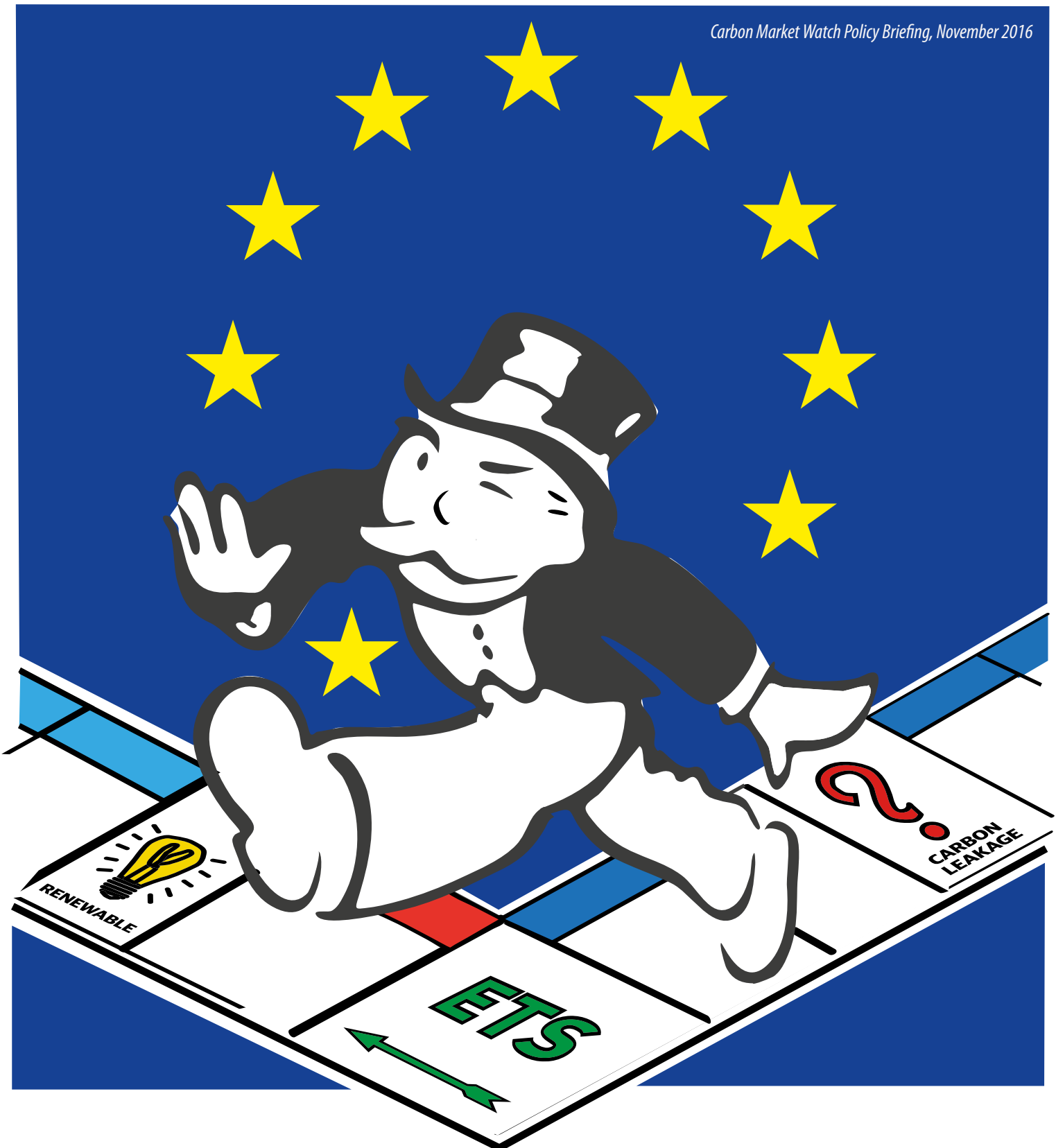


Industry windfall profits from Europe's carbon market 2008-2015

HOW ENERGY-INTENSIVE COMPANIES CASH IN ON THEIR POLLUTION
AT TAXPAYERS' EXPENSE

Carbon Market Watch Policy Briefing, November 2016



Executive summary

This report interprets the findings of an updated CE Delft study¹ that shows how energy-intensive companies in 20 European countries have massively profited from their pollution because they are deemed at risk of “carbon leakage”. “Carbon leakage” refers to the hypothetical situation where companies transfer production to countries with weaker climate policies in order to lower their costs. Under the current EU Emissions Trading System (EU ETS) rules, industrial companies that are believed to be at risk of “carbon leakage” are awarded free emission allowances.

Overall, heavy industry has been able to make over €25 billion from the EU ETS during the 2008-2015 period. Windfall profits occur when industrial companies are over-subsidised for their pollution. This can happen by receiving too many free emission allowances which are then sold for a profit on the market, from using international offsets and from making consumers pay for non-existent carbon costs. The update also contains country sheets showing the sectors and companies that have profited the most from the EU ETS between 2008 and 2015.

There are at least four problems related to the current system:

- 1. Free allocation has resulted in significant windfall profits for corporations.** During 2008-2015² energy-intensive companies made over €25 billion from the EU ETS. Most profits were made in Germany, the United Kingdom, Spain, France and Italy.
- 2. European taxpayers are picking up the bill as governments forego income and loss of revenues from auctioning pollution permits.** As a result of free allocation of emission allowances, less money is available for investments in the climate friendly transition of the European economy. In the 2008-2015 period, governments have given out **11.8 billion free pollution permits** and have, thereby, **missed out on at least €143 billion in auctioning revenues**³.
- 3. Emission reductions will stall over the next 15 years – unless there is an urgent change of rules.** Giving away free pollution permits reduces the incentive for companies to produce more efficiently.
- 4. The Paris Agreement levels the playing field across the global economy after 2020.** The risk of “carbon leakage” diminishes along with the number of countries where companies could relocate their production to avoid climate policies. Furthermore, studies have not been able to find evidence for “carbon leakage”.

The lessons learnt so far are important to ensure that further windfall profits at the expense of taxpayers are avoided and, instead of subsidising pollution, European governments will invest in innovations that lead to climate friendly societies. The ongoing legislative process to revise EU ETS rules for the post-2020 period provides an important opportunity to revise the current “carbon leakage” rules. Future-oriented climate policies are needed in order to enable improved industrial carbon performance in Europe.

Key recommendations:

- **Deliver a more meaningful carbon price signal** that rewards green innovators
- **Phase out the free allocation of pollution permits**
- **Target free allowances only to those that really need it**
- **Annually reduce the amount of free allowances that an installation receives** (benchmark) in line with the overall decarbonisation pathway of the EU ETS
- **Invest more auctioning revenues in climate friendly innovation** and **support frontrunners that want to invest in breakthrough technologies**
- **Assist local communities and workers** in regions impacted most strongly by the ongoing transition to a decarbonised economy **by setting up a Just Transition Fund**

1 CE Delft (forthcoming 2016), Update of the calculation of additional profits of sectors and firms in the EU ETS 2008-2015.

