EU Regulation (recast)

CO_2 LIMITS ON CARS AND LIGHT COMMERCIAL VEHICLES

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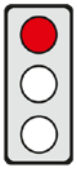
KEY ISSUES

Objective of the Regulation: In order to reduce CO_2 emissions in road transport, CO_2 limits on cars and light duty vehicles (LDV) will be further tightened.

Affected parties: Manufacturers of cars and light duty vehicles and their suppliers, buyers.



Pro: –

Contra: (1) Stricter CO_2 limits on cars and LDVs give rise to high CO_2 avoidance costs and provide no guarantee that CO_2 emissions will be reduced in the desired amount.

(2) In order to achieve CO_2 reduction targets, reliably and efficiently, in the road transport sector, the EU should incorporate refineries and fuel importers into an emissions trading system (ETS).

(3) In principle, a system of incentives for low-emission or zero-emission vehicles is preferable to a quota for electric vehicles. However, rather than de facto focussing support on battery-powered electric vehicles, a technology-neutral approach should be taken.

The important passages in the text are indicated by a line in the margin.

CONTENT

Title

Proposal COM(2017) 676 of 8 November 2017 for a **Regulation** of the European Parliament and of the Council **setting emission performance standards for new passenger cars and for new light commercial vehicles** as part of the Union's integrated approach **to reduce CO_2 emissions** from light-duty vehicles (recast)

Brief Summary

Note: Unless otherwise indicated, Article numbers refer to the Commission's proposal.

- **Context and objectives**
  - In order to meet the challenges of global climate change, EU-wide CO_2 emissions from the transport sector are to fall by at least 60% by 2050, compared with 1990 levels [Transport White Paper COM(2011) 144, p. 3; see cep**PolicyBrief**], and be "firmly on the path towards zero" [Communication "Low-Emission Mobility" COM(2016) 501, p. 1; see cep**PolicyBrief** 30/2016].
  - The CO_2 emissions from cars and light duty vehicles (LDVs) [SWD(2017) 650, p. 19]
    - went up by 19% between 1990 and 2015, a significant increase by comparison with other sectors,
    - after a decline between 2007 and 2013, have been showing an upward trend again since 2014,
    - make up approx. 16% of overall CO_2 emissions in the EU.
  - The European automotive industry is at risk of becoming less competitive due among other things to the tough limits on CO_2 in California and the planned quotas for electric cars in China (p. 1).
  - CO_2 emission targets applicable to a manufacturer's new fleet of cars or LDVs are currently governed by the
    - Regulation on CO_2 standards for cars [(EC) 443/2009; on this COM(2007) 856, see cep**PolicyBrief**] and the
    - Regulation on CO_2 standards for LDVs [(EC) 510/2011; on this COM(2009) 593, see cep**PolicyBrief**].
  - By way of stricter CO_2 targets, the Commission wants to [SWD(2017) 650, p. 18]
    - include the road transport sector in the implementation of the Paris Climate Change Agreement,
    - reduce fuel consumption and thereby fuel costs and
    - strengthen the competitiveness of the European automotive industry (Recital 4).
  - For this purpose, the CO_2 Emission Standards Regulation for Cars and the CO_2 Emission Standards Regulation for LDVs are being consolidated into one Regulation (recast).

- **Scope**
  The Regulation applies to the following vehicles where they are registered in the EU for the first time and have not previously been registered in third countries (Art. 2 (1)):
  - cars with a maximum of nine seats including the driver's seat, and
  - LDVs with a permitted total mass of up to 2,610 kg.

- **Manufacturer-specific CO_2 targets**
  - All manufacturers must ensure that the average CO_2 emissions from their new cars or LDVs – measured in grams of CO_2 per km – do not exceed a manufacturer-specific CO_2 target (Art. 4 in conjunction with Annex I; currently CO_2 Emission Standards Regulation for Cars or LDVs, Art. 1 and 4 in conjunction with Annex I; see table and cep**Background**, Graph 1).

