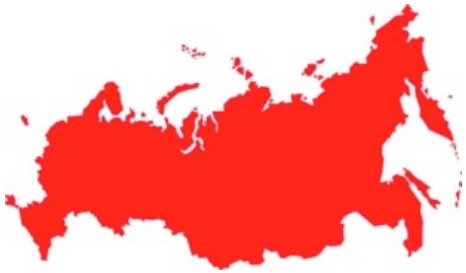
CBAM: implications for the Russian economy



Slow carbon



Low carbon



No carbon

Igor Bashmakov

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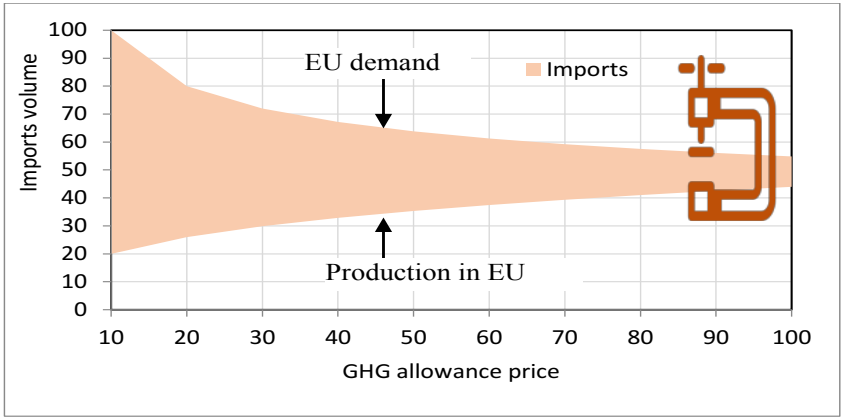
RETROSPECTIVE: 'CARBON LEAKAGE', OR 'MUCH ADO ABOUT NOTHING'

- The issue of whether or not the very phenomenon of carbon leakage exists, has not been theoretically proved, and a literature review does not provide an unambiguous answer
- The problem of 'carbon leakage' was clearly overestimated in the past
- The large amounts of free GHG allowances in the ETS exceeded the emissons and did not facilitate the decarbonization in the key sectors
- Free allowances were mostly allocated on the basis of the sectors' ability to cover their carbon costs
- Until 2020, the 'carbon leakage' hypothesis did not find any empirical support, but . . .
- Failure to reveal the 'carbon leakage' phenomenon in the past does not mean that it cannot be revealed in the future
- Introduction of high carbon prices for basic materials coupled with the reduction in the share of free allowances requires protection of the EU businesses with the CBAM mechanism, yet involves a threat of losing part of foreign markets

METHODS TO COMBAT 'CARBON LEAKAGE' AND THE CARBON BORDER ADJUSTMENT CONCEPT: MUCH PAIN, LITTLE GAIN?

- From the entire 'menu of instruments' to combat 'carbon leakage' the EU chose the Carbon Border Adjustment Mechanism (CBAM), which does not require public or tariff financing
- Apart from CBAM, other mechanisms could be applied, such as:
  - cross-border carbon tax;
  - integration of carbon-intense imports in the ETS with free GHG allowances and expansion of the emissions trading system to importers;
  - CCfD and other schemes of providing subsidies to manufacturers of low carbon products within the EU. As illustrated by the promotion of RENs in the EU, subsidies are much more effective compared to ETS
  - the use of international trade agreements and the requirement for the development of low carbon standards for products;
  - introduction of tax or the consumption of carbon intense products.
- None of the earlier proposals for CBAM-like mechanisms were supported, which highlights a political resistance

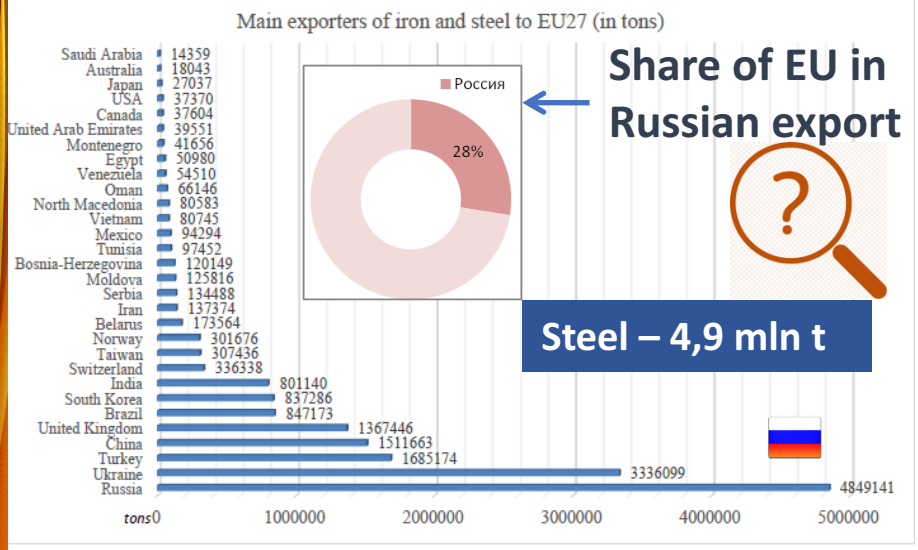
CBAM – is a mechanism for market competition based on carbon intensity. Dynamic analysis is a key
"The "low carbon vice" and the changing market niches

