

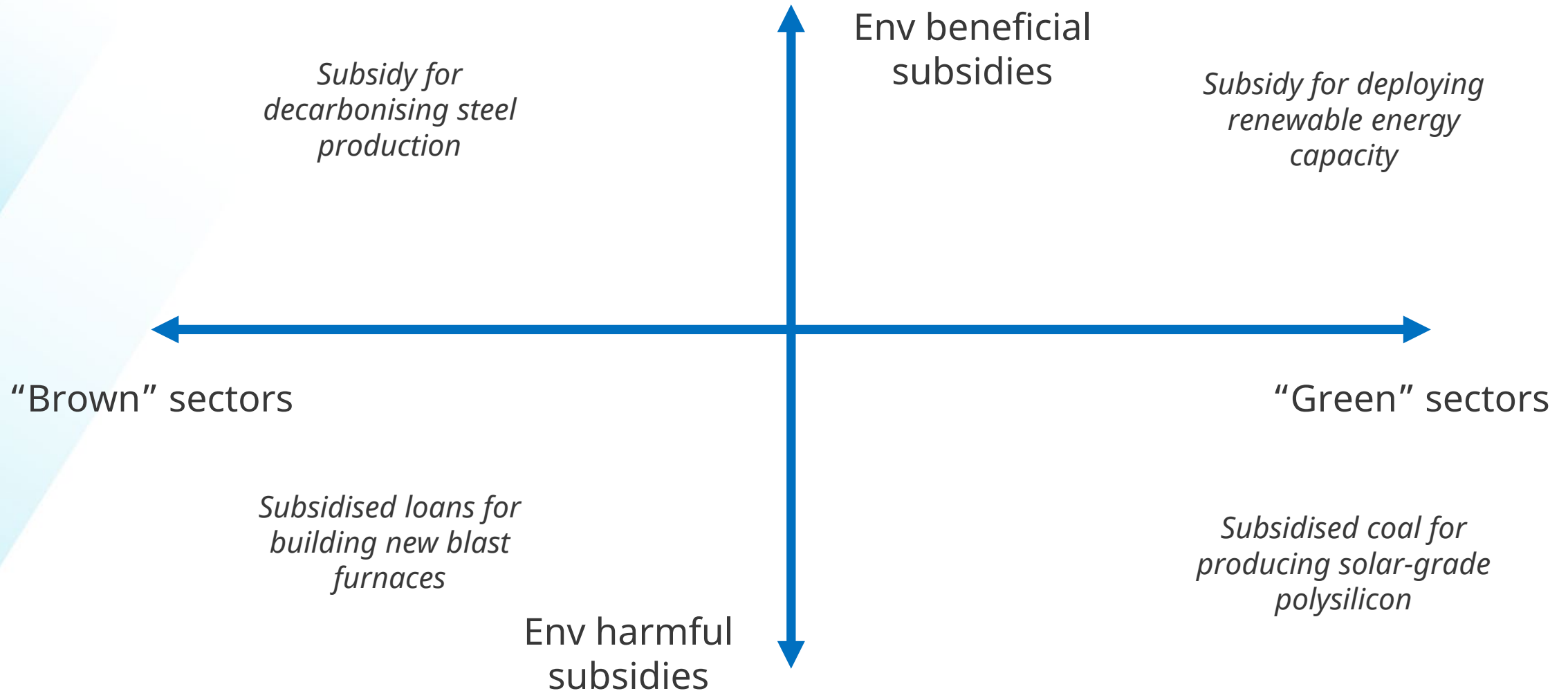
Transparency, characteristics and environmental effects of industrial subsidies

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WTO TESSD Informal Working Group on Subsidies
17 June 2024



Industrial subsidies and the environment: what is a “green” subsidy?



