

EU CLIMATE LEADERSHIP REQUIRES WATERPROOF CARBON LEAKAGE MEASURES



WHY A CARBON BORDER MEASURE NEEDS TO COMPLEMENT TEMPORARILY FREE ALLOCATION AND INDIRECT COSTS COMPENSATION IN THE TRANSITION TOWARDS CLIMATE NEUTRALITY

This paper clarifies the reasons why it is appropriate from environmental, economic and legal perspectives to implement initially a carbon border measure as a complementary provision in addition to the existing carbon leakage measures.

The EU Green Deal is a landmark for the EU leadership in the international fight to climate change. The Green Deal proposes to step up substantially not only the long-term climate objectives for 2050 but also the short-term ones for 2030. Considering the current Intended Nationally Determined Contributions (INDCs) of international partners, this is likely to increase even further the differences in levels of ambition worldwide. This trend can be assessed by the end of 2020, when signatories of the Paris Agreement need to submit their final NDCs as well as their mid-century strategies.

In this context, avoiding the risk of carbon leakage is a pre-condition for preserving both the environmental integrity of EU climate policy and industrial competitiveness, since it contributes to reduce emissions at global level while maintaining jobs and investments in Europe. This will also be instrumental in facilitating the social acceptance of EU leadership in climate ambition.

Due to the market characteristics of the sector, tackling successfully the risk of carbon leakage in the steel industry is particularly relevant. As recognised in the 2018 Commission Communication “A clean Planet for All” as well as in the 2015 Impact Assessment accompanying the Commission proposal on the post 2020 EU ETS Directive, the steel sector is the most exposed among all energy intensive industries, both in terms of possible impact on output and on investment.

The Green Deal underlines that the risk of carbon leakage can materialise in different forms, “*either because production is transferred from the EU to other countries with lower ambition for emission reduction, or because EU products are replaced by more carbon-intensive imports*”. As long as there is no international binding agreement with a global carbon price and equivalent efforts, it is essential that the EU legislation adopts effective measures that avoid all forms of leakage in the short term but also in medium term.

While free allocation is designed mainly to address the risk of production relocation, a carbon border measure can be an effective instrument to address structurally the emissions embedded in trade. This measure should take into account the carbon intensity and related costs in the EU and compare them with third countries.

The border measure should be applied for a transition period until breakthrough technologies reach sufficient market penetration and CO₂-lean products represent a critical mass in the market. It represents a broader contribution to a clean planet, as it is also an effective tool of political diplomacy to foster climate ambition in third countries so that deeper emission reductions are delivered globally. Furthermore, it would provide additional revenues to the EU that should be fully

used for climate measures, in particular for the development and upscaling of industrial breakthrough technologies.

An effective carbon border measure needs to take into account both direct and indirect costs of the EU ETS and to create incentives for third countries' competitors to implement similar emission reductions. As proposed by the Commission, it should apply initially only to few sectors and others could opt in gradually. In the case of steel, it could initially apply only to steel finished and semi-finished products such as coils, slabs, plates, bars, billets, etc, and be extended to steel input materials (scope 3 emissions). A workable solution should preserve also those downstream products that are primarily based on steel, such as tubes, fasteners and wire drawings. The EU could adopt "Agreements of Equivalence" with third countries that either join the EU ETS or have identical CO₂ cost constraints for their industry, in which case there will be no border measure.

The effectiveness of the border measure will depend on the details of its design and its ability to tackle delicate issues such as the risk of absorption and source shifting.

With regard to the former, it is important to consider that EU carbon costs are applied to the entire EU production, while any border measure would likely apply only to the marginal tonnes that third countries' producers export to the EU, hence having the possibility to absorb such costs throughout their entire production. As an example, an EU producer with a total production of 5 million tonnes of steel and an average carbon cost of 10€/tonne will pay €50 million, while a third country producer with the same total production but exporting to the EU 5% of its production (250,000 tonnes) would face only costs of €2.5 million, which are much easier to absorb. By doing so, the EU imports would still set the price at a low level that does not reflect the actual carbon cost. From the example, it is clear that a measure based on average carbon costs spread over the entire EU steel production would not align the true costs of EU domestic producers with those of imports, continuing to erode EU domestic steel producers' competitiveness and render EU climate legislation increasingly ineffective.

Source shifting refers to the possibility that a third country producer exports to the EU the low carbon footprint products while selling products with high embedded emissions in other markets. This practice, which is prohibited in the Californian ETS, may prove difficult to identify and discipline.

These complex issues need to be fully solved in order to have an effective carbon measure. Applying full auctioning as soon as the border measures is implemented would expose the whole EU production to the full carbon costs in the decisive period where breakthrough technologies are being developed and upscaled. As long as EU imports would be setting the steel price at lower value, this situation would cause the concrete risk of leaking emissions, jobs and investments to third countries, hence undermining on one side the environmental integrity of the mechanism and on the other side the social acceptance of EU leadership in climate policy. This would be counterproductive for the successful implementation of the Green Deal.

Against this background, and considering all the elements below, it is essential that a carbon border adjustment is implemented as a complementary measure in addition to existing carbon leakage provisions in the transition towards climate neutrality:

- A carbon border measure aims to reach the combined environment objectives of the EU policy: reducing emissions, avoiding carbon leakage and complying with the costs of the cap & trade system. A complementary border adjustment would not lead to double protection, since existing carbon leakage measures are already partial and digressive. In fact, even with free allocation and compensation, EU producers bear carbon costs that are not applied to extra EU competitors. This divergence will further increase in the future.
- Moreover, EU producers are subject not only to compliance costs for the difference between their emissions and free allocation and between indirect costs and compensation (i.e. the

“trade” element of the EU ETS), but also to the full abatement costs that are necessary to develop the breakthrough technologies required to fulfil the emission reduction targets (i.e. the “cap” element of the EU ETS). A border adjustment replacing the existing carbon leakage measures would undermine their financial ability to invest in those technologies.

- While it is important to develop the border adjustment as soon as possible, its implementation should not lead to abrupt modifications of existing provisions in order to secure legal certainty for long term investment decisions. In particular, rules on carbon leakage measures for the period until 2030 have been adopted very recently and should not be modified.
- A carbon border measure implemented as a complementary instrument would also reduce the direct impact on trade flows and would mitigate trade tensions as it would provide a longer transition for negotiations with international partners to align climate ambition.
- Similarly, a border measure complementary to free allocation and indirect costs compensation would decrease the product price impact on downstream sectors within the EU, hence better preserving the entire value chain.
- As long as it is uncertain whether a border measure may address the environmental and competitiveness concerns linked to EU exports in third countries, a border measure with full auctioning for EU producers would burden them with the full carbon costs, thereby undermining their ability to access export markets.
- If a carbon measure is implemented with full auctioning for some sectors, the legal framework will lead to significant distortions of competition against other sectors that are still largely shielded from the carbon costs through free allocation and indirect costs compensation.
- It is clearly possible to design a WTO compliant carbon border measure that complements free allocation and indirect costs compensation in a transition period, since there is no WTO legal obligation to reduce or phase out these measures.

While a border adjustment based on the equivalent direct and indirect ETS costs can be an effective measure in the initial transition phase, a long-term regulatory framework is required for the advanced transition phase and the post-transition, i.e. when the breakthrough technologies reach sufficient market penetration and CO₂-lean steel represents a critical mass of the market, but operation costs are still significantly higher than for competitors with CO₂-intensive production. Such framework should be based on the actual CO₂ footprint of the product over the entire life-cycle, requiring the development of a proper accounting system, both at EU level and at the border



GENERAL WTO ASPECTS OF A CLIMATE BORDER MEASURE

1. National measures to address climate change which have an impact on trade can be compatible with WTO law.

WTO law must be interpreted '*in the light of contemporary concerns of the community of nations about the protection and conservation of the environment*'.

WTO Appellate Body (AB) in *US-Shrimp*, October 1998

'the results obtained from certain actions, for instance, measures adopted in order to attenuate global warming and climate change can only be evaluated with the benefit of time'.