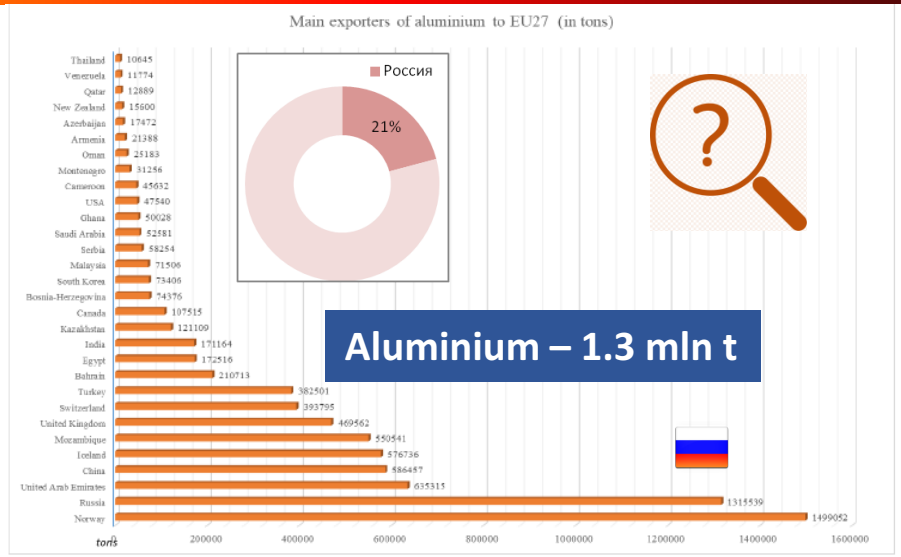


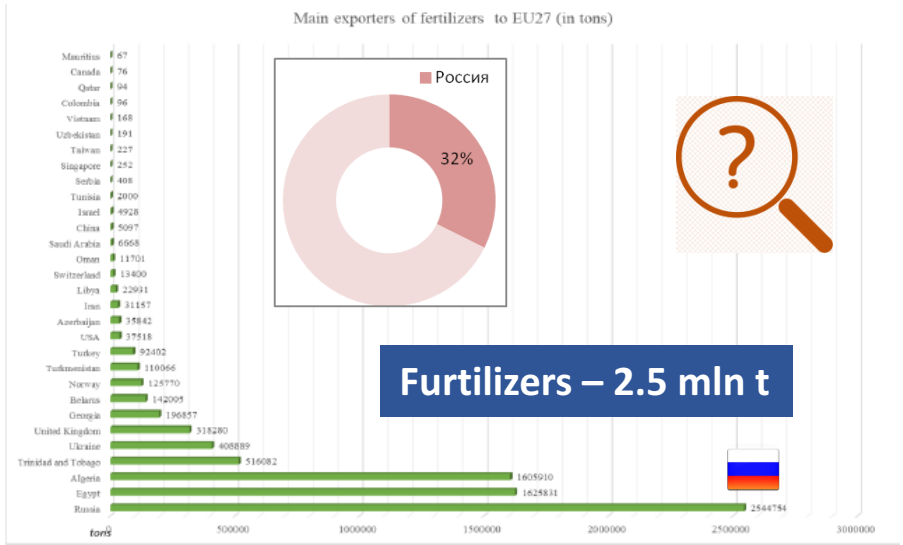
- Import price elasticity is a key, but poorly explored, parameter
- Depending on the price elasticity, demand for CBAM-products in the EU market will go down, as the carbon component of price grows
- If carbon intensity of EU-manufactured CBAM-products is lower, the EU production will be growing
- Demand for imports from third countries may get squeezed by declining consumption and growing supply from the EU and (or) other competitors having a low carbon footprint