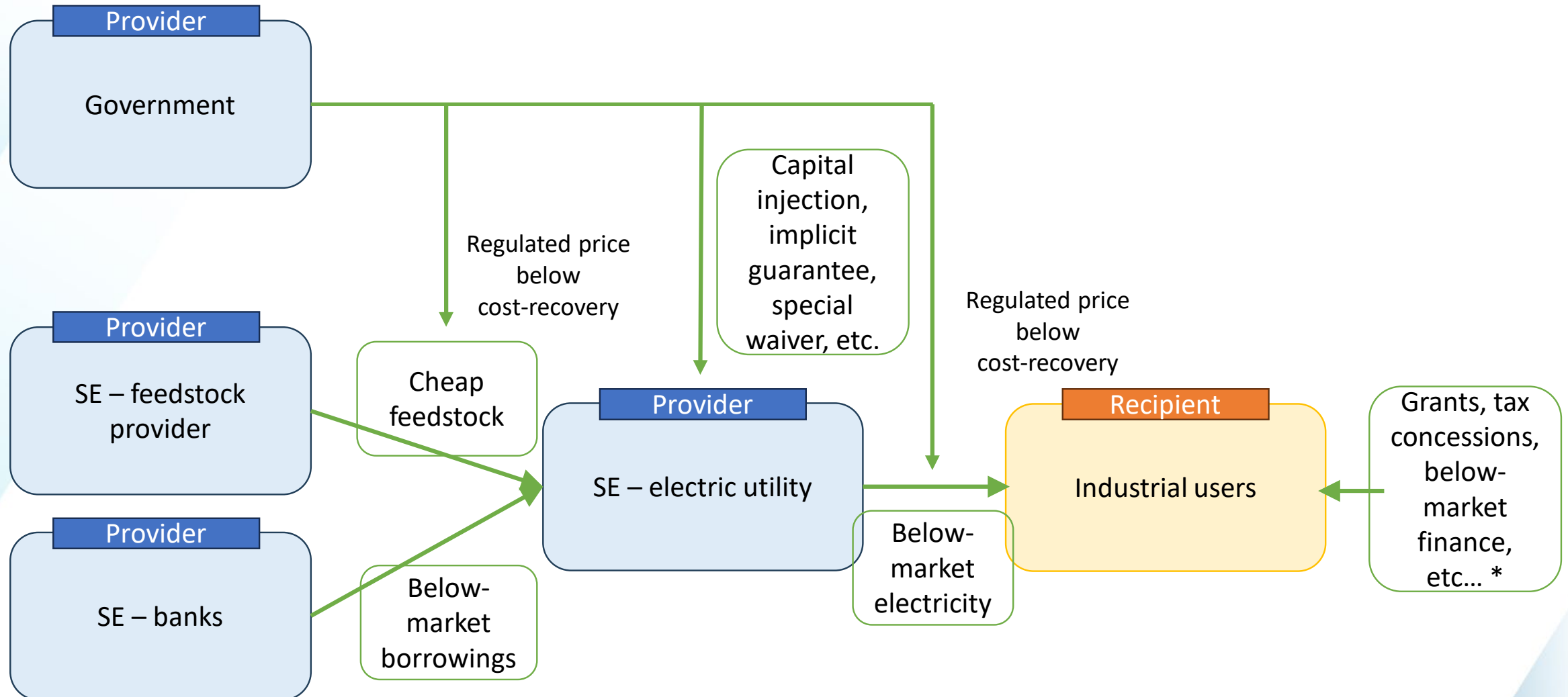


Subsidy transparency remains a big challenge in industrial sectors

- Not all governments are transparent, not just in the WTO but also domestically.
 - Especially true for sub-national jurisdictions.
- Lack of data has hampered research and empirical assessments, as opposed to what could be done in agriculture, fisheries, or the energy sector.
- Some forms of support can be complex and indirect, which further compounds the lack of transparency.



