



Mercator Research Institute on
Global Commons and Climate Change gGmbH

Cui bono? Explaining the persistence of public and private finance for coal-fired power plants overseas

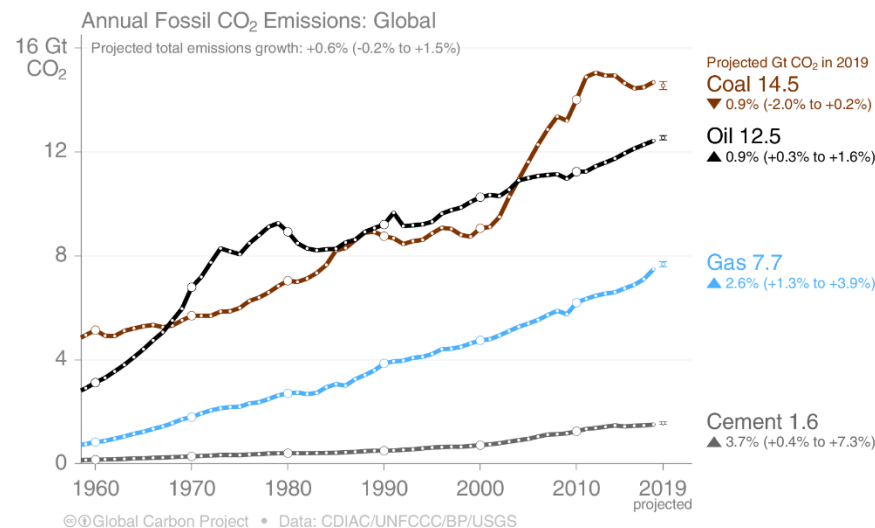
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IAEE

6th June 2021

Coal is primary source of global emissions

- Coal is largest source of electricity
- Higher demand in Asia outpaced declines in Europe & US
- Despite NDC's and net-zero pledges, pipeline of 503 GW (180 GW under construction)
- Global finance flows, regardless of Paris Agreement



International finance flows and technology export

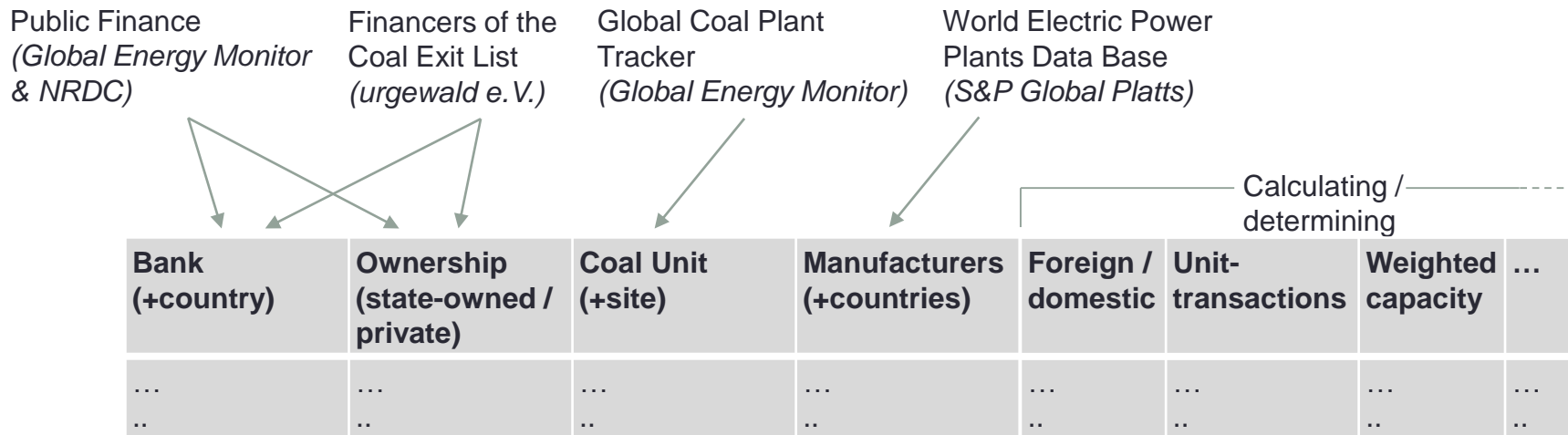
What are the private and public cross-border finance flows?

