

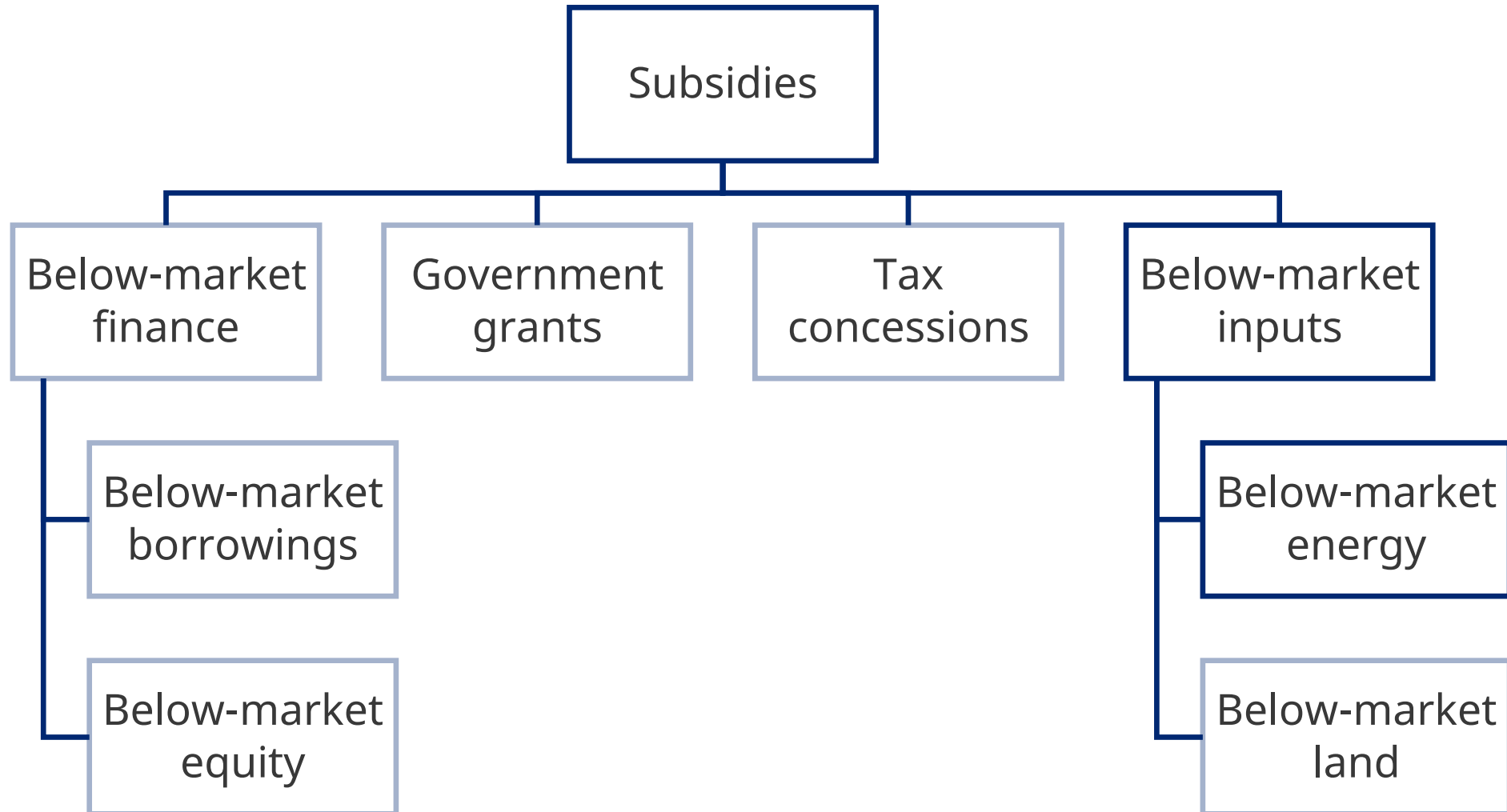
Below-market energy inputs: scope, scale, and policy implications

Jehan Sauvage
Policy Analyst,
OECD Trade and Agriculture Directorate

2 October 2025



Industrial subsidies can come in many shapes and forms





What makes below-market energy inputs different from other subsidies?

