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Hard to Say Goodbye: South Korea, Japan, and China as the Last Lenders for Coal

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Abstract

The politics of international finance for coal power plants have intensified since the 2015 Paris climate agreement was negotiated. Over the past few years, Japan and South Korea have signaled their intent not to fund new coal projects overseas, leaving China and its Belt and Road Initiative as the "financier of last resort." In September 2021, China too announced its intent to stop providing finance for overseas coal projects. What accounts for their decision to cease financing overseas coal projects despite prominent differences in political systems, degree of internationalization of their financial systems, and economic size? Drawing on datasets of coal projects and financing supplemented by case material and interviews, this paper explores the dynamics of coal export finance and how the combination of international reputational pressures and declining demand for coal finance diminished the domestic support for incumbent coal exporters in all three countries.

1. Introduction

In a March 2021 address to the Powering Past Coal Alliance, United Nations Secretary General António Guterres called for the immediate end of international financing for coal plants and phasing out global coal power by 2040. Guterres' statement demonstrates how much the

politics of overseas finance for coal burning power plants have intensified since the 2015 Paris climate agreement was negotiated.

South Korea, Japan, and China were the largest lenders for overseas coal projects and the last major donors to announce a decision to cease lending for coal. In April 2021, in anticipation of a climate summit hosted by the new U.S. President Joe Biden, South Korea's President Moon Jae-in announced an end to state-backed financing new overseas coal projects. At the G7 summit in May 2021, Japan joined the wider group to pledge to end public financial support for coal by the end of the year. China was by far the largest financier of overseas coal plants and last to make significant policy change on overseas finance for coal. At the UN General Assembly in September 2021, President Xi Jinping surprised observers by announcing that China would not build new coal-fired power projects abroad.

Historically, all three governments have strongly supported overseas coal finance through export credit finance and political risk insurance, particularly to help home equipment manufacturers and construction companies secure overseas contracts. On some level, the fact that these countries were the last remaining holdouts on coal finance is unsurprising given the economic and political power of incumbent coal interests. What is perhaps more surprising is that all three countries ultimately changed course and announced policies to end support for coal finance. This article attempts to answer the puzzle: Why did South Korea, Japan, and China all announce policies to exit coal finance in 2020 and 2021? This question has broader implications for understanding the trajectory of fossil fuel phase-out in line with decarbonization objectives as well as the future of China's Belt and Road Initiative (BRI), the focus of the special issue.

Drawing on data from Global Energy Monitor on coal plant construction and finance as well as elite interviews, this article seeks to provide some preliminary answers to that core puzzle. We use Mill's method of agreement, or what George and Bennett call "least similar" cases, to surface attributes the countries had in common despite other differences, and process tracing to connect these attributes to their effects (George and Bennett 2005). These commonalities, we argue, are responsible for the observed policy changes.

Our argument is that the three countries shared the following characteristics: (1) falling international demand for coal finance and (2) external reputational pressure to cease lending for coal. Together, these dynamics led to (3) weakened domestic political support for incumbent coal interests in the government and private sector preceding the final announcements.

In the next section, we anchor our argument in the wider political economy literature. In the third and fourth sections, we describe our methods and present data on the patterns of coal finance from South Korea, Japan, and China. In the fifth section, we trace how falling demand and international reputational pressure intersected to weaken domestic support for coal export finance in the three countries, using primary and secondary sources as well as semi-structured interviews. We end with a brief conclusion.

2. Our Argument: Falling Demand, External Pressure, and Weakened Domestic Political Support for Coal

A robust literature on the politics of coal phaseout has emerged since 2015, reflecting wider changes in the policy landscape. These pieces acknowledge that coal phaseout and the

clean energy transition are inherently political endeavors with massive distributional implications (Brauers and Oei 2020; Moe 2016; Graaf and Sovacool 2020). Some studies have focused on the adjustment costs in countries with mature coal industries (Kalkuhl et al. 2019; Oei et al. 2020; Jakob et al. 2020). The politics of energy in developing countries, where new plants are being built to satisfy demand, mostly is about whether those countries will continue to build coal plants or pursue other energy sources, particularly renewables. While the costs of renewables has declined markedly, scholars argue market forces on their own will not lead to a clean energy transition (Breetz, Mildenberger, and Stokes 2018; Aklin and Urpelainen 2018).

Governments have long provided preferential access to credit, land, and a supportive regulatory environment for fossil fuels (Hadden 2020). In developing countries, these choices supporting coal and other fossil fuels are subject to interest group pulling and hauling and government policy (Hochstetler 2020; Jakob et al. 2020; Lamb and Minx 2020). Furthermore, these choices are not confined to national borders: foreign finance affects whether new coal plants are built (Meckling and Hughes 2018; Mori 2020; Kong and Gallagher 2021a).

Similarly, countries with sustained coal export finance also benefit from the support of state-backed energy, planning, and export promotion agencies that provide recipient countries with technical assistance, loans, and subsidized political risk insurance (see Appendix A for a review of the process of overseas coal finance in South Korea, Japan, and China). Once coal export finance begins, incumbent industries lobby against its phase-out based on domestic benefits of industrial development and job creation. Backers of coal exports include general trading companies investing in everything from coal mines to power plants; electric utilities that develop and run plants; manufacturers that make the equipment; engineering, procurement,

and construction (EPC) companies that build the plants; and banks and other financial institutions that provide funding (Chen, Gallagher, and Mauzerall 2020). The political power of incumbent fossil fuel firms is familiar from studies of the clean energy transition in the West (Breetz, Mildenberger, and Stokes 2018; Aklin and Urpelainen 2018). South Korea, Japan, and China all have strong levels of coal export incumbency, evidenced by the dependency of coal-linked firms on export markets – driven by domestic overcapacity and inefficient state-owned enterprise (SOE) management in heavy industry as well as the political importance of a handful of companies with concentrated exposure (Hale, Liu, and Urpelainen 2020).