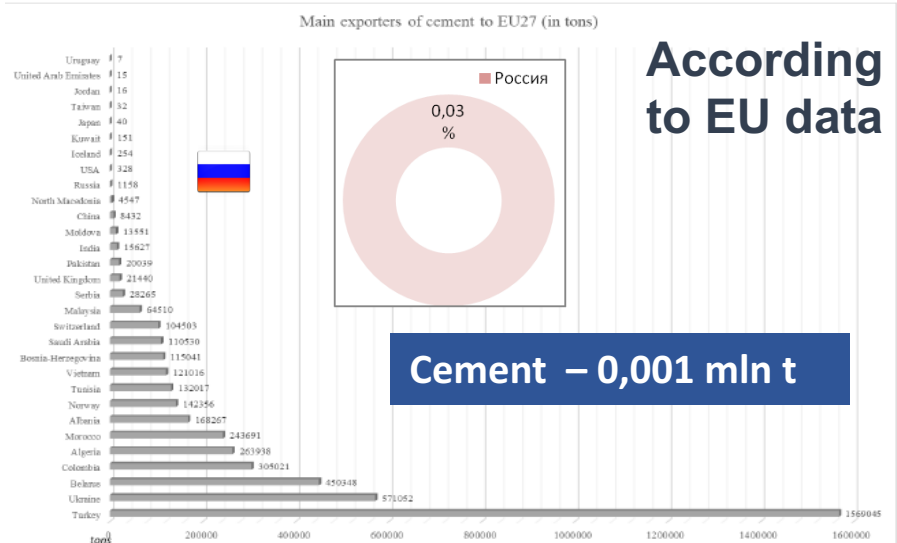
- The lower the share in import, he higher the Import price elasticity
- For Russia, import price elasticity for aluminum, ferrous metals, and fertilizers should be relatively low
- All of the suppliers are losing from demand reduction
- Low carbon intensity (other things equal) allows for a larger market niche
- EU suppliers are losing external markets. Russian suppliers can get these markets

Russia. Potentially the largest losses. Three first places in CBAM goods import to the EU in 2019*
EU dominates in many Russian CBAM goods exports





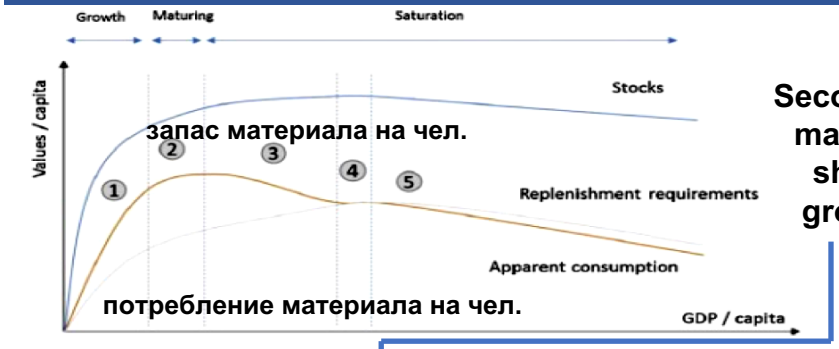




*excluding Norway for aluminum

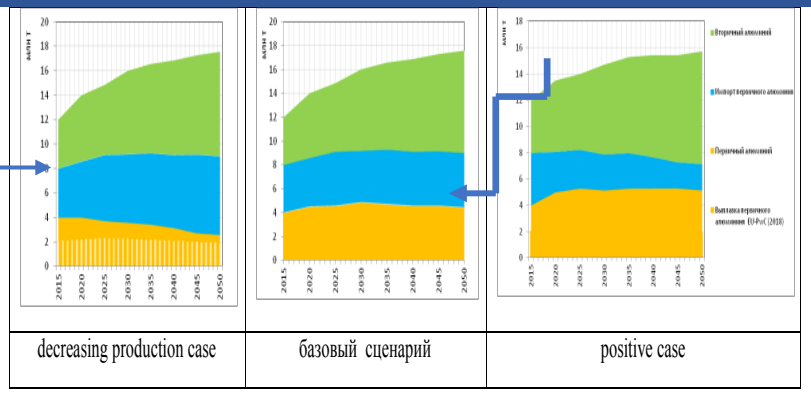
Modest growth of EU markets for CBAM-goods by 2050

Stylized function of accumulated materials stock use for economic development stage

