

**EU Emissions Trading Revisited for Understanding 'Fit for 55' Package
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Aviel Verbruggen
University of Antwerp
<https://www.avielverbruggen.be>

Abstract

The cornerstone of EU Climate Policy is the EU Emissions Trading System (ETS). 'Fit for 55' is a voluminous package of plans for low-carbon neoliberal growth. A theoretical Cap & Trade discourse conceals major facts and poor performance of emissions trading in the EU. Opposite to praise by the ETS community and economics academia, I show that EU ETS is not a carbon market, yet a huge bureaucratic system donating free permits to bulky greenhouse gas emitters. The posted permit prices at the exchanges are fabricated via a Market Stability Reserve of *surplus* permits. The prices are used as symbols of a functional market, yet they allow collecting of €billions of revenues by billing non-ETS electricity users. 'Fit for 55' plans an additional ETS for billing non-ETS fuel use in road transport and buildings. EU ETS started as smokescreen for "business-as-usual" of all companies, and is evolving into a money collector for financing stranded assets and decarbonization investments.

Introduction

Global Greenhouse Gas (GHG) emissions are mounting, and progress in global climate politics is feather light, while extreme climate phenomena expand (IPCC 2018). Many voices call for drastic and urgent change. Individuals, households, communities, cities, etc., voluntarily engage in decarbonizing (some of) their activities. The willingness to act now for radical transformation is lively, spreading and intensifying among citizens. Voluntarism is necessary, but not sufficient for protecting the Climate Commons.

In the 'Tragedy of the Commons', Garrett Hardin (1968) recommended: instead of building on voluntarism and goodwill, employ available goodwill to construct "*mutual coercion mutually agreed upon by the majority of the people affected*", a hint to the responsibility of politics in constructing effective climate policy in a democratic way. It is worth the effort to verify whether present policy processes match the recommendation by Hardin, amplified and specified by authoritative authors such as Brundtland & co-authors (WCED 1987), Ostrom (2014), and more.

Economists strongly advocate *market-based* instruments such as emissions trading, or a global uniform carbon tax. The idea of global emissions trading was adopted at COP3 in Kyoto (December 1997). Implementation is slow and partial, and results are contentious, followed by opposite reactions: on the one hand, calls for more and stricter application of economic instruments; on the other hand, less market-based instruments for room to direct incentives and obligations, often linked to industrial policy (Meckling 2021). From arduous teaching environmental economics and its theoretical prescriptions, I evolved to a fervent critic of the missing attention for diversity in climate economics and politics (Verbruggen 2021).

This Forum deals with EU climate policy with the Emissions Trading System (ETS) as its cornerstone (Skjaerseth and Wettstad 2009). The European Commission (EC)

and its courtiers claim a global climate policy leader status, and accentuate the EU will be the first *net zero carbon* continent by implementing its 'Fit for 55' package.

"A cornerstone of the package is to build on the important achievements of the **EU Emission Trading System** by strengthening it and applying it to new sectors where so far emissions reductions have been lacking. The experience of the last 16 years has shown that emissions trading is a highly effective mechanism to bring down emissions in a cost-effective way, while the revenues it generates can be used to support the transition to cleaner production and to stimulate innovation." (EC 2021a, 5)

This glorious self-evaluation by the EC is problematic because the facts show the opposite: the ETS is not effective, not cost-efficient, and did not deliver decarbonizing innovation. The non-ETS electricity users, mostly households, SMEs, public facilities, etc. pay the "*revenues it generates*". The EU ETS is not a carbon market, but an unwieldy bureaucratic construct. First, I substantiate the bold critique by clarifying the deep gaps between Cap & Trade Theory and EU ETS Practice. Second, it is shown how 'Fit for 55' prepares low-carbon neoliberalism.