Coal finance also flows from a strong developmentalist tradition: donor countries and multilateral institutions providing official development assistance (ODA) have consistently prioritized large infrastructure projects, because of their ties to economic growth. The development discourse remains even as ODA transitions from grants to concessional loans to commercial loans, with destinations of coal finance driven by similar considerations such as historical connections and host-lender country alignment.

What then explains the decisions by all three remaining major financiers to announce policies to cease public coal export finance? Other studies, examining similarly diverse cases of democracies and non-democracies, have focused on shared tactics of advocacy movements throughout East Asia (Haddad 2021). Our approach is different: we focus on the structural characteristics of the countries, given the power of the state and the relative weakness of civil society throughout the region (Harris and Lang 2020). While there is the possibility of equifinality, of different pathways to the same outcome (George and Bennett 2005, 121), these three cases share a broadly similar pathway to the policy of ending coal export finance:

declining demand for coal plants in recipient countries, international pressure to cease lending for coal, and declining domestic political support for incumbent coal interests.

Declining Demand for Coal Plant Construction

First, the relative competitiveness of coal compared to other sources of energy declined. Declining costs for renewables and increased domestic concerns in recipient countries about air pollution and damage to fisheries and other industries made coal plants less attractive in recipient countries (SELF CITATION). Some countries such as Vietnam developed new energy plans prioritizing renewables and scuttled plans for planned coal burning plants.

With fewer coal plants being built, marginal exporters with more expensive systems became less competitive, particularly as new entrants like China mastered construction of higher efficiency supercritical and ultra-supercritical technologies. Higher cost European and North American exporters were affected by these pressures early on, with Chinese companies taking more market share from Korean and Japanese exporters later. The United States was the first major exporter to announce an exit from support for overseas coal finance in 2013. Other Western governments, including Germany and France, stopped investing in new projects by 2016 (though some upgrades continued) while making policies that severely restricted conditions under which lending would go forward.

However, decline in demand for plants is not sufficient to explain the decision by governments to end coal export finance. The industry still enjoyed substantial political and private sector support in exporting and recipient countries (Gallagher et al. 2021). With subsidized export credit and political risk insurance and lucrative power purchase agreements,

it was still possible for exporters to make deals. Given opaqueness of financial decisions, governments often committed to expensive long-term power purchase agreements with incumbent coal interests, even as those decisions made less financial sense (Burke et al. 2019).

International Pressure to End Lending for Coal

Alongside these material pressures for change were reputational pressures from the international community, including environmental activists and other states. Coalitions like the Powering Past Coal Alliance promulgated norms to end support for coal. Activists and media from host countries were able to communicate the effects of coal plant construction on fisheries and agriculture, leading to increasing awareness by financing nations of the negative international reputational repercussions of coal plant lending.

Increasing concerns about climate change have generated new norms against fossil fuels, with international campaigners mobilizing to stop lending for coal from banks, international financing institutions, and state-affiliated agencies (Blondeel, Colgan, and Van de Graaf 2019; Blondeel, Van de Graaf, and Haesebrouck 2020; Brown and Spiegel 2019; Neville 2020). These efforts share similarities with – and draw from – the fossil fuel divestment social movement that seeks to "diminish the moral stature" of these companies (Hestres and Hopke 2020).

Reputational concerns in international relations have an ambiguous theoretical foundation. For constructivists, reputational concerns are ideational, bound up with social standing, where opprobrium from peers is something states care about (Checkel 2001). For neoliberals, reputational losses have a material foundation where reputational costs are

imposed via sanctions or lost cooperative opportunities (O'Neill 2000). Both forms of reputational pressure are likely operative on states, with some actors more clearly responsive to ideational socialization from peers, namely environmental ministers and diplomats, with others more clearly driven by material considerations, such as state-owned energy development enterprises.

Since states are not unitary actors, state decisions are likely to be shaped by both forms of reputational impact and it may be impossible to know with certainty whether ideational or material reputational drivers matter more. In any case, reputational pressures on their own are thought to be a relatively weak signal. If countries have strong national security or other material interests at stake, they will likely oppose international reputational pressure (Downs, Rocke, and Barsoom 1996).

Diminished Domestic Support for Incumbent Coal Interests

Incumbent coal firms were still well connected with influential local actors in recipient countries who could generate demand for new coal plants, albeit fewer in number. They could still count on support from government allies. A third factor helps explain why these three countries changed their policies on coal export finance: declining demand and international pressure together diminished the political power of incumbent coal interests.

The relative bargaining power of incumbent energy interests is a persistent theme in studies of the clean energy transition (Breetz, Mildenberger, and Stokes 2018; Aklin and Urpelainen 2018) and has been identified as important in studies of coal phaseout in Europe and other polities (Brauers, Oei, and Walk 2020).

Declining demand by recipient countries had an effect on the supply of finance, by making it harder for the remaining coal financiers to find projects. International pressure began to stigmatize finance for coal burning power plants. These dynamics led countries to reappraise the long-run gains of supporting an increasingly risky sector, empowering critics of coal finance to have more influence over policy outcomes and initiate review processes that would culminate in decisions to end coal export finance. In democratic countries such as South Korea and Japan, local activists also organized to transmit anti-coal norms and sentiment through electoral channels.