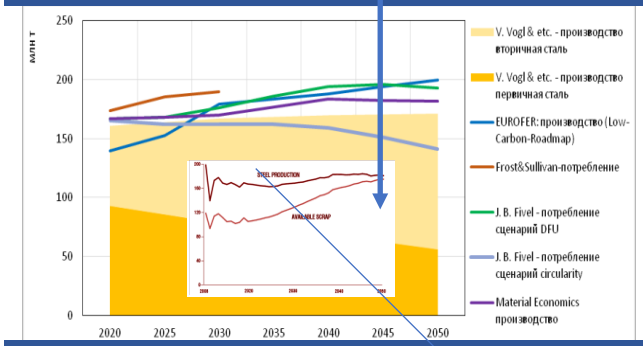


Secondary material share growth

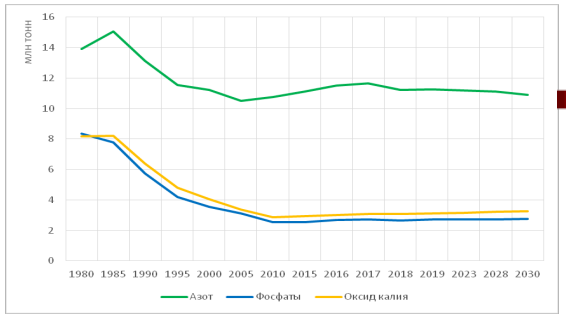
Production, consumption and import of aluminium



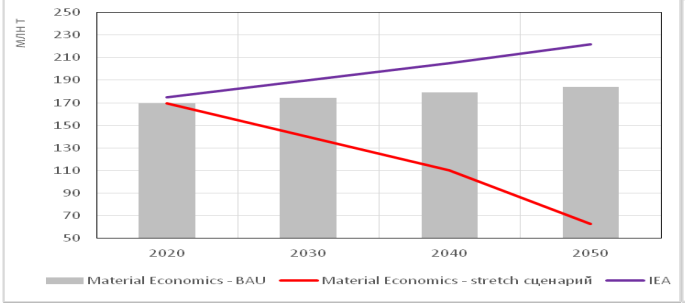
Production and consumption of steel



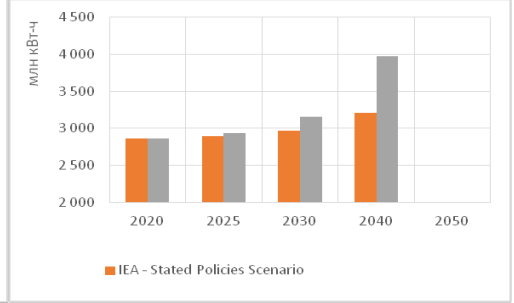
Consumption of fertilizers



Cement production



Electricity production



- For a variety of materials EU is already at stages 3-5
- CBAM-goods production in the EU is expected to grow up by 7-15% by 2030
- Larger demand growth can be expected for goods important for net-zero transition – ammonia and power

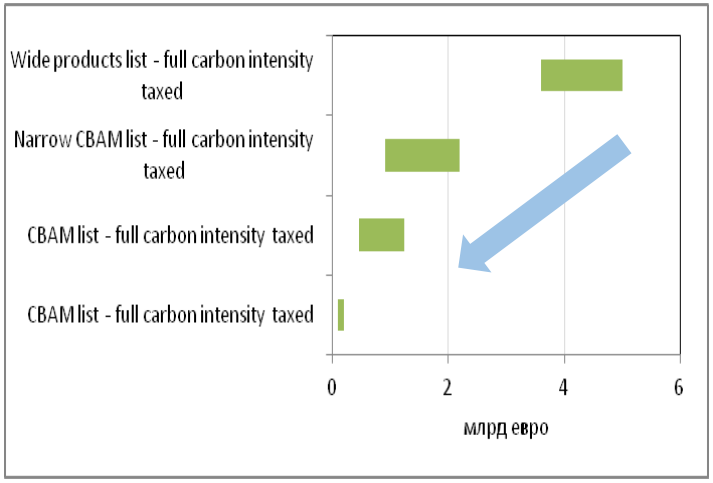
Estimating Russia's carbon intensity against the EU's levels for Scope 1 and 3 and Scope 1+2+3 shows that the current gap is not large. COMPARING *«THE LIKE WITH THE LIKE»*