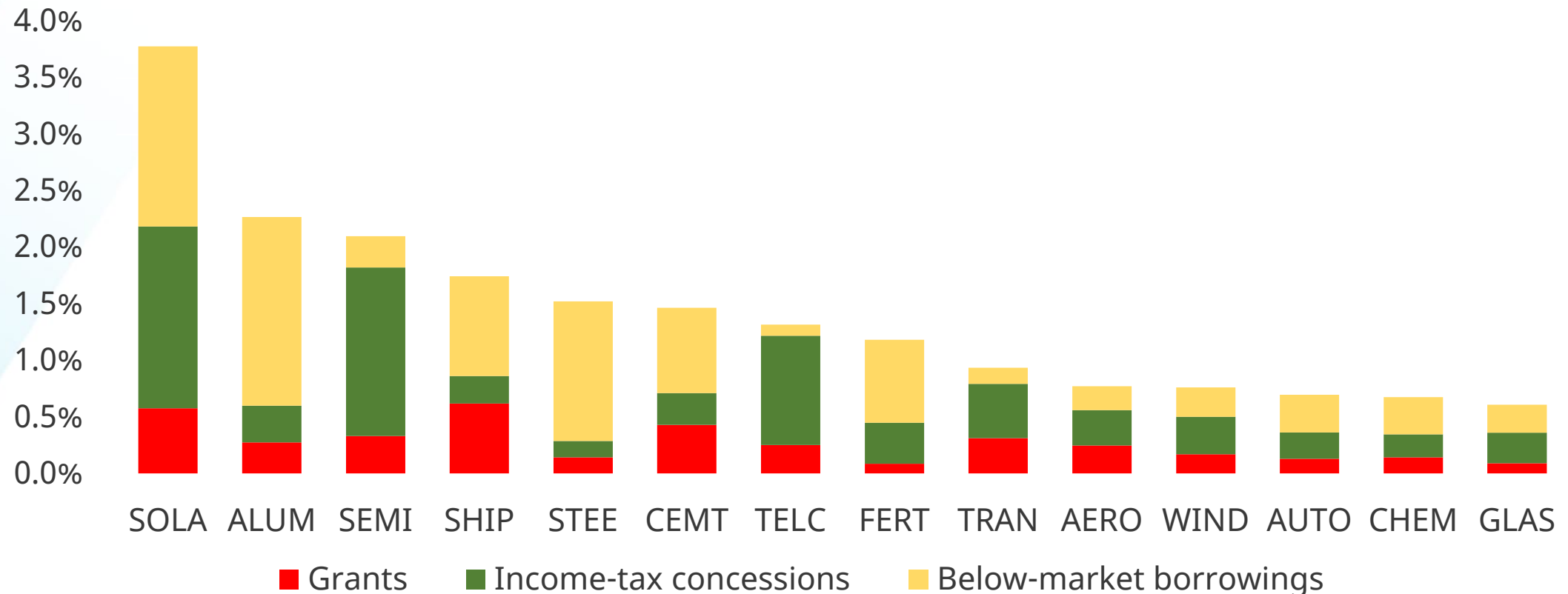
State enterprises as providers and recipients of government support





What we know thus far: solar panels and heavy industries are top subsidy recipients

Industrial subsidies by sector (average for 2005-22,
% of annual firm revenue)