3. Methods

We use Mill's method of agreement to identify characteristics that the countries shared and use process tracing to demonstrate how diminished demand and external pressure show up in reduced political support for incumbent coal interests in the three countries.

To demonstrate the diminished demand for coal plants, we examined project development and finance emanating using the Global Energy Monitor (GEM) Global Coal Public Finance Tracker (GCPFT) dataset and the GEM Global Coal Plant Tracker (GCPT) dataset of bi-annual status updates. In our analysis, we only included overseas coal projects reliant on identified overseas finance from China, Japan, or South Korea.

The GCPFT dataset includes all coal plants that have received overseas project financing since 2013 or later and all currently active coal plant proposals, which excludes plants that were unlikely to get funding and ended up being shelved or cancelled. This dataset may not include all projects financed by private banks in Japan and South Korea, and thus we may

underestimate the overseas coal projects in these two countries. We augmented the dataset coverage in the case descriptions that follow by incorporating reports on earlier phases of coal plant development. The bi-annual status dataset tracks coal plants going back to the second half of 2014, assigning statuses of Announced, Pre-Permit Development, Permitted, Construction, Operation, Shelved, and Cancelled.[1]

For the three remaining financiers of overseas coal, we show their pipeline of new coal plants plateaued shortly before the policy change to end overseas coal finance. China, which was later to enter coal export finance, saw its pipeline of new Chinese-backed overseas plants dwindle more slowly than South Korea and Japan.

Following that quantitative discussion, we process trace the period leading up to the final decisions to end new coal export finance. We drew from a large range of primary and secondary sources, including government documents, media accounts, and previous research. We supplemented this analysis with twenty-two online or telephone semi-structured interviews of respondents. Travel restrictions prevented more extensive fieldwork; we instead structured our interviews to reveal the universe of competing factors within country contexts and to highlight or contrast what we have found through other sources (see Appendix C for anonymized list of interviewees).

[1] *Announced* is defined as proposals that have been announced as planned but have not yet moved forward in seeking permits or financing. *Pre-permit development* refers to projects that have submitted a pre-feasibility study and are actively doing studies and submitting applications toward permits, environmental and otherwise. *Permitted* are defined as projects that have received all necessary environmental approvals to begin construction. *Construction* means physical construction such as concrete pouring and boiler erection have begun. *Operating* denotes the unit has been commissioned. *Shelved* means a project has been formally put on hold, or there is no evidence of activity for two years or more. *Cancelled* means a project has been called off by the sponsor or host government, or there is no evidence of activity for four years or more.

4. Temporal and spatial dynamics of overseas coal investment from South Korea, Japan, and China

By the first half of 2021, the total coal power capacity financed by South Korea, Japan, and China was 5,384 megawatts (MW), 30,021 MW, and 69,677 MW, respectively, with China dominating growth in recent years (see Figure 1). We use the change in shelved and cancelled capacity as a proxy for demand changes in recipient countries (Gallagher et al. 2021; Gao et al. 2021), while acknowledging that changes in newly announced projects may reflect supply-side factors of coal finance as well as demand. Figure 2 shows no newly announced coal projects financed by South Korea since the second half of 2016, none by Japan since the first half of 2018, and none by China since the first half of 2020. The vanishing of newly announced projects precedes official announcements to end overseas coal investment in all three countries. Furthermore, the wave of coal project cancellations started in the first half of 2018 for all three lender countries. By that period, neither South Korea nor Japan had any newly announced projects. Still, China announced projects subsequent to this cancellation wave, indicating that in addition to a decrease in demand, the other two countries faced stiff competition from China (see Appendix B for the main destinations of coal finance and the major financiers in each lender

country).

