

Dirty Transport as a New Own Resource

How taxing diesel, jet fuel, and air tickets can help fix the EU budget and tackle Europe's biggest climate problem

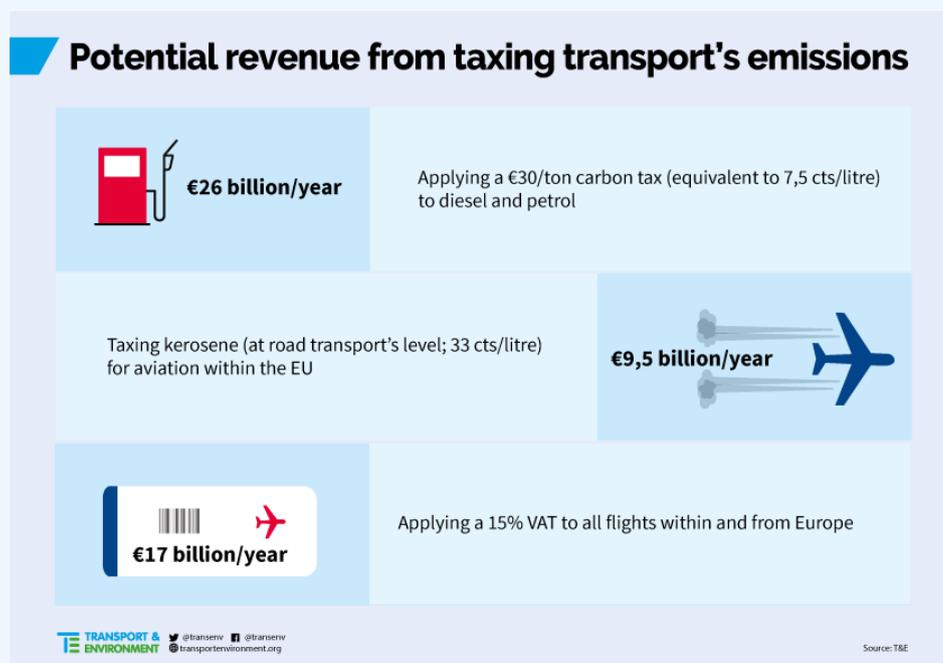
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Summary

Transport is Europe's biggest climate problem, representing 27% of the bloc's greenhouse gas emissions. If Europe is to meet its climate targets and avoid the severe impacts of climate change, additional action is needed to tackle emissions from the transport sector. Fiscal policy has a key role to play.

The EU is drafting the post-2020 budget with a proposal expected in May 2018. The annual €10-14 billion gap that will be left as a result of the UK's departure from the EU has triggered debate on alternative sources of revenue for the EU budget.

There is an opportunity to raise revenue from transport for both the EU and national budgets while helping to tackle rising emissions from the sector. Taxing climate-intensive transport would encourage smarter transport behaviour and accelerate the uptake of cleaner technologies. The potential revenue from such taxation is just over €50 billion per year. A small part of this could be used as EU own resources – where it should be earmarked for climate spending. But the bulk would become available to member states to reduce labour taxes or other economically harmful taxes.



Whilst tax policy is predominantly a national prerogative, each of the three above measures is agreed at EU level. Diesel and petrol taxes are set in the Energy Tax Directive (ETD); kerosene taxes