AB in *Brazil-Retreaded Tyres*, December 2007

2. These national measures can include border measures.

A border measure does not have to be identical to the domestic measure.

GATT Article XX

There is a *requirement of even-handedness* but without the requirement of *identical treatment of domestic and imported goods*.

AB in *US-Gasoline*, May 1996

If there is '*a genuine relationship of ends and means*' and the border measure makes a '*material contribution*' to the achievement of the environmental objective then a border measure can be considered '*necessary*'.

AB in *Brazil-Retreaded Tyres*

3. The EU can legitimately have higher climate ambitions than other countries.

WTO law recognises the EU's sovereign right to set as high a level of protection of the environment as it determines to be appropriate. This right is not unfettered. If the high ambition includes a border measure then it must not be *a disguised restriction on international trade* or *discriminate between countries where the same conditions prevail* or *discriminate between imported and domestic goods*.

GATT Articles III and XX



High EU standards can have the *de facto* effect of exporting those standards to companies wishing to sell into the EU market. This is most clearly seen, for example, in the health and safety of imported foods or chemicals complying with REACH. This *de facto* effect is not incompatible with trade law.

4. The Climate Border Measure should not be a tariff or import charge

To avoid a GATT II inconsistency, the triggering of the imposition of the charge must not be *importation* itself but an *internal factor* such as consumption.

AB in China-Auto Parts, January 2009

GATT Article II prohibits the imposition of *duties or charges of any kind* in excess of the tariffs set out in a Member's Country Schedule.

5. 'As Such' and 'As Applied': the Architecture of the EU's border measure

WTO Panels and the Appellate Body judge if a measure is compatible with WTO law 'as such' or 'as applied'. An 'as such' review examines whether the national law itself is compatible with WTO law. An 'as applied' review examines whether the WTO member has acted in breach of WTO law when applying the national law.

The shape or architecture of the EU's carbon border measure must aim at 'as such' compliance.

6. The Architecture of a border measure must address the EU's climate objective

[W]e consider that a measure's purposes, objectively manifested in the design, architecture and structure of the measure, are intensely pertinent to the task of evaluating whether or not that measure is applied so as to afford protection to domestic production.

AB Chile-Taxes on Alcoholic Beverages, December 1999



The EU has chosen to achieve carbon neutrality by restricting the right to emit carbon. This policy addresses the carbon footprint of goods manufactured in the EU. This is a market-based approach (as opposed to a tax or standards approach).

As the EU has an internal a market-based mechanism imposing a market-based mechanism at the border is not likely to be considered WTO incompatible 'as such'. A tax based approach at the border might be.

7. Carbon leakage

Recital 24 of Directive 2009/29 addresses two types of carbon leakage: emissions imbedded in imported goods, and emissions from industries that could leave the EU. The substantive provisions of the Directive only address carbon leakage from moving manufacturing abroad. Rules in relation to the carbon footprint of imported goods have not been elaborated.

WTO law does not require that the means to avoid carbon leakage in imports are identical or even exactly mirror the avoidance of carbon leakage through moving manufacturing abroad. If they are considered different aspects of carbon leakage they can be addressed differently.

8. Technical or Product Standards

WTO members retain the sovereign right to set whatever standard they consider appropriate to achieve a legitimate public policy objective. The EU defends this right even to the point of setting standards for hormones in beef or on genetically modified organisms (GMOs) which some consider are in breach of WTO law.

The standard would apply equally to domestic and imported goods. Products not meeting EU standards cannot be present in the European Union (whether produced domestically or abroad). These standards could be tightened over time.

9. Conclusion

If EU policy is that all goods consumed in the EU must comply with the EU's carbon emissions reduction policy then a properly constructed border measure can comply with WTO law.



SPECIFIC ELEMENTS OF A CLIMATE BORDER MEASURE

Any cost to be imposed on imports to be consumed in the EU should be at a level appropriate to the high level of the EU's climate objective.

The EU's policy of limiting and reducing emissions over time must also be applied to goods imported for consumption in the Union.

The EU's climate objective cannot be achieved if production is shifted to countries with less ambitious objectives and thus less production cost. Therefore, the risk of carbon leakage can be addressed by a Climate Border Measure. Carbon leakage will not be prevented if the overall burden on imports is less than the overall burden on EU manufacturing. This in turn requires measures to prevent the absorption of any costs by exporting producers or the sending of low carbon footprint goods to the EU and diverting high carbon footprint goods to markets with standards lower than the EU.

GATT Article III

In relation to the cost burden, GATT Article III provides that there should be no discrimination between imported and domestically produced goods. In other words, the carbon cost burden on imported goods should not be *in excess of* the carbon cost burden on *like or substitutable/competitive* EU products.

The exact carbon cost burden on an EU manufacturer for a particular good at any one time will always be a matter of fact. This implies that some sort of mechanism will be required to set the exact cost burden on the imported good. The import cost burden mechanism cannot operate so as to allow carbon leakage and therefore must also address the wider carbon reduction objectives.

GATT Article XX

If a border measure which reflects a high level of climate ambition is in breach of GATT Article III, recourse to the exceptions in GATT Article XX will be required.

The key to a successful recourse to GATT Article XX is that any discrimination or trade restriction is done for authentic environment/health related considerations.

To come within GATT XX, the border measure must be shown:

- to be *necessary* to protect human, animal, plant health (GATT XX(b))
- to *relate to* the conservation of exhaustible natural resources (GATT XX(g))

And, if it passes either one of these first two tests, the chapeau of GATT XX provides:

- It must not be a disguised restriction on international trade, or
- Constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail.

An import cost burden mechanism is in line with the general legal requirement (reflected in the EU *Outokumpu Oy* case from April 1998 – Case C-213/96) that there must always be a mechanism that allows importers to show the actual conditions of the imported good.

A mechanism of this nature would have to allow, for example, adjustments for countries participating in the EU's ETS or its equivalent or for products that have already incurred specific costs.

Burden of Proof

It need not be problematic from a WTO law perspective if the burden of proof both in relation to actual emissions and actual costs already incurred is on the importer.

Flexibility for EU importers at company and/or country level

GATT Article I prohibits discrimination between imports based on origin. Thus exempting, *per se*, imports from certain origins on the basis of carbon policies could breach this provision. However, *Canada-Autos* (February 2000) indicates that origin neutral measures which evaluate production processes in particular countries could be WTO compatible. This reasoning might well apply to a country that participated in the EU's ETS or had an equivalent ETS system in place.

EU policy seeks to reduce emissions by placing limitations and costs on emissions. This results in a cost burden per tonne of steel. The border measure must materially



contribute to this objective of limiting and costing emissions while seeking, as far as possible, not discriminating between imported and domestically produced goods.

If, in the production of the imported good, emission limitations or costs have already been incurred, whether those limitations or costs are due to third country public policy or individual company policy, then those limitations and costs must be taken into consideration in ensuring no discrimination on the goods themselves within GATT Article III and on the origin within GATT Article I, so long as to do so would not undermine the EU's overall climate policy.

It is reasonable to think of border cost burden mechanism that, when evaluating the emissions of a particular good, would provide that if the good came from a particular origin (whether country or company) a pre-evaluated amount of emissions (or cost) might be provisionally recognised (so as to facilitate trade and ease of border evaluation). This evaluation would have to be based on verified evidence rather than political assumptions and a mechanism to contest the provisional evaluation should be available to importers.

Risk of Absorption and Source Shifting

A third country producer could export its low carbon footprint steel to the EU and sell its high carbon footprint steel on the domestic market or in markets with lower climate ambitions than the EU (source shifting).

Or a third country producer could absorb the EU carbon costs imposed at the border if the percentage of exports to the EU as against its total sales was low and there were no carbon emission costs on the other volumes not exported to the EU (absorption).

A border measure that addresses absorption and source shifting need not, *per se*, be incompatible with WTO rules. At the same time, it can be complex. GATT Article III applies to the good traded rather than total production of all the goods from the country of origin or the manufacturer. This indicates that a provision in the border measure addressing total company or country emissions so as to avoid source shifting and absorption would have to be designed to come within GATT XX.

