RGL Forensics

Carbon Credits

Presented by Richard Cameron-Williams

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Contents

A Brief History of Carbon Credits

The year is 2005…

…Tony Blair is Prime Minister

…Love Island first airs on ITV

EU Emissions Trading Scheme (ETS)

The EU ETS was set on 1 January 2005 in order reduce carbon emissions through a "cap-and trade" system

- Carbon Credits free issued or auctioned off – aim to reduce free allocation over time
  - For manufacturing industries, the share of free allowances will decrease annually to reach 30% in 2020.
  - For the aviation sector, the share of free allowances amounts to 82%.
- At the end of each trading period, companies operating in relevant industries must hand in sufficient Carbon Credits or pay a fine
- In 2013, this fine was over €100 per tonne of CO_2

Scope of ETS

Countries

- All 28 EU countries plus Iceland, Liechtenstein and Norway

Industries affected

- Power and heat generation
- Energy-intensive industry sectors including oil refineries, steel works and production of iron, aluminium, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids and bulk organic chemicals
- Civil aviation

Targets

- Reduction in CO2 compared to 1990 levels
  - 2020 – reduction of 20%
  - 2030 – reduction of at least 40%

The Scheme so far….

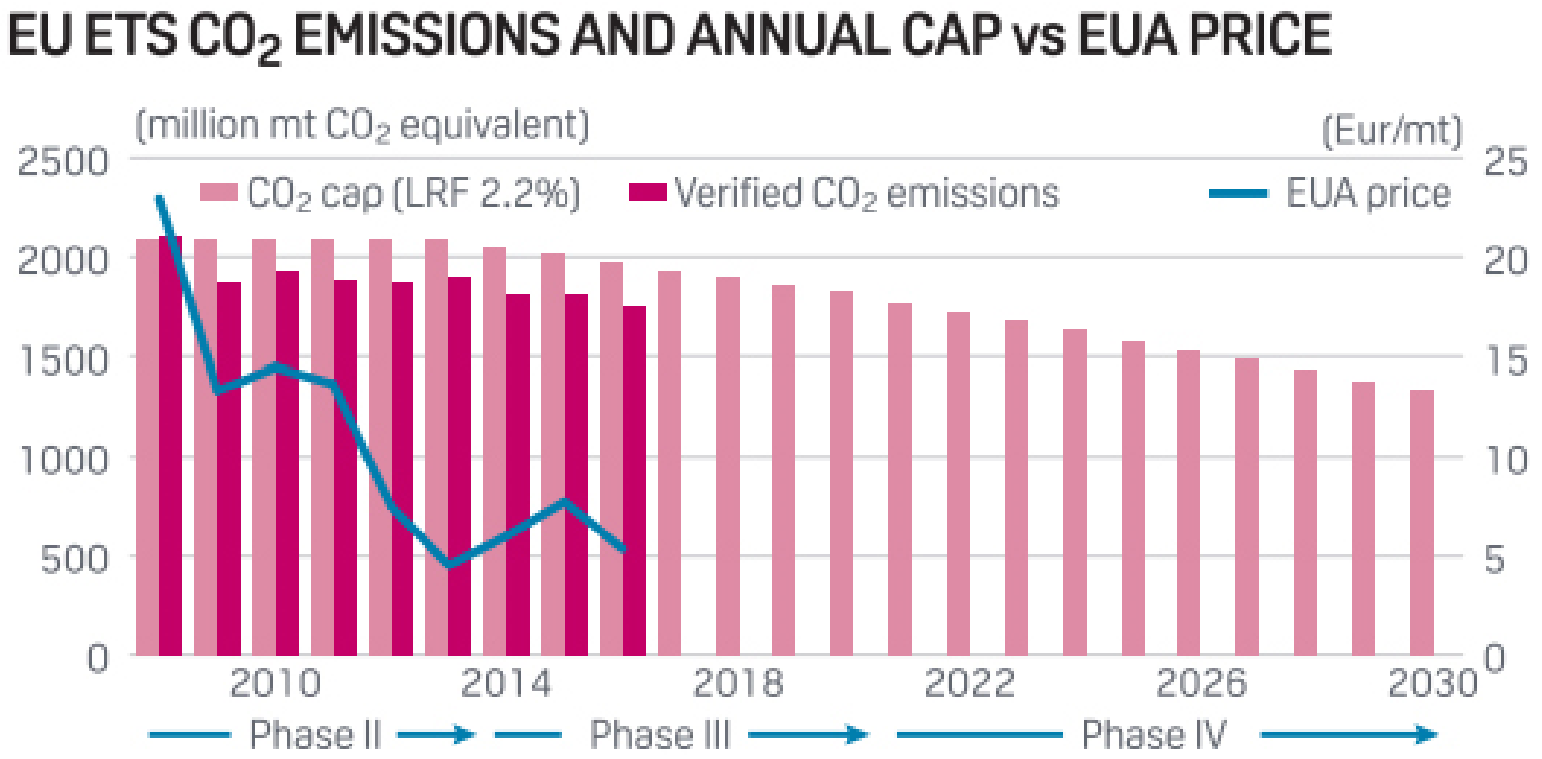
2005-2007: 1st trading period
EU ETS was successfully established as the world's biggest carbon market. However, the number of allowances, based on estimated needs, turned out to be excessive; consequently the price of first-period allowances fell to zero in 2007.