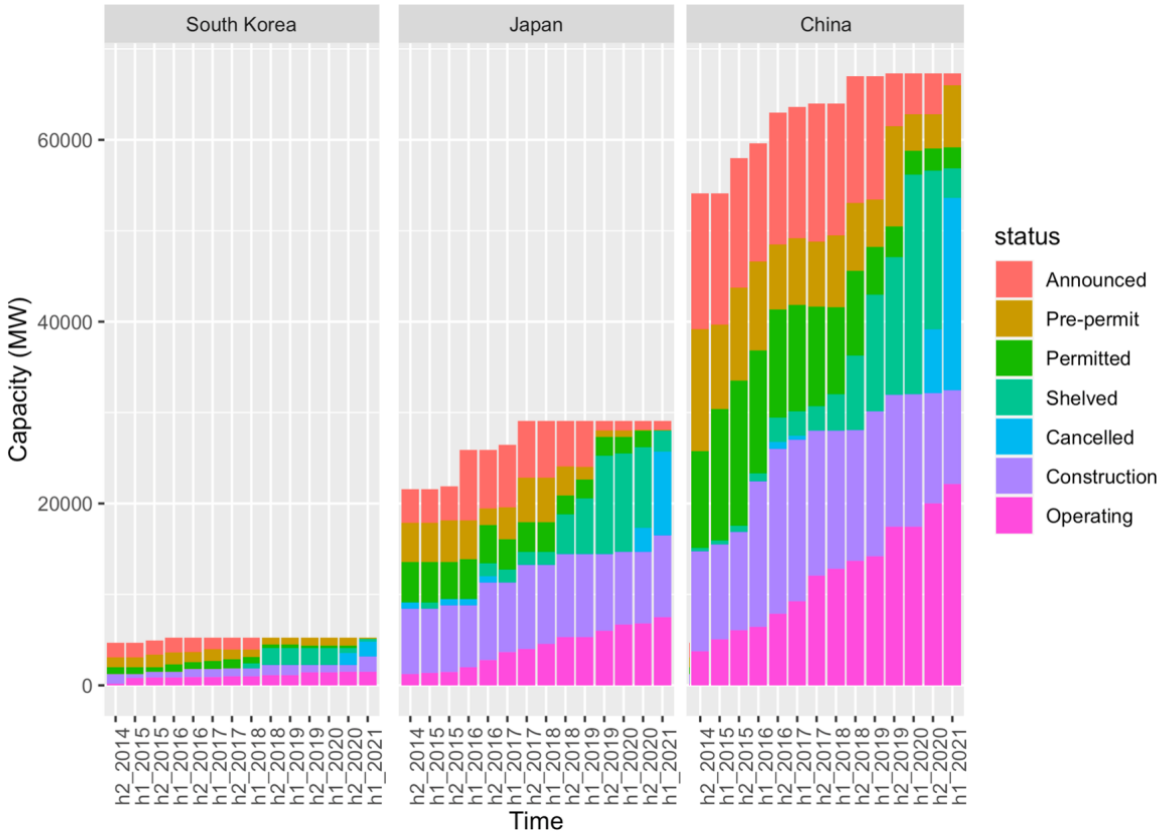


Figure 1. Capacity of South Korea, Japan, and China overseas coal power plants by plant status over time (MW).

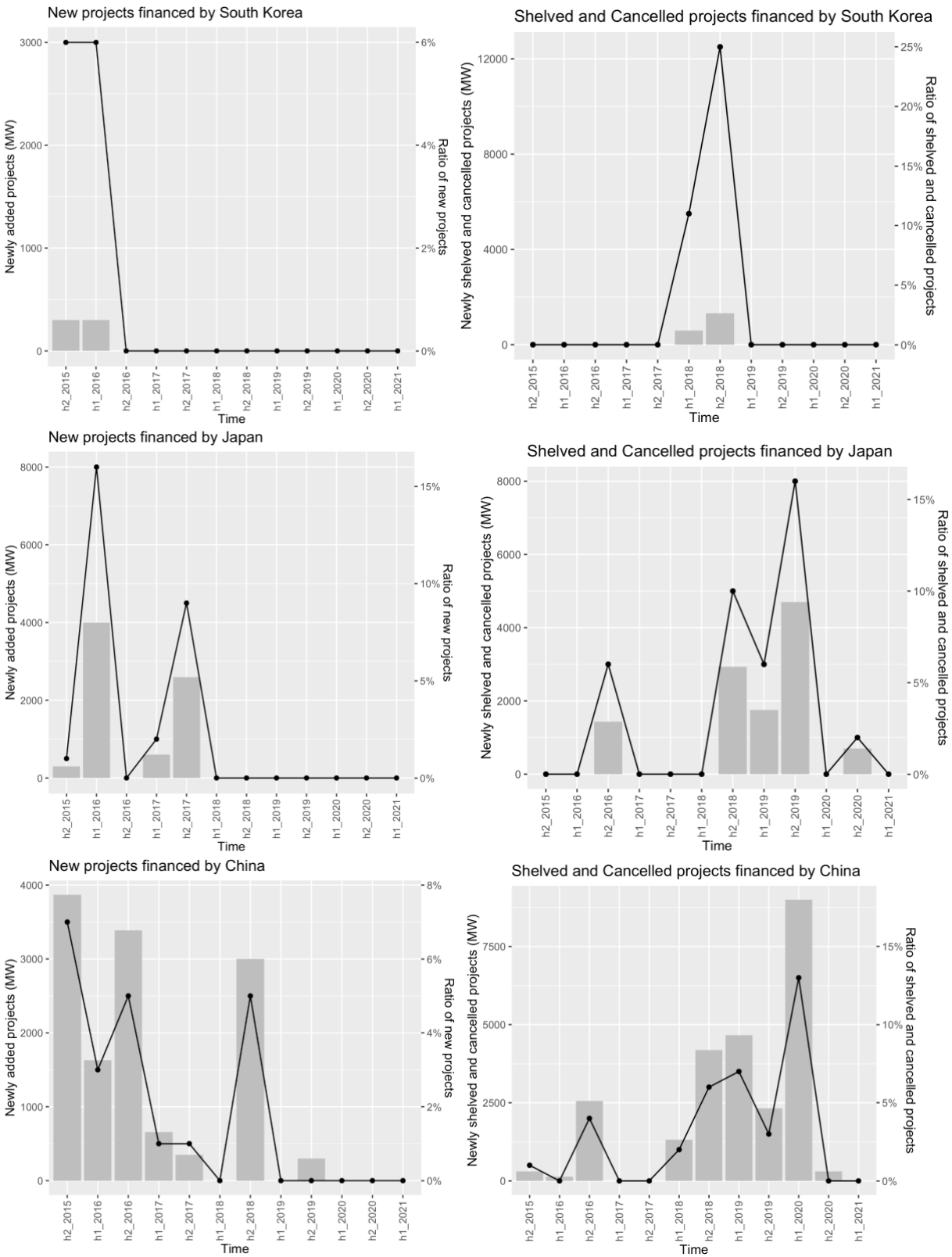


Figure 2. Capacity (MW) and ratio (%) of the new and the shelved/cancelled projects to the total capacity financed by South Korea, Japan, and China.

5. Process Tracing Coal Export Finance in South Korea, Japan, and China

In this section, we augment quantitative data on projects with primary and secondary sources as well as interviews to assess why all three ultimately announced policy changes to end overseas coal finance.