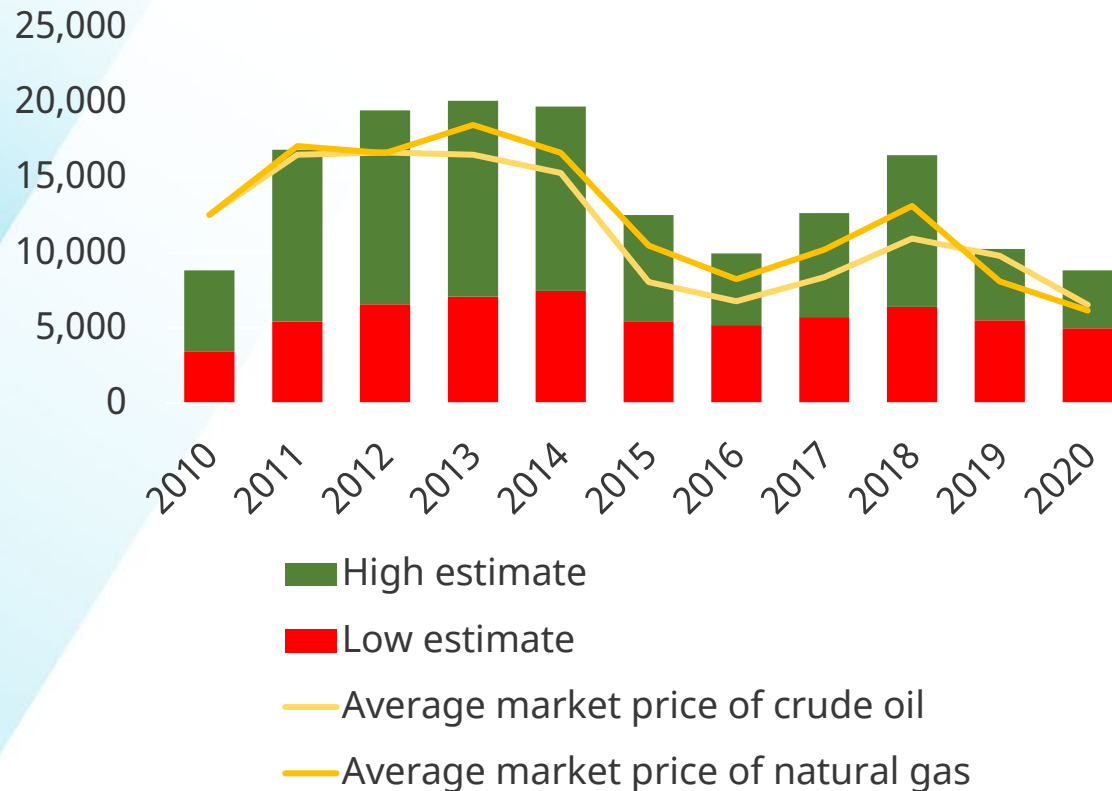


Source: OECD MAGIC database.

