

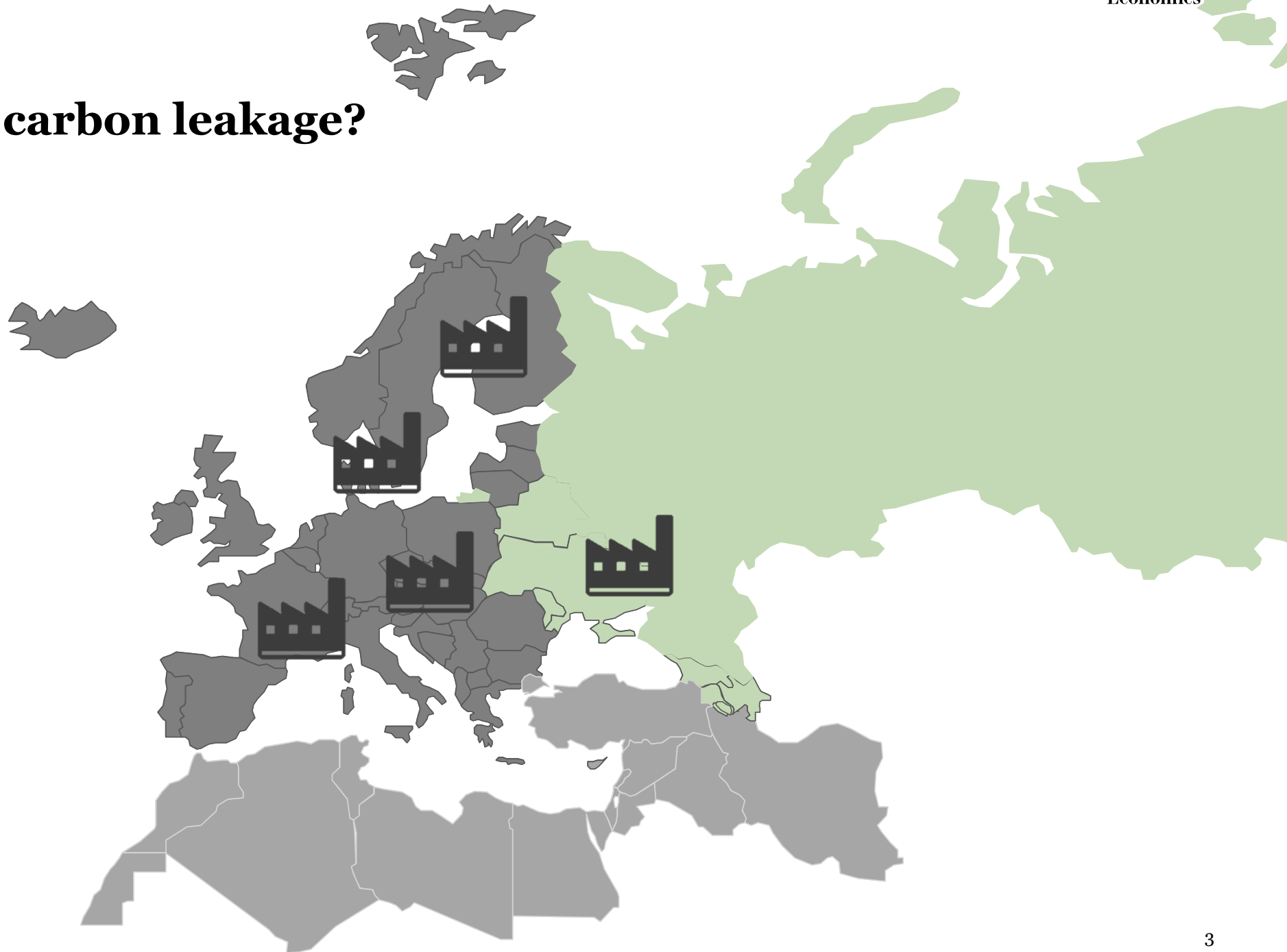
Carbon leakage and the nitrogen fertilizer industry

Three key takeaways from our analysis

- Treat 'cost pass through' **cautiously** when assessing carbon leakage risk
- The **risk of carbon leakage** is substantial in the nitrogen fertilizer industry
- Anti-leakage measures should be more **targeted**

We do *not* suggest that there is no need for an effective ETS; on the contrary

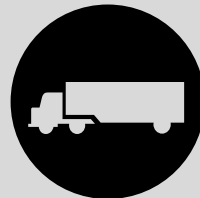
What is carbon leakage?