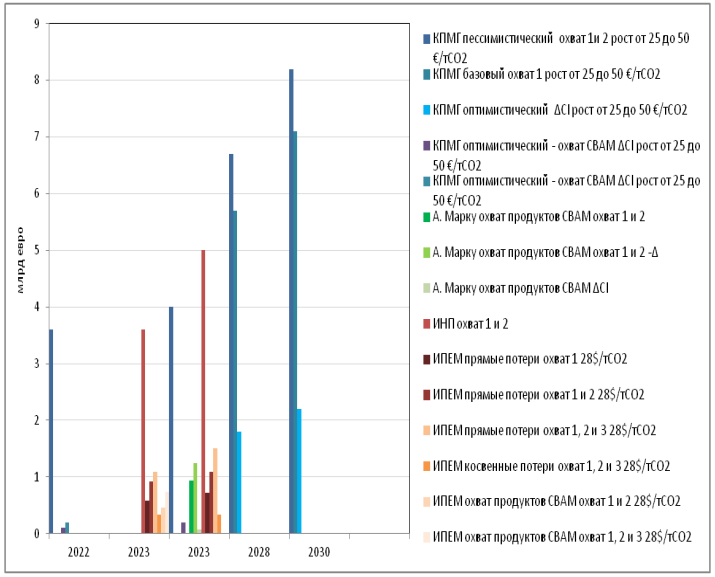


- However, this may substantially change, as the decarbonization of the EU's industrial sector progresses
- The EU's draft CBAM regulation covers an unusual combination of GHG emissions production systems boundaries: Scope 1 and 3 (for Scope 2, only information is required)
- This favors products with carbon intensive electricity from China and India
- It is not at all clear, which methods of emissions estimation for CBAM will be used
- The methodology is to be approved by an EU's special regulatory act

Source: CENEf-XXI.

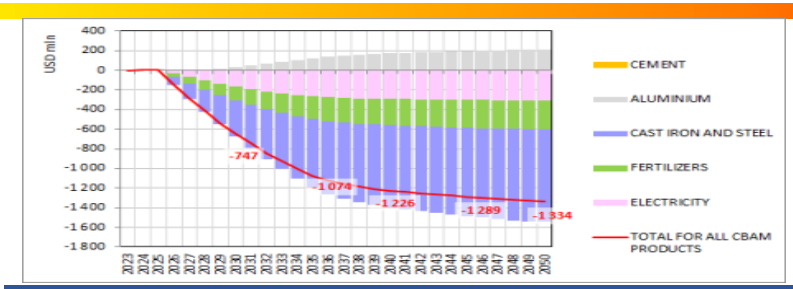
The big turns into the small. Net export revenue losses for Russia are maximum USD 200 million in 2026



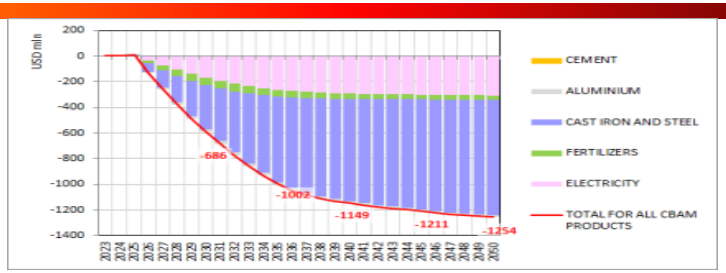


- Attempts to quantify the effects of carbon border regulation on Russia's economy had been launched long before the very CBAM concept was announced
- Initial estimates ranged from €5 to 8 billion in the early 20's and up to €25 billion by 2050
- It helped to highlight the problem at the top political level
- As the situation with CBAM becomes clearer, estimates of the potential *"losses incurred by Russian exporters"* have dropped 25-100 times
- With 57 euros/$tCO_{2eq.}$ carbon price, the maximum possible payment for CBAM certificates by the EU importers of all Russian products (the upper threshold) is 9.7 billion €/year
- The extendsion of the CBAM scheme to cover all of the products is feasible only in a very distant future, if at all

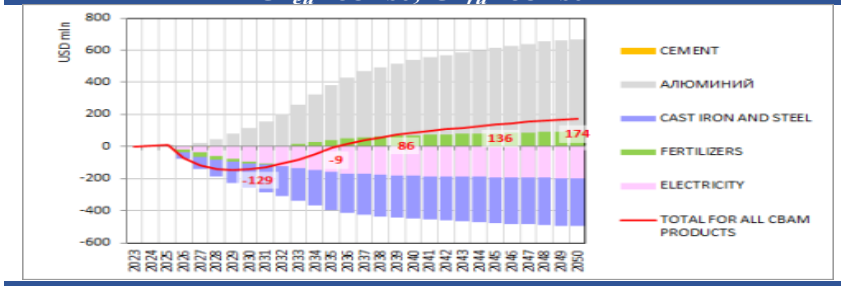
If the carbon intensity remains high, then growing carbon prices will eventually bring Russia's CBAM exports down, and the small will turn into the big. But not only losses are possible