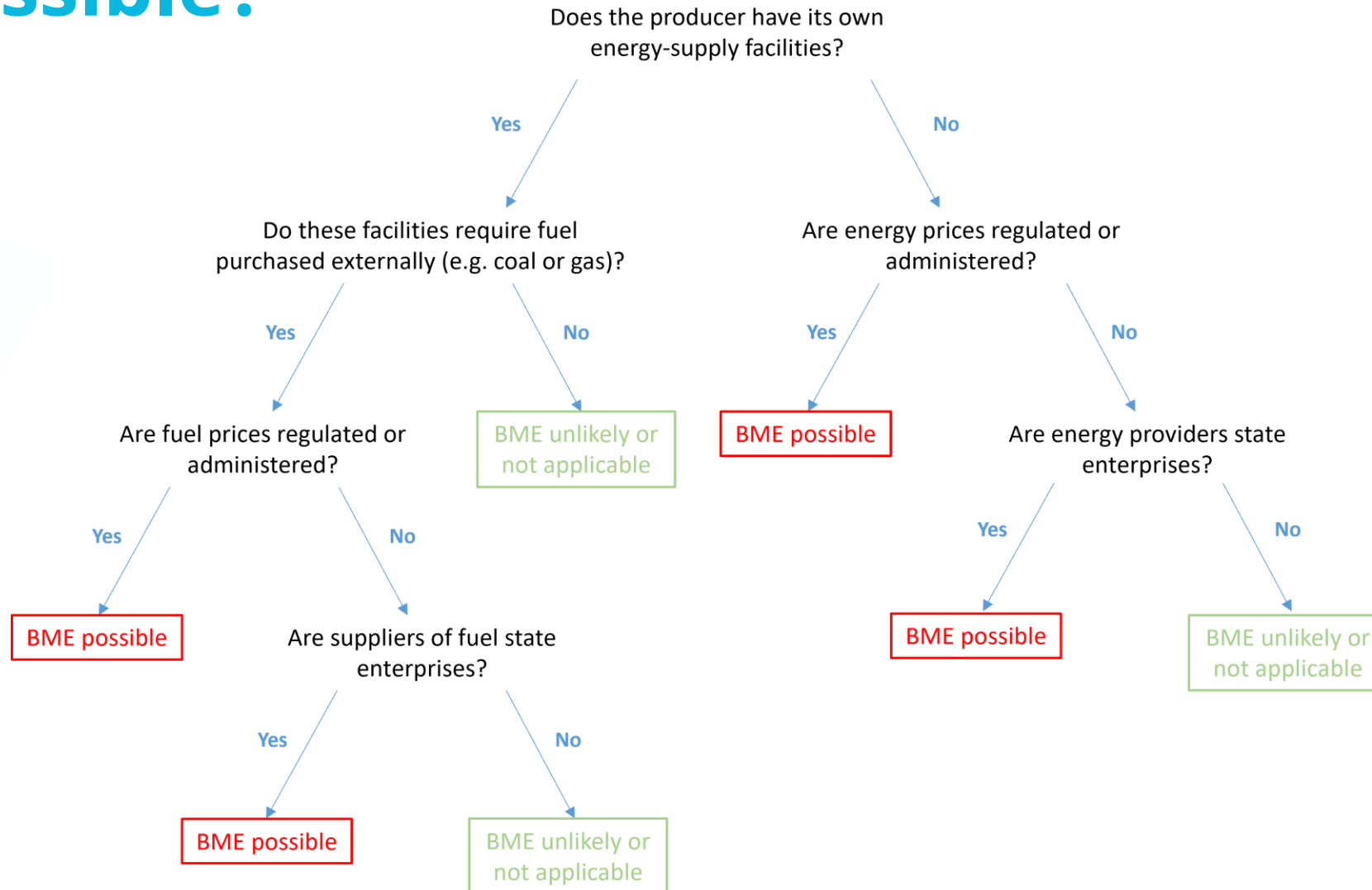
- Combines potential adverse trade effects downstream with likely environmental harm
 - Can contribute to increasing energy demand and favouring wasteful energy consumption and CO2 emissions
- Significant overlap between below-market energy inputs and fossil-fuel subsidies
 - Although the policy debate here revolves around the competitiveness of producers more than distributional impacts
- Estimation is a long process requiring comparison against a market benchmark
 - Raises methodological difficulties and data availability concerns
- Often involves state enterprises as 'middlemen'
 - Raises questions as to whether these constitute 'public bodies'



**Estimating the subsidy value
of below-market energy
inputs is hard**



Step 1: is below-market energy (BME) even possible?