- Analyze finance from **state-owned and private banks** on a **global scale**

Why are banks funding plants overseas?

- Hypothesis: technology export
- Analyze financiers and other involved companies (**‘domestic bias’**) on a **global scale**

Create one dataset



→ **Plant level** finance data for global **public & private** finance with **manufacturers**, construction companies and others

Data overview & coverage

- Plants from 2018 onwards; operating, under construction & permitted

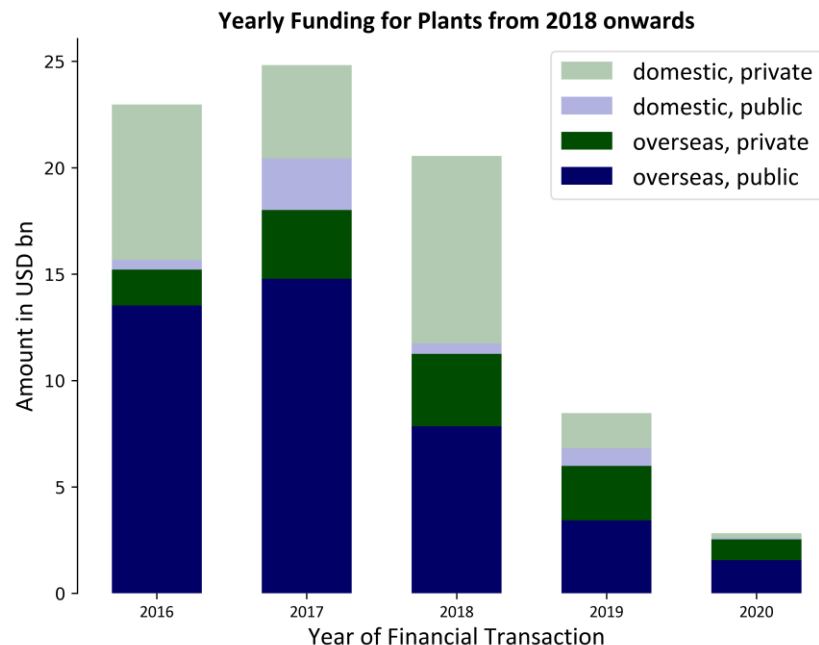
Financing provided [USD bn]	State-owned	Private	Both
Unique units			
Domestic	4	22	27
Cross-border	36	39	55
Total	53	12	65
	147	28	151
	57	34	92
	171	58	188

- Coverage differs greatly between countries and status of plant

Site Country	Total capacity (GW)	Share covered (%)
China	262.1	4.0
India	65.0	7.4
Vietnam	20.3	82.8
Indonesia	18.3	74.9