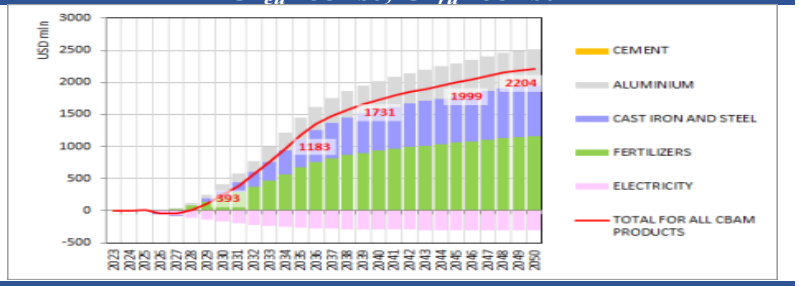
(a) Scope 1+2+3; CP_{eu}=100 euros/tCO$_2$; CP_{ru}=0; CI_{eu}=const; CI_{ru}=const



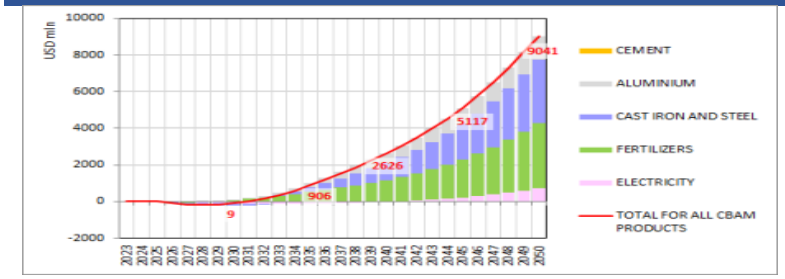
(b) Scope 1+3; CP_{eu}=100 euros/tCO$_2$; CP_{ru}=0; CI_{eu}=const; CI_{ru}=const



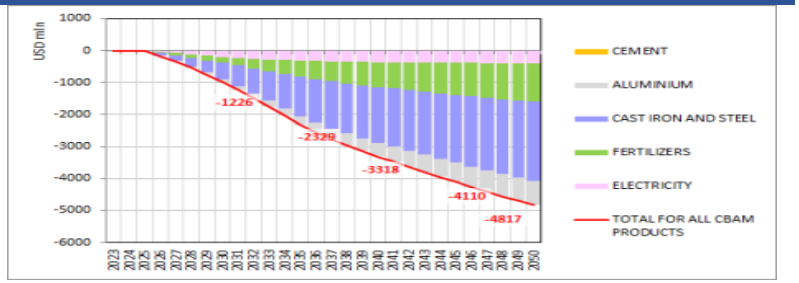
(c) Scope 1+3; CP_{eu}=100 euros/tCO$_2$; CP_{ru}=0.5* CP_{eu} and is introduced to ensure the fiscal neutrality CI_{eu}=const; CI_{ru}=const, but a value some 20-30% below average is used for the exporters



(d) Scope 1+3; CP_{eu}=100 euros/tCO$_2$; CP_{ru}=0.5* CP_{eu} and is introduced to ensure the fiscal neutrality CI_{eu}=const, CI_{ru}=const



(e) Scope 1+3; CP_{eu}=100 euros/tCO$_2$; CP_{ru}=0.5* CP_{eu} CI_{eu}→0, CI_{ru}=const

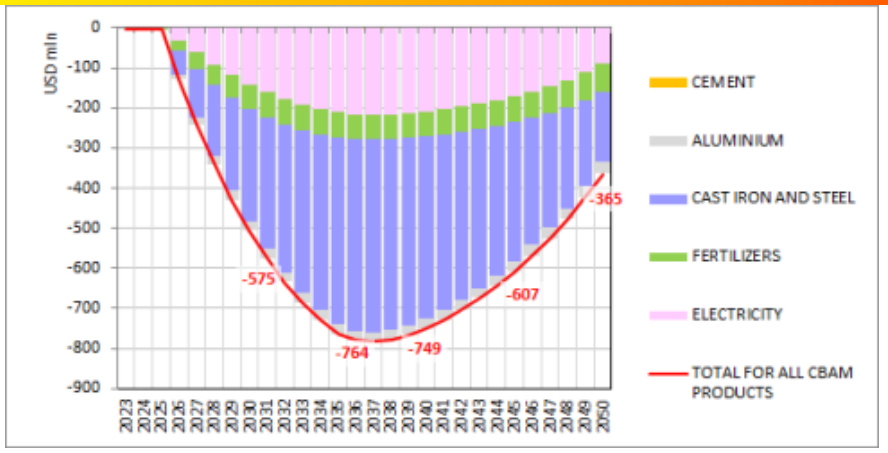


(f) Scope 1+3; CP_{eu}=100 euros/tCO$_2$; CP_{ru}=0.5* CP_{eu} CI_{eu}=const, CI_{ru}=→0