Source: OECD (2023), "Measuring distortions in international markets: Below-market energy inputs", *OECD Trade Policy Papers*, No. 268, OECD Publishing, Paris, <https://doi.org/10.1787/b26140ff-en>.

Restricted Use - À usage restreint



Step 2: collecting the necessary data for testing for the presence of BME

After having assessed whether BME is possible for a given producer, one needs to collect individual data points to assess whether energy inputs are actually obtained on below-market terms.

- Lack of transparency is again a key obstacle here.
- Plant-level energy prices reported by firms are the most favoured option but are not always available, calling at times for additional assumptions and judgment calls.

Individual energy prices > Implied energy prices > Presumed energy prices

- This is where information obtained at the level of energy providers can also help paint a coherent picture.



Step 3: selecting market benchmarks for the calculation

Generally needs to be selected on a case-by-case basis to account for plant location and availability of energy infrastructure.

Energy carrier	Export/Import status	Benchmark prices
Natural gas	Net importer	Spot market price (e.g. Platts JKM LNG price, which is considered to represent global LNG demand) Import prices through nearby gas pipeline routes
Natural gas	Net exporter	LNG or pipeline netback energy price Export parity price
Diesel fuel	Net importer	Unsubsidised market price in neighbouring jurisdictions or local price applicable to non-subsidised users
Coal	Net importer	Spot market price, adjusted for local transportation costs
Electricity	n.a.	Prices normally applied to industrial users in the area of plant location or in geographical proximity Prices that should be charged by electricity suppliers in order to cover their operational expenses (low estimate) Prices that should be charged by electricity suppliers in order to cover their operational expenses and an adequate rate of return per kWh of electricity sold (high estimate)

Source: OECD (2023), "Measuring distortions in international markets: Below-market energy inputs", *OECD Trade Policy Papers*, No. 268, OECD Publishing, Paris, <https://doi.org/10.1787/b26140ff-en>.