2 All information on windfall profits is taken from the updated data by CE Delft (forthcoming 2016). These calculations show how much money companies and sectors were able to make from the EU ETS in theory; actual profits could differ depending on companies' individual business strategies.

3 Based on information provided by CE Delft (forthcoming 2016).

The EU ETS and “carbon leakage” – the threat of relocating due to the EU ETS

The EU Emissions Trading System (EU ETS) covers the EU's greenhouse gas emissions (GHG) from the power sector, energy-intensive industries and aircrafts which amount to just over 40% of the EU's total GHG emissions. The EU ETS is the world's largest carbon market and the principal instrument for reducing the climate impact of big installations, by putting a limit on the total amount of greenhouse gas emissions that they can emit. After each year, companies participating in the system must surrender enough allowances to cover all their emissions.

Since 2013, power companies are obliged to buy all of their CO₂ allowances at auction. However, manufacturing industries are granted preferential treatment by receiving CO₂ allowances for free. This is the case, because under the current rules they are considered at risk of “carbon leakage”. “Carbon leakage” refers to a hypothetical situation where companies transfer their production, or parts thereof, to countries with weaker climate policies to lower their production costs.

What are windfall profits?

The current EU ETS hands out free emission allowances to industrial companies deemed at risk of “carbon leakage”. The emission allowances that are given away for free represent subsidies since governments forego income and lose out on revenues from auctioning these pollution permits. Windfall profits occur when industrial companies are over-subsidised for their pollution. This can happen when too many free emissions allowances are given away that can be sold for a profit on the market.

A note on methodology

The methodological approach of the update did not differ from the previous CE Delft report (2016): Three components were used for calculating the additional profits: (i) Profits from over-allocation; (ii) profits from cheaper international offsets⁴; (iii) profits from passing through (part of) the carbon costs to their customers.⁵

Profits from over-allocation and international offsets were calculated using average annual prices of EU allowances (EUA) and Certified Emissions Reductions (CER) under the Clean Development mechanism (CDM) from the market.⁶ Over-allocation to the iron and steel industry has been reduced for the additional carbon content (compared to natural gas) in the delivery of waste gasses to the electricity sector based on data from the International Energy Agency (IEA).⁷ The calculations are based on the CE Delft database on installations from the EU ETS.⁸

Heavy industry made over €25 billion windfall profits

Some corporations have used the EU ETS to increase their cash flows by using “carbon leakage” as an argument to receive pollution subsidies from governments. In fact, **heavy industry in 20 European countries made over €25 billion in windfall profits from the EU ETS between 2008 and 2015.**

In detail, heavy industry has made profits from the EU ETS in three ways⁹:

- 1. Windfall profits from surplus: €7.5 billion.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €0.8 billion.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market¹⁰.

4 Companies have been entitled to use a certain amount of cheaper international carbon credits for compliance under the EU ETS. This has created additional profits, since many companies have used these credits for compliance and sold the saved freely obtained allowances on the ETS market.

5 Although allowances have been granted for free, many studies have evidenced that the majority of sectors were able to pass through the opportunity costs of these allowances into product prices thereby obtaining windfall profits.

6 Daily prices have been converted to annual averages.

7 For Luxembourg no IEA data was available but Luxembourg shut down their blast furnaces in the 1990s, which implies the units in operation are no longer producing waste gases. Moreover, installations operating under the iron and steel sector in Denmark, Greece, Ireland, Portugal and Slovenia do not report to have waste gases delivered to electricity producers.

8 The CE Delft database is more accurate than the EU ETS Database viewer since it allocates more installations to NACE codes and omits double entries. Since the database is continuously improved, the results of the CE Delft update (forthcoming 2016) are, for some countries, slightly different but differences remain well below 1%.

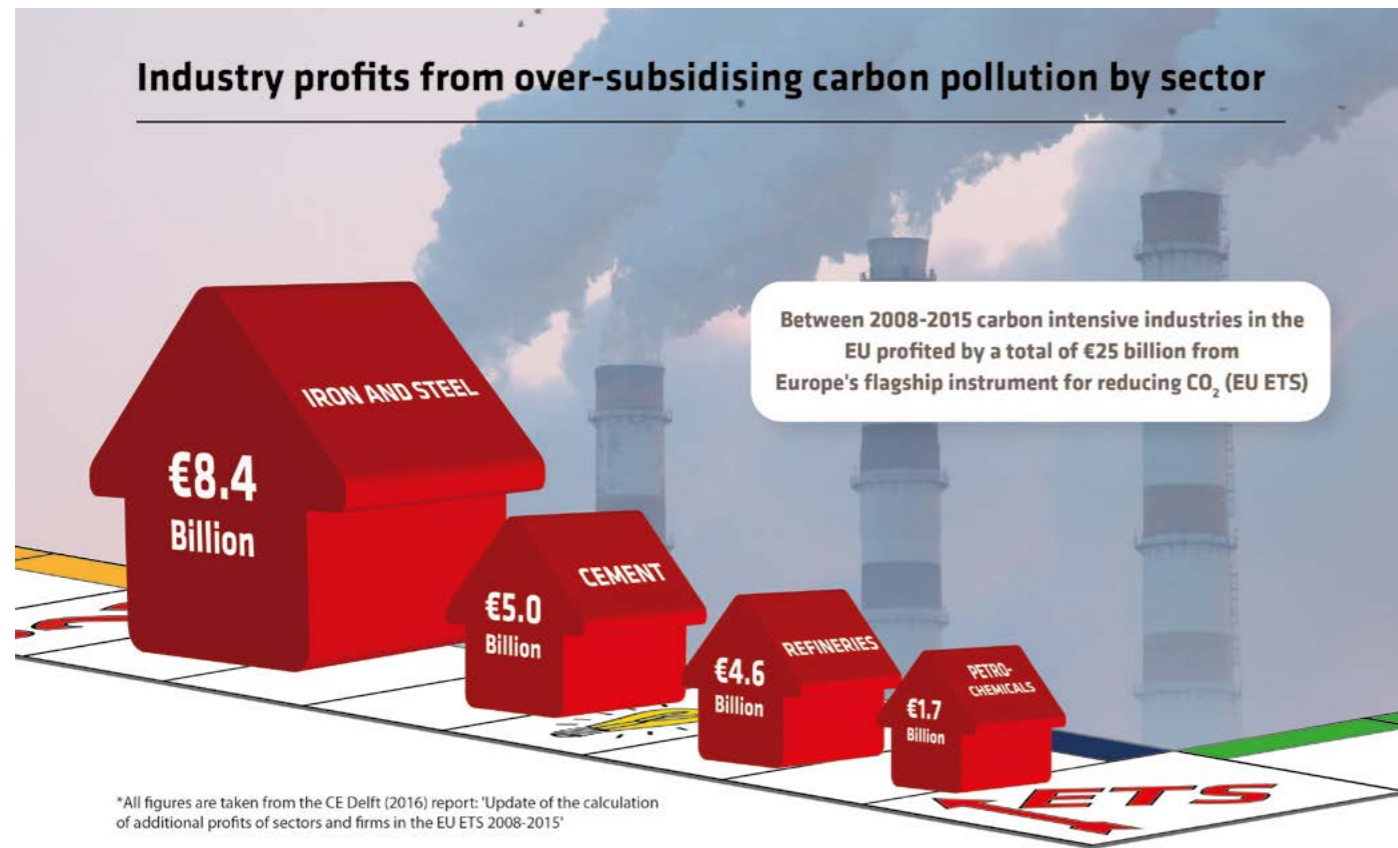
9 CE Delft (forthcoming 2016). For (1) and (2) windfall profits are calculated for the whole country, while for (3) only the 15 most polluting sectors are taken into account. Windfall profits from offsets (2) are only calculated for the period up to 2012.