Too many credits issued

2008-2012: 2nd trading period.
Iceland, Norway and Liechtenstein joined (1.1.2008). The number of allowances was reduced by 6.5% for the period, but the economic downturn depresses emissions, and thus demand, by even more. This led to a surplus of unused allowances and credits which continues to weigh on the carbon price. Aviation was brought into the system (1.1.2012).

Targets reached due to economic downturn

Historic Cap and Emissions



Graph shows verified CO_2 emissions from stationary sources.
LRF = Linear Reduction Factor (annual rate of decline in CO_2 cap, 2021-2030).
Source: European Commission, S&P Global Platts

Recent Developments

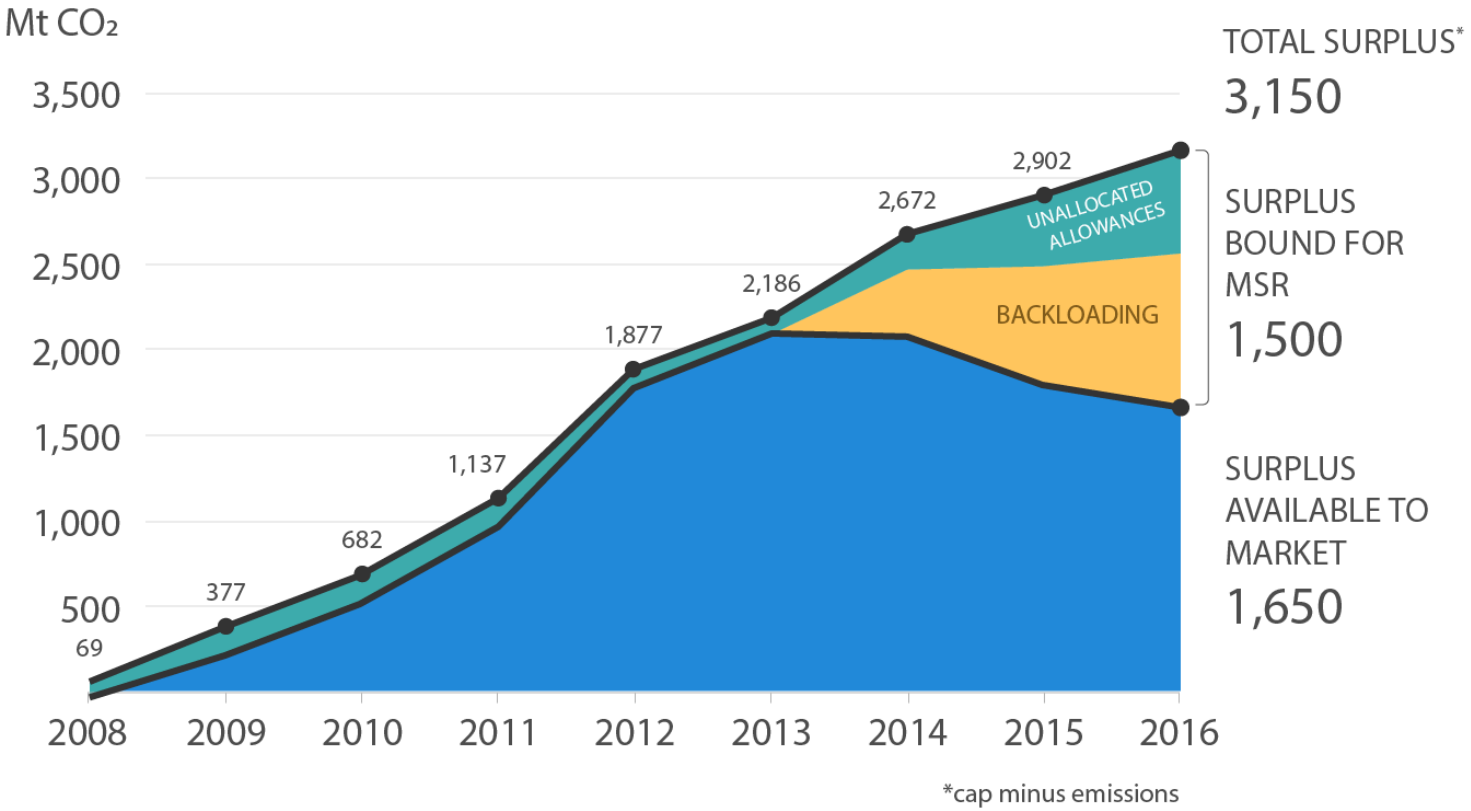
Why has the price increased?