Restricted Use - À usage restreint



Results from an illustrative sample of energy-intensive companies



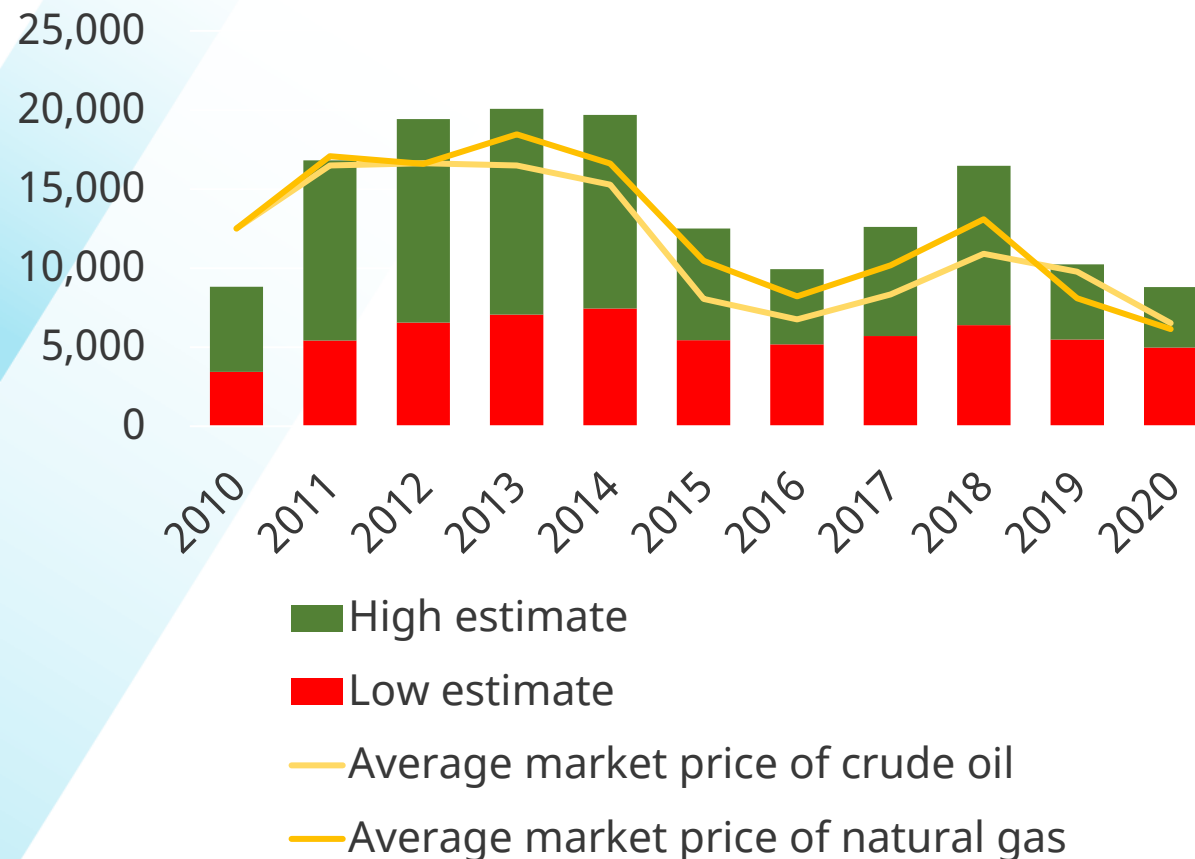
Sample description

- Sectors most likely to obtain such support, namely energy-intensive industries: aluminium smelting; cement; chemicals (including fertilisers and petro-chemicals); and steelmaking.
- 33 of the largest companies in these industries by production volumes, capacity, or sales revenue, which collectively account for a large portion of total industry energy usage and CO2 emissions.
- Some of these actors can be very significant at the scale of entire countries (e.g. Iceland, Bahrain).
- The sample should be viewed as illustrative rather than fully representative.