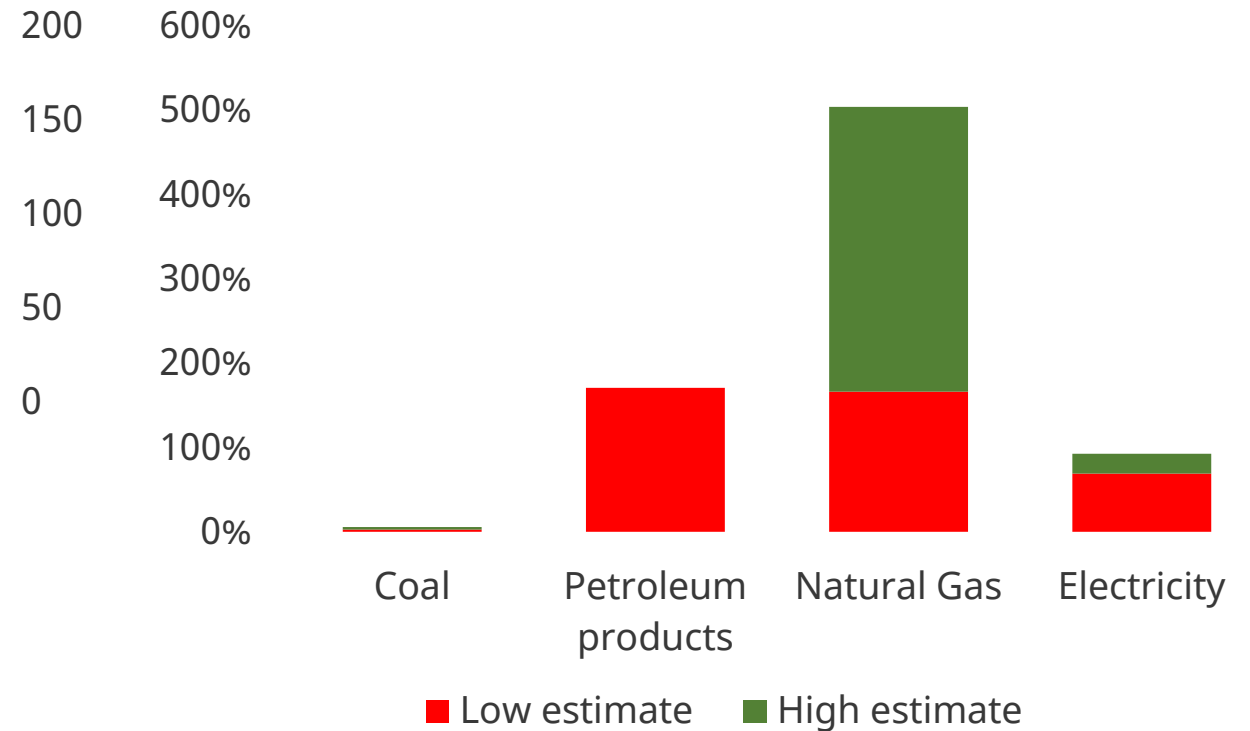


What we know thus far: some companies also obtain subsidised energy inputs

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



Below-market energy, % of estimated energy costs



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>.



But we need to know more about the impacts of industrial subsidies

- More information is now available on the scope and scale of industrial subsidies, and the forthcoming OECD MAGIC database will further improve the situation.
- But much remains to be done to understand the policy implications of these subsidies.
- Future work at the OECD should provide useful answers as data availability and analysis continue advancing in concert.



Climate implications of government support in the aluminium and steel industries