South Korea

As a relatively small economy with its main ally the United States pressing for coal finance exit, South Korea faced strong international pressure to end overseas coal finance. Domestically, the governing party came to power with a strong green agenda, reinforcing the pressures for reform. The decision came at a moment when its powerful incumbent coal interests were less competitive for contracts, making the decision to end coal finance easier to make despite business interests in continued support for coal.

In 2008, the Korea Export-Import Bank (KEXIM) initiated South Korea's first publicly financed overseas coal project, financing $700 million of the 4000 MW Tata Mundra mega-project located in India. Doosan Heavy Industries and Construction (DHI), the leading Korean power equipment manufacturer, provided boilers and EPC services for the project. By 2014, South Korea had become the third largest public supporter of overseas coal finance, reaching 1100 MW under construction and another 4200 MW in various stages of planning. Together with the Korea Development Bank and the Korea Trade Insurance Corporation (K-SURE), KEXIM was a leading arm of state financial flows designed to mobilize energy development assistance and support Korean firms' business expansion amidst slowing domestic demand (S. Kim and Yoo 2019). State finance cemented DHI's global presence in power equipment and EPC services

and pushed the country's primary electricity utility, state-owned Korea Electric Power Corporation (KEPCO), into supporting 754 MW overseas. But, by the second half of 2016, Korean companies found demand for their services to have dried up, with no new coal plants announced even as Japan and especially China continued to land agreements to build new coal plants overseas.

In 2008, South Korea also launched its first national "Green Growth" initiatives in the wake of the Global Financial Crisis – largely domestic in focus – which would draw on the strength of the country's developmental growth model to address fossil fuel import dependency, with large conglomerates (*chaebol*) at the center (S.-Y. Kim and Thurbon 2015). In 2010, South Korea became the host of the Green Climate Fund, a new entity created to channel international climate finance around the world. By hosting an international climate finance facility, South Korea's climate policies at home and abroad became more visible globally.

In 2017, President Moon Jae-in of the opposition Democratic Party was elected. Environmental advocacy was centered around domestic coal, though discussions of South Korea's overseas coal activities began (Interview #9). Over the next two years, President Moon embraced more ambitious environmental reforms, including nominating senior statesman Ban Ki-Moon to lead the National Council on Climate and Air Quality in 2019 and establishing a progressive "Green New Deal" policy platform as a "promise" to voters leading up to the April 2020 general election.

The Green New Deal established the region's first 2050 net-zero goal and promised to phase out financing for coal, a sign of the diminished domestic political support for overseas coal finance. It also expanded upon earlier green growth strategies (Lee and Woo 2020). The

2020 general election was a landslide victory for the Democratic Party, with Moon gaining a three-fifths supermajority together with the aligned Platform Party, allowing for expedited legislative procedures.

Facing increasingly active domestic groups lobbying and filing lawsuits, and mounting international pressure to live up to South Korea's Green New Deal, the Moon government accelerated environmental efforts throughout 2020 (Interview #9). The new wave of legislators even included the former vice president of Solutions For Our Climate, a prominent NGO advocating for overseas coal phase-out. Within a year, all public and private financial institutions in South Korea had committed to stop financing new overseas coal.

This dramatic turn is in part linked to the fortunes of DHI, which had started continuously posting losses in 2014 and received $3 billion in government bail-outs by June 2020. A medium-sized *chaebol*, DHI faced decreased domestic appetite for nuclear power from Moon's new energy policies but the Ministry of Trade, Industry and Energy was also quick to point to the company's questionable decisions related to aggressively pursuing overseas coal power. DHI and Japanese manufacturers both faced increased competition from China, though DHI fared worse.

With the leading Korean coal power equipment manufacturer in distress and a shrinking pipeline of new coal projects, the new legislature introduced (but did not pass) several bills in July 2020 to stop overseas coal finance. The legislature extracted promises from KDB and the Ministry of Economy and Finance during the October 2020 state audit that further coal finance would be unlikely, stopping short of a commitment. KEPCO also announced it would stop its participation in two ongoing coal plants in the Philippines (which would have involved DHI) and

South Africa. In exchange, Moon promoted local wind energy in an apparent bid to reassure DHI that domestic clean energy would pick up some of the slack. DHI is also hoping for increased demand for its gas turbines as South Korea phases out its coal fleet.

Leading private banks in South Korea largely followed the government's lead in making coal exit decisions. Major Korean banks all have major foreign shareholders, though the largest shareholders are still often the state, a legacy of South Korea's nationalization and re-privatization following the Asian Financial Crisis (Cho and Kalinowski 2010). By March 2021, Hana Financial Group, the last of South Korea's five largest financial groups, announced it would no longer finance new coal projects, though it will continue its participation in the Jawa 9 & 10 coal power plant in Indonesia. The reluctance of private financial institutions in South Korea to make coal exit decisions contrasts with private Japanese banks which announced policies to end coal finance before the government did.

The exit from coal was finalized at the April 2021 Climate Leader's Summit hosted by U.S. President Joe Biden, where Moon announced South Korea would end all public support for overseas coal, with the exception of two ongoing KEPCO projects—Jawa 9 & 10 (a significant order for DHI) and Vung Ang 2 in Vietnam. In the lead up to the meeting, the Biden administration pressed the Moon government for a deeper emissions reduction target, but the Korean government's internal process for deciding such a target was not ready by April. The coal finance pledge that the Moon government made was a second-best deliverable (Interviews #1U, #2U).

Japan

Despite strong interests in the government and private sector to keep open coal export finance, declining competitiveness meant fewer opportunities for Japanese firms. Like South Korea, Japan faced pressure from its main ally to end overseas finance for coal. Together, these forces empowered internal critics like Environment Minister Koizumi to revisit coal export finance rules, leading up to the decision in 2021.

