Summary of our publication

Vehicle taxation as a policy instrument. Impact of electric cars and light commercial vehicles on tax revenue, air quality and the climate

Further to our earlier publications on vehicle taxation, this report takes a closer look at the impact of zero-emission vehicles on the key objectives of vehicle taxation. The objectives are:

1. to provide a stable source of government revenue based on justifiable and practicable vehicle taxes;
2. to make a telling contribution to the air quality and climate goals by means of proportionate and targeted tax incentives for vehicles.

To gain an understanding of these impacts, this report presents the outcomes of several analyses of zero-emission cars and light commercial vehicles. The incentives for zero-emission vehicles are the mainstay of current policy on vehicle taxation. Light commercial vehicles are a significant category with a view to both the tax losses they cause and their impact on air quality and the climate.

Zero-emission vehicles

We analysed the impact of 11 models of zero-emission cars on tax revenues and the emission of CO_2, nitrogen oxides and particulates and compared the results with the impact of alternative petrol or diesel cars (counterfactuals). The results are shown in figure 1.

Netherlands Court of Audit • P.O. Box 20015 • 2415 ED The Hague • +31 70 - 342 43 44 • www.courtofaudit.nl • voorlichting@rekenkamer.nl

Decline in tax loss per tonne of CO2 reduction in 2019 and 2020

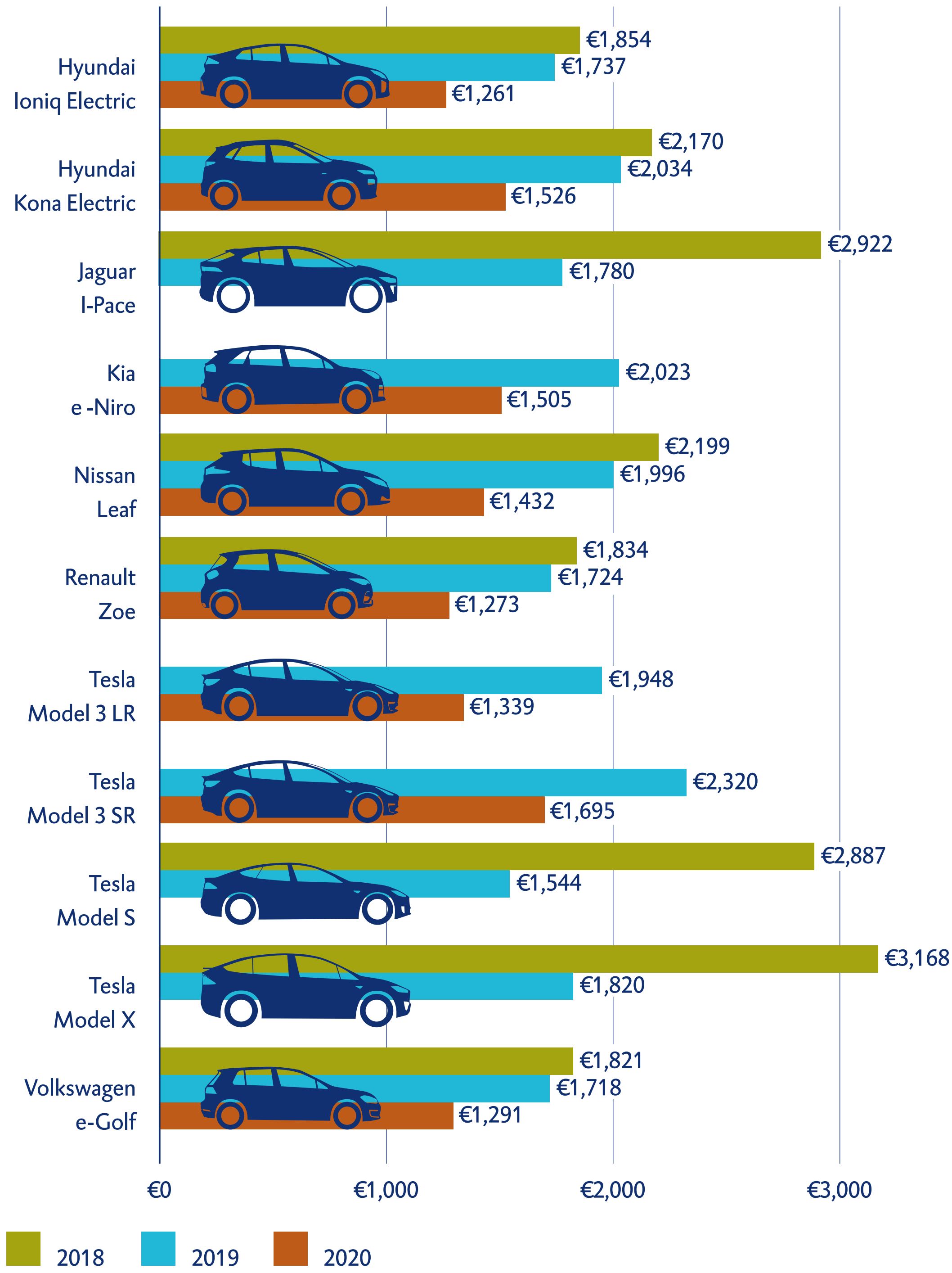

Figure 1 Taxes losses Decline in tax loss per tonne of CO_2 reduction based on standard emission (in euros)

Our main conclusion is that electric cars lead to considerable tax losses, when measured both per vehicle and per tonne of CO_2 reduction. To some extent, the tax losses can be considered as the cost of achieving the second objective of vehicle taxation. Despite the measures taken in 2019 and 2020 to improve their cost effectiveness, tax incentives for electric cars remain a relatively expensive instrument to cut CO_2 emissions. The tax benefits, moreover, are enjoyed mainly by businesses.