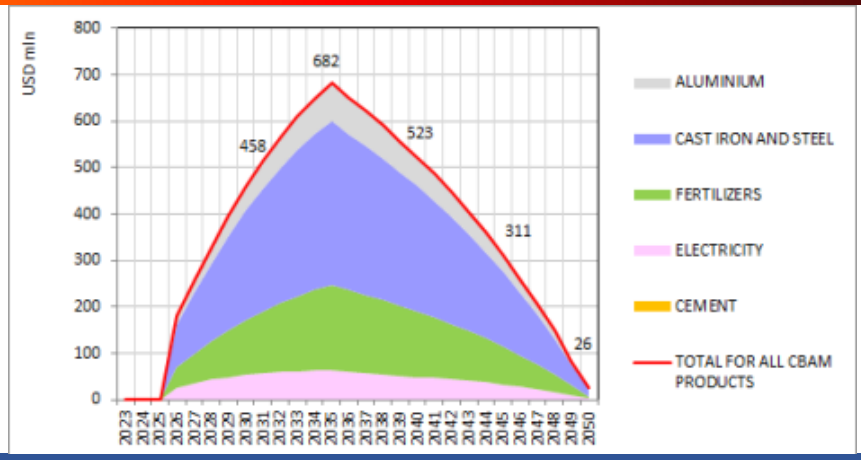
*CI is carbon intensity; $CPeu$ and $CPru$ are carbon prices in the ETS and in Russia.

Source: CENEf-XXI.

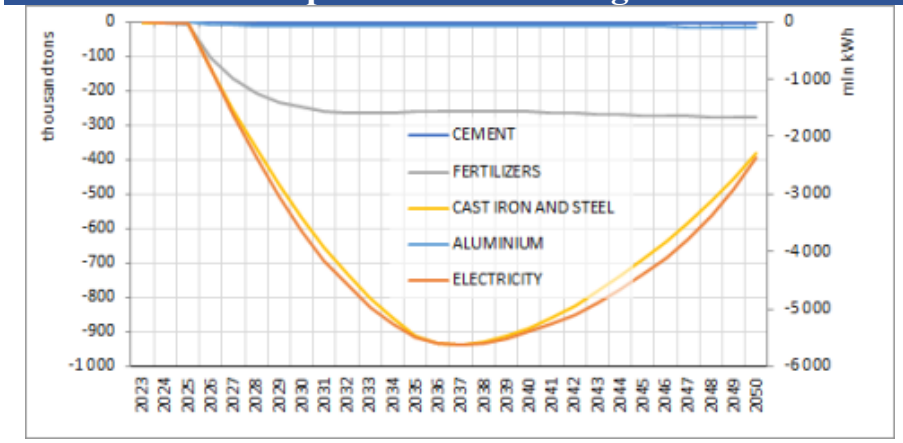
Complete CBAM-products decarbonization scenario in Russia and EU. Market losses are scaling up to €0.8 billion by 2035. but then decline to €0.4 billion by 2050 (with Russian carbon price=50% of ETS price)