It can be expected that addressing absorption and source shifting will require the development of a sophisticated monitoring and enforcement mechanisms. These types of mechanisms are common in trade and can be seen in trade defence instruments or in ensuring the health and safety of foods and agricultural products.



Abatement costs

Abatement investment costs are incurred today with the object of a future benefit. Given the view of the WTO Appellate Body in *Brazil-Retreaded Tyres* (cited above) the legality of one part of a border measure addressing the issue of abatement and which made a material contribution to the EU's carbon reduction policy does not appear to be *per se* incompatible with WTO law. Compatibility will depend on the issues of *material contribution* and *necessity*.

To the extent that EU law requires abatement or sets specific carbon reduction targets for specific products these policies could be reflected in the border measure.

Transition and complexity

There is nothing inherently incompatible with WTO law if the EU's carbon border measure is phased-in over time and is made up of a variety of elements.

The transition to carbon neutrality can also be complex and the fact of complexity does not make it WTO incompatible. This could see the possibility of evolution of the two types of carbon leakage policies (addressing emissions in imports and avoiding the flight of manufacturing) independently of each other if there is an environmental justification for such difference within the EU's high level of ambition.

THE EU STEEL INDUSTRY IS AT HIGH RISK OF CARBON LEAKAGE

Even though the steel sector (NACE 2410) is included in Annex I of the draft Guidelines as eligible for compensation, the study by ADE and Compass Lexecon (consultants' study) at page 33 classifies the sector only at medium risk. As we do not have access to the underlying data of this classification, we would like to make the following remarks, which indicate that also the steel sector should be considered at high risk:

- The indirect emission intensity (indirect emissions/Gross Value Added) of the steel sector (which in the consultants' study is defined as more relevant than trade intensity) is higher than three out of four sectors defined at medium-high risk (leather clothes, inorganic chemicals and pulp).
- Since the steel industry is very labour intensive, the GVA is highly affected by the labour costs. If labour costs are excluded from the calculation (i.e. the GVA is replaced by GOS), the steel sector has the third highest indirect carbon leakage indicator among the 8 eligible sectors.
- Among the 8 eligible sectors, the steel industry has the second lowest profitability indicator Gross Operating Surplus on Turnover) according to Eurostat.
- Steel is one of the most traded goods worldwide and, at the same time, the one where the large majority of anti-dumping investigations have been initiated by G20 countries¹. This is a clear sign of the fact that the sector is suffering from trade distortions at global level.
- As a result of the combined effect of increasing imports and decreasing exports, the EU became net importer in terms of quantities in 2013 and in terms of value in 2015. In 2014, the EU imported 26,3 million tonnes of steel while, in 2019 the imports were 34,7 million tonnes.
- The large number of anti-dumping and anti-subsidies cases clearly indicates that the EU steel sector is a price taker as the EU market price is inevitably affected by dumped imports even if there is no significant trading in official international exchanges.
- The anti-dumping and anti-subsidy measures are punctual measures limited to one product at the time and per country. They address unfair trade practices and aim only at re-establishing a level playing field but do not prevent those countries from exporting large quantities to the EU.
- Given the massive global overcapacities in the steel sector, once the injurious imports from a country are limited thanks to the anti-dumping and/or anti-subsidy measures, other countries can easily replace them (as widely occurred recently).
- In adopting ex officio the EU steel safeguard measures in reaction to the US 232 tariffs, the EU has recognised that anti-dumping and anti-subsidy measures were not enough to tackle the massive trade diversion deriving from US tariffs.
- However, the EU steel safeguard are exceptional, temporary measures to expire on 1 July 2021 (hence, they are not relevant for the EU ETS phase 4 under discussion in this assessment). They aim at mitigating the risk that trade flows are diverted from the US to the EU.
- Unfortunately, due to the design of the mechanism (i.e. reference volume of imports, liberalisation, carry over, etc.), in 2019 the EU steel safeguard measures have not prevented multiple, severe, market disruptions in the EU. Weak steel demand, increased protectionism worldwide (leading to trade diversion) and worsening overcapacities caused more than 15,000 jobs redundancies in 2019.
- The steel industry is highly affected the fuel-electricity exchangeability which causes the risk of increasing direct emissions (both within the EU and internationally) if indirect costs compensation is not effective.
- A [study by NERA Consulting](#) commissioned by EUROFER has clearly concluded that due to the market characteristics, the steel sector cannot pass through unilateral carbon costs without loss of market shares.

¹ Report on G20 Trade and Investment measures, OECD, November 2019

<http://www.oecd.org/daf/inv/investment-policy/22nd-Report-on-G20-Trade-and-Investment-Measures.pdf>

1. Introduction

The EU ETS Guidelines are an essential element of the legal framework that aims at preventing the risk of carbon leakage. In previous publications of the European Commission (e.g. 2015 Impact Assessment accompanying the post 2020 EU ETS Directive proposal, and 2018 Impact assessment accompanying the Communication “A Clean Planet for All”), the steel sector had been identified at highest risk of carbon leakage.

Financial compensation of indirect costs is essential for both the electric arc furnace (EAF), which has very high electro-intensity because it uses large amount of electricity to melt and recycle scrap, and the integrated route, which consumes electricity produced from the combustion of recovered waste gases generated unavoidably by the steel making process. Financial compensation for this case is explicitly mentioned in recital 13 of the post 2020 EU ETS Directive in order to preserve the incentive to recover waste gases, since free allocation is granted only partially for waste gases’ emissions.

2. Indirect carbon leakage indicator and indirect costs’ impact without labour costs

For consistency with the free allocation rules and the ETS Directive, the indirect carbon leakage assessment indicator (ICLI) is based on the multiplication between trade intensity and indirect emissions intensity (kg CO₂ indirect emissions/ € GVA). In this assessment, the steel sector (NACE 2410) has the second last value, which is then reflected also in the red-amber-green (RAG) assessment in the consultants’ study.

	Sectors	Indirect carbon leakage indicator	Trade intensity	Indirect emission intensity [kg CO ₂ / EUR GVA]	RAG rating
NACE		2013-2015	2013-2015	2013-2015	
1411	Manufacture of leather clothes	1,148	83,00%	1,383	Medium-high
2442	Aluminium production	1,060	35,20%	3,011	Medium-high
2013	Other inorganic basic chemicals	0,734	54,00%	1,359	Medium-high
2443	Lead, zinc and tin production	0,620	30,60%	2,025	Medium-high
1711	Manufacture of pulp	0,522	48,10%	1,085	Medium-high
1712	Paper and paperboard	0,412	27,80%	1,482	Medium
2410	Basic iron and steel and of ferro	0,363	25,70%	1,414	Medium
1920	Refined petroleum products	0,266	25,80%	1,031	Medium