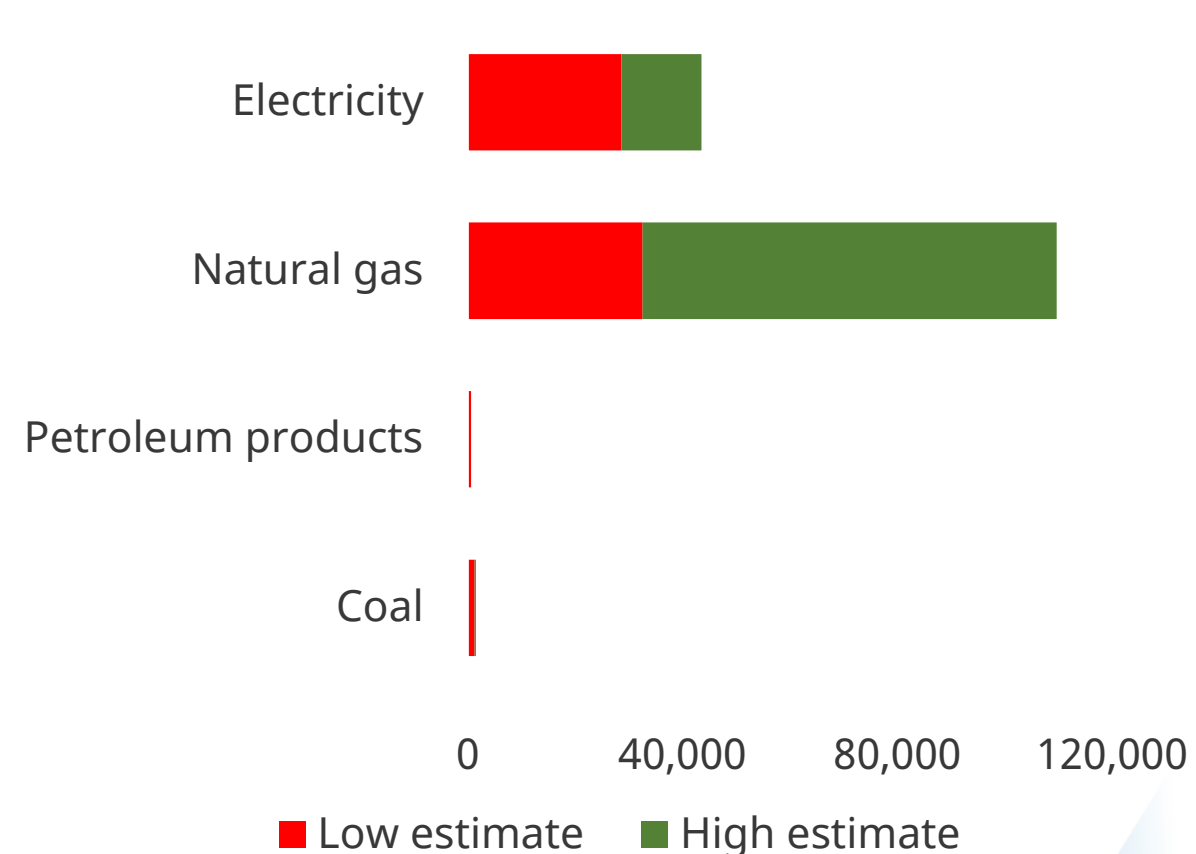


Estimates for this illustrative sample range between USD 63-155 billion over 2010-20

Below-market energy (USDmn) and energy prices (2010=100)



Below-market energy, current USD millions



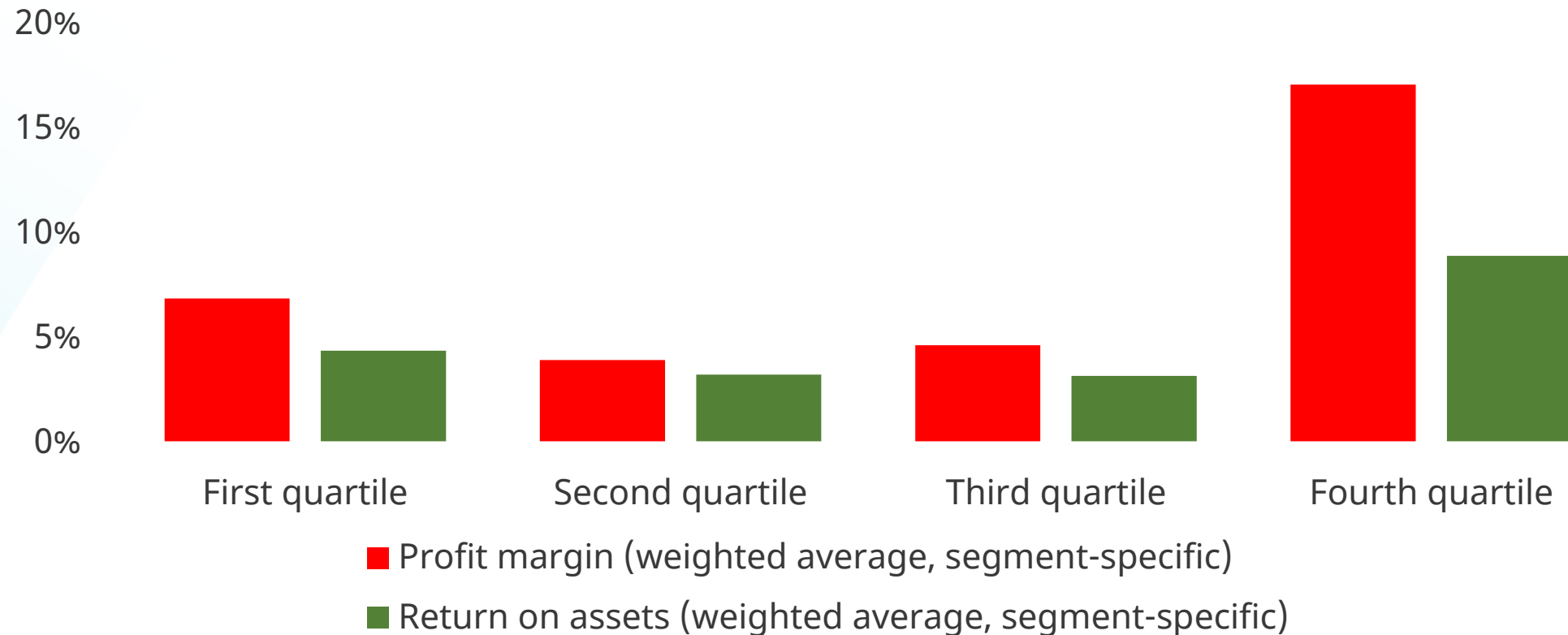
Source: OECD (2023), "Measuring distortions in international markets: Below-market energy inputs", *OECD Trade Policy Papers*, No. 268, OECD Publishing, Paris, <https://doi.org/10.1787/b26140ff-en>.