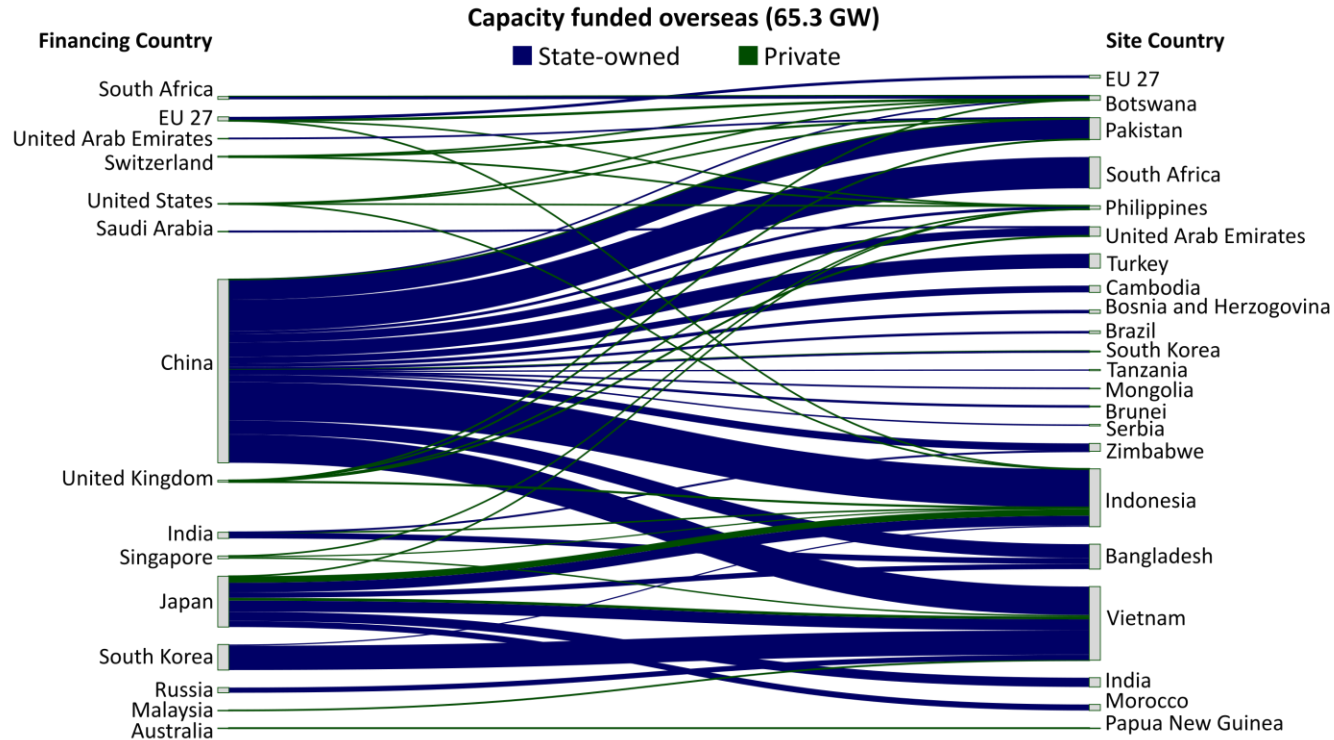
Status	Share covered, all countries (%)	Share covered, without China & India (%)
total	20.4	62.5
operating	12.9	44.7
construction	28.5	77.8
permitted	16.9	57.7

Yearly Funding



- Funding continued after the Paris Agreement entered into force 2016
- Downward trend (but last quarter of 2020 missing)
- More overseas than domestic finance (but much domestic in China & India missing)
- State-owned banks seem to finance more units overseas compared to private banks

Finance Flows



- Big three financing countries: China, Japan & South Korea
- Many countries finance either through state-owned or private banks
- Receiving countries mostly from SEA
- Many countries receive only from China

Involved companies – technology exports?

- Considered companies

Financer	Insurer	Sponsor	Parent	TURBMFR	GENMFR	SSSMFR	AE	CONSTRUCT
State-owned / private bank	ECA providing credit insurance	Operator and/or owner	Parent company of Sponsor	Turbine manufacturer	Generator man.	Steam supply system man.	Architect / Engineering firm	Construction contractor