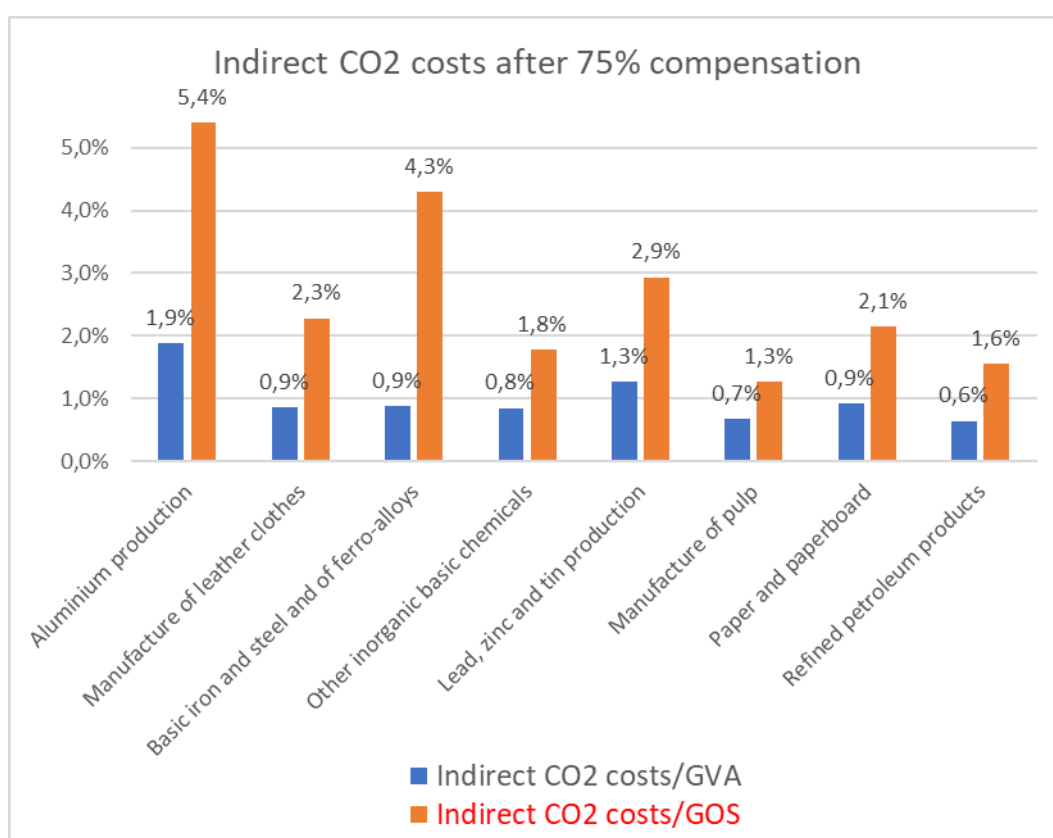
Source: consultants’ study

This assessment is highly influenced by the use of the GVA in the denominator of the indirect emission intensity. Since the steel industry is very labour intensive, the GVA is affected significantly by the labour costs. If labour costs are excluded from the calculation (i.e. the GVA is replaced by GOS), the steel sector has the third highest indirect carbon leakage indicator and the second highest indirect emissions intensity among the 8 eligible sectors.

	Sectors	Indirect carbon leakage indicator (GOS instead of GVA)	Trade intensity	Indirect emission intensity [kg CO ₂ / EUR GOS]
NACE		2013-2015	2013-2015	2013-2015
2442	Aluminium production	3,045	35,20%	8,649
1411	Manufacture of leather clothes	3,029	83,00%	3,650
2410	Basic iron and steel and of ferro	1,763	25,70%	6,859
2013	Other inorganic basic chemicals	1,543	54,00%	2,858
2443	Lead, zinc and tin production	1,437	30,60%	4,696
1711	Manufacture of pulp	0,980	48,10%	2,037
1712	Paper and paperboard	0,955	27,80%	3,436
1920	Refined petroleum products	0,641	25,80%	2,483

Source: recalculations based on consultants' study (GOS figures from Eurostat)

Similarly, the section 3.1.1 on aid intensity and degressivity of the consultants' study assesses the impact of indirect costs (with a carbon price of 25€/t) after 75% compensation taking into account the GVA. In such assessment, among the 8 eligible sectors, the steel industry has around the fourth indirect costs impact (after 75% compensation), which is comparable to the sectors with the lower impact (blue bars below). Yet, if labour costs are excluded from the denominator (i.e. the GVA is replaced by GOS), the steel sector have very clearly the second highest impact (orange bars below), with a large difference above the remaining sectors.



Source: recalculations based on consultants' study (GOS figures from Eurostat)

The above analysis is even more relevant if one considers the profitability of the eligible sectors. In fact, the steel sector shows the second lowest profitability indicator (Gross Operating Surplus/Turnover) among the 8 eligible sectors.

Gross Operating Surplus/Turnover	2013	2014	2015	2016	2017	Average 2013-17
C1920 - Manufacture of refined petroleum products	0,8%	-0,3%	3,7%	5,1%	5,0%	2,9%
C2410 - Manufacture of basic iron and steel and of ferro-alloys	2,4%	3,9%		5,1%	6,5%	4,5%
C2442 - Aluminium production	5,4%	5,5%	6,0%	6,6%	7,1%	6,1%
C2443 - Lead, zinc and tin production	6,9%					6,9%
C1712 - Manufacture of paper and paperboard	7,1%	9,0%	9,8%	10,1%	10,5%	9,3%
C1411 - Manufacture of leather clothes	10,3%	10,1%				10,2%
C2013 - Manufacture of other inorganic basic chemicals	10,8%	12,6%	14,6%	15,8%	8,6%	12,5%
C1711 - Manufacture of pulp	12,4%			14,0%	15,1%	13,8%

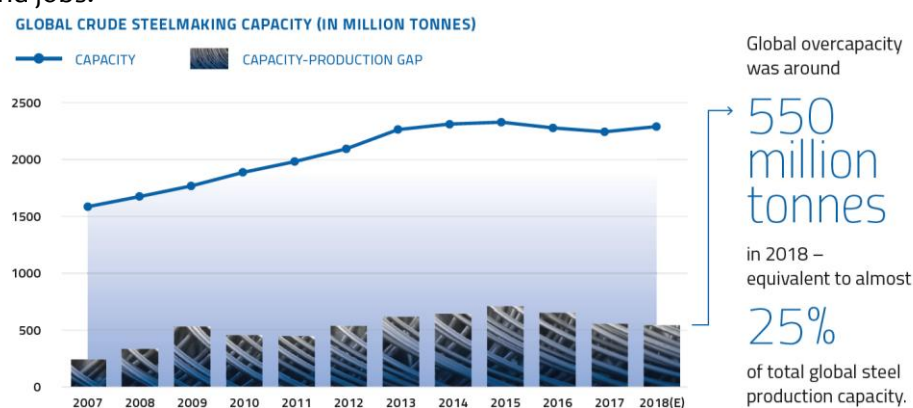
Source: Eurostat

3. Overcapacities: a structural problem of the steel industry

Faced with an unprecedented crisis generated by the trade spill overs of Chinese excess capacity, the EU activated its trade defence tools to defend EU industry from unfair trade for a total of 25 trade defence measures. However, these efforts address the effects of global overcapacity on trade – not its root causes.

To that effect, the EU led the December 2016 creation of **the Global Forum on Steel Excess Capacity**, bringing together 33 economies – all G20 members plus interested OECD countries.

The global surplus in steelmaking capacity has slightly decreased since the Forum's creation but in 2018 is still more than 500 million metric tonnes, an alarmingly high-level equivalent to one quarter of the world's total capacity. This structural surplus floods world markets as soon as there is a cyclical downturn – with yet again a damaging impact on the steel sector, as well as related industries and jobs.



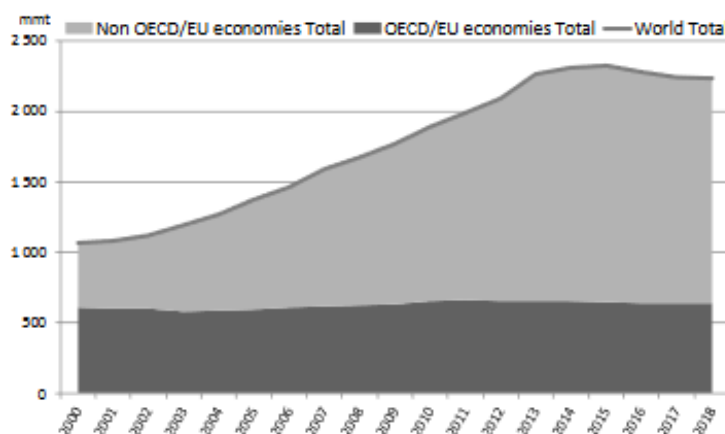
Source: OECD

On 26 October 2019, the Ministerial meeting of the Global Forum on Steel Excess Capacity had to take a decision on the renewal of the Global Forum's three-year mandate. On that occasion, there was an overwhelming support by members to continue working to address the persistent global excess capacity plaguing the global steel sector. However, China was the only country that chose not to join the consensus and hence decided to step out of the Forum. The Global Forum welcomed China's efforts to reduce capacity, but equally identified the need for further reductions and the elimination of subsidies causing overcapacity, underlining that these actions are essential to prevent another major global steel crisis. Despite China leaving, the platform remains open to all interested OECD and G20 members, which continue to be invited to join discussions. **However, without China – producing more than half of the world's steel - the effectiveness of the Global Forum is seriously undermined.**

The latest available information (as of 31 December 2018) suggests that global steelmaking capacity (in nominal crude terms) remained nearly unchanged in 2018, following declines in 2016 and 2017. However, information on announced investment projects suggests that, globally, 87.8mmt of gross capacity additions are currently underway (mainly in Asia and middle East) and could come on

stream during the three-year period of 2019-21. An additional 22.4 million tonnes of capacity additions are currently in the planning stages for possible start-up during the same time period.