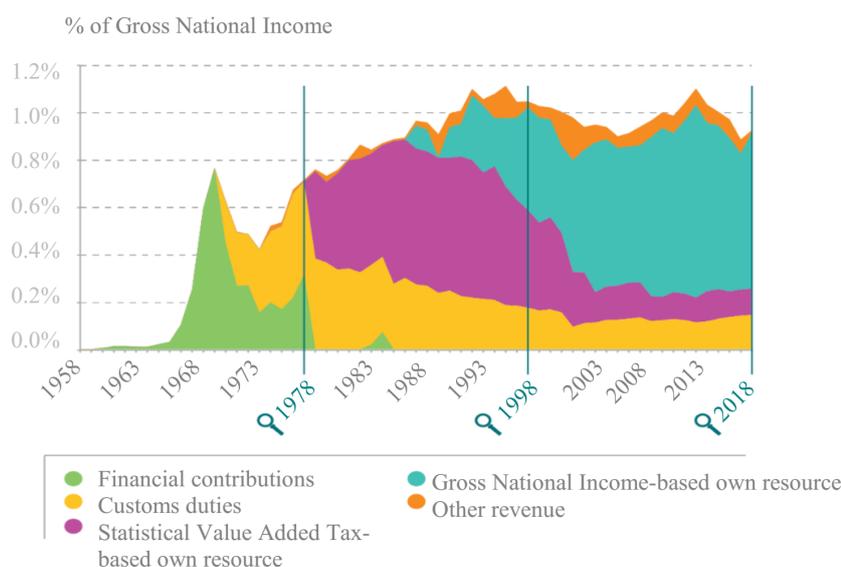
too are regulated by the ETD; whilst harmonised EU VAT rules are being discussed by EU tax ministers as we speak.

The EU should include such new own resources as part of the post-2020 EU budget. A euro spent at EU level must be worth more than a euro spent at national level for the EU budget to make sense in the eyes of EU citizens. There is a clear added value for climate action to be taken at EU level and this should be prioritised in the budget. The taxation of transport would do two things: generate revenue for both the EU and national budgets while accelerating the transition to a cleaner transport sector.

1. The EU Budget and Transport Taxation

The EU is in the process of drafting its post-2020 budget and determining spending priorities. The MFF defines the budget of the EU for a defined period (usually 7 years). This process tends to centre around a broader discussion of EU priorities and a vision for the society that the EU wants to help build. The current budgetary period runs from 2014-2020 and spends about €1 trillion on investment. This amount is only a portion of the final amount of investment that is triggered as it is almost always allocated for the co-financing of projects and not the complete project cost. Examples of where the EU invests are the Erasmus programme, transport infrastructure, energy infrastructure, agricultural subsidies, and research. The EU budget primarily aims to support common EU policies and objectives in areas where the EU has added value.

Sources of financing of the EU budget



The EU budget is financed mainly through contributions from member states based on their gross national income (GNI). In addition there are the so-called own resources which includes value added tax (VAT) receipts, and customs duties collected at the external borders of the European Union.

Changes to the Own Resources Decision (adding or amending existing own resources) would require unanimity in the Council and ratification by all member states. Such changes have been made before as part of the package accompanying each new MFF. For example, the Council adopted a new own resource in 2013 based on VAT that intended to improve transparency and strengthen the link with EU VAT policy and actual VAT receipts¹.

The former prime minister of Italy, Mario Monti, wrote a report in 2016 called “the Future Financing of the EU”². This report proposes to “introduce new own resources alongside traditional own resources and the GNI-based own resource, which would fulfil the classical sufficiency and stability criteria, vertical and horizontal aspects of ‘fairness’ requirements and also tackle policy objectives”. It suggests a motor fuel levy (or excise duties on fossil fuels in general) and a flight ticket tax as two such “new own resources”. Monti

¹ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014D0335>

² http://ec.europa.eu/budget/mff/hlgor/library/reports-communication/hlgor-report_20170104.pdf

continues by saying that the revenue from such taxation could then either fully or partially be own resources for the EU budget, which means that part of the tax revenue collected would directly contribute to the EU budget. The amount to which such revenue would contribute to the EU budget would be agreed upon unanimously by member states.

This so-called “Monti Report” influenced the EU Commission to include motor fuel taxation as a potential new revenue stream in their vision paper for the future budget in 2017³. The Commission’s February 2018 communication on the EU budget⁴ lists some of the potential new own resources that are being considered for the post-2020 proposal. As in the Monti-report, the communication stresses that “new own resources could be used to forge an even more direct link to Union policies”. The four options mentioned include revenues from the Emissions Trading System, a consolidated corporate tax base, a reformed VAT-based own resource and seigniorage.

Transport or fossil fuel taxes are not explicitly mentioned but the paper does state that the Commission is also assessing other measures in particular those included in the Monti-report.