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– The manufacturer-specific CO_2 target is defined as the sum of
  - a fixed basic amount, which is the same for all manufacturers ("EU fleet-wide target") and
  - a manufacturer-specific additional amount which will either reduce or increase the basic amount.
– The basic amount corresponds to the EU-wide target for average CO_2 emissions for all new cars or LDVs in the EU ("EU fleet-wide target" for cars or LDVs, Art. 3 Abs. 1 lit. k).
– The additional amount is calculated from the difference - weighted by a factor a - between the mass of the vehicle of a manufacturer "in running order" (M) and a reference mass (M_0) corresponding to the average mass of the total new-car fleet in the EU "in running order" for the previous year:
  Additional Amount = a x (M – M_0)
  - Where a vehicle is heavier than M_0, the basic amount will increase by the additional amount: the manufacturer-specific CO_2 target will be less strict.
  - Where a vehicle is lighter than M_0, the basic amount will be reduced by the additional amount: the manufacturer-specific CO_2 target will be stricter.
– As from 2020, some changes will be made to the figures for the basic amount, the weighting factor for the additional amount and the reference mass M_0 (Art. 4 (1) (a) in conjunction with Annex I; currently the CO_2 Emission Standards Regulation, Art. 1 and 4 in conjunction with Annex I; see table).

	Cars		LDVs	
	up to end 2019	from 2020	up to end 2019	from 2020
Basic Amount (EU fleet-wide target) [g CO_2/km]	130	95	175	147
Weighting Factor a [g CO_2/km per kg]	0.0457	0.0333	0.093	0.096
Reference Mass M_0 [kg]	1,392.40	1,379.88	1,766.40	1,766.40

► **Calculation procedure for CO_2 emissions**
CO_2 emissions from cars and LDVs will be measured (Art. 1 (2)):
– up to the end of 2020 using the "New European Driving Cycle" (NEDC; Regulation [(EC) 692/2008]) and
– from 2021 with the more representative "Worldwide Harmonised Light Vehicles Test" (WLTP; Regulation [(EU) 2017/1151]).

► **Planned basic amount (EU fleet-wide target) as from 2025 and 2030**
The EU fleet-wide targets will be tightened by reducing the basic amount for new cars and LDVs
– from 2025 by 15% – from 100% to 85% –,
– from 2030 by 30% – from 100% to 70% –
of the average of all manufacturer-specific CO_2 targets in the EU in 2021 (Art. 1 (4) and (5); see cep**Background**, Graph 2).

► **Planned additional amounts 2021–2024 and from 2025**
– For the period 2021 to 2024, the reference mass M_0 will be adjusted to changes in the average mass of the whole EU new car fleet in the foregoing years (Art. 4 (1) (a) in conjunction with Annex I, Parts A and B, paras. 3 and 4).
– From 2025, instead of "mass in running order" (M) and the reference mass (M_0), the "test mass" (TM) and the reference mass (TM_0) from the more representative WLTP procedure will be used (Art. 4 (1) (a) in conjunction with Annex I, Parts A and B, para 6.2): Additional Amount = a x (TM – TM_0).
– In 2025, the weighting factors of the additional amount will (Art. 4 (1) (a) in conjunction with Annex I, Part A, para. 6.2)
  - be determined from the actual relationship between test mass TM and EU fleet-wide CO_2 emissions in 2021
  - and then multiplied by the ratio between the EU fleet-wide target for 2025 and the average manufacturer-specific CO_2 targets from 2021.
– The same procedure will apply in 2030 (Art. 4 (1) (a) in conjunction with Annex I, Part A, para. 6.2).
– Where the EU vehicle fleet is heavier in 2021, the additional amounts will drop so that large-vehicle manufacturers will be subject to stricter requirements whilst for small-vehicle manufacturers they will be less strict (see cep**Background**, Graph 3).

► **Incentives for low-emission and zero-emission vehicles from 2025 and 2030**
A manufacturer can make its CO_2 targets easier with vehicles that emit less than 50 g CO_2/km.
– The manufacturer-specific CO_2 target will be made up to a maximum of 5% easier where the proportion – weighted according to the respective emissions – of low-emission and zero-emission vehicles in the manufacturer's fleet is above 15% from 2025, and above 30% from 2030.
– In this regard, vehicles with CO_2 emissions between 0–50 g CO_2/km are weighted according to the percentage by which their CO_2 emissions differ from 50 g CO_2/km (Annex I, Parts A and B, para. 6.3).

► **Incentives for "eco-innovations"**
– A manufacturer can also reduce its CO_2 target by a maximum of 7 g CO_2/km where it achieves CO_2 savings by way of "innovative technologies" ("eco-innovations", Art. 11 (1).
– As from 2025, the Commission can change the cap of 7 g CO_2/km (Art. 11 (1) in conjunction with Art. 290 TFEU).

