Fiscal treatment and market trends of pickup trucks in Belgium

Rosa Hofgärtner, Kris Bachus & Julie Metta





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Rosa Hofgärtner, Kris Bachus & Julie Metta Project management: Kris Bachus

Research commissioned by Transport & Environment

Abstract

This report studies the fiscal treatment and market trends of pickup trucks in Belgium. Pickup trucks fall under the Belgian fiscal definition of 'Light Commercial Vehicle', meaning that they enjoy a preferential vehicle tax treatment. Although pickups emit considerably more CO₂ and pose a greater safety threat than passenger cars, calculations in this study show that these benefits can amount to tens of thousands of euros per vehicle. The fact that there is no excise duty on LPG makes the choice for a pickup even more attractive, as it offers the possibility to drive fuel-inefficient cars at a low cost.

Presently, the Belgian pickup fleet counts 64,945 pickups. This is an increase of 63% compared to 2012. Improper use of the fiscal benefits seems to be widespread: 61% of the pickups is registered as a private car. Compared to France, Germany, the Netherlands and the UK, Belgium's tax rates for pickups are one of the lowest. On the other hand, the yearly registration figures of pickups are among the highest. Fiscal policies can be a strong instrument to influence consumers' choices. Redesigning the fiscal treatment of pickup trucks could not only help to reduce transport emissions, but also increase government tax revenues. This study proposes several measures that could address the rising popularity of pickup trucks in Belgium.

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List of abbreviations

GHG	Greenhouse gas
LCV	Light commercial vehicle
LPG	Liquefied petroleum gas
MAM	Maximum allowable mass

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Introduction

In October 2020, the Flemish Minister of Finance, Matthias Diependaele, announced his intentions to get rid of tax benefits for privately used pickup trucks. His statement garnered substantial media coverage at the time: the newspapers boldly headlined 'Flanders eliminates tax benefits for pickups' (De Standaard) and 'Done with favourable tax regime for pickups' (De Morgen).

Tax benefits for pickup trucks in Belgium are significant: they can add up to around €15,000 after the first year of use only. This tax regime has supposedly contributed to a surge of the amount of pickups in the country. The total pickup fleet in Belgium has increased by 63% since 2012.

While pickups can be useful or even necessary for specific type of business activities, the current tax benefits apply to *all* owners of pickup trucks. Presently, the Belgian fleet counts 64,945 pickup trucks. As many as 39,724 pickups are registered as private cars, which is almost two thirds of the total pickup fleet (61%). As pickups are more polluting and dangerous than normal passenger cars, there is a growing dissatisfaction about this fiscal treatment. New fiscal policies seem necessary to stop 'improper use' of the fiscal benefits and to reduce the governments' revenue forgone that amounts to millions of euros every year.

The main aim of the report is to understand the market trends for pickups in Belgium and their drivers. This study also elaborates on the social and environmental impacts of the growing popularity of pickup trucks. Furthermore, the current fiscal policies in Belgium, the main developments in this area and plans discussed by the Belgian governments are explained. After that, Belgium's registration figures and fiscal treatment of pickup trucks are compared to Germany, France, the Netherlands and the UK to see if any lessons can be drawn from this. Finally, several measures are summed up that could potentially help to discourage nonessential pickup use and ownership in Belgium.



Figure 1 Dodge RAM 1500 on a parking spot

- PART 1 THE ENVIRONMENTAL AND SOCIAL COSTS OF PICKUP TRUCKS -

1 | Environmental cost

1.1 Rising emissions of the transport sector

Reducing transport emissions is a key element in mitigating the risk of climate change. While engines of vehicles have become increasingly more efficient over the past thirty years (Febiac, 2020a), it has not led to a decrease in CO₂ emissions in the transport sector. In fact, the emissions of the transport sector in Belgium have increased steadily (MIRA, 2020). Presently, the transport sector represents about 22 percent of the total carbon emissions in Belgium, compared to 14 percent in 1990. The sector is Belgium's largest source of greenhouse gases (Dienst Klimaatverandering, n.d.).