Figure 1. Evolution of crude steelmaking capacity in OECD/EU economies and non OECD/EU economies



Source: OECD, Latest developments in steelmaking capacity, July 2019

<https://www.oecd.org/industry/ind/recent-developments-steelmaking-capacity-2019.pdf>

4. Trade defence measures

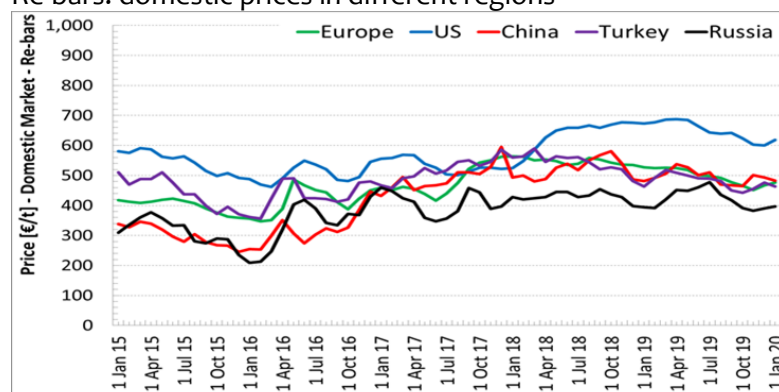
According to the last OECD Report on G20 Trade and Investment Measures, since 2017, metal products accounted for the largest share of initiations (by G20 members) of anti-dumping and countervailing investigations across the reporting periods (July-December 2017; January-June 2018; July-December 2018 and January-June 2019).

The metal's sector accounted for a total of 102 anti-dumping initiations from the second half of 2017 to the first half of 2019. Overall, steel products (HS chapters 72 and 73) accounted for the large majority of these investigations (76 out of 102) –75%².

While steel is a highly-trade good, it is also the one which is subject to the highest amount of anti-dumping measures, clearly showing that the sector is suffering from trade distorting practices.

The large number of anti-dumping and anti-subsidies cases clearly indicates that the EU steel sector is a price taker as the EU market price is inevitably affected by dumped imports. This is also confirmed by the close relationship between steel prices in the EU and in other regions (see graphs below). Most importantly, such relationship remains very close also when trade measures are adopted, clearly indicating that the EU steel market is constantly affected by the global dynamics.

Re-bars: domestic prices in different regions

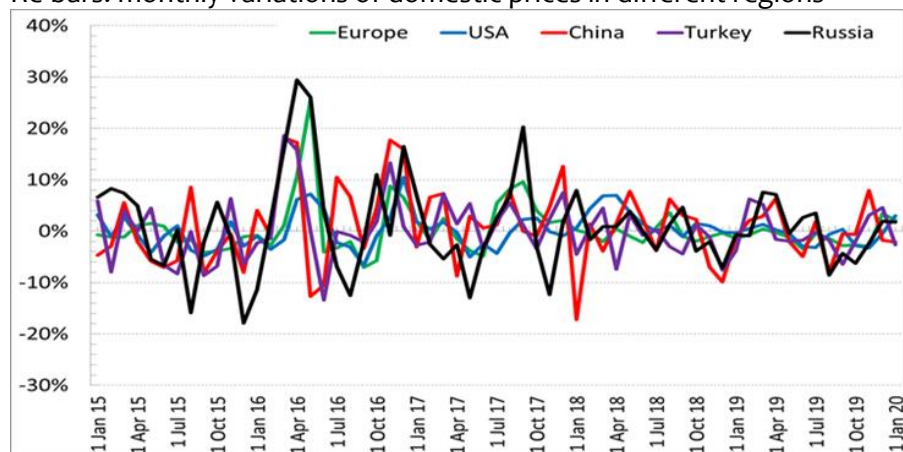


Source: SBB; Indices on Re-Bars, domestic markets; qualities normalised to B500B/C/similar; ex-works/stocks

²Reports on G20 Trade and Investment measures, OECD, November 2019

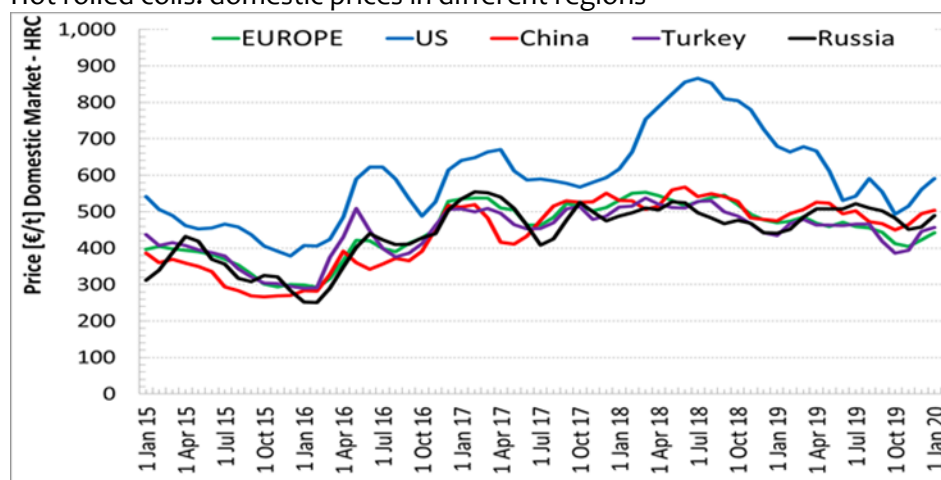
<http://www.oecd.org/daf/inv/investment-policy/22nd-Report-on-G20-Trade-and-Investment-Measures.pdf>

Re-bars: monthly variations of domestic prices in different regions



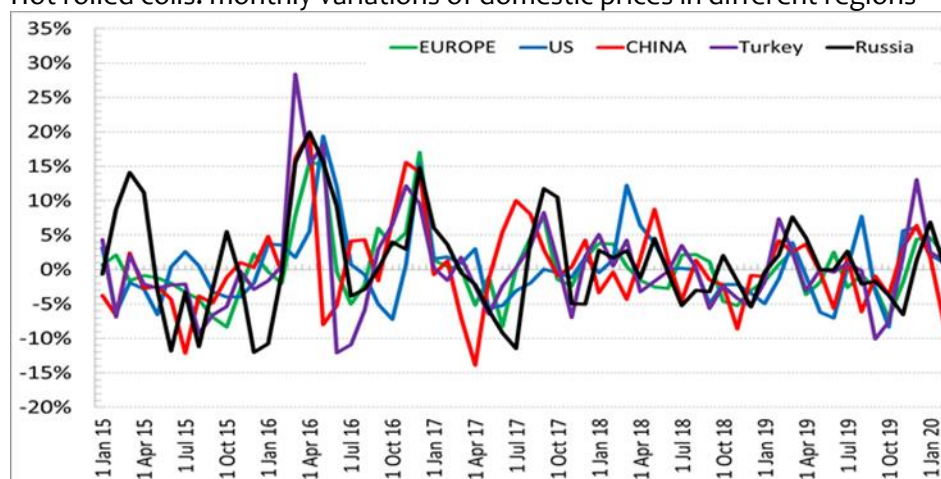
Source: SBB; Indices on Re-Bars, domestic markets; qualities normalised to B500B/C/similar; ex-works/-stocks

Hot rolled coils: domestic prices in different regions



Source: SBB; Indices on HRC, domestic markets; qualities normalised to B500B/C/similar; ex-works/-stocks

Hot rolled coils: monthly variations of domestic prices in different regions



Source: SBB; Indices on HRC, domestic markets; qualities normalised to B500B/C/similar; ex-works/-stocks

a. Anti-dumping and anti-subsidy duties: a punctual reaction to unfair trade practices

While the massive overcapacities in the steel sector are clearly a structural issue which will not be solved in the short term (especially with China stepping out of the Global Forum), trade defence measures are punctual, specific measures, which are limited to a precise product scope and to some specific countries.