EU ETS: Theory versus Practice

Around 2000, an *anti-tax* carbon coalition (Meckling 2011) masterminded an emissions trading *scheme*, later renamed *system*. Based on textbook theory, the EC argued Cap & Trade is the best instrument to mitigate CO₂ emissions (EC 2000). *In theory*, Cap & Trade may effectively reduce emissions when a *stringent and tight* Cap cuts the aggregated emissions of the regulated activities. *In theory*, Cap & Trade is cost-efficient when polluters trade *scarce* emission permits up to a distribution of permits which *equalizes the marginal abatement costs* of all regulated sources, whatever diverse their activities are. *In theory*, the market's invisible hand would set the *right price* of the scarce emission permits, followed by *price-induced innovation* delivering new decarbonization technologies. *In theory*, markets are lean and transparent with little or no bureaucracy. Since 2000, the EC uses the Cap & Trade tale to convince an ignorant constituency of the superiority of emissions trading, however hiding '*in theory*'.

Time to look at the EU ETS *Practice* on the four theoretical renditions of Cap & Trade.

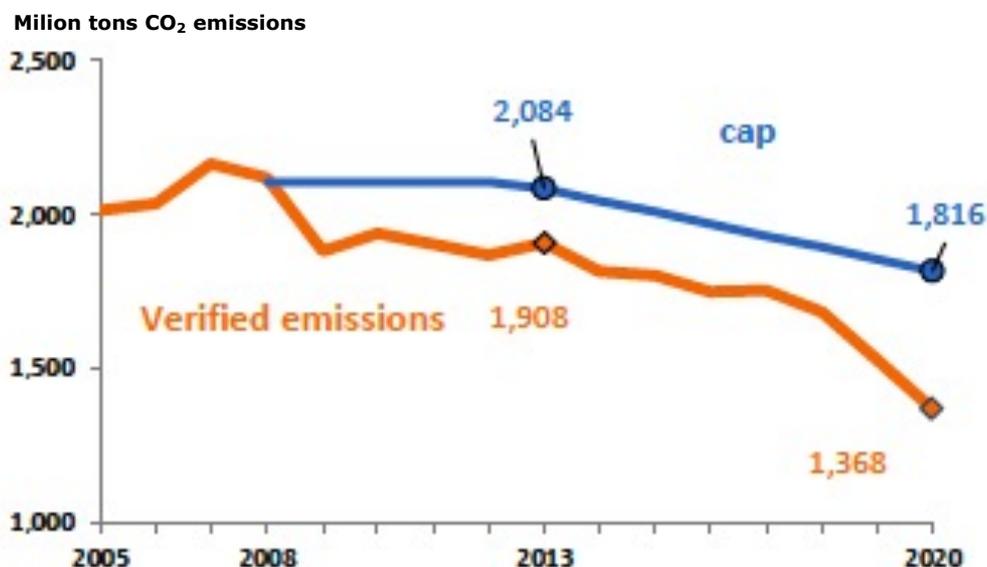
Since the start of the EU ETS in 2005, Caps were oversized. All ETS activities received ample free permits during phases 1 and 2 [2005-2012]. A significant surplus of permits was created, further inflated by the financial crisis starting in 2008, by Covid in 2020, and during phase 3 [2013-2020] by growing renewable power generation (Marcu et al. 2021, fig.8, 17-18).

In addition, Caps are permeable for import of permits (offsets) from non-EU countries, and for carbon leakage due to de-industrialization of the EU. The number of *surplus* permits proliferated to over two billion in 2012. The EC lifted the iron curtain between consecutive phases, and allowed the transfer of 1,750 million surplus (mostly free donated) permits into phase 3 [2013-2020]. Hence, hundreds of ETS experts, consultants, lobbyists, NGOs, etc., had busy days in pushing the enormous surplus forward, and in inventing rules to control the surplus volume. Year by year the ETS Cap is significantly higher than the aggregate of the verified (=factual) emissions by regulated activities (figure 1). The constant positive delta [cap – verified emissions] and the thick cushion of surplus permits contradict the theory of *Caps cut the ETS emissions*.