We draw this conclusion from the following findings:

- Zero-emission cars lead to a considerable tax loss per car and per tonne of CO_2 reduction. The losses are due not only directly to the incentives themselves but also of the further erosion of the tax base due, for instance, to the decline in fuel duty revenue.
- The tax loss per tonne of CO_2 reduction based on actual emissions is approximately 20% to 30% lower than the loss based on the NEDC standard emissions.[1] The tax loss per tonne of CO_2, however, is still substantial.
- Measures taken in 2019 and 2020 to increase the tax on benefit in kind and to reduce the environmental investment tax credit (MIA) have led to a sharp fall in the tax loss per car and per tonne of CO_2 reduction in comparison with 2018. The amounts, however, are still considerably higher than the cost of CO_2 emission allowances (approximately € 23 per tonne of CO_2 at the beginning of 2020). They are also higher than the maximum grant of € 300 per tonne of CO_2 reduction that the Minister of Economic Affairs and Climate Policy set in the 2020 SDE++ renewable energy scheme.
- A comparison of the impact of zero-emission cars and the incentives for them across various categories of taxpayers shows that the benefits are enjoyed chiefly by businesses.
  - The contribution from zero-emission cars to the air quality and climate goals is still minimal relative to the total emission of CO_2, nitrogen oxides and particulates from road transport. A substantial increase in the number of zero-emission cars would be needed to cut emissions significantly.

Light commercial vehicles

We investigated the loss of Car and Motorcycle Tax (BPM) and Motor Vehicle Tax (MRB) caused by the special schemes in place for light commercial vehicles. We looked at the contribution of these vehicles to the air quality and climate goals of vehicle taxation.

Our main conclusion is that the special schemes for light commercial vehicles produce a considerable tax loss and are accompanied by high costs as a policy instrument. Light commercial vehicles also have a negative impact on achieving the air quality and climate goals.

We base this conclusion on the following findings:

- We estimate the loss of BPM and MRB in 2019 at more than € 1.7 billion.
- The summary of tax schemes in the annexes to the annual budget memorandum provides an incomplete picture of light commercial vehicles as it does not include an estimate of the lost BPM.
- Most light commercial vehicles are diesel vans that are responsible for a substantial proportion of the total emission of CO_2, nitrogen oxides and particulates from road transport. The special schemes act as a disincentive for light commercial vehicles to achieve the air quality and climate goals.

Other factors that influence the impact of vehicle taxation

We are aware that other factors can have a significant influence on the impact of vehicle taxation. Our report considers, for instance, the influence of:

- non-tax policy, including EU emission standards, to encourage car manufacturers to develop more electric models;
- the scope of the assessment of air quality and climate impacts, which include more than just vehicle exhaust emissions (they also include emissions from abrasion and the generation of electricity to charge car batteries);
- differences between actual and standard emission figures;
- international dependencies, for instance the influence of tax incentives in other countries and the way in which car dealers respond to them.

It is difficult to measure the precise influence of these factors and the impact of vehicle taxation will always be subject to a margin of uncertainty and error.

Recommendations

On the basis of our conclusions and the report we published in November 2019, we make the following recommendations to the State Secretary for Finance – Tax Affairs and Tax Administration:

- Review the use of vehicle taxation as a policy instrument. If it is decided to continue the tax incentives for zero-emission vehicles, we recommend that:
  - a proportionality standard be set to gauge the loss of tax against the reduction in CO_2 emissions, and adapt the tax incentive accordingly;
  - any change in tax incentives for zero-emission vehicles should also take account of the imbalance between business and private beneficiaries.[2]
- Consider adapting vehicle taxes to prevent zero-emission vehicles eroding the tax base. The ‘user pays’ studies announced in the Climate Agreement could be a springboard for change.
- State the estimated BPM loss caused by the special schemes for light commercial vehicles in the summary of tax schemes in the annexes to the annual budget memorandum.
- Determine whether the special schemes for light commercial vehicles are proportionate to achieve the revenue, air quality and climate goals of vehicle taxation. This would be in keeping with our report Vehicle Taxation as a Policy Instrument. Furthermore, consider revising the special schemes in order to introduce tax incentives that encourage people to buy models that emit less CO_2, nitrogen oxides and particulates.

Response of the State Secretary for Finance and the Court of Audit’s after-word

The State Secretary for Finance – Tax Affairs and Tax Administration, in conjunction with the State Secretary for Infrastructure and Water Management, noted in his response to our draft report that measures were being taken in line with our recommendations on electric vehicles. In his response, the state secretary extends the goal of the tax incentives to include, for instance, innovation opportunities for Dutch companies, reduced reliance on fossil fuels and combatting noise pollution. He accepts our recommendations on light commercial vehicles.

We observe in our afterword that the State Secretary did not specifically respond to our recommendation to review the continued use of tax incentives for zero-emission vehicles. This is particularly remarkable because a ‘hand on the tap system’ would be more suitable for a grant instrument. Furthermore a hand on the tap system does not necessarily mean that tax incentives for zero-emission vehicles would be proportionate. We therefore continue to think the proportionality of tax incentives for electric vehicles should be based on clear standards. We further note that insight into policy effectiveness is impeded if policy goals are extended or changed over time.

Notes

1. NEDC: New European Driving Cycle.
2. The Minister for the Environment and Housing has announced a substantial grant scheme for electric cars that could incentivise private owners. However, the scheme falls outside the tax domain and also outside the scope and period of our investigation.