When is an industry at risk of carbon leakage?



Products are homogenous



Products are transportable



Cost impact of increased ETS is high

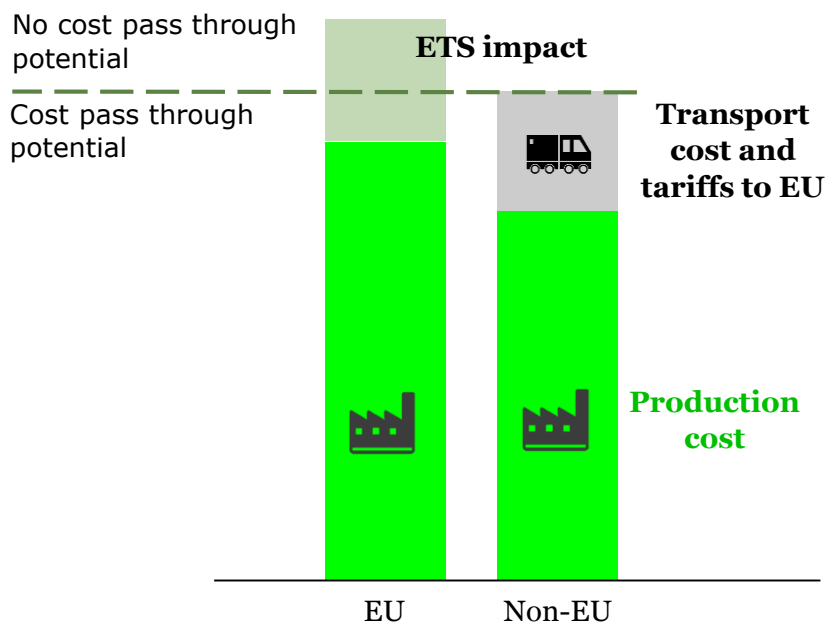


Low return on capital

Estimated cost pass-through rates *can* be linked to carbon leakage risk.

However, in many cases *they are not*.