10 Since 2013 there is no more information available as to which companies have used the cheaper international offsets for compliance. Therefore, the results do not differ between the updated data and the previous study except for small changes (<1%) in the registry and the overall quality of the database used (CE Delft, forthcoming 2016).

3. Windfall profits from cost-pass through: €16.8 billion. Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

While the windfall profits from surplus have decreased slightly, the amount of profits made from cost-pass through has increased in 2015. Overall, companies have continued to make profits from the EU ETS.

The sectors that have profited the most from the EU ETS in the period 2008-2015 are iron and steel, cement, refineries and petrochemicals. Within these sectors, the cement sector was able to generate the most money by receiving too many free allowances and selling this surplus for an almost €3 billion profit on the market.



Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from minimum cost-pass through	Total windfall profits
Iron and Steel	€784 million	€ 239 million	€7,364 million	€8.4 billion
Cement	€2,729 million	€149 million	€2,083 million	€5.0 billion
Refineries	-€67 million	€86 million	€4,562 million	€4.6 billion
Petrochemicals	€774 million	€42 million	€901 million	€1.7 billion

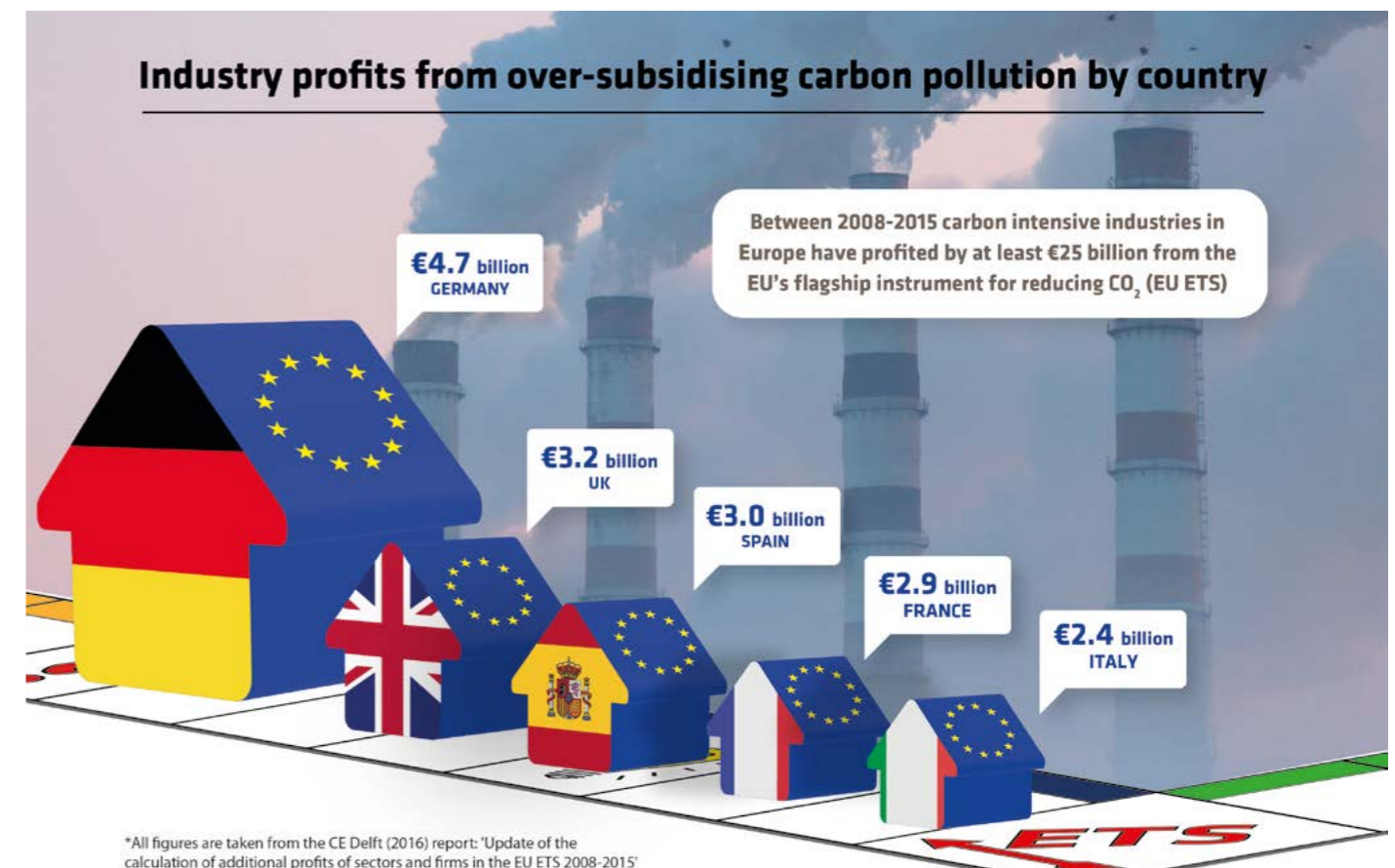
Windfall profits vary from country to country

The windfall profits that European corporations made from the EU ETS vary considerably between countries. Most gains from the EU ETS were made in Germany (€4.7 billion), the United Kingdom (€3.2 billion), Spain (€3.0 billion), France (€2.9 billion) and Italy (€2.4 billion). These differences largely correlate with the amount of greenhouse gas emissions in these countries in the 2008-2015 period.

Spain made the most windfall profits from their surplus amounting to more than €1.6 billion. In fact, the Spanish cement sector received over 50% more emission allowances than it actually needed to cover its emissions.

The most windfall profits were made by passing through non-existent carbon costs to customers. In Germany, industry gained over €3.5 billion from this windfall profit category while industry in the United Kingdom was able to make €2.2 billion from cost-pass through.