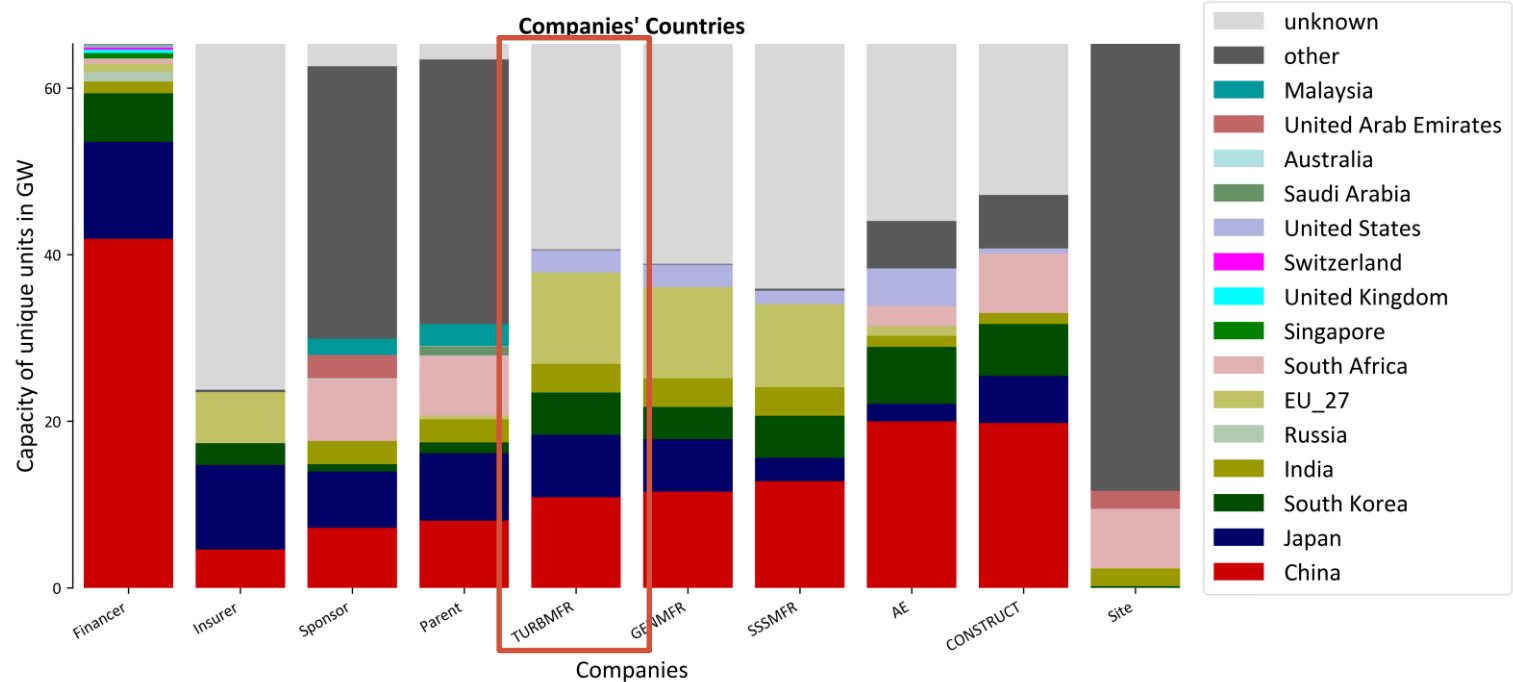
- How often are the involved companies foreign (i.e. technology export)?

Share of units with ...	Financer	Insurer	Sponsor	Parent	TURBMFR	GENMFR	SSSMFR	AE	CONSTRUCT
... domestic company only	0	0	63,3	47,9	6,2	6,4	7,4	8,1	19,8
... foreign company only	100	100	18,4	19,4	93,8	93,6	92,6	80,2	75,8
... mix of domestic and foreign	0	0	18,4	32,6	0	0	0	11,6	4,4

→ Countries, where plants are built, import much of the technology.

→ Global technology flow

Technology exporting countries



The domestic bias

- If a company is from a financing country, what is the chance that the financier is from the same country as well?

When the bank is...	Insurer	Sponsor	Parent	TURBMFR	GENMFR	SSSMFR	AE	CONSTRUCT
... state-owned	43	49,6	60	58,9	61,3	70,6	80	76,7
... private	32,3	28,6	15,4	15,4	23,1	14,3	30	71,4

→ Large domestic bias for public finance

Difference between countries

- Share of unit-transactions, for that at least one company is from the same country as the financier

State-owned banks	
Financing country	Share of unit-transactions with company from the financing country
China	74,5
Japan	100
South Korea	78,9
Saudi Arabia	100

Private banks	
Financing country	Share of unit-transactions with company from the financing country
Japan	100
Singapore	0
United Kingdom	0
Switzerland	0

→ For state-owned banks: Large domestic bias

→ Private banks: Only for funding from Japan

Discussion

- Financing not included in NDC's or recent net-zero pledges
→ Focus on domestic emissions
- G7 agreed to stop direct government support, including finance
- Japan: technology export through private banks
- Importance of political economy
→ just transition for the manufacturing sector?

Take-away messages

- Big overseas financiers are China, South Korea and Japan
- Public finance correlates with technology exports
- Japan: Also private finance
- Political development unknown

- Further research:
 - Interplay of banks and companies
 - Political economy in financing countries
 - Policy implications

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