Government support to industries has effects on emissions

Opposing effects are playing out:

- **Decreased emissions:** well-designed support measures might contribute to the development and adoption of new climate technologies, thereby overcoming “technology” market failures.
- **Increased emissions:** government support can allow inefficient firms to produce industrial output above levels otherwise determined under market conditions, thereby generating excessive emissions.



Exploring this empirical question

The goal of a recent OECD report is to explore empirically which effect has prevailed.

This report focusses on aluminium smelting and steelmaking because:

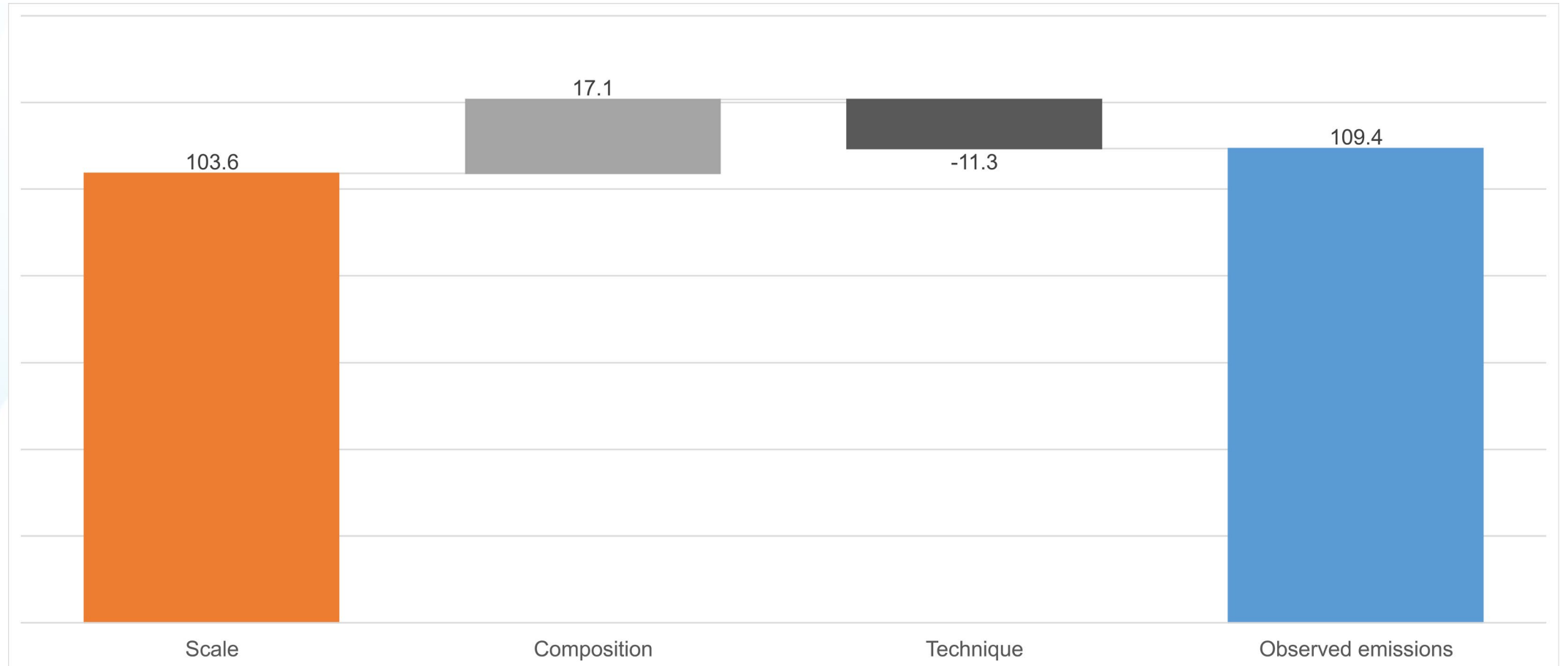
- These are carbon-intensive sectors (respectively 2% and 10% of global carbon emissions).
- They receive large amounts of government support.