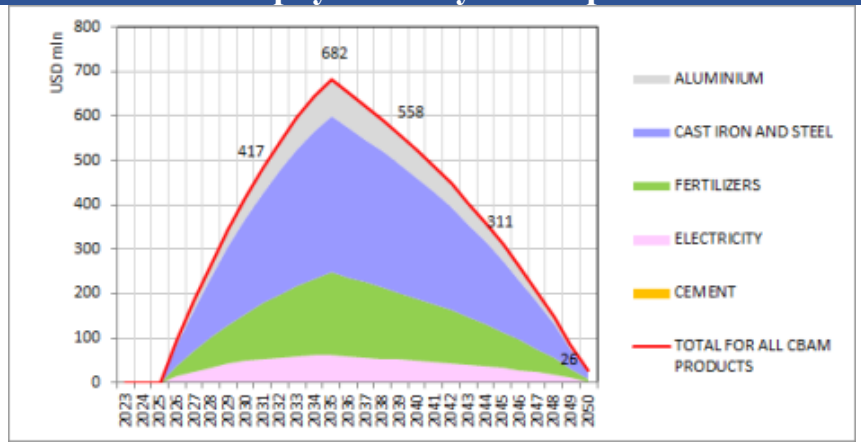
Export revenues change



CBAM payments by EU importers



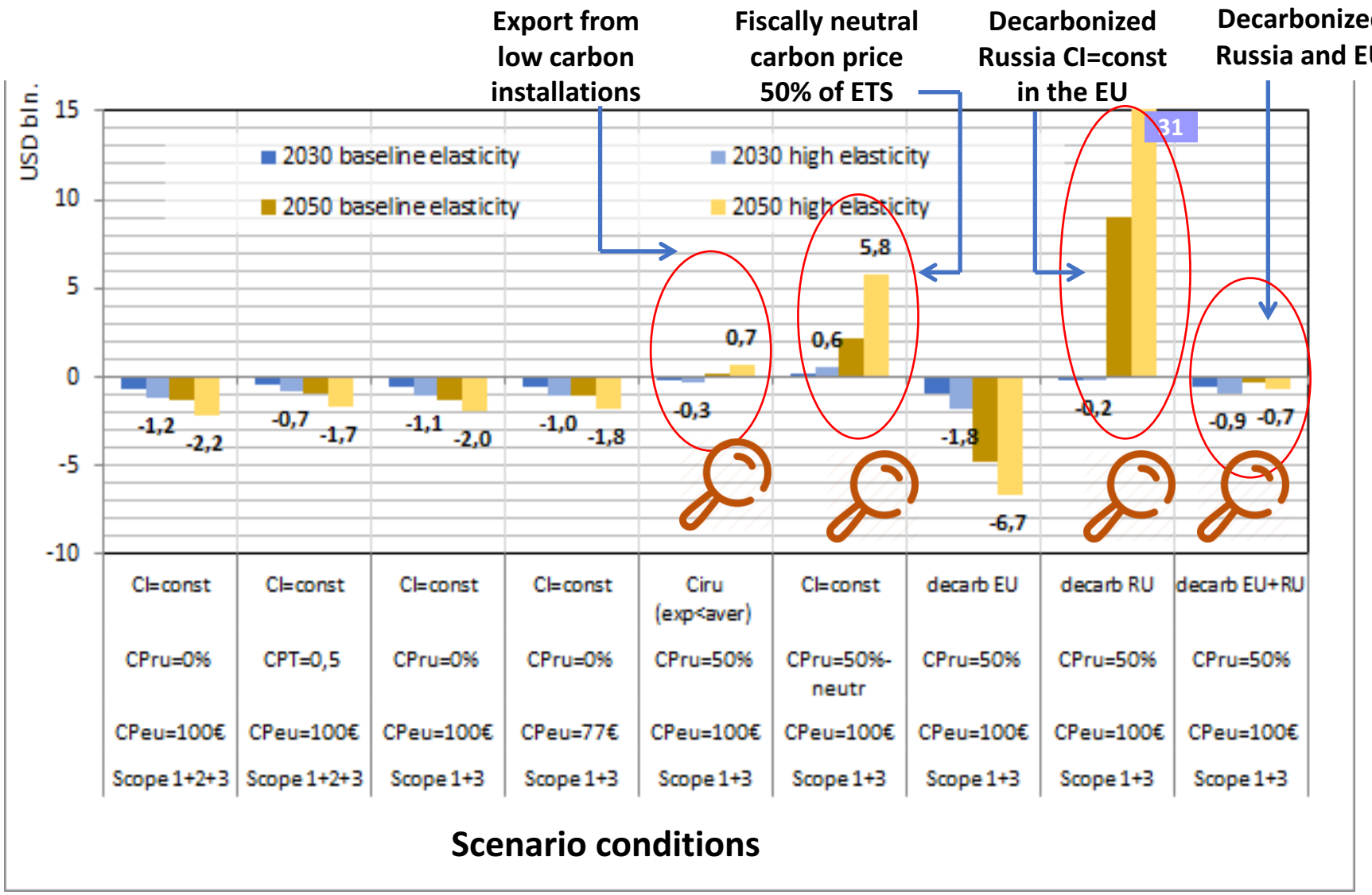
Export volumes change



Carbon payments in Russia

Source: CENEf-XXI.

10 scenarios were run using CENEf-XXI CBAM-RUS model
Proactive GHG emissions reduction policies in the industrial sector might help avoid export revenue losses



There is time to respond. If it is wasted, the small could become big.
WHAT CAN RUSSIA DO?

- Develop a clear position and negotiate the CBAM scheme with the EU
- Establish a system of mandatory data collection to estimate carbon intensity of Russian products; determine responsibility for the data quality and data submission;
- Develop Russian benchmarking systems: **БенчМаркинг** Russian system for ferrous metallurgy carbon intensity benchmarking
- Approve an ambitious *Low Carbon Development Strategy to 2050. A* third draft with an intention to achieve carbon neutrality by 2060 is in place
- Provide incentives for the production of low carbon materials and high added value products
- Win new markets, including low carbon ones

Lagging behind in a technology race means losing even the current market niches, leave alone market expansion

The scenario “The world goes to the ‘green’ future, while Russia mills around in the ‘red’ present sadly looking after” is not appropriate for us!

Thank you!

The full report is available at www.cenef-xxi.ru

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