1.1. The Energy Taxation Directive

The Energy Taxation Directive (ETD) defines the minimum level of taxation legally permissible in Europe for certain fuels. The adopted text goes back to October 2003. One of the key reasons why minimum tax rates for fuels are adopted at EU level is to reduce opportunities for Member States to lower fuel taxes to promote fuel tourism. And indeed, in a number of small and centrally located EU countries (ideal for tax tourism) the EU minima are the effective tax rates. The ETD has been a key tool in preventing a race to the bottom regarding fuel taxation. This has benefited the climate but also serves to protect the single market and protect government tax revenues.

EU decisions on taxes are taken by all governments in the Council under unanimity. This means, firstly, that one single member can block any decision and, secondly, that the European Parliament only has an advisory role. The background is that a number of member states – the most outspoken example being the UK – want to hand over as little power over taxation as possible from their national governments and parliaments to the EU.

The directive defines mandatory minimum tax levels for all traded energy products: Transport propellants (petrol, diesel, LPG, and natural gas); propellants for off-road use (agriculture, forestry, stationary motors, construction machinery etc.); fuels for heating; electricity. The minimum tax levels decided in 2003 are, generally speaking, higher for transport and domestic purposes than for non-transport and industrial purposes. However the ETD includes in its Article 14 provisions permitting member states to continue to exempt aviation fuel for domestic, intra and extra-EU flights, from taxation. The exemption is not mandatory, and member states are free to tax aviation fuel for domestic aviation or, on a bilateral basis with other member states for aviation fuel uplifted for flights between them. To date no member states have availed of this provision except the Netherlands for the period that domestic flights operated.

The ETD has not been reviewed since 2003. Updating the ETD to shift towards greener taxation would help fight climate change, reduce labour taxes and strengthen the economy⁵.

³ https://ec.europa.eu/commission/sites/beta-political/files/reflection-paper-eu-finances_en.pdf

⁴ https://ec.europa.eu/commission/sites/beta-political/files/communication-new-modern-multiannual-financial-framework_en.pdf

⁵ https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-4224148/feedback/F6931_en

Fiscal policy will have a key role to play in transitioning to zero emissions transport. In the short run it is crucial to accelerate the penetration of new technologies (e.g. electrification) and incentivise efficient behaviour (e.g. car sharing, modal shift, demand moderation); For example, we estimated the operational costs of a battery electric truck and compared it to a diesel truck. The diesel (internal combustion engine) trucks (left) and battery trucks (right) are comparable in terms of the total cost of ownership although BEVs would already today have a small benefit (see graph). Lower electricity and higher diesel taxes would immediately and drastically improve the business case for battery trucks. This is true for other vehicles such as cars and vans, but also for vessels.

In the long run fiscal policy will be needed to price polluting technologies and fuels entirely off the market. A common approach at EU level will be needed to avoid free riding (e.g. fuel tax tourism) The revenue generated from the taxes could contribute in part to the EU budget as new own resources in order to achieve the shared objective of national and international climate targets.