Since the 1950s, the Japanese government has provided credit to Japanese firms to export goods abroad. Over time, the portion of export credit finance has declined, with overseas investment loans and loan guarantees comprising most of the support with a small sliver for government equity investments. The Ministry of Economy, Trade and Industry (METI) is the main government organization in charge of energy and climate policy. Historically, the Prime Minister and Japanese Cabinet generally defer to METI (and its predecessor, Ministry of International Trade and Industry) when it makes policy decisions. METI has supported coal power equipment exports through policy documents such as the national energy plan (METI 2018, 20), with the justification that Japan's high efficiency ultra-supercritical plants produce lower emissions than what other countries – primarily, China – would otherwise build (Interviews #1, #2, #3).

Since the 2011 Fukushima disaster, Japan's energy security problems empowered domestic coal manufacturers and international finance for coal by extension (Trencher et al. 2019; 2020). Close ties between the government and private sector, particularly through the main business association Keidanren, also enhance support for coal export finance. Equipment manufacturers were most deeply committed to coal, and while many firms were diversifying to

renewables, heavy manufacturing remained central within companies like Mitsubishi (Interview #6).

Other ministries in Japan such as the Ministry of the Environment (MOE) had tried to move Japan away from coal both domestically and internationally but were weaker players bureaucratically and had no power to block decisions made by METI, other than appeals to public and global opinion (Interviews #2, #3). Other Japanese government and quasi-government agencies generally also follow METI, including the Japan Bank for International Cooperation (JBIC), which deals with export credits, Japan International Cooperation Agency (JICA), which provides foreign assistance, and Nippon Export and Investment Insurance (NEXI), which provides trade insurance (Interview #2).

In 2018, METI laid out four principles for providing governmental assistance for overseas coal finance through Japan's Fifth Strategic Energy Plan: (1) the recipient country had no other option but to use coal; (2) the recipient country requested Japan's help; (3) the plant is consistent with the recipient's energy and climate plans; and (4) the equipment is at or above ultra-supercritical in efficiency (METI 2018). They were described as principles by former METI officials and activists rather than conditions, and it is unclear whether there was a formal review process (Interviews #1, #2, #6).

By the first half of 2018, Japan already had no new overseas coal plant announcements. This partially reflected declining demand from recipients for coal plant finance broadly and Japanese coal finance specifically. China's rising export capacity offered similar quality and efficiency of coal plants but at cheaper cost (Interview #3). Three big banks – Mizuho, Mitsubishi UFJ Financial Group (MUFG), Sumitomo Mitsui Financial Group (SMBC) – were the

primary private sources of external Japanese coal finance, all of whom have major foreign shareholders and faced international reputational pressures to get out of coal (Interviews #1, #2, #4).[2] With no new major opportunities to lend for coal and in the face of international pressure, the big banks – Mitsubishi in 2019, the other two in 2020 – moved before public agencies in Japan by making varying commitments to cease support for coal. Japanese banks announced their policy changes at a time when the government, particularly METI, was still committed to new coal plant lending (Interview #1).

Beginning around 2015, Japanese and international environmental groups encouraged Japanese government and private sector actors to cease supporting coal. Activities included letter-writing campaigns, bank boycotts, shareholder activism, and protests and actions around international climate meetings. For example, in April 2019, Indonesian farmers, for example, worried about the effects of the Indramayu power station, visited Japan and, with the assistance of Japanese campaigners, challenged JICA to cease their support for the project.

At the 2019 climate negotiations, newly appointed Environment Minister, Shinjirō Koizumi, the dynamic and politically ambitious son of a former prime minister, also faced intense international criticism for Japan's domestic coal program and overseas coal export finance (Interviews #1, #2). In January 2020, Koizumi openly questioned Japan's support for Vung Ang 2 in Vietnam, which prompted the creation of a government expert committee to review government policy on overseas coal finance. The creation of the expert committee itself reflected declining strength of incumbent coal interests.

[2] Major shareholder information (> 1% stake) was collected from MarketScreener (www.marketscreener.com).

Given the country's history, Japan has long sought to be perceived as a good international citizen and been sensitive if not fully responsive to international reputational concerns (Ohta 1995; Midford 2002). Major policy statements by the government have often coincided with or followed important international meetings, suggesting government responsiveness to international pressures. In July 2020, the Japanese government announced a new plan to phase out old domestic coal plants and released a new policy on overseas coal finance, restricting support for coal overseas unless the recipient country had a decarbonization plan in place.[3] This was reaffirmed in May 2021 when the G7 issued a statement, supported by Japan, encouraging coal phaseout internationally by the end of the year. Former senior US officials offered that Japan found itself isolated at the G7 meeting and was sensitive to actions by South Korea, its regional neighbor and quasi-rival, which received praise for its announcement to end coal export finance (Interviews #1U, #2U).

China

China was the last major financier to decide to end coal export finance. It still had some possibilities for exporting coal finance abroad, though diminishing in the face of softening demand in recipient countries. While China had reasons to appear to be a climate leader internationally, its relationship with the United States is fraught, such that it did not want to appear to be acquiescing to U.S. pressure, which helps explain the timing of its decision. The combination of declining demand for new coal plants and international pressure broadly helped

[3] While Japan's policy changes were welcomed internationally, advocates continued to highlight the exceptions and that existing projects would not be affected (JACSES et al. 2020).

empower review committees to recommend more robust coal export finance phaseout than many anticipated.

