities for low-carbon investments.

Exhibit 6: China's Rising Market Share in Renewable Electricity

Source: FactSet Portfolio Analysis, month-end index weights from January 2010 to December 2019.

FISHER INVESTMENTS STRATEGICALLY INTEGRATES LOW-CARBON THEMES INTO INVESTMENT PROCESS

As investors look to move towards a low-carbon economy, one major concern regarding this transition is the impact that it could have on businesses and assets. With FI's flexible top-down investment process, we can easily accomodate for active carbon divestment (see page 2 for more information) and integration of low-carbon themes into our investment process without sacrificing overarching themes. Both direct and transitional carbon risks are incorporated within FI's investment process (Exhibit 7). For example, within all portfolios, we review the impact of climate-related legislation, shifting consumer preferences on country, sector, as well as security decisions.

Exhibit 7: Examples of Direct and Transition Carbon Risk

Direct Carbon Risk (12-18 months idiosyncratic risks)
Litigation Risks
Legislative / Political isk
Poor environmental stewardship
Resource & Company Preparedness

Transition Carbon Risk (long-term transition from carbon-based economy)
Shifting consumer preferences
Shifting supply resources
Renewable technology needs

Sources: Fisher Investments Research, as of December 2019.

Additionally, FI is able to measure the carbon emissions for individual portfolios and partner with our clients to accommodate specific carbon mandates. Currently, we offer ESG and low-carbon strategies that target a specified carbon divestment level. Within ESG portfolios, carbon-related risks are directly targeted by restricting various coal-fired utilities and mining companies involved in thermal coal extraction. Whereas within specific low carbon portfolios, FI explicitly targets a thermal coal reduction level relative to the respective strategy benchmark.

SUMMARY

Overall, FI believes climate change should be considered as part of managing both near and long term risks and for the purposes of identifying opportunities stemming from the global transition to a low carbon economy. As a result, we incorporate low-carbon themes within our organization and investment process. Our top down unique analysis of carbon serve as a source of excess return that are often overlooked by other investors.

Further, our research shows that the recommended threshold for managing thermal coal divestments is to apply a 30% threshold for thermal coal power generated or revenue derived. At this level, FI is able to focus on long-term results and seek to increase exposure to more carbon-efficient companies.

We believe our approach to low-carbon investments helps us seek to maximize the likelihood of achieving both objectives; desired performance and improving environmental and social conditions worldwide.

DISCLOSURES

Fisher Investments (FI) is an investment adviser registered with the Securities and Exchange Commission. As of 31 December 2019, FI managed over $115 billion, including assets sub-managed for its wholly-owned subsidiaries. FI and its subsidiaries maintain four principal business units – Fisher Investments Institutional Group (FIIG), Fisher Investments Private Client Group (FIPCG), Fisher Investments International (FII), and Fisher Investments 401(k) Solutions Group (401(k) Solutions). These groups serve a global client base of diverse investors including corporations, public and multiemployer pension funds, foundations and endowments, insurance companies, healthcare organizations, governments and high-net-worth individuals. FI's Investment Policy Committee (IPC) is responsible for investment decisions for all investment strategies.

For purposes of defining "firm," Fisher Investments was established as a sole proprietorship in 1979, incorporated in 1986, registered with the SEC in 1987, replacing the prior registration of the sole proprietorship, and succeeded its investment adviser registration to a limited liability company in 2005. "Years with FI" is calculated using the date on which Fisher Investments was established as a sole proprietorship through 31 December 2019.

FI is wholly-owned by Fisher Investments, Inc. Since inception, Fisher Investments, Inc. has been 100% Fisher-family and employee-owned. Fisher Investments, Inc. beneficially owns 100% of Fisher Investments (FI), as listed in Schedule A to FI's Form ADV Part 1. Ken Fisher beneficially owns more than 75% of Fisher Investments, Inc., as noted in Schedule B to FI's Form ADV Part 1.

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