Be cautious when linking cost pass through rates to carbon leakage risk

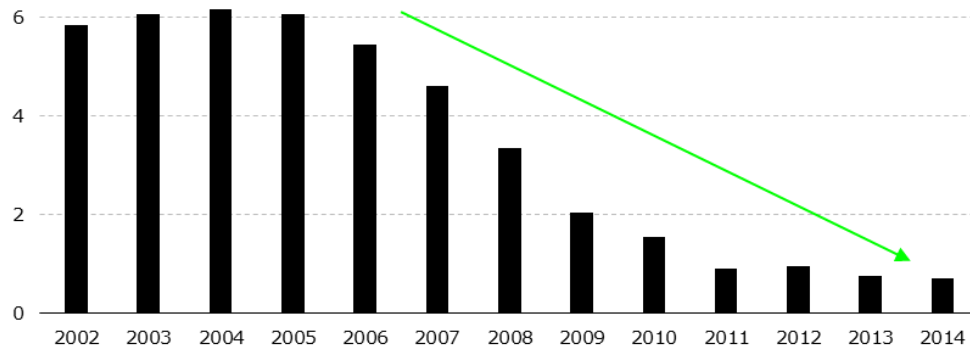


Cost pass through is dynamic

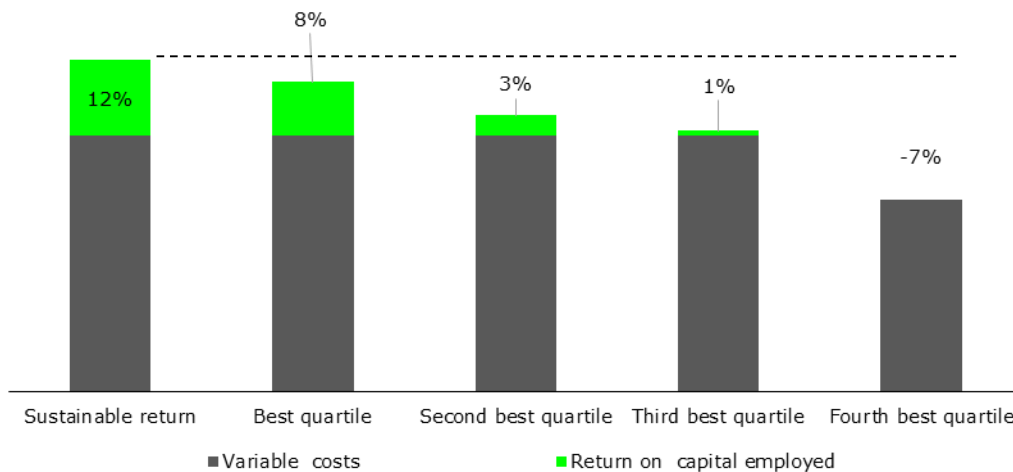
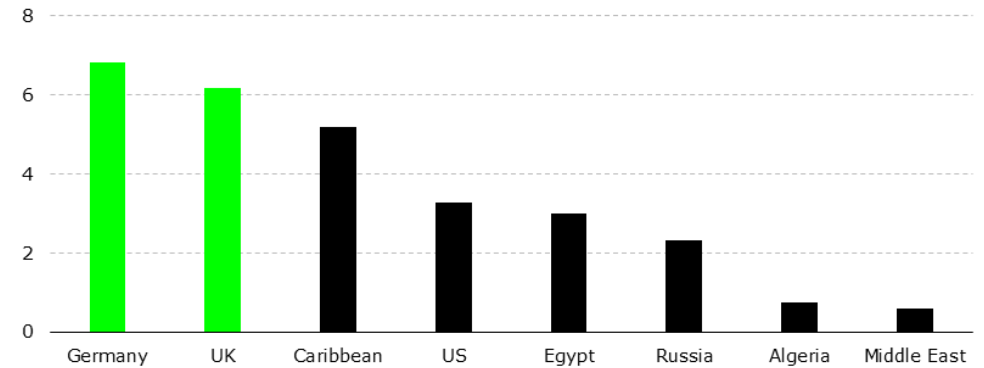
	<u>Cost pass-through rate</u>	<u>Carbon leakage risk</u>
Price insensitive consumers	High	Foreign producers may take advantage
Entry barriers to foreign competitors	High	EU producers may relocate production