In the initial years of China's "Going Out" strategy in the early 2000s, Chinese overseas energy finance was concentrated in gas and hydropower projects, with the exception of a merger & acquisition (M&A) of part of an Australian coal plant and the construction of a small Vietnamese coal plant in 2002 (Kong and Gallagher 2021a). China's overseas coal business shifted to Indonesia, where the state-backed China Development Bank (CBD) and the Export-Import Bank of China (CHEXIM) made commitments in 2005 to two long-delayed coal projects – Bangko Tengah and Banjarsari. China's lending picked up speed and expanded geographically in 2008 following the Global Financial Crisis, responding to pressures faced by equipment manufacturing firms for new markets (Kong and Gallagher 2021b).

The Belt and Road Initiative (BRI), launched in 2013 by President Xi Jinping, served to accelerate China's global investment. In the coal-fired power sector, Chinese finance has been involved in at least 70,000 MW of overseas coal projects since 2014, a third of that coming from CDB. Compared to CDB and the Industrial and Commercial Bank of China (ICBC), CHEXIM has more successfully brought projects to completion with fewer shelved projects (see Figure 2 in Appendix B). Nevertheless, largely owing to China's late arrival and changing demand conditions in host countries, China has the largest capacity at risk of cancellation.

Soon after its launch, the BRI came under international scrutiny, first from allegations of "debt trap" diplomacy and later on environmental grounds. Since 2015, China's media and government agencies responsible for overseas activity were aware of international criticism (Interviews #3C, #10C). The initial response was to accelerate propaganda efforts, with the

state-run Xinhua News Agency looking for positive BRI cases and Chinese universities reaching out to host country journalists (Interview #10C). Prior to any policy changes, these efforts provide evidence of a desire to maintain a positive international image of China, particularly in the context of President Xi's signature BRI initiative.

Focusing on coal-fired power investment, various international and domestic NGOs and research institutes then began to examine the environmental implications of China's and other countries' lending (Interviews #8C, #9C, #10C), representing early efforts to put overseas coal investment limits on the policy agenda. For example, the Energy Research Institute (ERI) of China's main state planning agency, the National Development and Reform Commission (NDRC), collaborated with the Global Green Growth Institute on low-carbon principles of finance since 2016 (Interview #9C). The China Council for International Cooperation on Environment and Development (CCICED), a major international forum chaired by the Vice Premier of the State Council, brought the attention of overseas coal to top leadership through reports in 2016 and 2017 (Interview #5C).

Over subsequent years, more Chinese institutions became involved in assessing and adjusting overseas coal policy. In 2017, the Ministry of Ecology and Environment (MEE), along with the NDRC and others, released the "Guidance on Promoting a Green Belt and Road" (Ministry of Ecology and Environment, People's Republic of China 2017). In 2018, the MEE, with the endorsement of President Xi Jinping, initiated the BRI International Green Development Coalition (BRIGC) at the Belt and Road Forum. At that time, there was no rigorous review process to discourage coal on environmental grounds; instead, guidelines indicated only that

projects must meet “host country’s environmental, energy use, and safety standards” (NDRC et al. 2017).

Furthermore, similar to Japan, ultra-supercritical coal technology with advanced air pollution controls – the predominant technology of more recently announced projects – was commonly seen as “green” by government and industry stakeholders (Hale, Liu, and Urpelainen 2020; Li, Gallagher, and Mauzerall 2020). The Development Research Center of the State Council and Export-Import Bank of China released a report in 2019 on BRI green finance. A widely-circulated report by the BRIGC in 2020 called for the creation of a “traffic-light” warning system for coal investments. For the first time, a major government official (the MEE minister) endorsed potential policy restrictions on overseas coal (Interviews #3C, #5C). In July 2021, MOFCOM and MEE released guidelines for green development in foreign investment, which altered previous policy by calling on Chinese firms to follow “international green rules,” though still made no explicit reference to phasing out coal (Secretariat of BRI Green Development Coalition 2021).

Leading up to 2021, the financial sector and its regulators were responding slowly to international pressure to exit coal. In response to the controversial Lamu coal project in Kenya, the China Banking and Insurance Regulatory Commission (CBIRC) communicated with banks about complaints, and may have nudged ICBC, a project backer and one of the largest Chinese commercial banks supporting coal finance, to eventually leave the project in 2020 (Interview #3C).

Announcements of exit from all coal finance, however, were limited mostly to private and/or heavily internationalized Chinese institutions through 2020. In December 2019, the

privately-held CLP Group announced it would no longer invest in new coal-fired power plants and withdrew its support to Vinh Tan-3 in Vietnam. China's large shareholding company State Development & Investment Corporation (SDIC) announced an exit from new coal investments in 2019, but was still active in the expansion of Indonesia's Banten Serang plant. The Asian Infrastructure and Investment Bank (AIIB), launched by Beijing in 2016 with significant international shareholders, has not financed any coal power projects. In 2020, AIIB leadership reaffirmed their intent not to lend for coal.

In 2020, overseas coal projects plateaued due to decreasing demand. Many developing countries, including Vietnam, Bangladesh, Indonesia, Philippines, and Pakistan, postponed some coal power in their future energy plans or discussed plans to cancel coal plants. Figure 2 shows the highest ratio of shelved/cancelled capacity and the total capacity of overseas coal projects financed by China and zero new announcement of overseas coal projects in 2020. The pandemic exacerbated the demand decline due to construction delays and transportation difficulties. Declining demand for coal plants both discouraged overseas coal investment and reduced political support for coal incumbents.

In September 2021, China declared an end to building coal projects abroad at the UN General Assembly (UNGA). The lack of prepared domestic media coverage and the absence of guidance until March 2022 suggest this decision was not widely communicated internally. Indeed, many ministries were informed close to the day of the announcement, indicating the decision was likely made at the highest tiers of Chinese government, such as the Central Committee of CCP, even above the State Council (Interviews #3C, #6C, #8C, #10C).

