

Brown Capital (Re)Allocation

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EXECUTIVE SUMMARY

DARMOUNI AND ZHANG ASK: WHO OWNS BROWN COAL POWER PLANTS, THE SINGLE LARGEST SOURCE OF CARBON EMISSIONS GLOBALLY? THEY CONDUCT A NEW STUDY THAT SHOWS WHILE OWNERSHIP BY STOCK MARKET INVESTORS IS ON THE DECLINE, PRIVATE AND ESPECIALLY STATE INVESTORS HAVE GROWN SIGNIFICANTLY, SLOWING DOWN THE PHASE-OUT OF FOSSIL FUELS.

This Policy Brief is based on the webinar of the 29th of April 2024 with Olivier Darmouni and hosted by Parinitha Sastry (Columbia Business School) entitled "Brown Capital (Re)Allocation".

Policy Brief

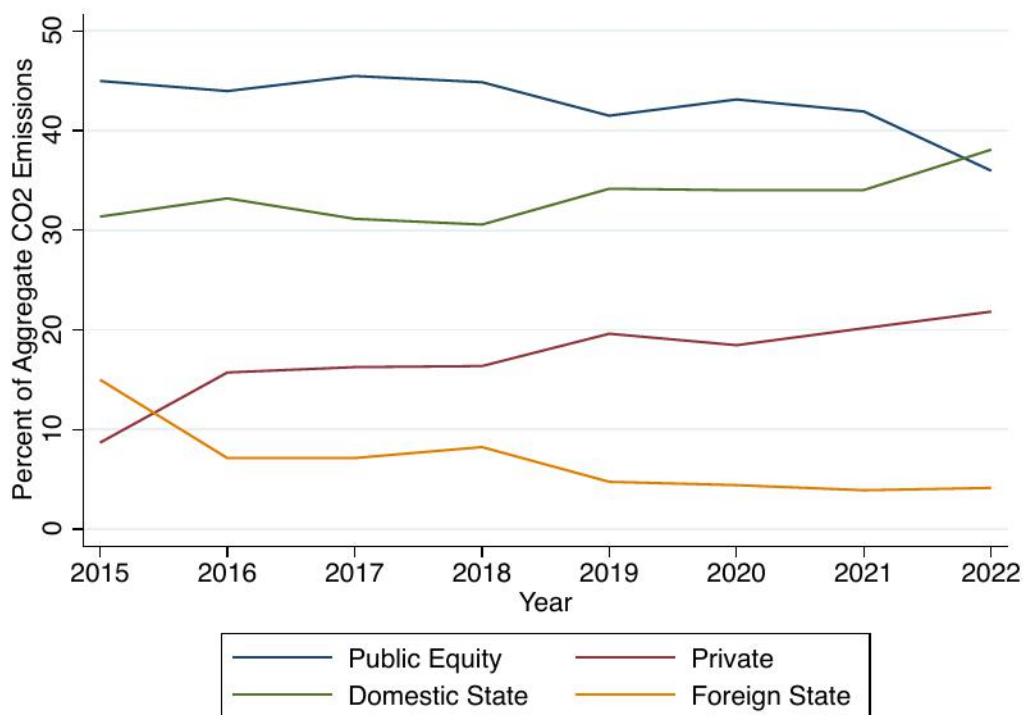
Efforts by policymakers to reduce carbon emissions from the energy sector have focused on the phasing out of coal, known as the most carbon-intensive source of electricity generation. Sixty countries including the U.S., Canada, and numerous European countries have committed to phase out existing coal power by joining the Powering Past Coal Alliance (PPCA), which was launched at the 2017 UN Climate Change Conference (COP23). Climate-conscious investors are also paying greater consideration to the coal assets in their portfolios.

Despite the increased attention on phasing out coal, it continues to be a significant portion of the global electricity generation mix. According to IEA (2024), coal-fired power generation represented 36% total global generation in 2022. The owners of coal plants play a crucial role in this context, influencing whether plants continue operations or shut down. Our study therefore investigates who owns these coal-fired power plants.

To understand the owners of coal power plants, we combine data from the NGO Beyond Fossil Fuels on the firms that own coal plants with data on investors who hold stakes in these firms. Our study focuses on coal plants in the European Union, a region that has historically depended on coal-based energy but has made key steps to transition away from coal since the Paris Agreement in 2015. In our study, we have two main findings:

- First, we document a decrease in the ownership of coal plants by stock market investors between 2015 to 2022. Figure 1 plots the ownership of CO2 emissions generated by coal

Figure 1: Ownership of CO2 Emissions in the EU, 2015-2022



Notes: Source: Darmouni & Zhang (2024)

power plants in the EU. The figure shows a 9 percentage point drop in ownership by stock market investors (i.e. public equity investors).

Importantly, we find that this drop is not due to these investors choosing to simply “exit” and sell their brown assets to other, less climate conscious investors. Instead, we find that in the data these investors most aggressively scaled down their coal power production, via a combination of permanent and temporary closures. This suggests that some of the stakeholder pressure on publicly-traded firms has been effective to some extent in generating real change.

- However, we find a strong countervailing force: the behavior of state investors. States and local governments have always been large owners of coal power plants in Europe, a pattern that is even stronger in China and emerging economies. In contrast to stock market investors, the ownership share of domestic state investors, i.e. state and local governments who are located in the same country as the coal plant they own, has increased. Figure 1 shows a 7 percentage point increase in ownership by domestic states from 2015 to 2022. In fact, our data shows that state investors as a whole have slowed down the transition in two ways. First, they sold aggressively to private investors, who face lower stakeholder pressure but are increasingly large investors in coal assets. The massive sale of German plants owned by Swedish utility Vattenfall to private firm EPH in 2016 was the most prominent example. Vattenfall aimed to enhance its “corporate CO2 profile” by divesting from fossil fuels, but selling rather than closing these plants may not lead to positive long-term real impacts. Second, we find that state investors were the slowest at closing their plants, and they most aggressively turned coal plants back on post-2021 in the midst of the energy

crisis in Europe.

NGOs often publish lists of “biggest offenders” aiming to name and shame big investors in brown assets. These lists often only include large and prominent 2 firms traded on the stock market. We show that states should be on these lists, as they are large and growing investors in these dirty assets. Given that we often associate states with emissions targets, renewable energy subsidies or carbon markets, is there a “paradox” of state ownership? We argue that some states may balance social factors such as jobs and energy security (often shortterm and local) against climate considerations (typically long-run and global). For example, energy security was cited as the primary motive for two recent massive nationalizations of coal power production in Germany and Poland, the two European countries most reliant on coal. The German government spent 8B euros of taxpayer money to save the energy giant Uniper from bankruptcy in 2022. In 2023, the Polish government agreed to spend 4B euros to buy all coal power plants owned by publicly-listed companies. This raises the potentially problematic prospect that the behavior of state investors can seriously limit the ability of green finance to reduce emissions. This presents a key implication for the rise of green finance and its interaction with government policies. This resistance led by fossil-fuel states to a green transition is reminiscent of recent diplomatic frictions at the COP 28 held in the United Arab Emirates. In coal specifically, we are still seeing massive investments in China and other emerging economies undertaken by state-owned enterprises (Global Energy Monitor (2024)).

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