- **Reforms to 3rd trading period**
- Introduction of an EU-wide cap on emissions (reduced by 1.74% each year) and a progressive shift towards auctioning of allowances in place of cost-free allocation.
- **Market Stability Reserve ("MSR")**
- Effectively a central bank for the carbon market, designed to stabilise supply and demand for credits. Starts in 2019.
- 900m credits "back-loaded" until 2019-2020 now to be placed in MSR
- Can take credits out of circulation, or cancel credits if the surplus in the market becomes too large.
  - 24% of the market surplus will be removed each year between 2019 and 2023 and placed into the reserve, if the surplus exceeds 833m credits – enough to cover the annual emissions of the whole German economy
  - If the surplus falls below 400Mt, 100m credits will be released from the reserve into the market
  - If the number of credits in the reserve exceeds the volume auctioned in the previous year, then the excess will be automatically and permanently removed from the market

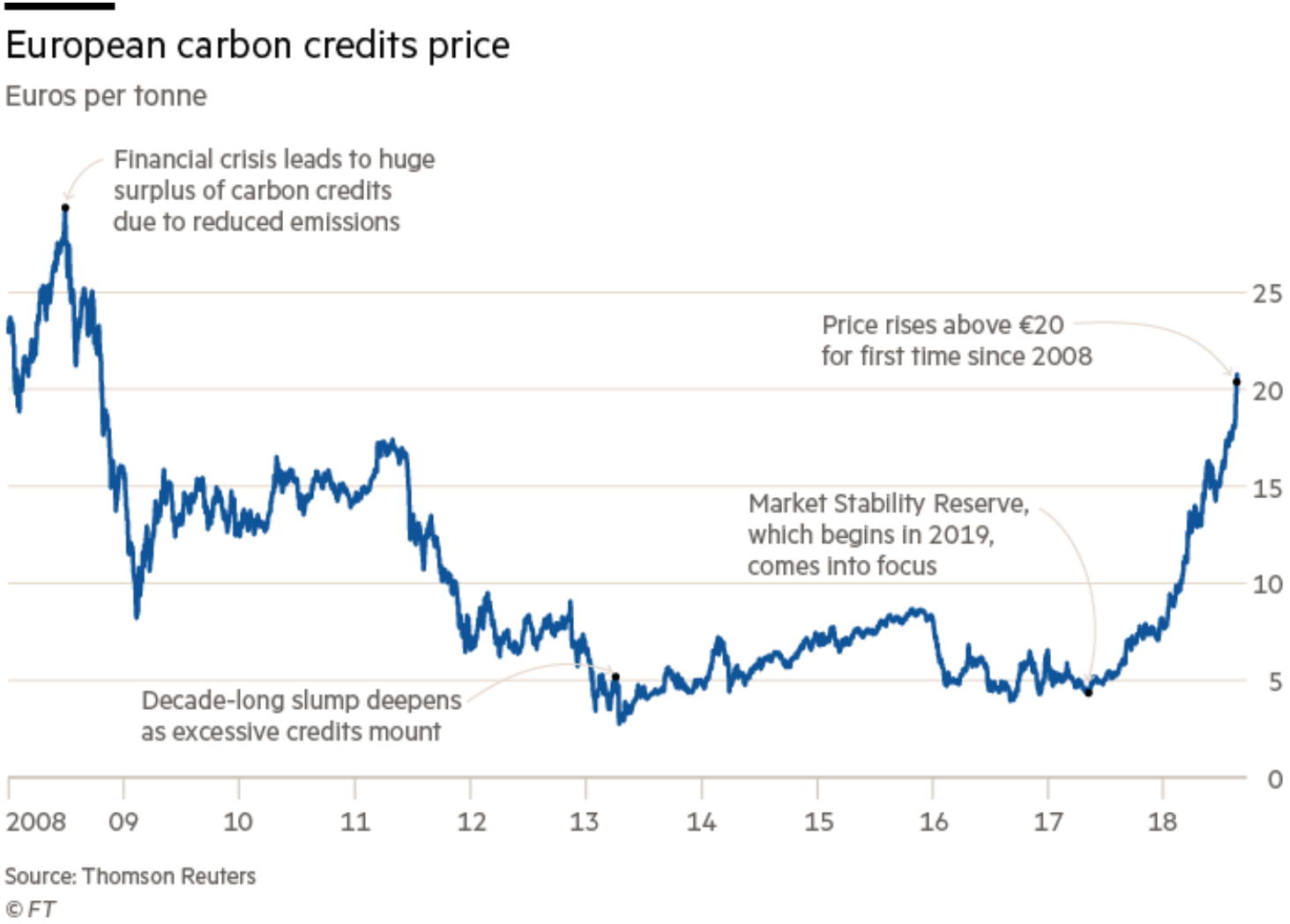
Surplus and Backloading

TOTAL ETS SURPLUS* NOW OVER

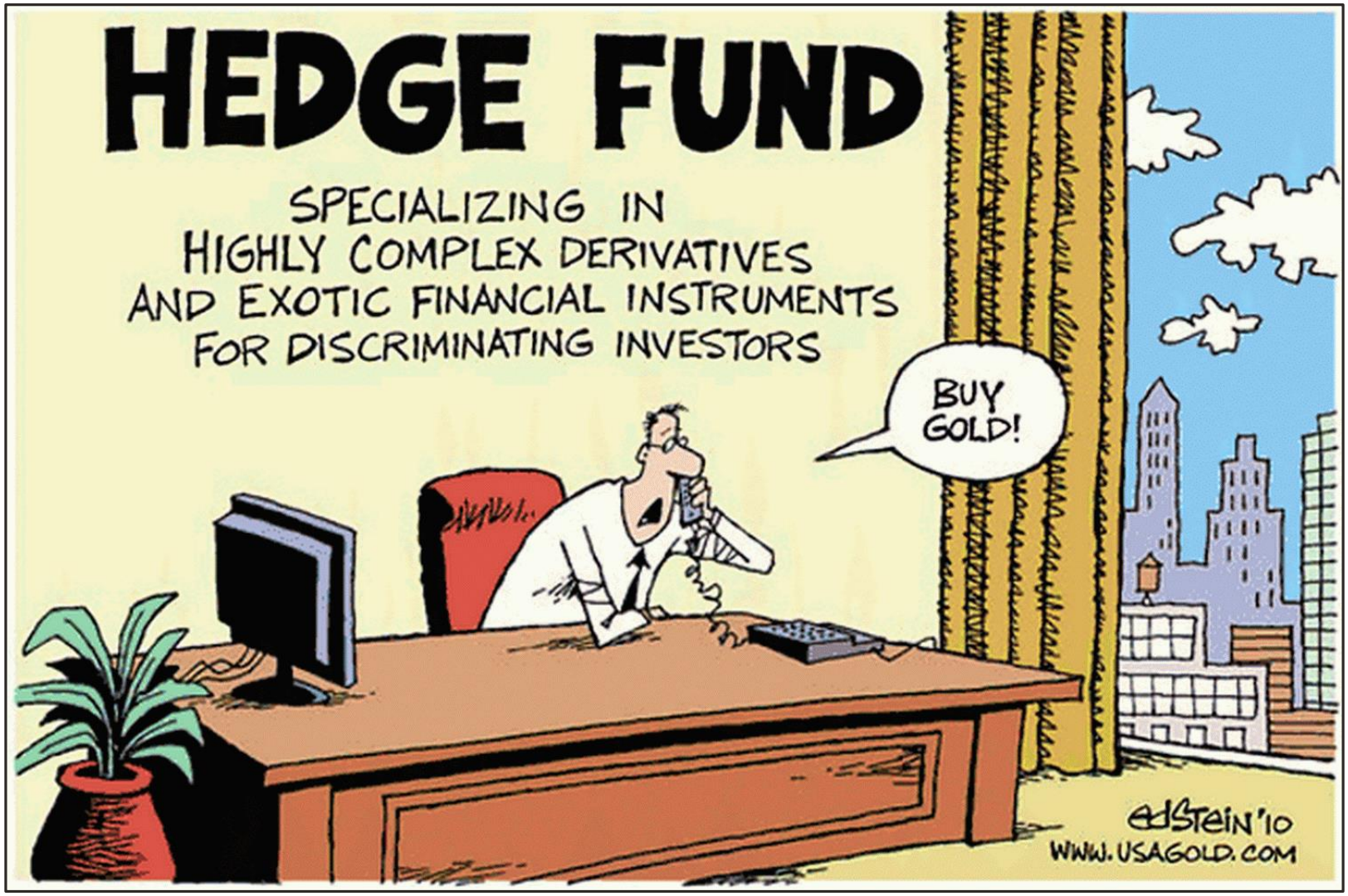
3 BILLION TONNES



Carbon Price



Who else is getting interested…



Claim / Underwriting Considerations

Claims / Underwriting Considerations

- How are Carbon Credits accounted for – revenue or cost?
- How are they valued? Price at the time of the incident; over the period of loss; end of the trading period; end of the Maximum Indemnity Period?
- Depending on the claim they could be considered a saving (loss of generation / production) or an Increased Cost of Working (mitigation by less carbon efficient means)
- For heavy industry, the Carbon Credit allowances can be based on prior year production – an incident could then affect next year's allocation. Would this be covered under the company's Business Interruption policy?

Impact on Profitability (Power Generation)

Fuel	Carbon Emissions	Carbon Credit cost at		Energy Price	Carbon Credit as a % of energy price	
		€ 5	€ 20		€ 5	€ 20
	t/MWh	£ per MWh		£/MWh	%	
Gas (CC)	0.487	2.14	8.57	65.00	3%	13%
Oil	0.650	2.86	11.44	65.00	4%	18%
Coal	0.870	3.83	15.31	65.00	6%	24%

Impact on Profitability (Heavy Industry)