- **Monitoring**
  - The national approval authorities must notify the Commission of any deviations in CO_2 emissions of vehicles in service as compared with approved values. The Commission must take account of these deviations when calculating the manufacturer-specific CO_2 targets (Art. 7 (8)).
  - The Commission is permitted to monitor the "representativeness" of the CO_2 emissions of in-service vehicles, measured under the WLTP procedure, and require actual emission data from Member States and manufacturers (Art. 12 in conjunction with Art. 291 TFEU).

Main Changes to the Status Quo

- Until now, CO_2 emissions from cars and LDVs were measured using the NEDC procedure. Now they will be measured by way of the more representative WLTP procedure.
- Until now the "mass in running order" (M) was used to determine the CO_2 limit for a vehicle; from 2025 the WLTP test mass (TM) will be used for this.
- Until now, CO_2 targets were given as absolute values in g CO_2/km. Now, percentage savings targets, of 15% and 30% respectively, of the average of all manufacturer-specific CO_2 targets from 2021, will apply as from 2025 and 2030.
- New: manufacturers are given easier CO_2targets where they produce more than 15% low-emission or zero-emission vehicles from 2025, and more than 30% of such vehicles from 2030.

Statement on subsidiarity by the Commission

According to the Commission, EU action is justified due to the cross-border consequences of climate change and in order to protect the internal vehicle market. Measures by the Member States to reduce CO_2 from cars and LDVs would result in a fragmentation of the market for new vehicles and to distortions of competition, thereby giving rise to additional costs. (P. 4)

Policy Context

The EU wants to reduce all CO_2 emissions by at least 40% by 2030 and by at least 80–95% by 2050 as compared with 1990 levels (European Council of October 2014, see cep**Input** 2/2015). For this purpose, CO_2 emissions in sectors that – like transport – are not covered by EU emissions trading, are to fall by 30% compared with 2005. For the first time, a legislative proposal on CO_2 limits for heavy duty vehicles (lorries and buses) has been announced for the first quarter of 2018.

Legislative Procedure

8 November 2017 Adoption by the Commission

Open — Adoption by the European Parliament and the Council, publication in the Official Journal of the European Union, entry into force

Options for Influencing the Political Process

Directorates General:	DG Climate (leading)
Committees of the European Parliament:	TBA (leading), Rapporteur TBA (Group)
Federal Ministries:	TBA (leading)
Committees of the German Bundestag:	TBA (leading);
Decision-making mode in the Council:	Qualified majority (acceptance by 55% of Member States which make up 65% of the EU population)

Formalities

Competence:	Art. 192 TFEU (Environmental Protection)
Form of legislative competence:	Shared competence (Art. 4 (2) TFEU)
Procedure:	Art. 294 TFEU (Ordinary legislative procedure)

ASSESSMENT

Economic Impact Assessment

Since the Regulations limiting CO_2 emissions from cars [(EG) 443/2009] and LDVs [(EU) 511/2011] are already in force, it certainly makes sense to establish the limits beyond 2020. This, however, does nothing to change the fundamental ordoliberal criticism of the approach. Orders and prohibitions, imposing sanctions in case of infringement, should not be used if market-based mechanisms for achieving a target are available. Such is the case here.

An emissions trading system which includes cars is an effective alternative to CO_2 limits and one which is far less restrictive for the decision-making freedoms of market players. In addition, it incorporates both new and old vehicles in efforts to protect the climate and facilitates the desired savings in CO_2 in a cost-efficient way. **In order to achieve CO_2 reduction targets, reliably and efficiently, in the road transport sector, the EU should** therefore **incorporate refineries and fuel importers into an emissions trading system (ETS**) – such as the EU ETS or a transport-specific ETS – (see cep**Input** 5/2015; cep**PolicyBrief** 2016-30). These would have to provide emissions allowances for the CO_2 bound up in fuel (known as "upstream emissions trading"). Thus the – entire or transport-specific – CO_2 emissions would be effectively limited by the overall number of emissions allowances. The trading in emissions allowances would ensure that CO_2 emissions are reduced where costs are lowest.
The cost of allowances, especially in a transport-specific ETS, would influence the price of fuel – and thus also purchasing and driving behaviour as well as the choice of means of transport. A higher fuel price would increase the competitive pressure on vehicle manufacturers to increase fuel efficiency, resulting in the corresponding CO_2 reductions. It would also offer incentives e.g. to buy vehicles with alternative propulsion systems and fuels or to change to other modes of transport. By influencing mileage and driving behaviour, the entire vehicle population would be involved in CO_2 reduction.