There are several factors that contribute to this rise. First of all, the number of registered vehicles has increased over the last decade (Kwanten, 2018; Statbel, 2021). What is more, the average weight has increased: the average mass of a new car is about 12% higher than in 2001¹ (ICCT, 2020). The increase in mass relates to a rise in the overall size of cars within segments of the market and a shift to heavier models (Todts & Grelier, 2018): SUVs, pickup trucks and offroad vehicles have gained a substiantial market share, especially in the last 15 years, at the expense of the lighter models. In 2021, 47% of all new car registrations were SUVs in Belgium, compared to 26% in 2016 (Febiac, 2021). SUVs were even the second largest cause of the global rise in CO₂ emissions over the past decade (Cozzi & Petropoulos, 2019). While SUVs and pickup trucks are not the same, one could see the rising popularity of pickup trucks in the light of this development: for example, both type of vehicles can give the driver an elevated feeling of safety, a better view on the road and more space.

1.2 The environmental cost of pickup trucks

Pickups consume more fuel than vans and passenger cars, because they are typically heavier, less aerodynamic and commonly have an all-wheel drive. A report by EPA² (2019) shows that an average new pickup is significantly heavier than both vans and passenger cars: this is about 2,358 kg for pickups compared to 2,041 g for vans and 1,587 kg for passenger cars. As heavier vehicles require more energy to move than lower-weight vehicles - assuming all other factors are the same - they will have a lower fuel economy and thus emit more CO_2 and other emissions (EPA, 2021). For example, the rolling resistance and the resistance caused by gravity when the vehicle is driven on a slope is typically higher. The effect can be seen in Figure 2: the graph shows the vehicle fuel consumption as a function of weight. One can note that there is an exponential correlation between the weight and fuel consumption for gasoline, diesel and hybrid vehicles. Data from the EEA (2021a, 2021b)³ confirms this: in 2020, newly registered cars emitted on average 120.8 gramme of CO_2 per kilometre whereas pickups emitted 209.4 gramme of CO_2 per kilometre. Pickups also have a lower fuel economy compared to vans: registered vans emitted on average 159.3 gramme of CO_2 per kilometre in 2020.

¹ In 2019, the average weight of a new car in the EU was 1,415 kg.

² This is based on data from the US.

³ This data analysis was conducted by Transport & Environment.

Figure 2 Fuel consumption of vehicles as a function of weight



Figure 6 (in the appendix) shows an overview of the most popular pickup models in Europe in 2020. Table 1 provides an idea of the (environmental) characteristics of two pickup trucks compared to other popular types of vans and passenger cars.⁴ It is hard to provide exact numbers, as these depend on the specific model and features of the vehicle, such as type of engine, add-ons, etc. These features again influence the CO₂ emissions. Hence, the numbers in the table are approximations.

4 According to the ICCT (2020) report, Volkswagen Golf (#1) and Renault Clio (#2) were the most sold passenger cars in the EU and the most popular van models were Ford Transit (#1), Mercedez-Benz Sprinter (#2) and Renault Kangoo (#3).

Vehicle type	Models	Curb Weight (kg) ⁵	CO2 emissions (g/km)	Length*width*height (m)
Pickup	Ford Ranger	1,700-2,200	214	$5.4 \times 2.1 \times 1.8$
	Dodge RAM 1500	2,200-2,400	323	$6.0 \times 2.1 \times 2.0$
Van	Ford Transit	1,600-3,250	200	$5.5-6.7 \times 2.1 \times 2.4-2.7$
	M-Benz Sprinter	1,995-2,610	219	$5.1-7.3 \times 2.1 \times 2.3-3.0$
Passenger car	Volkswagen Golf	1,200-1,500	117-133	$4.3 \times 1.8 \times 1.5$
	Renault Clio	1,060-1,200	85-135	4.1 × 1.7 × 1.4

Table 1 Comparing pickup models to passenger cars and vans

Table 2 Comparing payload characteristics

Vehicle type	Models	Maximum payload (kg)	Load bed dimensions: Length*width*height (m)	Volume (l)
Pickup	Ford Ranger	730-1,252	$1.6-2.3 \times 1.6 \times 0.5$	1.3-1.8
	Dodge RAM 1500	585-870	$1.7-2.4 \times 1.7 \times 0.5$	1.4-2.0
Van	Ford Transit	1,016-2,023	$3.0-3.4 \times 1.8 \times 1.9-2.2$	9.5-15.1
	M-Benz Sprinter	1,329-1,413	$2.7-4.8 \times 1.8 \times 1.7-2.4$	7.8-17

When comparing the characteristics of the two pickup models to the passenger cars in

Table 1, it indeed becomes clear that the passenger cars weigh less, emit significantly less and are smaller in size. From an environmental point of view, pickups thus seem unsuitable as a passenger car alternative. Only in certain landscapes - i.e. mountainous areas with very muddy roads or a lot of snow - pickups have necessary features that most passenger cars do not offer.