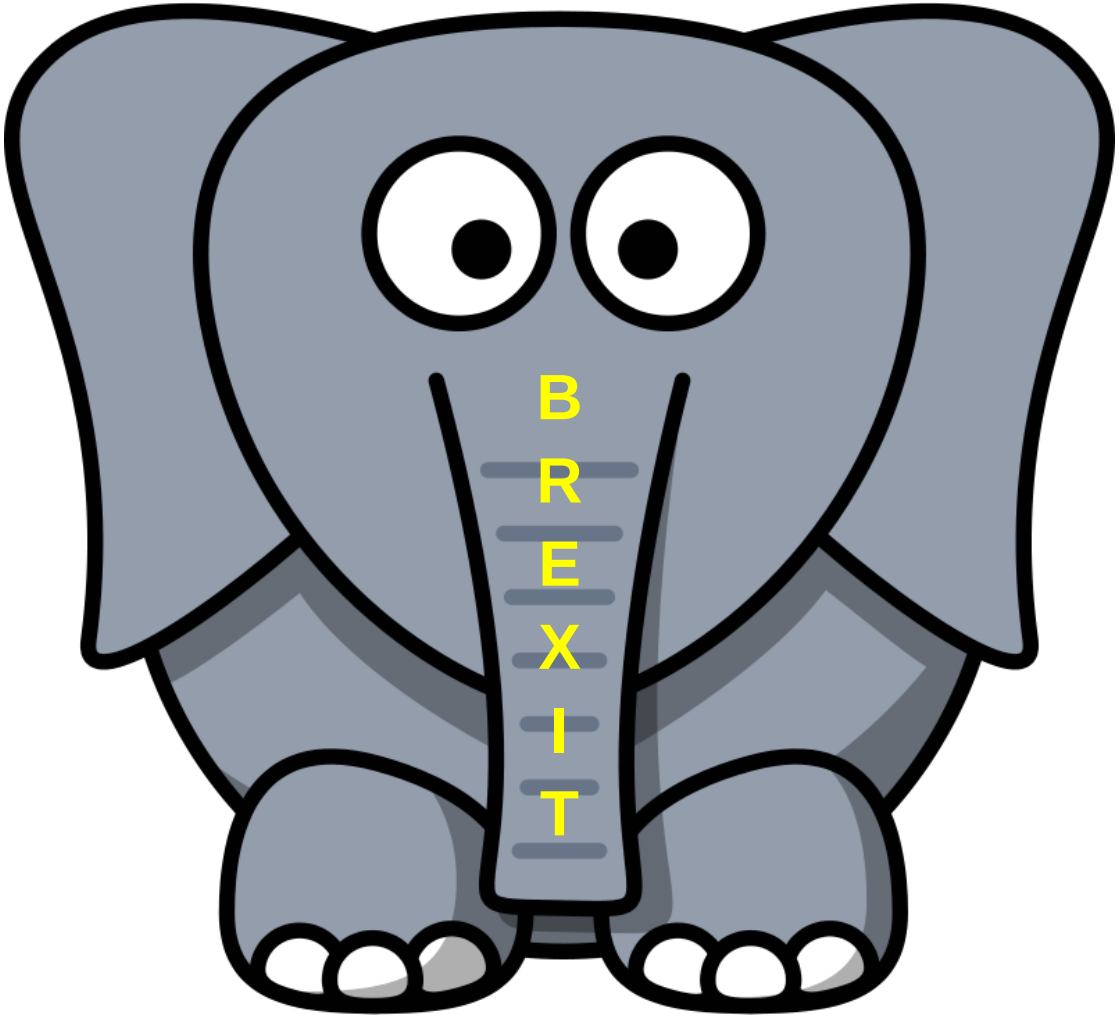
Fuel	Carbon Emissions	Carbon Credit cost at		Price per Tonne	Estimated GP	GP per tonne	Carbon Credit as a % of GP	
		€ 5	€ 20				€ 5	€ 20
	t/t	£ per Tonne		£/t	%	£/t	%	
Steel (HRC)	1.90	8.36	33.44	475.20	70%	332.64	3%	10%
Fertiliser (Urea)	0.73	3.21	12.85	208.26	20%	41.65	8%	31%

2017 Fertiliser claim

BI Loss - $USD 12m
Net Carbon Credit Saving - $USD 750k

At current prices, saving would increase to $USD 3m

What next?



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Thank you

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