Nitrogen fertilizers are severely at risk of carbon leakage

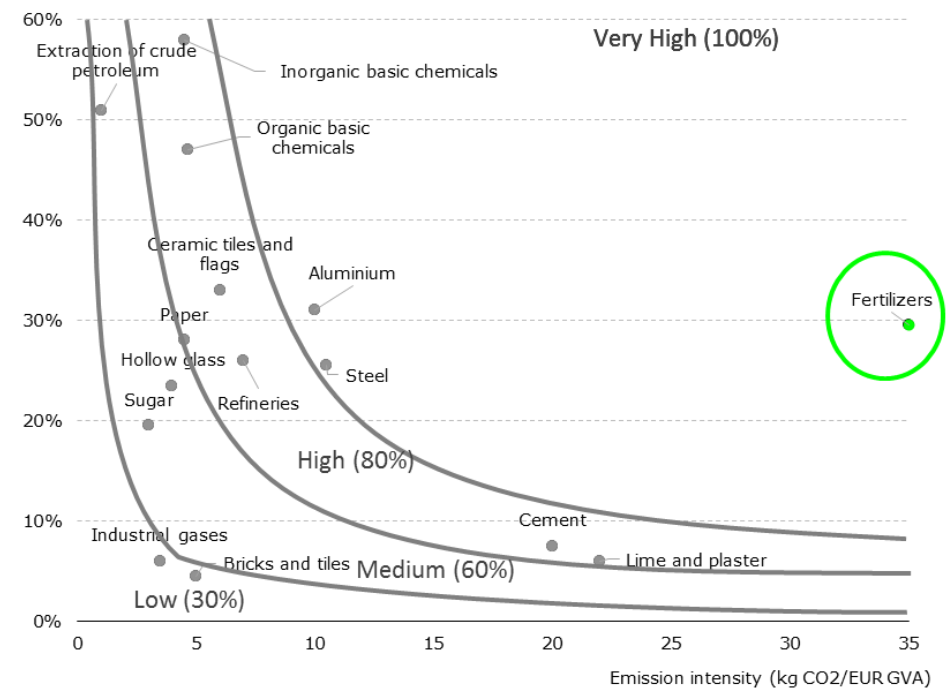
kg N₂O/tonne of nitric acid



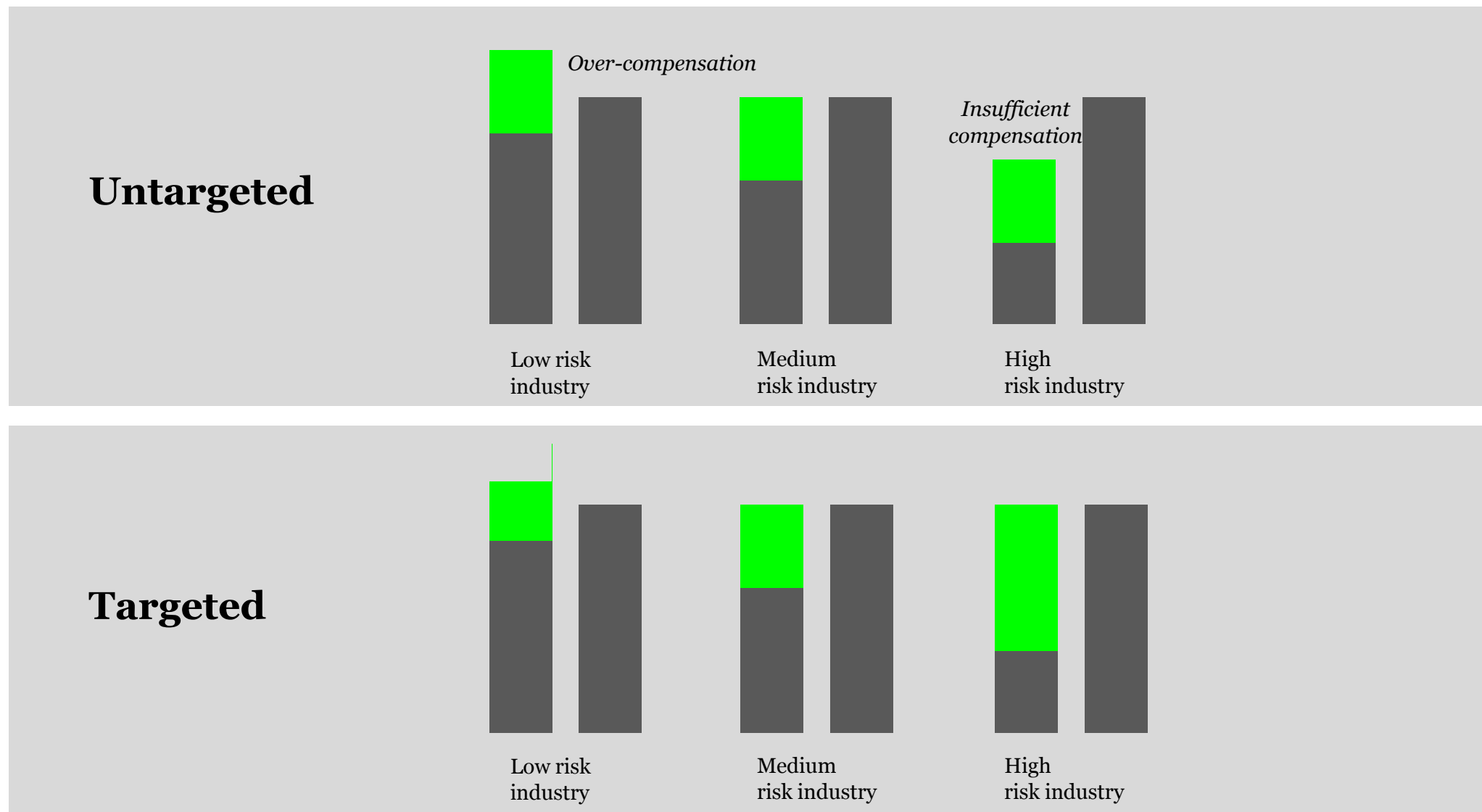
EUR per MBTU



Trade intensity



Leakage compensation should be more targeted



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