Nevertheless, our tracing reveals that a large apparatus of Chinese government agencies and research organizations debated a coal exit policy at least six months prior. Our tabulation (Figure 2) show no new overseas coal projects financed by China in the first half of 2021 or even in 2020, which some interview respondents indicate was due to an internal finance moratorium issued in February 2021 pending more study (Interview #5C). This coincides with China's decision to stop funding coal mines and power plants in Bangladesh. Evidence was also supposedly presented at the March 2021 meeting of the Economic and Finance Affairs Committee, a high-level leading group chaired by President Xi (Interviews #3C, #5C). While MEE leadership had come around the earliest to considering coal restriction policies and prepared memos, it faced opposition from the more powerful NDRC (Interview #5C).

Internal disagreements and lower-level officials' inability to make policy ahead of a top-level coal exit decision were evident as late as May 2021. At a press conference in April, Li Gao, the head of MEE's climate change department, defended China's investments in coal (Cheng 2021). Interview respondents indicate this was not representative of sentiment at the time and that some ministries did not understand central policy directions (Interviews #8C, #9C). In May 2021, central agencies continued to solicit studies and recommendations on overseas coal investment from universities, research institutes, NGOs, and experts in different areas (Interviews #1C, #4C, #8C).

The finance sector's responses also reflect the internal debate and hesitancy to get ahead of the central government. In April 2021, People's Bank of China (PBOC) announced "strict control" of overseas coal finance, though largely symbolic because of limited activity. In May, ICBC announced at the International Finance Forum that it would "establish a road map and

timeline for the gradual withdrawal of coal financing" and walked away from Zimbabwe Sengwa coal project. After the UNGA announcement in September 2021, Bank of China announced that it would not provide financing for new coal mining and coal power projects abroad.

In March 2022, general implementation guidelines by NDRC, MEE, and other top government agencies reiterated the ban on new overseas coal investment and recommended that projects under construction proceed with 'caution,' potentially leaving the possibility for Chinese firms to withdraw from projects under construction (NDRC 2022).

This tracing provides strong evidence the internal decision was made in May or June 2021, yet not officially announced until September. Despite reports U.S. Climate Change Special Envoy John Kerry raised the issue of coal financing with his Chinese counterpart Xie Zhenhua at two in-person meetings and numerous calls over 2020 and 2021, and pressured China to make an announcement at the April 2021 U.S.-led Climate Leaders Summit, interviewees reported the widespread perception that China would not benefit from seeming to give into U.S. pressure (Interviews #1U, #3C, #5C, #10C). A multilateral forum such as the UNGA could showcase China's commitment separate from geopolitics with the U.S. A former U.S. diplomat noted China's coal project exports had been declining for five years, profitability was down, and the political costs had gone up. It was not a big cost for China to say no more coal plant finance but the respondent did not think they would have zeroed out finance absent public pressure (Interview #1U).

China's comparatively larger size, military power, and the relative absence of international exposure of its financial system to investors seemingly make China less sensitive

to international reputational pressure than South Korea or Japan, both close U.S. allies. Why might China be sensitive to international sentiment on this issue?

Prior work suggests that China may be more likely to go along with international institutions and trends if domestic interest groups have heterogenous positions on the topic and if it is a high central government priority, both true for climate change (Weiss and Wallace 2021). China's preoccupations with status and saving face also play a part (Xue 2022). The literature on status suggests that countries often have a self-image of their country as leaders on the world stage (Larson and Shevchenko 2019). In the climate arena, China has, since the 2009 Copenhagen negotiations where it was portrayed as the villain, cultivated an image of being a climate leader, which serves its other interests as a hegemonic aspirant and complements goals of economic diversification and dominating exports of clean energy industries (Yang 2022; Meidan 2020).

Sun and Yu attribute BRI's green turn to processes of international norm diffusion and localization, as China sought to build a new model of global governance (Sun and Yu 2023). This suggests a familiar model of norm empowerment that starts with status ambitions but over time may become deeply rooted (Finnemore and Sikkink 1998). Given China's simultaneous phaseout of overseas coal finance and continued domestic support for coal, this suggests anti-coal norms do not yet have deep roots among many Chinese decision-makers.

Conclusion

All three countries ultimately decided to end new state support for coal export finance. While differences in regime type and other factors led to some variation, the three countries

shared a common pathway to ending new finance for coal, namely (1) declining demand for new coal plants from recipients, (2) a global pressure campaign against coal plant construction, which together (3) diminished domestic support for coal export finance and hastened the change in policy. Subsequent exploration of competing explanations could subject our review to what Ragin calls the "double application of the method of agreement" to confirm our explanation is better than others (Ragin et al. 2009, 25).

If new coal plant development had already stalled in all three countries, what value did the policy announcements serve? The new policies hastened processes that were emerging and likely locked in changes that will prove difficult to reverse. The global integration of natural gas markets and factors like the Russian invasion of Ukraine led to supply shortages and rising natural gas prices. That led countries to scramble to build new sources of electricity generation, perhaps reinvigorating coal plant construction. Announced policies to cease lending for overseas coal may make it harder for firms to find finance. These policies also put pressure on financiers to stop supporting projects in the pipeline, which may lead to more far-reaching project cancellations. These findings hold promise for explaining how countries might react to a burgeoning movement to phase-out international finance for natural gas, suggesting that reputational pressure on their own would unlikely tip the balance but require recipient states already to be preferring other energy sources such as renewables.

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