While the emissions of pickups seem relatively comparable to vans, Table 2 shows the payload capacities are not: vans can carry significantly more payload in terms of weight and volume than pickup trucks.⁶ Cargo is also less protected from rain or from theft in pickups without any hardcover top over the pickup bed. With that in mind, pickups only seem a better option for very specific type of businesses or jobs (i.e. gardeners) or in particularly rough landscapes (i.e. ski-areas).

1.3 Vehicle taxation

One key policy option to reduce the emissions of the transportation sector is taxation. Fiscal policies can be a strong instrument to influence consumers' choices: if designed appropriately, taxes can help to leverage efforts to reduce CO_2 emissions, as they give consumers incentives to buy low-emission vehicles. While there is little research available on the fiscal treatments of pickups specifically, consumer choices are probably affected similarly as the fiscal treatment determines their relative chances to compete in the market.

Fiscal policies can come in various forms: taxes can be collected at the time of purchase or in the form of an annual road tax. A tax can either be a linear or delinear function of the CO₂ emissions rate. Environmental taxes could also be based on the maximum allowable mass (MAM) of a vehicle. Different tax systems can impact vehicle purchases differently, and thus CO₂ emissions rates. Forecasting the exact impact of policy interventions can be challenging, especially when multiple policy instruments are implemented at the same time: they can be mutually reinforcing or work

⁵ Curb weight is the weight of the vehicle including a full tank of fuel and all standard equipment. It does not include the weight of any passengers, cargo, or optional equipment.

⁶ The payload characteristics depend on certain features of the model: i.e. pickups with a single or double cab can have different payload characteristics. Therefore, once again, the numbers in Table 2 are approximations.

against one another, depending on their design and implementation. In some cases, measures can be successful in reducing CO_2 emissions, but have other unintended environmental effects: for instance, in Ireland the dieselisation of the car fleet led to a decrease in CO_2 emissions, but had negative consequences for air pollution (Leinert et al., 2013).

Generally, however, it is established that taxes upon purchase are more effective than annual road taxes, as consumers tend to give more weight to short-term costs and benefits. This short-term thinking is seen as an important reason why vehicle acquisition or registration taxes are more effective than annual taxes in determining consumers' buying decisions (Brand et al., 2013; Klier and Linn, 2012; Van Meerkerk et al., 2014). A study by Greene et al. (2013) found that this is also the case when consumers decide on buying a more fuel-efficient car: consumers tend to expect payback in three years in order to pay more for increased fuel economy.

The design of fiscal policies is not the only factor that matters. When introducing a new policy, informing citizens is also an important aspect to take into account. Understandably, only individuals who are aware of public policy can take into account its effects during their decision-making process. For example, Cerruti et al. (2019) found that policy awareness plays a crucial role in achieving policy goals. This thus means that limited awareness may be a critical barrier to the effectiveness of certain (new) taxation schemes.

2 | Social cost

2.1 Safety issues & urban planning misfit

Pickups are contributing more to road safety challenges than the average passenger car. According to research by Kidd & Brethwaite (2014) the blind zone and sight distance are positively associated with vehicle size: thus, the larger the vehicle, the larger the blind spot in front of the bumper. This most notably poses a threat to small children, who are especially vulnerable to 'frontover' crashes (Barry, 2021), as clearly shown in Figure 3.

Figure 3 The blindspot of pickup trucks



Source Barry (2021)

While backing technology can reduce blind zones (Kidd & Brethwaite, 2014), pickups are heavier and have a higher front end compared to cars. Because of the weight and design of pickup trucks, the impact of a collision is more dramatic: pedestrians are more likely to get trapped underneath the car instead of being pushed onto the hood or off the side - which is more deadly (Barry, 2021). Smaller pedestrians are more likely to be hit to the head, but also for adult pedestrians the injuries are more likely to be serious in a collision (Barry, 2021). In the US, pedestrian deaths from 2009-2016 have increased significantly, as pedestrian crashes have become both deadlier and more frequent. Collisions were more likely to involve SUVs and high-horsepower vehicles (IIHS, 2018).