Figure 1: EU ETS Cap versus Verified emissions (2008-2020)

$\Delta = \text{Cap (blue line)} - \text{Verified emissions}$

Source: Wegener Center, published in Marcu et al. (2021, p.11)



In 2012, the EU ETS bifurcated in an electricity generation branch and an industry branch.

Electricity generators, then causing more than half of the ETS emissions, obtain a separate legal ETS status. Technologies harvesting power from wind, light, and water currents, were developed outside, at odds with, the ETS and installed by citizens, cooperatives, SMEs.

In 2014, revised EU state aid guidelines assigned priority to large-scale renewable power projects, now wanted by the incumbent electricity generators (Verbruggen et al. 2015). The latter are quitting business-as-usual for a future of electrification of most economic activities, based on renewable power. Stranding assets in thermal power and investing in GigaWatt renewable capacities, request huge funds.

International competition does not endanger electricity sales. Over phase 3, electricity generators gradually get less free permits, and acquire missing permits in bilateral trade, and at auctions which generate *revenues* for the EC and Member State governments. The *raison d'être* of this EU ETS branch changed into a clockwork for charging climate financing on the bills of non-ETS electricity users.

In phase 4 [2021-2030], large industrial activities (cement, steel, ...) are receiving sufficient or ample permits for free. This practice degrades the posted permit price at the exchanges (Leipzig, London) to a *fringe price*, a commercial situation where all units are given for free, except the last unit must be paid. Fringe pricing is unlike venerated marginal cost pricing (Verbruggen 2021, annex E). A metaphor is telling: Assume all car fuels in the US are given for free from January 1 to December 25; only during the last week of the year, car drivers must pay a high price of \$US 10 per gallon. Would such fringe pricing be an incentive to decarbonize the car fleet?

Fringe pricing offers an opportunity for financial speculation. It does not comply with the theory of price-induced innovation. The EU ETS did not stimulate innovation (Calel and Dechezleprêtre 2016), painfully illustrated by the construction of large-scale coal-fired power plants during ETS phases 2 and 3 [2008-2020]. For example: in the Netherlands 3,430 MW coal-fired capacity started operating in 2015-2016.

The electricity companies' auction expenses and speculative profits (CE Delft 2016) are passed on to non-ETS electricity customers. The noted permit prices at the exchanges justify the €billions charged. The higher the notations are, the easier the justification.

ETS proponents see high permit prices as proof of successful market functioning. Yet, ETS prices do not result from market functioning. In 2019, the EC introduced the *administrative* price-fixing mechanism *Market Stability Reserve* (MSR). MSR keeps the number of permits in circulation higher than 400 million by permit release via auctions, and lower than 833 million by storage in the reserve of surplus permits. Since 2019, the exchange price bands have gone up, with room for short-term speculative transactions. Such transactions do not equalize the marginal abatement costs of all diverse emitting sources. MSR preserves a cushion of surplus permits; permit cushions are inherent to direct emission regulation. However, they impair the Cap & Trade concept.

In summary, the EU ETS is neither effective, nor cost-effective, and is a mockery for decarbonizing innovations. Unwieldy bureaucratic practices substitute for the lean market promised in 2000. The EU ETS is not a carbon market. The constant voluminous permit surplus and high gap between cap and verified emissions disclose that supply is structurally higher than demand. Such a market condition is typical for waste or similar unwanted items. Administratively constructed price bands are for ETS-proponents symbol of a working market, yet for non-ETS electricity users the sign of higher electricity bills.

Low-carbon neoliberalism

"The 'Fit for 55' Package cements **the EU's global leadership by action and by example** in the fight against climate change." (EC 2021a, 2). The package is infested by Eurocentrism, with little attention for global context and approaches. Yet, universal, multi-leveled, polycentric approaches are the way to addressing the climate commons problem (Ostrom 2014).

The EC's primary goal is *neoliberal economic growth* for the EU, although veiled by a dazing discourse of **international solidarity, transformational change, socially fair transition**, etc.

