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EMERGING MARKETS DEBT TEAM

Thermal Coal: Aligning Policy With Emerging Reality

In seeking to curb client exposure to a key carbon source, our team's thermal coal policy acknowledges distinct characteristics found within the emerging markets.

Climate change is becoming a crucial factor in risk and return potential across asset classes, industries and issuers. Consistent with the broader efforts of Neuberger Berman, the Emerging Markets Debt team is increasingly looking to monitor, report and reduce these risks over short- and long-term timeframes. Codifying these efforts, we have introduced our Thermal Coal Exclusion Policy, which lays out the parameters within which we will permit coal-related activity on the part of our portfolio companies. We provide details below.

Momentum—and Challenges—on Carbon and Coal

The world is mobilizing to address climate change. The Paris Agreement aims to curb global greenhouse gas (GHG) emissions in order to limit the increase in global temperature by the end of the century to 2°C above pre-industrial levels, with an aspiration of 1.5°C. The European Union and other regions and governments are looking to manage a gradual transition to a low-carbon economy, with regulatory shifts leading the way. The European Union specifically is targeting net zero greenhouse gas emissions by 2050, demonstrating its commitment to global climate action under the Paris Agreement. As such, companies are under pressure to reduce carbon footprint, whether auto manufacturers meeting stringent electrification goals or technology companies making sure that expanding data centers are fuel-efficient. Financial regulators are also intensifying their activism, for example with the European Banking Authority weighing the introduction of climate change stress-testing.[1] This is an idea to which various Asian banks already appear committed based on their membership in the Central Banks' Network for Greening the Financial System.[2]

[1] Source: European Banking Authority, *EBA Action Plan on Sustainable Finance*, December 8, 2019.
[2] See https://www.ngfs.net/en.

Within this broad context, thermal coal is at the forefront. Electricity and heat production are the world's leading contributors to greenhouse gas emissions, accounting for 25% of the total.[3] Within this group, thermal coal makes up 36.4% of the world's capacity.[4] In addition, thermal coal's carbon intensity is much higher than that of other fossil fuels: On average, coal is 42% more carbon-intensive than liquid fuels and 85% more carbon-intensive than natural gas, the sector's second most important fuel, at 24% of total capacity.

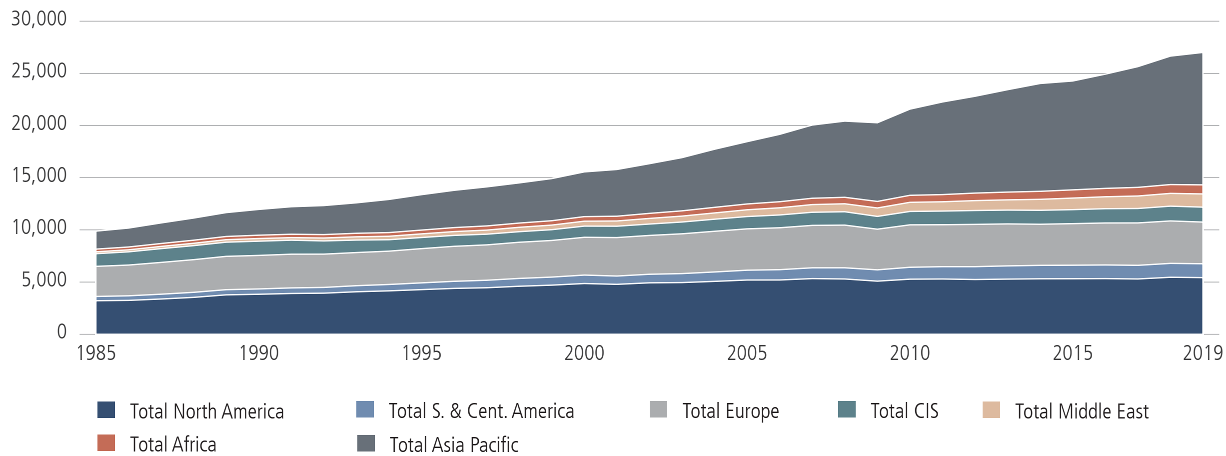
Coal in Emerging Markets

Concern about these characteristics has helped dampen coal use in the developed world, where many countries are replacing older coal-based facilities with cleaner capacity drawn from natural gas, wind, solar and hydro energy sources to meet relatively stable demand. Along these lines, thermal coal's 36.4% share of global electricity capacity, noted above, is its lowest in 16 years, thanks to a global coal consumption decline of 0.6% in 2019, according to BP.