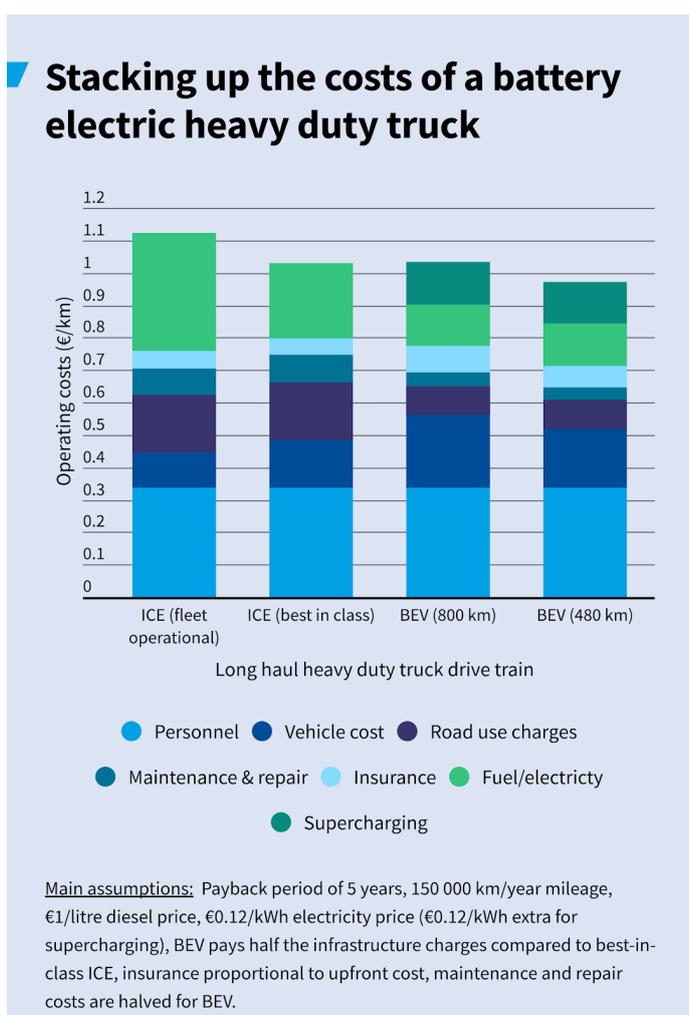
1.2. How to Tax the Climate Impact of Transport

Transport has become Europe’s biggest climate problem in part because of inadequate taxes and VAT rates applicable to greenhouse gas intensive means of transport. The problem goes beyond GHG though, since other externalities such as health related pollution, accidents, congestion etc are also insufficiently reflected (internalised) in transport costs. In addition, subsidies (both direct and indirect) for the use of fossil fuels in transport have distorted the market and lead to a perversely cheap and highly polluting transport sector in Europe.

The ETD sets out that energy products are only taxed when they are used as heating or motor fuel. The levels of such energy taxes may not be lower than the minimum values defined in the Directive.

The Directive in its current form establishes the following minimum excise rates:

Energy product used as motor fuel	Current minimum excise rates
Unleaded Petrol (€/1000 litres)	359
Diesel (€/1000 litres)	330
Kerosene (€/1000 litres)	330
Natural Gas (€/GJ)	2.6



A reformed ETD should include the following provisions:

1. **Introduce a gradually increasing carbon tax** going from €10/ton in 2020 to €30/ton in 2030 (equivalent to 2.6€/l in 2020 and 7.5€/l in 2030⁶). This could raise €26 billion/year, ceteris paribus. Alternatively diesel taxes could be increased to the effective (i.e. not EU minimum) petrol taxes. This would raise €32 billion/year. Note that the UK represents 13% of EU28 fuel consumed for road transport.
2. **Introduce automatic inflation adjustment.** In 2016, the average road fuel tax paid by motorists and hauliers, excluding VAT, was €0.54 which, corrected for inflation, is 17% below the 2000 level of €0.65/litre. The ETD is partly responsible for this drop. The legislation did not reflect a periodic review of the minimum tax levels at an EU level. Consequently, member states do not have the obligation to keep fuel taxes at pace with inflation. Automatic inflation adjustment must be introduced.
3. **Rescind the explicit exemption for the taxation of aviation and marine fuels** and require aviation jet fuels on domestic and intra EU routes to be subject at least to the EU minimum rate of fuel tax, which is currently 33€/l.
4. **Enable zero tax rates for transport electricity**, at least until 2025. Currently member states need to go through a very difficult process to get exemptions allowed. The ETD should radically simplify this.
5. **End the tax preference for natural gas.** The current minimum tax rate for natural gas is four times less than the equivalent tax for diesel or petrol (per unit of energy). In addition, several countries provide tax exemptions for natural gas which cannot be justified from a climate change perspective.⁷
6. **Stop the tax exemptions for bad biofuels.** The current ETD allows Member States not to charge fuel tax duties to biofuels. In fact, almost all member states use this possibility. But not all biofuels are equal – as the Commission’s proposal to reform the Renewable Energy Directive recognises. Food-based biofuels are associated with negative indirect impacts (Indirect Land Use Change). Once accounted for, a majority of EU biofuels are worse for the climate than fossil diesel⁸. The ETD should ensure that food based biofuels do not receive further public support.
7. **Equalise minimum diesel and petrol taxes** from €0.33 to €0.359 per litre. This would generate ca. €900 million of additional tax revenue.