The plan to tighten CO_2 limits for cars and LDVs, on the other hand, quickly comes up against technical limitations and **gives rise to high CO_2 avoidance costs. Additionally, they do not provide any guarantee that the CO_2 emissions from road transport will be reduced to the desired degree.** Although such CO_2 limits do provide an incentive to build and sell vehicles which produce less CO_2 per kilometre, the reduction in fuel costs produced by more efficient engines, envisaged by the Commission, may also be counter-productive because it may strengthen the trend towards heavy and high-performance vehicles which has been having a detrimental effect on the CO_2 balance since 2014. The increase in mileage likely to result from lower travel costs ("rebound effect") also makes it doubtful that CO_2 emissions will fall as expected. Then the comparatively lower reduction in CO_2- would have to be compensated by expensive improvements in new vehicles.
The competitiveness of the European car industry will not be strengthened by CO_2 limits or by support for low-emission vehicles. The strict CO_2 limits in California, mentioned by the Commission, and the planned quota system for electric vehicles in China also provide incentives for European manufacturers. If, however, as a result of EU requirements on combustion engines and a lack of demand for electric vehicles in the internal market, European manufacturers have lower profit margins, they will be in a weaker position on the world market than competitors from third countries who seldom deliver to the EU.

Due to the change to the WLTP procedure for measuring CO_2**,** the reference value for the percentage reduction will not be available until 2022 and **the data on adjusting the reference mass TM_0,** which is relevant for the 2025 target, **will not be available until 2024; there is therefore** a long period of **planning uncertainty. 2025 should therefore only be a non-binding interim target** for cars and LDVs**.**
Equal treatment for cars and LDVs when it comes to reducing the basic amounts by 15% in 2025 and 30% from 2030, is inappropriate because companies, as the predominant users of LDVs, are more cost orientated, i.e. more intent on achieving low fuel consumption than private car owners. In addition, the target to be imposed from 2025 is much more difficult for LDVs to achieve than for cars due to the longer development cycles.

An incentive system for low-emission and zero-emission vehicles – as proposed by the Commission **– is preferable to the quota for electric vehicles** discussed during the preparation for the proposal because, where the demand for electric vehicles is too low - e.g. due to insufficient charging infrastructure -, obligatory sales quotas may severely restrict sales of conventional vehicles resulting in job losses in the car industry. Nevertheless, the incentive system proposed by the Commission almost exclusively rewards manufacturers of battery-powered vehicles: plug-in-hybrids, that can only offer just under the limit of 50 g CO_2/km will receive only a small amount of support and other transition technologies for saving CO_2 that cannot go below the 50 g limit – such as gas propulsion engines or ethanol blending engines – will not receive any support at all. **Rather than de facto focussing support on battery-powered electric vehicles, a technology-neutral approach should be taken.**

Legal Assessment

Legislative Competency

Unproblematic. The EU is empowered to issue environmental measures to protect the climate (Art. 192 TFEU). In addition, EU-wide standard CO_2limits for cars and LDVs ensure the functioning of the internal market (Art. 114 TFEU).

Subsidiarity

Unproblematic. EU-wide CO_2 limits for cars and LDVs can only be adopted at EU level.

Conclusion

In order to achieve CO_2 reduction targets, reliably and efficiently, the EU should incorporate refineries and fuel importers into an emissions trading system. The plan to tighten CO_2limits for cars and LDVs gives rise to high CO_2 avoidance costs. Additionally, they do not provide any guarantee that CO_2 emissions will be reduced to the desired degree. Due to the change to the WLTP procedure, data for adjusting the reference mass TM_0 will not be available until 2024; there is thus a long period of planning uncertainty. 2025 should therefore only be a non-binding interim target. A system of incentives for low-emission or zero-emission vehicles is preferable to a quota for electric vehicles. However, rather than de facto focussing support on battery-powered electric vehicles, a technology-neutral approach should be taken.