However, thermal coal demand keeps growing in emerging markets, where its usage is very common, especially in Asia, which uses about 75% of the world's coal each year to meet growing demand for electricity from its expanding middle class. Although it would be ideal to substitute coal with alternative sources of energy over a short period, the reality is that coal remains the primary source of energy in some countries due to its low cost.

ASIA IS PARTICULARLY RELIANT ON THERMAL COAL

Coal-Fired Power Generation by Region (Terawatt Hours)



Source: BP Statistical Review of World Energy, 2020.

Our Thermal Coal Policy: Key Elements

In light of current thermal coal usage trends in emerging markets, the EMD team's policy takes a gradual approach that is supported by proactive engagement and places an emphasis on cleaner power generation over time. Similar to Neuberger Berman's broader policy (see page 3), we have taken distinct stances for mining companies and power-generation utilities (GenCos).

For mining companies, we have imposed a cap on thermal coal revenues that starts at 25% this year and declines to 10% by 2022. For GenCos, we exclude bonds issued by single-site coal-fired generation plants. Based on both criteria, we divested from some positions and avoided a couple of new bond issues during the year.

However, the primary focus of our policy is on new projects and expansion of capital expenditures, with an emphasis on aggressively expanding investment in cleaner fuels. In assessing capex, we exclude maintenance, de-bottlenecking and efficiency-related investments, as well as other outlays not related to power generation. One of our key decisions was to encourage these companies to move to cleaner energy sources rather than suddenly excluding them because of their usage of thermal coal. It is important to

[3] Source: Environmental Protection Agency, https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data.
[4] BP, *Statistical Review of World Energy* 2020.

remember that ramping up a facility to provide cleaner energy can take approximately six years, depending on the technology used. In order to encourage the transition to cleaner energies, we believe that setting clear and aggressive targets on future capacity spending and supporting the companies/countries through this period is a more effective way of reducing the usage of thermal coal. We have set such targets, as indicated in the chart below. We have also committed to *not invest* in companies that start any new coal-fired projects, beginning in August 2020 (based on the date on which a power purchase agreement [PPA] is executed or a Definitive Investment Agreement [DIA] decision is made internally). To assure ongoing compliance among existing holdings, we conduct periodic outreach to monitor their capital expenditure by fuel type.

THERMAL COAL: EMD POLICY PARAMETERS

MINING

- Exclusion of mining companies with more than 25% revenues from thermal coal

Date	Revenue Threshold
2020	>25%
2021	>15%
2022	>10%

UTILITIES (POWER GENERATION)

- Exclusion of utilities with greater than 95% coal-fired capacity
- Exclusion of utilities investing in new thermal coal projects
- Exclusion of utilities based on capex committed to non-coal sources over a three-year period:

Date	Minimum Cleaner Energy Capex (3 Years)
2020	65%
2021	75%
2022	80%

- Annual survey to monitor progress toward cleaner energy and commitment to the Paris Agreement
- **No new thermal coal projects allowed (PPAs or DIAs signed in August 2020 and later)**

Source: Neuberger Berman.

Engagement—and Follow-Through

Our strategy on thermal coal is not only to institute limitations on revenue and generation, but to encourage companies to transition to cleaner fuels. As such, we have intensified our engagement with companies, seeking detailed reports on planned expansion investments. We also engage on these companies' commitment to the Paris Agreement and other important protocols. We believe that the stance we have taken provides a more pragmatic approach going forward to accelerate change. It is our hope that both our new policy and engagement practices limit potential climate risks for our investors, and, along with the efforts of many others, ultimately affect the path of climate change, particularly within the emerging markets, in the years ahead.

ALIGNING WITH OUR FIRM'S THERMAL COAL POLICY

The Neuberger Berman firm policy on thermal coal, which applies to our commingled U.S. registered mutual funds and closed-end funds, and international UCITS portfolios, prohibits initiation of new investment positions in securities issued by companies with more than 25% revenue derived from thermal coal mining or that are expanding new thermal coal power generation. As noted in this article, the EMD policy starts with the 25% limit and reduces it over the subsequent two years. It also forbids investment in new coal-power generation, but takes into account unique factors in emerging markets to allow for gradual reduction of coal growth over time. Importantly, the two policies are entirely consistent in their overall goal of limiting thermal-coal emissions to help meet important climate goals as articulated by the Paris Agreement.

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