2. Aviation Taxation

Historically, all aviation fuel has been tax exempt. Domestic fuel taxation was permitted from 2003 and on intra-EU routes only when subject to bilateral agreement. Air Services Agreements with non-EU aviation partner countries mutually exempt kerosene from taxation. For similar historical reasons, air tickets are subject to VAT only on domestic flights and this applies only in some member states. These exemptions cause distortions with rail, artificially stimulate demand, drive uncontrolled growth in aviation emissions and constitute unjustifiable subsidies. The sector is fastest growing climate problem and the €150 million/year ETS⁹ cost to airlines does little to address this imbalance.

⁶ Assuming 2.5 kg CO₂ per litre of fuel, from the 2016 fuel consumption weighted average between petrol and diesel

⁷ https://www.transportenvironment.org/sites/te/files/publications/2016_02_TE_Natural_Gas_Biomethane_Study_FINAL.pdf

⁸ <https://www.transportenvironment.org/press/biodiesel%E2%80%99s-impact-emissions-extra-12m-cars-our-roads-latest-figures-show>

⁹ https://www.transportenvironment.org/sites/te/files/2016_09_Aviation_ETS_gaining_altitude.pdf

An explanation is provided below of how VAT or an airline ticket tax could be introduced on both intra-EU and extra EU flights to third countries. Domestic and intra-EU fuel taxation could be introduced and will raise €9.5bn in revenue while helping to address aviation's carbon footprint and the sector's external costs.

2.1. VAT and ticket taxes

Historical VAT exemptions on tickets for international flights were grandfathered on a “temporary” basis when states joined the EU but these exemptions continue to apply. VAT on domestic airline tickets is allowed - and most notably is applied at 19% in Germany. But many other member states continue to zero rate domestic aviation. On the other hand, VAT is applied to cleaner intra-EU modes of transport like bus and rail across some Member States¹⁰, which creates competitive distortions. One reason why states have held onto the exemptions is practical; intra-EU passenger transport VAT is levied according to the distance travelled and at the applicable rate in each member state. This creates inordinate administrative burdens for bus and rail, which often leads to under-collection. If applied to aviation, it might well require a complex tracking of individual flights to determine actual distances as routes can vary according to weather conditions, air traffic control or military airspace considerations.

The Commission has been trying for years to simplify these “place of supply rules” but the airline lobby has successfully resisted. However reforms are now underway to implement the “definitive” VAT regime in 2022 using the “destination” principle to determine VAT payable. This will mean that the place of supply for passenger transport will be at the country of departure. VAT would apply on an airline tickets' full value at the VAT rate of the country of departure with all revenue accruing to the departing state. This will be a major and positive step forward as it was always hoped that reform of the place of supply rules for passenger transport might convince some member states to apply VAT on intra and possibly extra-EU flights. The revenue potential is significant (see chart below). However in its proposal on a review of VAT rates, the Commission proposed on 18 January 2018 a more flexible system of standard, reduced and zero VAT rates that in theory and potentially in practice could see all passenger transport zero-rated.

Member states are keen on greater subsidiarity on VAT and there has been little evidence over the years of anomalous reduced or zero rates being rectified. At the same time and in order to preserve a minimum level of VAT revenues across the EU, a “negative list” of items which must be subject to standard VAT rates post 2022 will be drawn up. As there is no equity justification whatsoever for exempting aviation from VAT, a clear option for the Commission would be to propose the inclusion of both intra and extra-EU air tickets in the negative list under the definitive VAT regime. Total estimated revenues from applying a 15% VAT to all domestic, intra and extra EU flights tickets is some €17bn. This measure alone could solve the budget problem, address the inequity of equating a flight ticket with necessities like baby food and school books by zero rating both, and make a major contribution to addressing aviation's climate impact by remove a perverse subsidy to the most climate intensive form of transport.