Anti-dumping/anti-subsidy measures can be put on imports of specific products if the Commission's investigation justifies it. When it comes to anti-dumping, the Commission's investigation checks if:

1. There is dumping by the producers in the country/countries concerned;
2. The European industry concerned suffers 'material injury';
3. There is a causal link between dumping and injury;
4. Putting measures in place is not against the European interest (hereafter Union interest).

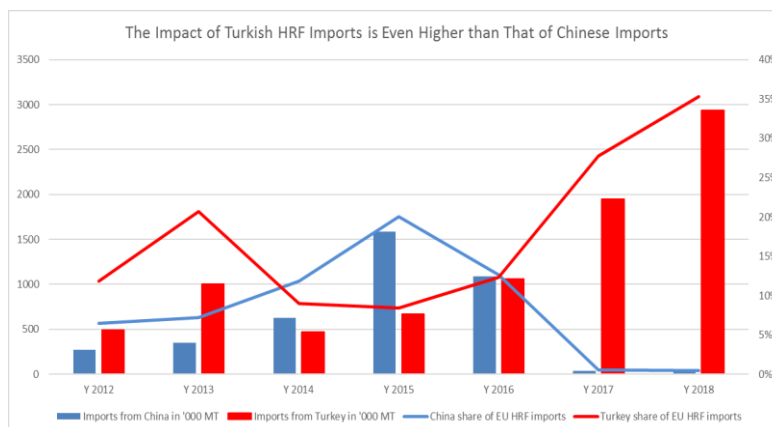
It is only when **all four conditions** are met that the Commission may put anti-dumping measures in place. As mentioned in point 4, in its evaluation, the Commission assesses whether measures in place don't harm the European interest. This is not a mandatory provision under the WTO Anti-Dumping Agreement. In fact, the European Union's legislation contains certain provisions which could be defined as "WTO plus", meaning that they are not mandatory under WTO law. Two examples are: the Union interest and the lesser duty rule (LDR). With regards to the LDR, it is worth noting that the jurisdictions which apply it can decide to impose duties lower than the margin of dumping when these are sufficient to remove injury.

For the above-mentioned reasons, it seems clear that trade defence measures are last resort tools. **The aim of the European Commission is always to struck a balance between domestic industry, importers and users. The reason why the EU imposes those measures is simply to seek a level playing field and tackle unfair trade practices, while considering the interest of the EU as a whole.**

The effectiveness of anti-dumping and anti-subsidy duties can be undermined by the fact that if the imports of a certain product from a certain country decrease following the imposition of the duties, it is not always the case that EU producers will benefit from it. In fact, in a situation of massive overcapacities, the market share that China (and/or other countries whose products are subject to trade defence measures) used to hold has often been replaced by other exporting countries.

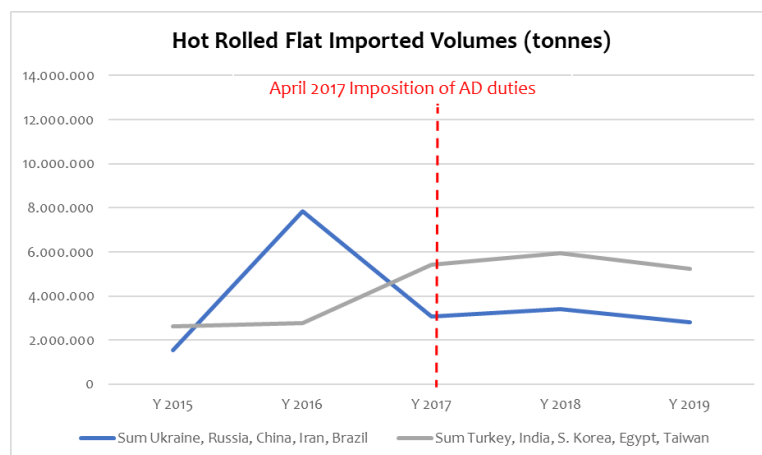
Some examples can be found below:

- Hot Rolled Flat (HRF): The recent surge of Turkish imports is higher than that of Chinese HRF imports back in 2015-2016 when the EU imposed dumping duties on Chinese based on a threat of injury.



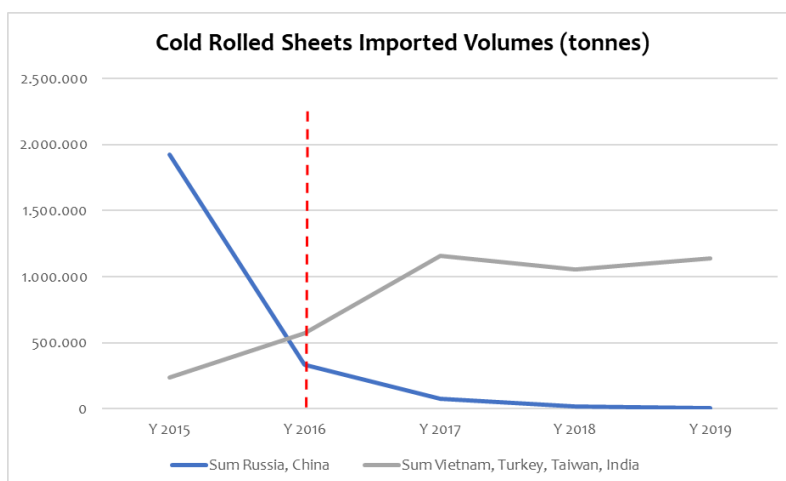
Source: Eurostat

- Hot Rolled Flat (HRF): similarly, the imposition of AD duties on Ukraine, Russia, China, Iran and Brazil was followed by a surge of imports from other countries, notably Turkey, India, South Korea, Egypt and Taiwan.



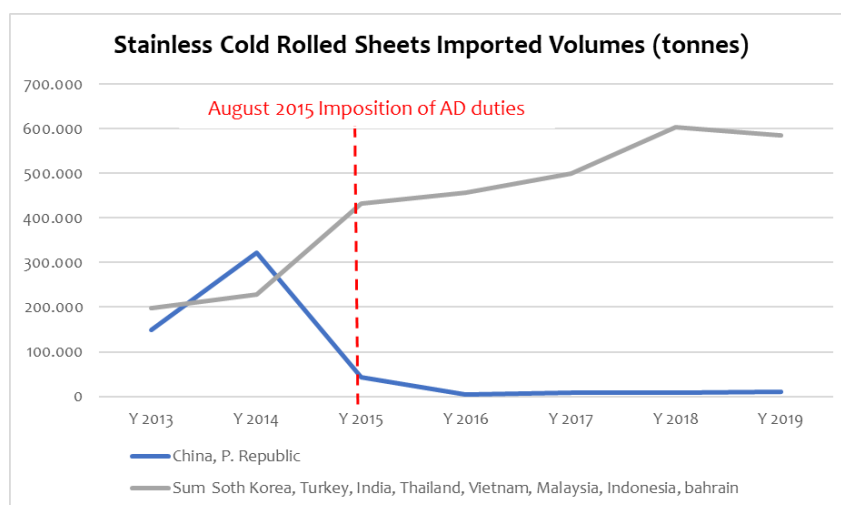
Source: Eurostat

- Cold Rolled Flat: if imports from Russia and China sharply decreased after the imposition of anti-dumping duties, new countries (which were not exporting significant volumes back in 2015) have increased their exports to the EU after 2016.