Member State	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from minimum cost-pass through	Total windfall profits
Austria	-€284 million	€20 million	€707 million	€443 million
Belgium	€686 million	€29 million	€773 million	€1,487 million
Czechia	€183 million	€18 million	€501 million	€702 million
Denmark	€104 million	€4 million	€136 million	€243 million
Finland	€113 million	€13 million	€391 million	€517 million
France	€805 million	€136 million	€1,930 million	€2,871 million
Germany	€941 million	€237 million	€3,527 million	€4,705 million
Greece	€349 million	€21 million	€330 million	€700 million
Hungary	€53 million	€6 million	€166 million	€225 million
Ireland	€160 million	€4 million	€53 million	€217 million
Italy	€502 million	€60 million	€1,879 million	€2,441 million
Luxembourg	€17 million	€2 million	€23 million	€42 million
Netherlands	€224 million	€36 million	€904 million	€1,164 million
Poland	€202 million	€26 million	€815 million	€1,043 million
Portugal	€226 million	€9 million	€234 million	€468 million
Slovakia	€320 million	€16 million	€513 million	€849 million
Slovenia	€16 million	€1 million	€24 million	€41 million
Spain	€1,625 million	€57 million	€1,281 million	€2,963 million
Sweden	€416 million	€19 million	€357 million	€792 million
United Kingdom	€862 million	€68 million	€2,222 million	€3,152 million
TOTAL EU 20	€7,520 million	€781 million	€16,765 million	€25,066 million



The “carbon leakage” myth

There has, so far, been no compelling evidence that EU’s climate policies are forcing companies to move abroad and recent academic studies indicate that this is also unlikely to happen in the future:

- **No evidence for relocation due to the EU ETS so-far:** In 2013, a study done by the European Commission concluded, “**we found no evidence for any “carbon leakage”** – according to the ETS Directive, defined as production relocation due to the ETS – in the past two ETS periods.”¹¹
- **No evidence for future “carbon leakage” risk:** A recent paper published by the London School of Economics finds that the future impact of more ambitious climate policies on EU companies moving their production abroad is likely to be “extremely limited”. A ten-fold increase in the carbon price would, according to the scientists, cause exports to fall by only 0.5% and would increase imports by 0.07%¹². Another recent paper published by the OECD Economics working group shows that climate policies in fact make very little difference to the overall trade between rich and emerging economies, but that “*stringent domestic policies are linked to a comparative disadvantage in “dirty” industries, and a corresponding advantage in “cleaner” industries*”.¹³
- **Industry confirms lack of “carbon leakage” risks:** The manufacturing industries themselves have denied the existence of “carbon leakage” risks. Energy-intensive companies reported to their shareowners that the competitiveness risks of the EU ETS are not an issue for them.¹⁴
- **Hardly any relocation destination without climate policies:** The number of countries and regions where companies could relocate their production to avoid climate policies diminishes greatly as the global efforts to tackle climate change increase. The Paris Agreement entering into force on 4 November 2016 levels the playing field across the global economy. Many other countries will also set a domestic carbon price. In 2017, China is expected to introduce emissions trading and South Africa is set to introduce a carbon tax.
- **Industry pass-through carbon costs:** Industry sectors are not considered to be at risk of “carbon leakage” when they can pass on their carbon costs to their consumers. If costs can be passed through, then the risk of “carbon leakage” diminishes or disappears, depending on the percentage of pass-through.¹⁵ The impact assessment by the Commission shows that all industrial sectors are able to pass-through a significant part of the carbon costs. This means that industry have to bear only the remaining part of costs (i.e. the costs not passed through to customers) and are therefore at lower to no risk of “carbon leakage”.

“Carbon leakage” rules stall emission reductions over the next 15 years

Industrial companies receive their allowances to emit CO₂ for free and are therefore hardly exposed to the carbon price. As a result of the overgenerous hand-out of free emission allowances and the low carbon price, European companies are currently not receiving a sufficient price signal to produce more efficiently or invest in break-through technologies that reduce CO₂. A wide range of technological options to reduce emissions in these carbon-intensive sectors are available that remain unexploited.

At the same time, the free allocation of carbon allowances fails to reward frontrunner companies that have chosen to shift their production towards more carbon efficient options. Consequently, the industrial emissions are not projected to go down from now until 2030 according to the European Environment Agency¹⁶ even though a recent study by the Institute for European Studies (2016)¹⁷ concludes that further deep emission reductions of up to 80% or more are possible. The EU ETS can play a key role in enhancing the competitiveness of European industry by delivering the incentives to invest in new climate-friendly technologies – provided the EU ETS is made fit for purpose.

Free allowances – less money to invest in the low-carbon transition

Giving free emission allowances to industry reduces the amount of allowances that governments can auction and thereby reduces the auctioning revenues that could be mobilised by governments. Consequently, free allocation means that less money is available for investments in the low-carbon transition of the European economy.

Between 2008 and 2015, **around 12 billion allowances were given out for in the 20 European countries** with an equivalent value of €143 billion. **These governments therefore lost out on €143 billion in auctioning revenues.**

In the same period, around **€11 billion revenues** were generated from auctioning allowances under the EU ETS.¹⁸



Figure 1. Value of free allowances vs auctioning revenues (Euros, 2008-2015)

Unsubstantiated “carbon leakage” claims by heavy industry

In the past years, industry lobbyists have made several unsubstantiated claims about the impact of the EU ETS on their competitiveness. Certain corporations have made profits worth hundreds of millions of euros from the EU’s climate policies, while still claiming that the EU ETS is impacting on their competitiveness.

Claim by ArcelorMittal: “EU energy and climate policy is punishing the steel sector and other energy-intensive industries, which is having a profound impact on our competitiveness” (2014).¹⁹

Fact: The steel company has made **more than €540 million** from the EU ETS between 2009-2014 according to its own [annual reports](#). For 2015, this data is unfortunately no longer publicly available.

Claim by Lafarge: “Unequal carbon pricing place[s] the EU manufacturing sector in general – and the cement sector in particular – at risk of carbon leakage” (2013).²⁰

Fact: The cement company has made **€712 million** from the EU ETS in the years 2008 to 2014 according to its own [annual reports](#).

In the ongoing legislative process to revise the EU ETS rules for the 2021-2030 period, corporate lobbyists are again claiming that the EU ETS will put the viability of their industries at risk. As shown above, similar claims were made in the past and these turned out to be false. Recent studies furthermore show that these claims are again very likely to be unsubstantiated.

Claim by EUROFER: “The current EU ETS proposal [is] an existential threat. [It] puts the viability of the steel industry – including its most efficient producers- at risk” (2015).²¹

Fact: The steel sector will be able to make **€13 billion** from the EU ETS in the 2021-2030 period by letting their customers pay for their (non-existent) carbon costs according to analysis by the European Commission.²²

Claim by CEMBUREAU: “[...] the current EU ETS [...] will de-industrialise Europe before it decarbonizes European manufacturing” (2015).²³

Fact: The cement sector will be able to make over **€3 billion** from the EU ETS in the 2021-2030 period by letting their customers pay for their (non-existent) carbon costs according to analysis by the European Commission.²⁴

11 Ecorys (2013), Carbon leakage evidence project, see [here](#).

12 LSE (2015), Asymmetric industrial energy prices and international trade, see [here](#).

13 OECD (2016), Do environmental policies affect global value chains? A new perspective on the pollution haven hypothesis, Economic Department Working Papers No. 1282, see [here](#).