Among the proposals considered by the Monti Commission was one to levy an EU-wide carbon air ticket tax to become a new EU own resource. Ticket taxes are solely national competence. The UK applied a ticket tax (APD) on all departing flights in the early 90s and gains enormous revenues as a result. Germany introduced a similar ticket tax in 2011 at lower rates. Norway and Sweden recently introduced ticket taxes and the new Dutch Government has raised the prospect of one from 2020. Smaller member states are reluctant to implement ticket taxes fearing leakage of passengers to neighboring cross border airports while southern member states fear tourists will divert to avoid the tax. The irony of this situation is demonstrated by the following example: Of the 36 million passengers traveling between the UK and Spain, the journeys originating in the UK are subject to a high ticket tax (APD UK). Spain collects no tax

¹⁰ https://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/vat/how_vat_works/rates/vat_rates_en.pdf&sa=D&ust=1518518656401000&usg=AFQjCNHbWesKb5hV0LX3Mwo_jyETWxJAw

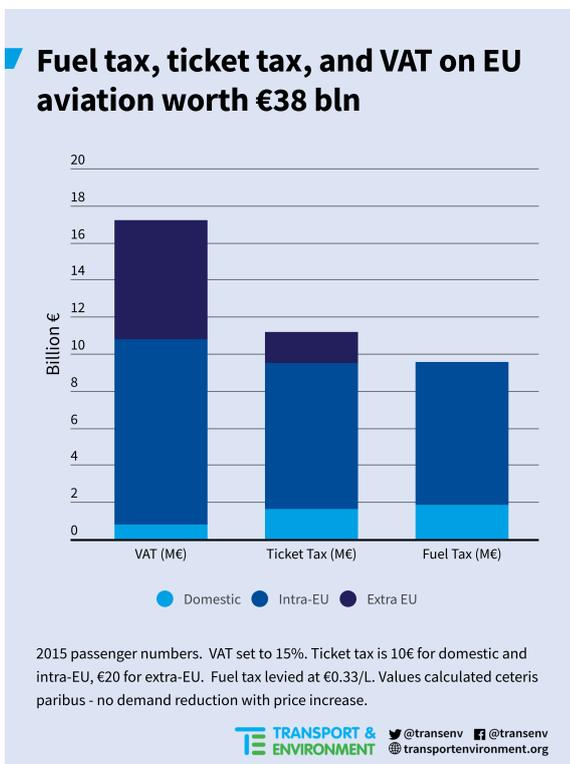
revenue on these UK passengers returning home. Because of these concerns and potential distortions, a further option would be for the Commission to propose an EU-wide own resources ticket tax.

2.2. Aviation Kerosene Tax

2.2.1. Domestic Flights

The ETD first permitted taxation but on domestic aviation fuel only in 2003. The Netherlands (and Norway) proceeded to do so but domestic flights in the Netherlands have now been phased out. Not taxing domestic aviation kerosene denies member state revenues, fuels the unbridled growth of aviation emissions and creates distortions with low carbon alternatives (particularly rail). Nothing in international law, either in air service agreements or the ICAO Chicago Convention, prohibits domestic fuel taxation. The US, Japan, Brazil and India all tax domestic aviation fuel.

Nor does the ETS Directive say that the ETS can be the only charge on carbon emissions of covered entities. So a fuel tax and the ETS can coexist - alongside for that matter both VAT and ticket taxes (e.g. Germany). Taxing domestic fuel is a simple decision of national governments.