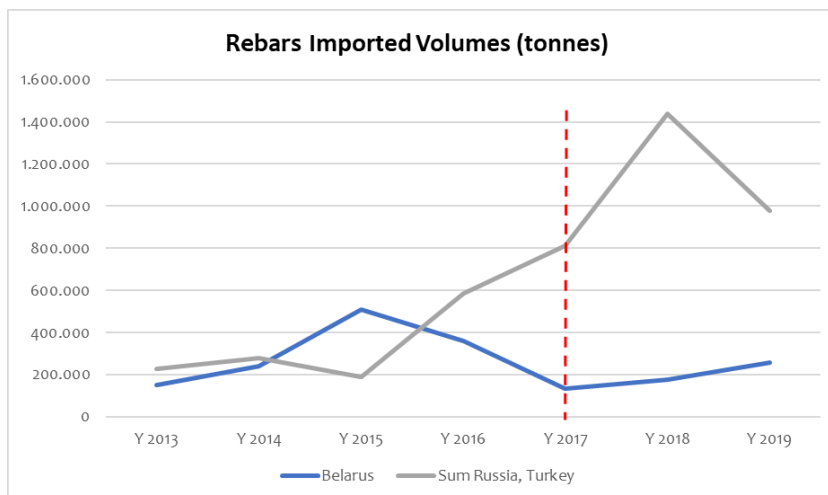


Source: Eurostat

- A similar consideration can be made for Stainless Cold-Rolled Flat and Rebars.



Source: Eurostat



Source: Eurostat

- The import market share of all finished steel products in 2018 was higher than in 2016.



Source: Eurostat

b. EU Steel Safeguard Measures: a temporary solution to exceptional circumstances

The EU has reacted to U.S. 232 measures by introducing safeguard measures to defend the domestic industry by imposing provisional measures in July 2018 and definitive measures in February 2019: in doing so, the Commission assessed that anti-dumping and anti-subsidy measures were not sufficient to address the huge import increase deriving from trade diversion.

The safeguards are a justified trade policy response to import surges caused by external factors. The definitive measures cover 26 steel product categories and are **expected to remain in force for three years, hence till 1 July 2021. Hence, they are not relevant for the EU ETS phase 4 under discussion in this assessment.**

When imposing the EU steel safeguard measures, the Commission recognized that the EU steel industry “is still in a fragile and vulnerable position” and considered that traditional import flows **should have been maintained as far as possible**. The measures are indeed aimed at tackling the trade diversion following the imposition of the US measures, not to close the EU market. While the

US imposed a 25% tariff from the first tonne without granting duty-free volumes to the European Union, the Commission decided to apply the 25% duty only to imported quantities above a reference historical level because it considered that, with safeguard measures established under the form of a **Tariff Rate Quota**, effective competition between imports and the Union industry would have been maintained, and that the risk of general price increases and of any shortage would have been avoided (Recital 136 of Commission Implementing Regulation (EU) 2019/159 of 31 January 2019 imposing definitive safeguard measures against imports of certain steel products).

How does the EU steel safeguard work?

- The quota of imports without the 25% duty is based on the average volume data from 2015-2017. This quota increased by 5% in February 2019, 3% in July 2019 and is scheduled to increase by another 3% in July 2020. **This expansion of the quota size is independent of the growth of the overall EU steel market.**

The quota structure takes the form of a set of tariff-rate quotas, based on the average volume of traditional imports over 2015-17 plus 5%. It is important to stress that this 5% increase which occurred in February 2019 is an adjustment the EU has foreseen, but which is not mandatory under WTO rules (unlike the liberalisation). The key assumptions underlying the 5% increase in quota volumes in February 2019 were that consumption was likely to experience double digit growth and that, accordingly, the Union industry was unlikely to suffer serious harm if imports increased by slightly more than 4%. This assumption of buoyant demand and growing consumption was based on a claim by users that EUROFER thought unrealistic at the time. Unfortunately for the sector, users' claims were unfounded and the market has not grown at all as EUROFER had expected since the beginning of 2019:

EU Real Steel Consumption (year-on-year) (%)	Q3 2019	Q4 2019	Q1 2020	Q2 2020
January 2020 ³	-1.6%	-2.5%	-2.2%	-0.7%

- Only once the quota is exceeded, a 25% tariff applies to other imported products, with major traditional steel importers retaining their own country-specific quotas.
- All other countries are assigned to a product-specific, 'residual quota' pool. In contrast to the country specific quotas, this residual quota is divided into quarters.
- Developing countries that have less than 3% import share are excluded from the measures while their volumes are counted in the average 2015-17 quota levels and are available to the included countries and thus artificially increase the quota even further).

Imports of stainless-steel flat products from Indonesia were originally exempted from measures as Indonesia is considered a "developing country", and imports were below the 3% threshold. This however changed quickly. At the time the Commission's definitive regulation was published, Indonesia had already largely exceeded by far the 3% threshold (28.5% for SSHR and 9% for SSCR). In the future, the same situation might occur with other countries which have declared themselves as "developing".

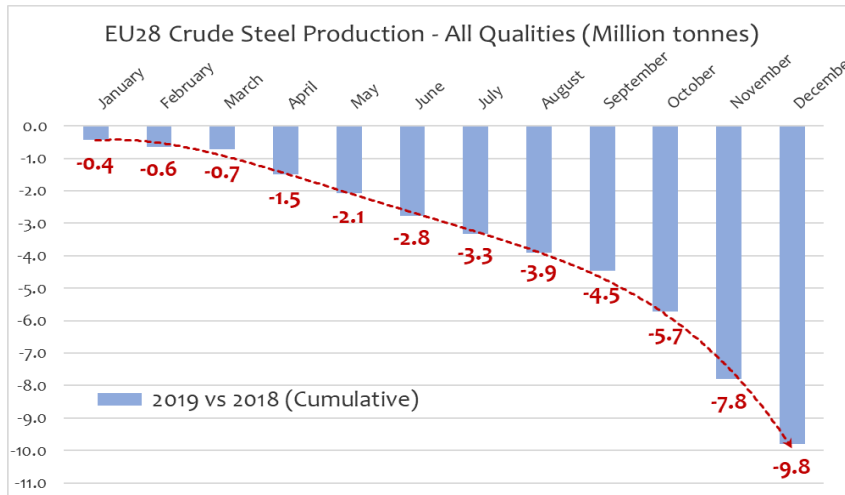
- When a quarterly quota is under-utilised, the volume is rolled over into the next quarter to avoid shortages. Hence, in the context of stagnating demand, historical volumes can be

³ EUROFER Economic and Steel Market Outlook 2020-2021, January 2020, <http://www.eurofer.org/Issues%26Positions/Economic%20Development%20%26%20Steel%20Market/REPORT%20-%20Economic%20and%20Steel%20Market%20Outlook%20-%20Quarter%201,%202020.pdf>

easily shifted and used by importers as soon as EU demand resumes, thus gaining further market shares.