14 See the 2014 letter of the Institutional Investors Group on Climate Change (IIGCC) to president Barroso [here](#).

15 CEPS (2013), Carbon Leakage: An overview, see [here](#).

16 EEA (2016), Trends and projections in the EU ETS in 2016, see [here](#).

17 Wyns & Axelson (2016), The Final Frontier – Decarbonising Europe’s energy intensive industries, see [here](#).

18 Data taken from the European environment information and observation network (Eionet), including revenues from aviation, see [here](#).

19 FT (20 Jan 2014), “Rewrite energy policy and re-industrialise Europe” see [here](#).

20 Lafarge answer to the public consultation on the 2030 climate and energy framework (2013), see [here](#).

21 EUROFER (2015), “Current EU ETS proposal ‘an existential threat’, says European steel industry” see [here](#).

22 EC (2015), SWD(2015) 135, table 24, Baseline B scenario, last column (with lowest cost-pass through rates) see [here](#).

23 CEMBUREAU (2015), CEMBUREAU comment on the EU ETS review, see [here](#).

24 EC (2015), SWD(2015) 135, table 24, Baseline B scenario, last column (with lowest cost-pass through rates) see [here](#).



Austria

Heavy industry in Austria made €443 million windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Austria was able to generate about **€443 million in windfall profits from the EU ETS during 2008-2015 in the following ways:**

1. **Windfall profits from surplus: -€284 million.** Austria is the only country in which industries have received less emission allowances for free than they actually need – but only with the correction for waste gases.
2. **Windfall profits from offsets: €20 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
3. **Windfall profits from cost-pass through: €707 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Austria that have profited most from the EU ETS are the iron and steel, refineries and cement sectors, followed by the manufacturing of bricks sector. Within these sectors, the cement sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Iron and Steel	-€329 million	€4 million	€542 million	€217 million
Refineries	-€23 million	€4 million	€98 million	€79 million
Cement	€11 million	€4 million	€47 million	€62 million
Manufacturing of bricks	€7 million	€0.3 million	€7 million	€14 million

Among the corporations that have received the most overallocations, Wietersdorfer (€18 million), Borealis (€13 million) and Kirchdorfer (€9 million) were the corporations that were able to make the most profits from the EU’s carbon market. Wietersdorfer and Borealis were each able to generate about €9 million from receiving too many allowances and selling this surplus on the market.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Wietersdorfer	Cement	€9 million	€0.6 million	€9 million	€18 million
Borealis	Fertilizer	€9 million	€0.4 million	€4 million	€13 million
Kirchdorfer	Cement	€5 million	€0.5 million	€4 million	€9 million



Belgium

Heavy industry in Belgium made €1.5 billion windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Belgium was able to generate about **€1.5 billion in windfall profits from the EU ETS during 2008-2015 in the following ways:**

1. **Windfall profits from surplus: €686 million.** Industries have received more emission allowances for free than they actually need, and are able to sell their surplus for a profit on the market.
2. **Windfall profits from offsets: €29 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets, and are able to sell their remaining free allowances for a profit on the market.
3. **Windfall profits from cost-pass through: €773 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Belgium that have profited most from the EU ETS are the iron and steel, refineries, petrochemicals and cement sectors. Within these sectors, the iron and steel sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Iron and steel	€302 million	€14 million	€330 million	€647 million
Refineries	€10 million	-	€216 million	€226 million
Petrochemicals	€120 million	€2 million	€98 million	€220 million
Cement	€48 million	€2 million	€75 million	€125 million

Among the corporations that have received the most overallocations, ArcelorMittal, Carsid and BASF were the corporations that were able to make the most profits from the EU’s carbon market. ArcelorMittal in Belgium, for example, was able to make €413 million profits.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
ArcelorMittal	Iron and Steel	€134 million	€13 million	€266 million	€413 million
Carsid*	Iron and Steel	€165 million	€0.5 million	€29 million	€194 million
BASF	Petrochemicals	€39 million	-	€40 million	€79 million
CBR	Cement	€20 million	€0.8 million	€31 million	€52 million

*The company closed in 2012



Czechia

Heavy industry in Czechia made €702 million windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Czechia was able to generate about **€702 million in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €183 million.** Industries have received more emission allowances for free than they actually need, and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €18 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets, and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €501 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Czechia that have profited most from the EU ETS are the iron and steel, cement, petrochemicals sectors and refineries sectors. Within these sectors, the iron and steel sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Iron and steel	€47 million	€5 million	€344 million	€396 million
Cement	€23 million	€3 million	€43 million	€69 million
Petrochemicals	€20 million	€2 million	€47 million	€69 million
Refineries	€4 million	€2 million	€35 million	€41 million

Among the corporations that have received the most overallocations, ArcelorMittal and Unipetrol were the corporations that were able to make the most profits from the EU’s carbon market. ArcelorMittal in Czechia made by far the highest profit with €279 million. ArcelorMittal was also the corporation that was able to make the most profits from receiving too many allowances and selling them for a surplus on the market (€82 million).

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
AcelorMittal	Iron and steel	€82 million	€1 million	€196 million	€279 million
Unipetrol	Petrochemicals	€18 million	€1 million	€38 million	€57 million
Holcim	Cement	€8 million	€1 million	€8 million	€17 million



Denmark

Heavy industry in Denmark made €243 million windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Denmark was able to generate about **€243 million in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €104 million.** Industries have received more emission allowances for free than they actually need, and are able to sell their surplus for a profit on the market.
- 1. Windfall profits from offsets: €4 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets, and are able to sell their remaining free allowances for a profit on the market.
- 1. Windfall profits from cost-pass through: €136 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Denmark that have profited most from the EU ETS are the cement and extraction of crude oil and gas sectors. Within these sectors, the cement sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Cement	€61 million	€2 million	€31 million	€94 million
Extraction of crude oil and gas	€26 million	€0.4 million	€64 million	€90 million

Among the corporations that have received the most overallocations in Denmark, Aalborg and Maersk were able to make the most profits from the EU’s carbon market. Aalborg, for example, was able to make €94 million of which €61 million was made from receiving too many free allowances and selling this surplus on the market.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Aalborg Portland	Cement	€61 million	€2 million	€31 million	€94 million
Maersk	Extraction of crude oil and gas	€21 million	€0.4 million	€54 million	€75 million
Shell	Refineries	€1 million	-	€14 million	€16 million
Dong	Extraction of crude oil and gas	€6 million	-	€4 million	€10 million



Finland

Heavy industry in Finland made €517 million windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Finland was able to generate about **€517 million in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €113 million.** Industries have received more emission allowances for free than they actually need, and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €13 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €391 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Finland that have profited most from the EU ETS are the iron and steel, refineries and cement sectors. Within these sectors, the cement sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market. The iron and steel sector and the refineries sector were able to gain the most profits by passing costs through to customers.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Iron and Steel	-€27 million	€5 million	€251 million	€229 million
Refineries	-€20 million	€0.004 million	€115 million	€95 million
Cement	€31 million	€0.7 million	€14 million	€46 million