2.2.2. Kerosene tax on intra-EU flights

The ETD 2003 continued the longstanding exemption from taxation of fuels used on international flights but for the first time included a provision permitting member states on a bilateral basis to waive this exemption and tax fuel on flights between the two states concerned at the EU minimum currently 33 cents/l or at a lower rate. So far no member states have done so. Potential annual revenues in the largest 5 member states are €6.5bn alone at the minimum ETD rate of 33 cents/litre for their combined domestic and intra-EU flights **while the total across the EU is estimated at €9.5bn.**

Ticket prices are already very low and the impact on consumers of such a tax would be minimal. For example, low cost carriers like Ryanair, Easyjet, and Wizz account for over 50% of the intra-EU market with an average one way ticket price of €80¹¹. If the cost is assumed to be passed on to the consumer, a 33 cent kerosene tax on an average intra EU flight would add €14 to the average ticket price¹². If VAT at 15% was applied in isolation to air tickets

and the cost fully passed through by carriers, then the €80 average one way ticket price would increase by €12. Considering that average ticket prices have fallen dramatically from hundreds of euros over the past decade or so, and by 16% in the past 5 years alone¹³, these measures are manageable and politically defensible as a means to fund budgets and cover aviation’s unmet external costs (e.g. climate change, noise and air pollution). The EU championed the liberalisation of the EU aviation market in the mid 90’s, abolishing all restrictions on fares and routes. Traffic, especially on low cost carriers, expanded

¹¹ Calculated from 4 annual reports FY16 representing the highest market shares of low cost carriers.

¹² T&E analysis. The average intra-EU flight sector is 1200 km. Fuel burn from a 737-800 from the ICAO Carbon Emissions Calculator Methodology V.9 with an assumed load factor of 85% yields 43 litres of kerosene per passenger.

¹³ EU average of all available carriers in all available countries (24 of the EU28) from Euromonitor data. Disclaimer: While every attempt has been made to ensure accuracy and reliability, Euromonitor International cannot be held responsible for omissions or errors of historic figures or analyses

dramatically, helped along by generous and lax enforcement of rules on airport and airline state aid - all funded by the taxpayer.

A portion of revenue raised could be directed to the EU budget. This would be an appropriate step which would benefit align EU climate goals with the EU's fiscal policy.

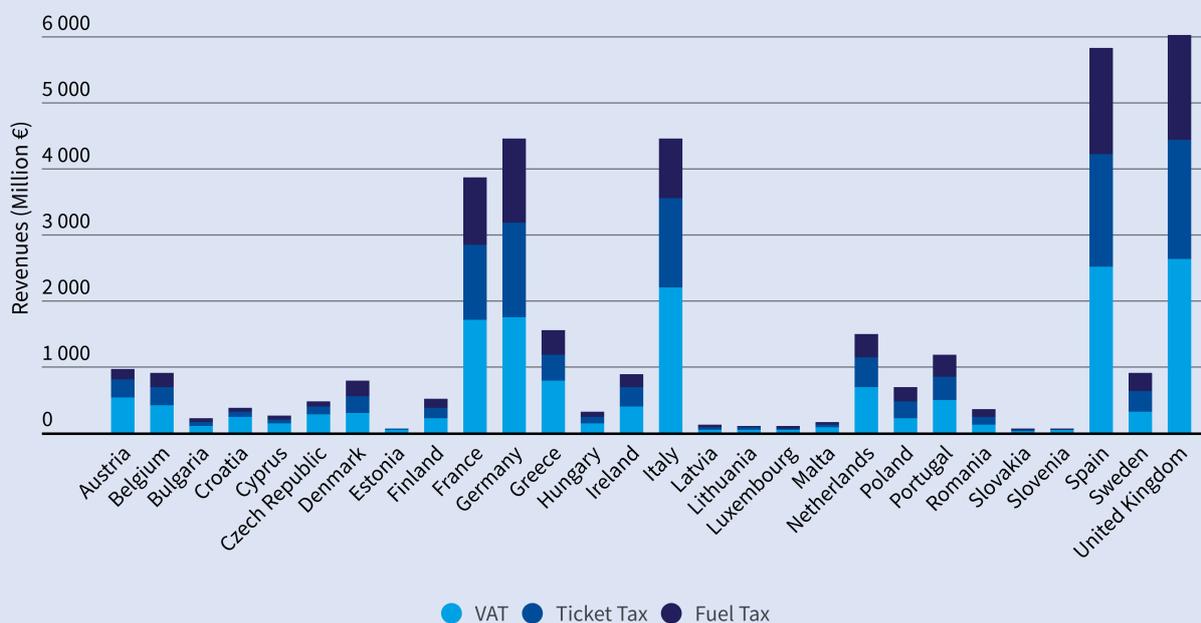
Such a tax would also send a price signal to airlines and aircraft manufacturers to increase efficiency, something not being sent by the emissions trading system.