Restricted Use - À usage restreint



Some firms only pay a small fraction of the benchmark energy prices, helping them increase their profits considerably

Firm profits by quartile of below-market energy (low est., % of revenue)



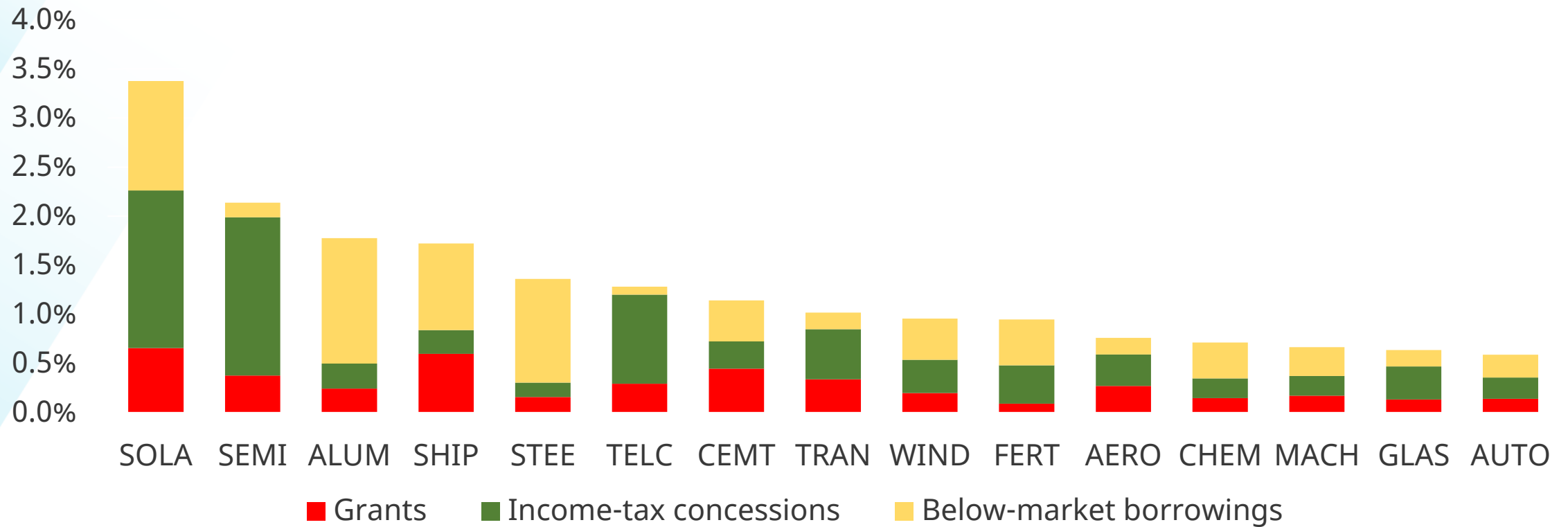
Source: OECD (2023), "Measuring distortions in international markets: Below-market energy inputs", *OECD Trade Policy Papers*, No. 268, OECD Publishing, Paris, <https://doi.org/10.1787/b26140ff-en>.

Restricted Use - À usage restreint



Heavy industries receiving BME are already large recipients of other subsidy types

Industrial subsidies by sector, average for 2005-23
(% of annual firm revenue)



Source: OECD MAGIC database.



Main policy implications

- **The role of the state & public bodies:** state enterprises are not only major subsidy recipients in heavy industries but can also be providers themselves.
- **The question of specificity:** where subsidised energy prices are widely available, can they still give rise to actionable subsidies?
- **Lack of transparency:** below-market energy is rarely notified and the information necessary for estimating it is generally hard to obtain.
 - *Are WTO rules fit for purpose? What can be done to improve transparency?*



Further reading – selected OECD publications on industrial subsidies

- [Aluminium \(2019\)](#)
- [Semiconductors \(2019\)](#)
- [Below-market finance \(2021\)](#)
- [Rolling stock \(2023\)](#)
- [Below-market energy inputs \(2023\)](#)
- [Synthesis report \(2023\)](#)
- [Quantifying the role of state enterprises in industrial subsidies \(2024\)](#)
- [Government support in the solar and wind value chains \(2025\)](#)
- [How Governments Back the Largest Manufacturing Firms: Insights from the OECD MAGIC Database \(2025\)](#)
- [The Market Implications of Industrial Subsidies \(2025\)](#) **NEW!**



Thank you very much!