Among the corporations that have received the most overallocations in Finland, Finnsementti, Outokumpu and Fnsteel were the corporations in Finland that were able to make the most profits from the EU’s carbon market. Finnsementti was able to make €31 million profits from receiving too many allowances and selling them for a surplus on the market.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Finnsementti	Cement	€31 million	€0.7 million	€15 million	€46 million
Outokumpu	Iron and Steel	€16 million	€0.2 million	€28 million	€45 million
Fnsteel	Iron and Steel	€10 million	€0.5 million	€27 million	€38 million



France

Heavy industry in France made €2.9 billion windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in France was able to generate about **€2.9 billion in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €805 million.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €136 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets, and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €1,930 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in France that have profited most from the EU ETS are the iron and steel, refineries, cement and petrochemicals sectors. Within these sectors, the cement sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Iron and steel	-€45 million	€46 million	€961 million	€961 million
Refineries	€44 million	€16 million	€523 million	€584 million
Cement	€205 million	€25 million	€196 million	€425 million
Petrochemicals	€98 million	€7 million	€131 million	€236 million

Among the corporations that have received the most overallocations in France, Lafarge, Petrochimique de Berre and HeidelbergCement were the companies that have made the most profits from the EU’s carbon market. Lafarge in France was the company that made the highest profits in all three categories, totalling €188 million.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Lafarge	Cement	€97 million	€13 million	€78 million	€188 million
Petrochimique de Berre	Refineries	€42 million	€7 million	€67 million	€116 million
HeidelbergCement	Cement	€43 million	€4 million	€37 million	€84 million
Total	Refineries	€38 million	-	€28 million	€66 million



Germany

Heavy industry in Germany made €4.7 billion windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Germany was able to generate about **€4.7 billion in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €941 million.** Industries have received more emission allowances for free than they actually need, and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €237 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €3,527 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Germany that have profited most from the EU ETS are the iron and steel, refineries, cement and petrochemicals sectors. Within these sectors, the iron and steel sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Iron and steel	€303 million	€69 million	€1,829 million	€2,201 million
Refineries	€85 million	€26 million	€802 million	€913 million
Cement	€70 million	€34 million	€342 million	€446 million
Petrochemicals	€101 million	€15 million	€200 million	€316 million

Among the corporations that have received the most overallocations in Germany, ArcelorMittal, Hüttenwerke and Rogesa - all iron and steel companies – are the corporations in Germany that have made the most profits from the EU’s carbon market. Arcelor Mittal in Germany, for example, was able to make €569 million from the EU ETS, of which €352 million was from receiving too many allowances and being able to sell them for a surplus on the market.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
ArcelorMittal	Iron and steel	€352 million	€18 million	€199 million	€569 million
Hüttenwerke	Iron and steel	€188 million	€9 million	€215 million	€412 million
Rogesa	Iron and steel	€76 million	€5 million	€214 million	€295 million



Hungary

Heavy industry in Hungary made €225 million windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Hungary was able to generate about **€225 million in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €53 million.** Industries have received more emission allowances for free than they actually need, and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €6 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets, and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €166 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Hungary that have profited most from the EU ETS are the cement, refineries, manufacturing of bricks and petrochemicals sectors. Within these sectors, the cement sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market. The refineries sector was able to make the most money from passing through carbon costs to customers.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Cement	€57 million	€1 million	€24 million	€82 million
Refineries	-€9 million	€0.6 million	€52 million	€43 million
Manufacturing of bricks	€22 million	€0.3 million	€7 million	€29 million
Petrochemicals	€5 million	€0.6 million	€20 million	€26 million

Among the corporations that have received the most overallocations in Hungary, Duna-Dráva and Holcim – both from the cement sector - are the corporations that have made the most profits from the EU’s carbon market. Duna-Dráva, for example, was able to make €46 million in windfall profits, of which €31 million was from receiving too many free allowances and selling this surplus on the market.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Duna-Dráva	Cement	€31 million	€0.5 million	€15 million	€46 million
Holcim	Cement	€25 million	€0.5 million	€8 million	€33 million
MOL	Petrochemicals	€5 million	€0.5 million	€19 million	€25 million
Wienerberger	Manufacturing of bricks	€15 million	€0.2 million	€3 million	€18 million



Ireland

Heavy industry in Ireland made €217 million windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Ireland was able to generate about **€217 million in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €160 million.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €4 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €53 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sector in Ireland that has profited by far the most from the EU ETS is the cement sector. The cement sector made the most money from receiving too many allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Cement	€124 million	€1 million	€40 million	€165 million
Refineries	€3 million	€0.03 million	€11 million	€15 million
Lime	€10 million	€0.08 million	-v	€10 million

Among the corporations that have received the most overallocations in Ireland, CRH, Quinn and Lagan – all from the cement sector – have been able to make the most money from the EU’s carbon market. CRH in Ireland, for example, was able to make €112 million windfall profits, of which €90 million was generated by obtaining too many free allowances and selling this surplus for a profit on the market.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
CRH	Cement	€90 million	-	€22 million	€112 million
Quinn	Cement	€23 million	€1 million	€12 million	€36 million
Lagan	Cement	€10 million	-	€6 million	€17 million



Italy

Heavy industry in Italy made €2.4 billion windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Italy was able to generate about **€2.4 billion in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €502 million.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €60 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €1,879 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Italy that have profited most from the EU ETS are the cement, the iron and steel the refineries and the petrochemicals sectors. Within these sectors, the cement sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Cement	€516 million	€22 million	€357 million	€895 million
Iron and steel	€8 million	€13 million	€596 million	€617 million
Refineries	-€428 million	€10 million	€752 million	€333 million
Petrochemicals	€126 million	€1 million	€74 million	€202 million

Among the corporations that have received the most overallocations in Italy, ILVA, Italcementi, Buzzi, Versalis and Colacem were able to make the most money from the EU’s carbon market. Italcementi and Buzzi made the most profits from surplus, as they were able to make €132 million and €116 million respectively from receiving too many free allowances and selling this surplus on the market.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
ILVA	Iron and steel	€50 million	€6 million	€420 million	€476 million
Italcementi	Cement	€132 million	€6 million	€96 million	€234 million
Buzzi	Cement	€116 million	€4 million	€64 million	€184 million
Versalis	Petrochemicals	€92 million	-	€61 million	€153 million
Colacem	Cement	€79 million	€4 million	€62 million	€145 million

Luxembourg

Heavy industry in Luxembourg made €42 million windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Luxembourg was able to generate about **€42 million in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €17 million.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €2 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €23 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Luxembourg that have profited most from the EU ETS are the cement and iron and steel sectors. Within these sectors, the cement sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market. The iron and steel sector was able to make the most profits from passing through costs to customers.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Cement	€8 million	€1 million	€11 million	€20 million
Iron and steel	€5 million	€0.6 million	€12 million	€17 million