Top 5 EU countries by measure of passenger numbers and potential fuel tax revenue for domestic and intra-EU flights¹⁴:

	Domestic passengers (millions)	intra-EU passengers (millions)	Potential fuel tax revenue (€ millions)
United Kingdom	22.8	137.9	1603
Spain	30.9	118.2	1614
Germany	23.2	102.9	1280
Italy	29.7	74.0	894
France	28.2	62.0	1022

¹⁴ Fuel taxes in this analysis are harmonised from Member State ETS allowance reporting of EUAAs and from transponder data analysis from Plane Finder data expressed as fuel burn, and the number of domestic and intra-EU passengers in 2015, from the EU Transport Statistical Pocketbook 2017.

Potential aviation tax revenues for in the EU



Assumptions: country standard VAT rate applied to intra-EU and extra-EU flights; fuel tax of 0.33 c/L applied to domestic and intra-EU flights; ticket tax of €10 for domestic and intra-EU flights, and €20 for extra-EU flights. All values calculated on 2016 passenger numbers from the EU Statistical Pocketbook, ceteris paribus - no reduction in activity due to price increase.

Tax is a sensitive topic within the EU context. Defining tax rates is considered a pillar of sovereignty for many member states. This national perspective changes though when the taxation relates to a European-wide area of interest. Climate change is a clear example of an issue that requires international action in order to be meaningfully addressed. Transport is a sector that is largely cross border and fundamental to trade and tourism between member states. The fact that transport is now Europe's largest climate problem means that the taxation of polluting transport can be considered a European tax and revenue generated from such taxation should at least in part contribute to the EU budget.

3. Conclusion

The Commission's February 2018 communication on the EU budget¹⁵ lists some of the potential new own resources that are being considered for the post-2020 proposal. Transport is not explicitly mentioned as one regardless of the fact that it is Europe's biggest climate problem and, therefore, a potential source of revenue from climate taxation. It is stated in the communication that "new own resources could be used to forge an even more direct link to Union policies".

As its contribution to the Paris Climate agreement the EU has set a target to reduce emissions by 80-95% by 2050. To stay in line with a below 2°C trajectory would require the full decarbonisation of the transport sectors. Furthermore, Article 191(2) of the Treaty on the Functioning of the EU¹⁶ establishes the "polluter

¹⁵ https://ec.europa.eu/commission/sites/beta-political/files/communication-new-modern-multiannual-financial-framework_en.pdf

¹⁶ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012E/TXT&from=en>

pays principles”, which means that the actor who is the cause of pollution should pay the cost to society of that pollution. These two fundamental objectives of the EU shows that a better system of taxing fossil fuels in transport contributes to shared EU goals and should be considered to be a new own resource for the EU budget.

Taxation is a key element to making the transition to cleaner transport. Taxes can encourage companies to utilise cleaner technologies, promote smarter transport behaviour amongst users and help bridge the price gap with cleaner future fuels. These taxes would be agreed upon at EU level to ensure a coordinated approach and to avoid tax tourism. The revenue generated from the taxes could contribute in part to the EU budget as new own resources in order to achieve the shared objective of national and international climate targets.

Our analysis has shown that if a carbon tax was levied on motor fuels, a tax was applied to kerosene, and VAT attributable to intra/extra-EU flights, then already over €50 billion in revenue could be generated by such green taxation per year.

The fact that both taxation and the EU budget require similar support amongst EU member states makes 2018 a unique opportunity to propose both in parallel. The Commission should therefore better integrate a reform of both the VAT and Energy Tax Directive with the development of the MFF and new own resources.

Further information

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