Main findings

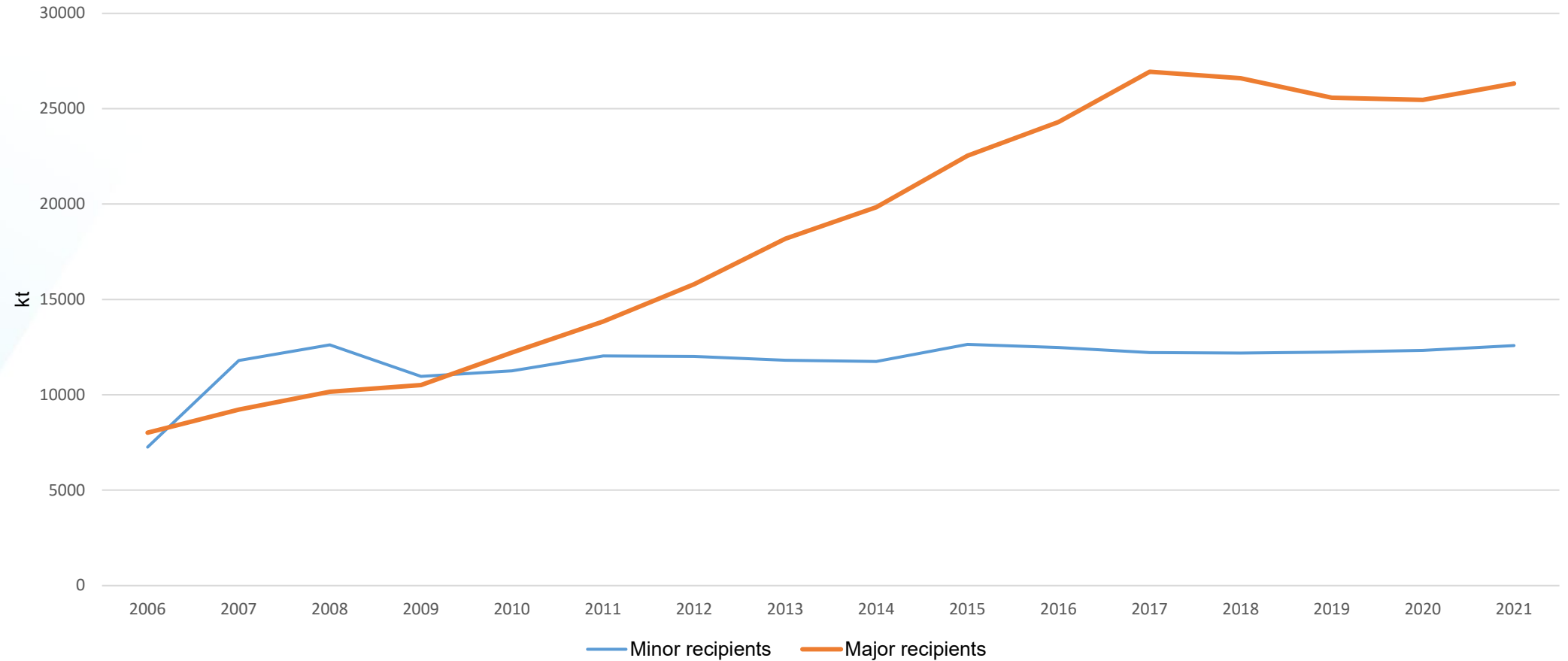


Decomposing emissions in aluminium smelting



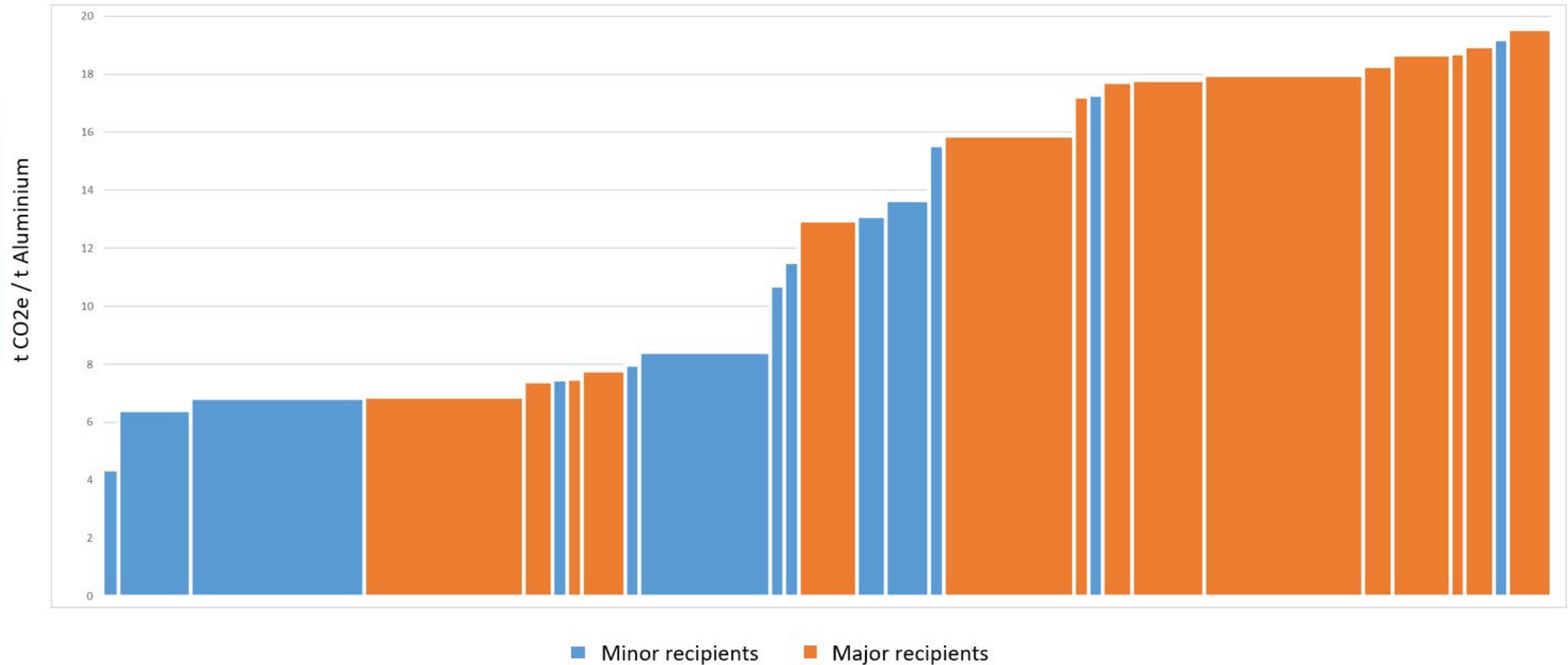


Government support drives production, and emissions



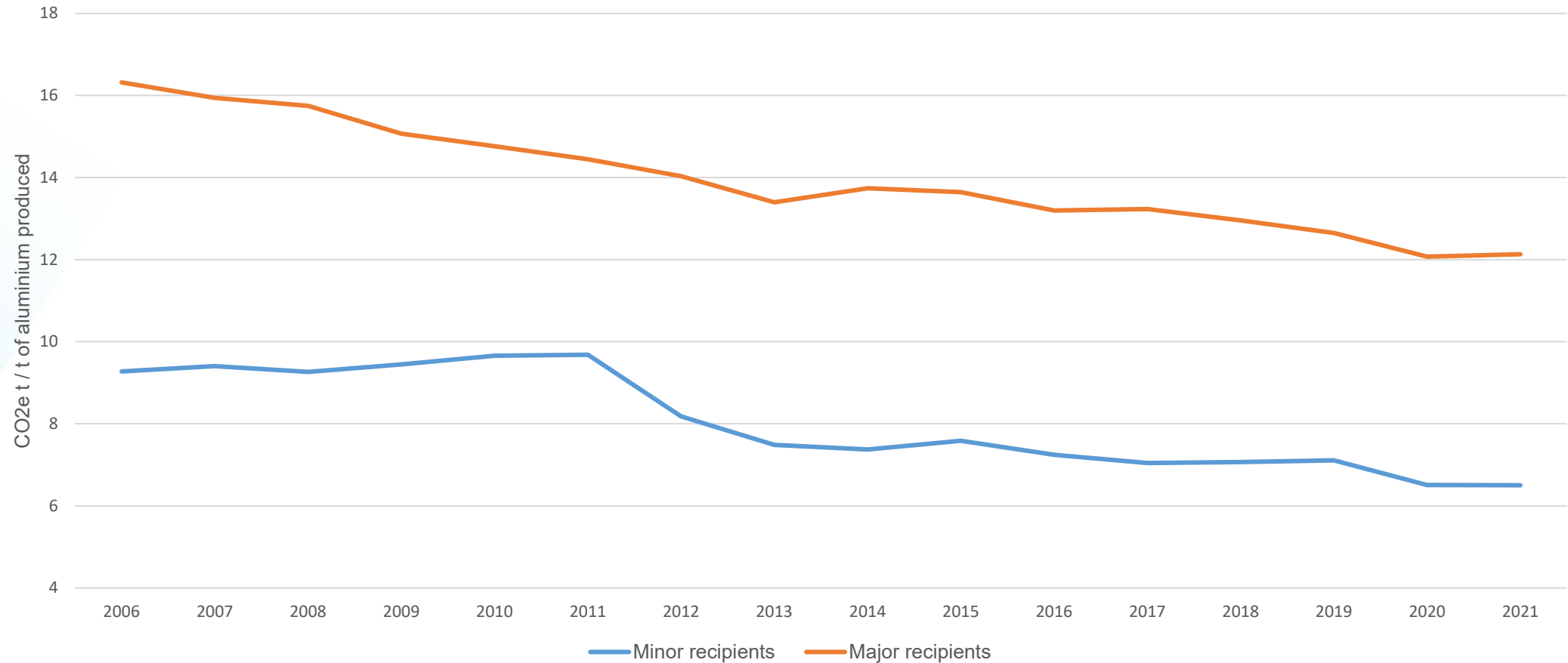


Government support plays a role in the composition effect





Government support does not drive the technique effect, which reduces emissions





Summing up

Government support contributes to increased emissions from aluminium and steelmaking activities:

- mainly through an increase in production output
- but also by moving production from more to less efficient plants

It does not play a role in the development of techniques enabling enhanced environmental performance.

If government support is removed, global output will decrease but emissions will decrease much more.



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