Among the corporations that have received the most overallocations in Luxembourg, Cimalux and ArcelorMittal have made the most profits from the EU's carbon market. Cimalux, for example, has been able to make €20 million, of which €8 million could be generated by selling excess free allowances on the market.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Cimalux	Cement	€8 million	€1 million	€11 million	€20 million
ArcelorMittal	Iron and steel	€5 million	€0.6 million	€12 million	€17 million

The Netherlands

Heavy industry in The Netherlands made €1.2 billion windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in The Netherlands was able to generate around **€1.2 billion in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €224 million.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €36 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €904 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in the Netherlands that have profited most from the EU ETS are the refineries, iron and steel, petrochemicals and fertilizers sectors. Within these sectors, the petrochemical sector was able to generate the most money by receiving too many free allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Refineries	€8 million	€2 million	€388 million	€398 million
Iron and steel	€15 million	€19 million	€298 million	€333 million
Petrochemicals	€82 million	€4 million	€139 million	€224 million
Fertilizers	€20 million	€0.1 million	€20 million	€41 million

Among the corporations that have received the most overallocations in The Netherlands, Tata Steel, Shell, Yara and Enci are the corporations in the Netherlands that have made the most profits from the EU's carbon market. Tata Steel, for example, made about €332 million from the EU ETS and Shell was able to make over €185 million in The Netherlands.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Tata Steel	Iron and Steel	€17 million	€19 million	€296 million	€332 million
Shell	Refineries	€29 million	-	€156 million	€185 million
Yara	Fertilisers	€15 million	-	€15 million	€30 million
Enci	Cement	€15 million	€0.2 million	€10 million	€25 million



Poland

Heavy industry in Poland made €1 billion windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Poland was able to generate over **€1 billion in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €202 million.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €26 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €815 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Poland that have profited most from the EU ETS are the iron and steel, cement, manufacture of coke oven products and refineries sectors. Within these sectors, the manufacture of coke oven products and the cement sectors were able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Iron and steel	-€31 million	€5 million	€315 million	€289 million
Cement	€59 million	€7 million	€173 million	€239 million
Manufacture of coke oven products	€60 million	€0.9 million	€116 million	€177 million
Refineries	€11 million	€2 million	€117 million	€130 million

Among the corporations that have received the most overallocations in Poland, ArcelorMittal has been able to make the most profits from the EU's carbon market (€99 million), of which €31 million could be generated by selling excess free allowances on the market.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
ArcelorMittal	Manufacture of coke oven products	€31 million	-	€67 million	€99 million
Naftowy ORLEN	Refineries	€12 million	€1 million	€74 million	€87 million
Gorazdze	Cement	€15 million	-	€36 million	€51 million
CEMEX	Cement	€22 million	€0.6 million	€26 million	€48 million



Portugal

Heavy industry in Portugal made €468 million windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Portugal was able to generate about **€468 million in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €226 million.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €9 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €234 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Portugal that have profited the most from the EU ETS are the cement and refineries sectors. The cement sector was able to generate the most money from receiving too many allowances, selling this surplus for a €111 million profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Cement	€111 million	€4 million	€91 million	€205 million
Refineries	€8 million	-	€102 million	€110 million
Manufacturing of bricks	€19 million	€0.3 million	€7 million	€26 million
Petrochemicals	€14 million	€0.7 million	€9 million	€23 million

Among the corporations that have received the most overallocations in Portugal, CIMPOR, Petrogal, Secil and Repsol were the companies that were able to make the most profits from the EU's carbon market. CIMPOR, for example, was able to make €144 million in windfall profits of which €91 million was from selling excess free allowances.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
CIMPOR	Cement	€91 million	€3 million	€50 million	€144 million
Petrogal	Refineries	€15 million	-	€99 million	€114 million
Secil	Cement	€31 million	€0.4 million	€39 million	€70 million
Repsol	Petrochemicals	€19 million	€0.4 million	€7 million	€26 million



Slovakia

Heavy industry in Slovakia made €849 million windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Slovakia was able to generate about **€849 million in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €320 million.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €16 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €513 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Slovakia that have profited most from the EU ETS are the iron and steel, cement, refineries and lime sectors. Within these sectors, the iron and steel sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Iron and steel	€90 million	€8 million	€414 million	€512 million
Cement	€51 million	€3 million	€35 million	€89 million
Refineries	€29 million	-	€49 million	€78 million
Lime	€38 million	€2 million	-	€40 million

Among the corporations that have received the most overallocations in the Slovakia, US Steel Košice, SLOVNAFT and CRH are the companies that have made the most profits from the EU’s carbon market. US Steel Košice, for example, was able to make €504 million in profits of which €85 million was from selling excess free allowances.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. Cost-pass through	Total windfall profits
US Steel Košice	Iron and steel	€85 million	€8 million	€411 million	€504 million
SLOVNAFT	Refineries	€29 million	-	€49 million	€78 million
CRH	Cement	€34 million	€1 million	€20 million	€55 million



Slovenia

Heavy industry in Slovenia made €41 million windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Slovenia was able to generate about **€41 million in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €16 million.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €1 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €24 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Slovenia that have profited most from the EU ETS are the cement, and the iron and steel sectors. Within these sectors, the cement sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Cement	€6 million	€0.8 million	€12 million	€19 million
Iron and steel	-€0.9 million	€0.1 million	€9 million	€8 million

Among the corporations that have received the most overallocations in Slovenia, Lafarge is the company that has been able to make by far the most profits from the EU’s carbon market. Lafarge in Slovenia has been able to make €11 million in windfall profits, of which €8 million was made by selling excess free emission allowances.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Lafarge	Cement	€8 million	€0.4 million	€3 million	€11 million
Steklarna Hrastnik	Hollow glass	€0.7 million	-	€1 million	€2 million
Nafta Petrochem	Industrial gasses	€2 million	€0.07 million	-	€2 million



Spain

Heavy industry in Spain made €3 billion windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Spain was able to generate about **€3 billion in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €1,625 million.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €57 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €1,281 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Spain that have profited most from the EU ETS are the cement, refineries, iron and steel, manufacturing of bricks and petrochemicals sectors. Within these sectors, the cement sector was able to generate the most money from receiving too many allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Cement	€798 million	€17 million	€309 million	€1,124 million
Refineries	€133 million	€9 million	€473 million	€616 million
Iron and steel	€250 million	€14 million	€341 million	€605 million
Manufacturing of bricks	€177 million	€2 million	€39 million	€218 million
Petrochemicals	€34 million	€2 million	€54 million	€90 million

Among the corporations that have received the most overallocations in Spain, ArcelorMittal, Cemex, Portland Valderrivas Lafarge and Holcim are the corporations that made the most profits from the EU’s carbon market. Four of the five most overallocated corporations in Spain are from the cement sector (Cemex, Portland Valderrivas, Lafarge, Holcim).