Sustainability is the due substitute for neoliberalism. In 'Fit for 55' Sustainable Development for Our Common Future (WCED 1987) is neither goal, nor guide for the future. *Sustainability* is absent, while *sustainable* pervades the Communication text as *sustainable growth, sustainable competition, sustainable fuels*, etc. Section 4 is entitled "A Sustainable EU in a Sustainable World" (EC 2021a, 12-13).

'Fit for 55' pursues a *low-carbon neoliberalism*, with reduction of fossil fuel use and the distant 2050 goal of *net-zero emissions*. The package fits corporate business models, with for example offshore wind, Sustainable Aviation Fuels (SAF), without a word about politic, citizen, community, cooperative initiatives which started the energy transition in Denmark and Germany.

Three features characterize neoliberalism (Wolin 2010):

- (1) In strategic societal matters, corporations prevail over subservient politicians

- (2) Relentless economic growth amasses fortunes for the superrich, transcending ecological boundaries
- (3) Inequality is considered as normal, with charity caring for deprived people

'Fit for 55' confirms the leading position of industry, priority to economic growth, and acceptance of inequality.

"It (the package) ensures that industry can lead the transition and gives it the certainty it needs for boosting investment and innovation. It focuses on taxing energy sources in line with our climate goals and environmental objectives. The package translates the polluter pays principle in practice." (EC 2021a, 2).

"The European Green Deal is a growth strategy and as outlined in the EU's updated Industrial Strategy, the Fit for 55 proposals offer significant opportunities to develop, deploy and export low-carbon technologies and green jobs. (...) The Commission will continue to incentivize investments in the green transition. In reviewing the environmental and energy State aid guidelines the Commission will pay particular attention to ensure that they mirror the scope and ambition of the European Green Deal." (EC 2021a, 11).

The package plans extensions of the existing EU ETS and creation of an additional ETS. Extensions are integration of more aviation and of international shipping. Wealthy people are the most frequent flyers. Specific charges on frequent flyers are unlikely, as EU ETS relieves included activities of other policy initiatives with financial impact. The package intends to safeguard aviation growth, without considering the uneven distribution of benefits and costs.

The additional ETS would include millions of GHG emission sources in road transport and buildings. The operating handles of this ETS are assigned to *fuel suppliers and tax warehouses* and "the price signal coming from the new ETS is passed on to the consumers" (EC 2021b, 103-104). Like in the existing EU ETS, consumers would generate the *revenues*, now on their purchase of fossil fuels.

"25% of the expected revenues will in principle" go to a **new Social Climate Fund** "to address energy poverty and mobility challenges for the vulnerable" (EC 2021a, 4). 75% of the revenues seems destined to the accounts of the EC and fuel suppliers. 'Fit for 55' fairness is limited to avoiding *yellow vest* upheaval. This additional ETS set-up is baseless: effective decarbonizing mobility and buildings is feasible without additional tax extorting. Fossil fuel suppliers want their own ETS cash cow, similar to the one controlled by the electricity producers in the present EU ETS.

Who is paying in the ETS? "*Industry pays for every ton of GHG emitted*" is deceiving media discourse. Evidence and EC documents show the opposite is true: via disguised taxing, non-ETS energy users pay the bulk of ETS *revenues*, and industry absorbs the larger part of the €billions. Ending such illegal and stealthy practices, means abolishing EU ETS and Fit for 55, relieving the citizenry from the full payment burden. A more credible implementation of the Polluter Pays Principle is needed.

Blunt heavy taxing of energy and emissions is politically unlikely (Rabe 2018). It is also economically precarious when reliable and affordable mitigation alternatives are lacking. Budget reforms, specific subsidies and taxes with care for the distributional impacts, are workable and effective approaches. A most relevant example are the German and Danish specific subsidies assigned to a diverse range of renewable energy technologies for pulling these to maturity. Since 2001, the kWh cost of wind and PV came down like a waterfall, offering hope on decarbonizing all human activities.

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