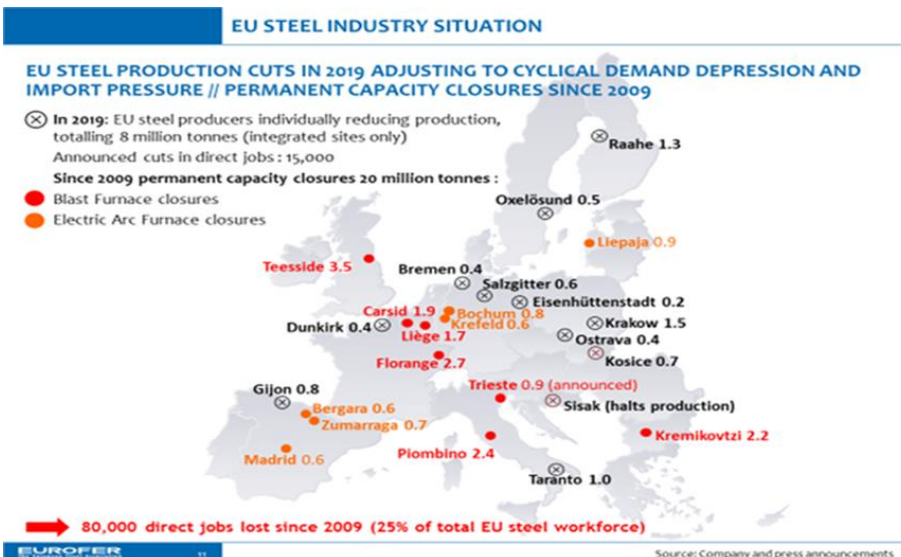
Despite the presence of the EU steel safeguard measures, multiple market disruptions and production cuts have occurred in 2019 in European facilities, as indicated below:

- EU crude steel production in 2019 decreased by 9.8 million tonnes compared to 2018 (-6% y-o-y). From January to June 2019 the decrease was -2.8 million tonnes (averaging -465 thousand tonnes/month, -3% y-o-y). From July to December the decrease was -7 million tonnes (averaging -1.2 million tonnes per month, -9% y-o-y).



Source: EUROFER

- Steel production cuts have occurred throughout the EU market in 2019:



Source: EUROFER

5. Increased protectionism worldwide

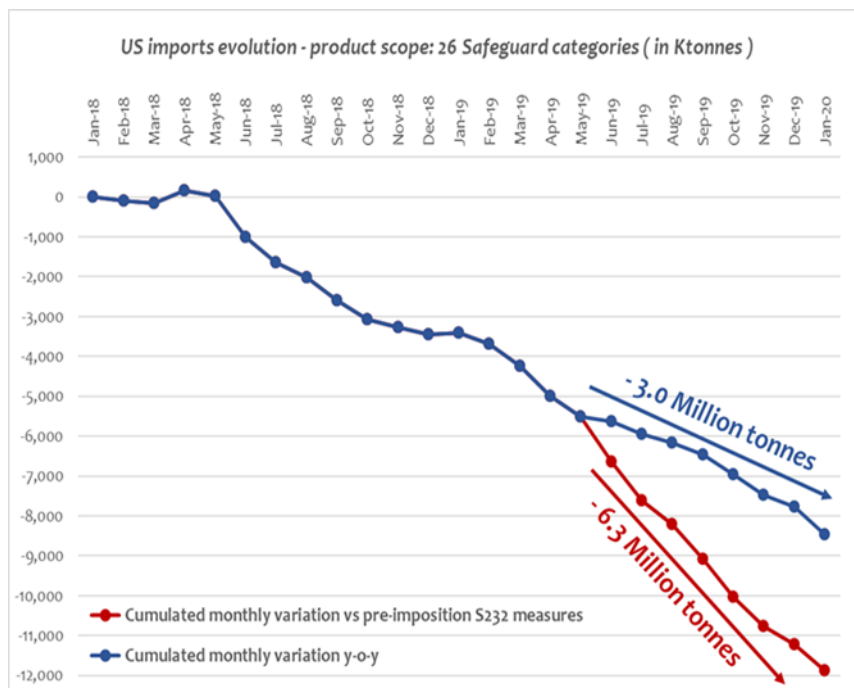
Third countries' trade restrictions have increased since the imposition of the EU definitive safeguard measures, increasing the risk of trade diversion to the weakened European market:

- Threats of the U.S. President to double again the 25% tariff on Turkish steel imports illustrates the extreme volatility in the implementation of the Section 232 policy on

steel – and the unpredictability of U.S. trade policy (which is itself a source of deflection).

- Following Mexico's exclusion from the U.S. import tariff, the U.S. DOC has now initiated a new U.S. anti-dumping investigation on certain rebar to address circumvention of existing duties on general rebar.
- In October 2019, the Gulf Cooperation Council initiated a steel safeguard investigation covering flat and long carbon steel.
- Mexico extended in September 2019 its temporary import tariff of 15% to last through 2024.
- Turkey increased certain steel import tariffs from 10% to 30% (April 2019).
- Malaysia imposed anti-dumping duties on coated sheet from China and Vietnam (March 2019).
- Morocco launched a steel safeguard (May 2019).
- India imposed provisional anti-dumping duties on imports of coated flat steel from China, South Korea and Vietnam (July 2019).
- Vietnam initiated an anti-dumping investigation on cold-rolled coil imports from China (September 2019).
- Indonesia initiated an anti-dumping investigation on imports of coated sheet from China and Vietnam (August 2019) and an anti-dumping investigation on imports of stainless steel cold-rolled flat products from China and Malaysia (October 2019).
- Egypt imposed safeguard tariffs on rebar and wire rod (Oct 2019).
- China imposed anti-dumping duties on imports of stainless steel hot-rolled sheets and strips from the EU, Japan, South Korea and Indonesia (July 2019).
- Malaysia imposed definitive antidumping duties on rebars from Singapore and Turkey (January 2020).
- Malaysia imposed definitive antidumping duties on cold-rolled nonalloy steel from China, Japan, Korea, and Vietnam (December 2019).
- India initiated a countervailing duty investigation on flat products of stainless steel from Indonesia (October 2019).
- Thailand initiated an antidumping investigation on HDG cold-rolled painted steel (October 2019).
- Vietnam imposed definitive antidumping duties on pre-painted steel sheets and strips from China and Korea (October 2019).
- Canada initiated an anti-dumping investigation on imports of corrosion-resistant flat products from Turkey, the United Arab Emirates, and Vietnam (November 2019).

Moreover, U.S. steel imports took a nosedive after June 2019. From June 2019 to January 2020, imports were 3.0 million tonnes lower than the same period in the previous year, and 6.3 million tonnes lower than the same period before the imposition of the Section 232 import tariff. This material has to go somewhere – but it is increasingly blocked from third countries by TDIs. Increased exports to the EU are therefore likely. This is a worsening of the situation since the period considered in the First Review.



Source: US International Trade Commission

6. Abatement potential and fuel and electricity substitutability

The last two parameters of the RAG assessment are the abatement potential and the fuel electricity substitutability. Due to the high relevance of energy costs, steel production is very energy efficient and very close to thermodynamic limits. Hence, it has very limited abatement potential.

With regard to the fuel-electricity substitutability, the consultants' study (page 77) states: "To determine the overall RAG rating, we consider first if there is variability between undertakings on fuel used for production. If there is no variability, then there is no risk on this criterion. If variability exists, the risk on the fuel and electricity substitutability criteria only exists if the sector is included on the Carbon Leakage List for Phase IV, i.e. the sector receives compensation for its direct emissions. If the RAG score is Red for the fuel and electricity substitutability, then the overall RAG rating performed on the previous three criteria will be increased to a higher score reflecting a higher risk of carbon leakage". On this point, table 7 (page 76) of the consultants' study does not seem fully consistent as it attributes a green category to a sector with high substitutability in case compensation was granted in the past. In this way, a sector like steel has its RAG assessment downgraded at a lower risk. Yet, since this is a forward-looking assessment, it should consider the situation where a sector with high substitutability would not receive compensation in the future, in which case its overall RAG rating should be increased.

In the case of steel, the substitutability between fuel and electricity can manifest in different forms, notably:

- Firstly, within the electric arc furnace (EAF), where fuel-electricity substitutability has been recognised in the scope of the carbon and high alloy steel ETS benchmarks. Insufficient compensation of indirect costs would risk increasing fuel consumption, hence direct emissions.
- Secondly, between the EAF route and the integrated route, in particular if the international dimension is taken into account. Insufficient compensation of indirect costs would undermine the competitiveness of EU EAF producers against integrated route producers in third countries that still produce long products that in the EU are largely manufactured in EAF. That would cause increase of total emissions at global level.