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
ArcelorMittal	Iron and steel	€224 million	€13 million	€270 million	€507 million
Cemex	Cement	€273 million	€3 million	€63 million	€340 million
Portland Valderrivas	Cement	€125 million	€2 million	€43 million	€170 million
Lafarge	Cement	€94 million	€4 million	€32 million	€129 million
Holcim	Cement	€85 million	€0.07 million	€34 million	€118 million



Sweden

Heavy industry in Sweden made €792 million windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in Sweden was able to generate about **€792 million in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €416 million.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €19 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €357 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in Sweden that have profited most from the EU ETS are the iron and steel, refineries and cement sectors. Within these sectors, the iron and steel sector was able to generate the most money from receiving too many free allowances and selling this surplus for a profit on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Iron and steel	€184 million	€9 million	€198 million	€392 million
Refineries	€16 million	€3 million	€102 million	€121 million
Cement	€15 million	€1 million	€38 million	€54 million
Petrochemicals	€23 million	€0.8 million	€13 million	€36 million

Among the corporations that have received the most overallocations in Sweden, SSAB, Preem, Cementsa and Borealis are the corporations in Sweden that have made the most profits from the EU’s carbon market. SSAB was, for example, able to make about €364 million from the EU ETS of which €194 million was from being able to sell excess free emission allowances. SSAB received almost twice as many free allowances than its verified emissions in the 2008-2015 period.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
SSAB	Iron and steel	€194 million	€8 million	€162 million	€364 million
Preem	Refineries	€12 million	€2 million	€79 million	€93 million
Cementsa	Cement	€14 million	€1 million	€38 million	€53 million
Borealis	Petrochemicals	€19 million	€0.8 million	€11 million	€30 million



United Kingdom

Heavy industry in the UK made €3.2 billion windfall profits from the EU ETS

Some corporations have used the EU ETS to increase their cash flows by using the theoretical risk of “carbon leakage” as an argument to receive pollution subsidies from governments. Heavy industry in the UK was able to generate about **€3.2 billion in windfall profits from the EU ETS during 2008-2015 in the following ways:**

- 1. Windfall profits from surplus: €862 million.** Industries have received more emission allowances for free than they actually need and are able to sell their surplus for a profit on the market.
- 2. Windfall profits from offsets: €68 million.** The price for international offsets is much lower than the price for emissions allowances. Industries have bought international offsets to comply with their targets and are able to sell their remaining free allowances for a profit on the market.
- 3. Windfall profits from cost-pass through: €2,222 million.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors in the UK that have profited most from the EU ETS are the iron and steel, refineries, cement, extraction of crude oil and gases, cement and petrochemicals sectors. Within these sectors, the cement sector was able to generate the most money from receiving too many allowances and selling this surplus for a €248 million profit on the market. The iron and steel sector made the highest profits from passing through (non-existent) costs to customers.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Iron and steel	€29 million	€23 million	€820 million	€872 million
Refineries	€104 million	€4 million	€544 million	€652 million
Extraction of crude oil and gas	€24 million	€12 million	€608 million	€643 million
Cement	€248 million	€8 million	€114 million	€371 million
Petrochemicals	€119 million	€6 million	€70 million	€194 million

Among the corporations that have received the most overallocations in the UK, Tata Steel, Lafarge, HeidelbergCement and Phillips 66 are the corporations in the UK that have made most profits from the EU's carbon market. Tata Steel in the UK, for example, was able to make €870 million in windfall profits, of which €105 million were made by selling excess allowances on the market.

Company	Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Tata Steel	Iron and steel	€105 million	€22 million	€743 million	€870 million
Lafarge	Cement	€100 million	€5 million	€43 million	€149 million
HeidelbergCement	Cement	€104 million	€1 million	€27 million	€132 million
Phillips 66	Refineries	€37 million	€0.2 million	€66 million	€104 million

Conclusions and recommendations

The current EU ETS rules related to the free allocation of emission allowances have been detrimental to the climate and taxpayers. The emission allowances that are given away for free represent pollution subsidies as governments forego income and lose out on revenues from auctioning these pollution permits. New data by CE Delft, commissioned by Carbon Market Watch, shows that energy-intensive corporations in Europe have made over €25 billion in windfall profits at the expense of taxpayers and consumers, while support for innovative industry frontrunners has only be a fraction of this. Worse still, the current rules could stall industry's emission reductions over the next 15 years, even though further reductions are still possible.

Despite concerns that the current rules have not had the desired effects, the current European Commission proposal to revise the EU ETS rules for the post-2020 period continues with the EU-wide hand-out of around 6.3 billion free pollution permits. This represents a pollution subsidy of up to €160 billion to heavy industry and could lead to even more windfall profits for heavy emitters in the future.²⁵

The ongoing legislative process for the next ETS trading round from 2021-2030 provides an important opportunity to revisit the rules under which industrial sectors are able to receive free pollution permits. It should also set the future agenda for complimentary EU policies aimed at addressing industry emissions more effectively.

To avoid windfall profits and drive innovation, Carbon Market Watch makes the following recommendations:

Key recommendations

Avoid over-subsidising polluters:

- **Target free pollution permits only to those that really need it.** Sectors that are not at risk of “carbon leakage” should not receive any free pollution permits after 2020. Any left-over free allowances should be cancelled or auctioned for innovation support.
- **Annually reduce the amount of free allowances that an installation receives** (the benchmark) in line with the overall decarbonisation pathway of the EU ETS.
- **Do not give free emission allowances for the share of carbon costs that companies can pass on to customers.**
- **Introduce benchmarked border levelling in combination with 100% auctioning for the cement sector.**

Deliver investments in the climate friendly transition of the European economy:

- **Deliver a more meaningful carbon price signal** that rewards green innovators by tightening the EU ETS cap.
- **Phase out the free allocation of pollution permits** by gradually increasing the share of allowances to be auctioned from 57% in 2021 to 100% in the future. Auctioning is the most cost-efficient, simplest, fairest, and most transparent way to allocate allowances, fully reflecting the polluter-pays principle. **Invest the revenues from auctioning allowances in further domestic and international climate action.**
- **Increase the innovation fund and invest in breakthrough technologies** by using the revenues of the fund to support forward-looking energy and industry companies that want to invest in innovative low-carbon technologies in Europe. This will enhance the competitiveness of European industry.
- **Support local communities and workers** in regions impacted most strongly by the ongoing transition to a decarbonised economy **by setting up a Just Transition Fund.**

²⁵ See SWD (2015) 135 [here](#). An average carbon price of €25/tCO₂ in the 2021-2030 period is assumed.

CLAIM

Quote by CEMBUREAU:

"[...] the current EU ETS [...] will de-industrialise Europe before it decarbonizes European manufacturing"*



Stop subsidising pollution
Phase-out free ETS allowances



*CEMBUREAU (2015). CEMBUREAU comment on the EU ETS review
**CE Delft (2016) report: 'Update of the calculation of additional profits of sectors and firms in the EU ETS 2008-2015'

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