While people in pickups have a higher chance of surviving a crash, people in smaller cars that collide with the pickup truck are more likely to die or be seriously injured compared to a collision with a smaller car. Data from 2013-2016 has shown that pickups were 2,5 times more likely to be involved in a collision that was deadly for people in another car than regular cars in the US (IIHS, 2019). So, for people in a pickup driving is safer, but they pose a larger threat to other road users.

Moreover, several studies have demonstrated that the driving behaviour - of both men and women - in pickups is more dangerous too. Because they sit higher and safer in their cars, they can feel elevated above other people on the road, which can result in macho behaviour. A study by IIHS (2016) shows that high-horsepower vehicles have higher mean speeds and are more likely to exceed

speed limits: this also results in higher fatality rates, as faster speeds increase both the risk of crashing as well as the severity of injuries.

Styling trends of pickup trucks are almost as alarming. Torchinsky (2018) describes the trend well: "The goal of modern truck grilles seems to be [...] about creating a massive, brutal face of rage and intimidation.' A study by Windhager et al. (2008) on the perception of automotive designs found that humans likely interpret inanimate structures, such as car fronts, in biological terms. This could have implications for road-use behaviour: an angry or intimidating car front is a form of nonverbal communication with which drivers could threaten other road users.

Large pickups are not only a safety and intimidation issue. They also simply do not fit well in the current road infrastructure of Belgian cities: the current dimensions of most parking lots and lanes are not designed for such large vehicles. Dependent on the specificities of a parking spot and its orientation towards other parking spots (i.e. there is a difference between cross parking and curb-side parking), the recommended width varies between 2.0m and 2.5m, and the length between 4.5m and 6.0m in Belgium (Stad Antwerpen, 2014; Mobiel Vlaanderen, n.d.). When comparing these dimensions to the width and length of the pickup models provided in Table 1, pickups indeed seem to be rather large: as a consequence, owners of pickups who do want to park in the city, will often have to take up more than one parking spot or have to occupy part of the road, cycleway, or sidewalk.

- PART 2 FISCAL DEFINITION & BENEFITS IN BELGIUM -

3 | Taxation, benefits & consequences in Belgium

3.1 What do we mean by 'light commercial vehicle' and by 'pickup truck'?

The (fiscal) definition of light commercial vehicle (LCV) has been established between the three regions in Belgium – Flanders, Wallonia and Brussels – through a so-called cooperation agreement. This means that changing this definition would entail consultation between and the approval of the three regional authorities. Presently, as is stated on the website of the Belgian Federal Public Service Finance, 'light commercial vehicle' means: a vehicle designed and built for the transport of goods and whose authorized mass does not exceed 3,500 kg (including load). The tax definition mainly determines the way in which the cargo area is closed off from the passenger area and the ratio of the length of the cargo area to that of the wheelbase: the length of the cargo space must be at least 50 percent of the wheelbase, which limits the number of LCVs with double cabs. For pickups, however, there is an exemption: whether they have a single cab or double cab,⁷ in Belgium they are always considered LCV. While the double cab versions rarely have a cargo box that is at least half as long as the wheelbase, the Belgian authorities consider pickups sufficiently utilitarian to be seen as a 'light commercial vehicle'.

The following types of pickup trucks thus fall under this category:

- 1. Pickups with a single cab:
- a single cabin completely enclosed from the load compartment and containing, in addition to the driver's cabin, not more than two seats;
- an open load space, possibly enclosed by a tarpaulin, a flat horizontal lid or a superstructure intended to protect the load.
- 2. Pickups with a double cab:
- a double cabin completely enclosed from the load compartment and containing, in addition to the driver's cabin, not more than six seats;
- an open load space, possibly enclosed by a tarpaulin, a flat horizontal lid or a superstructure intended to protect the load.

In Belgium, there is a more favorable tax system for LCVs than for passenger cars. Firstly, owners of LCVs enjoy the following benefits set at the federal level:

- business expenses are 100% deductible;8
- entitlement to the investment deduction (for a sole proprietorship);
- right to degressive (= accelerated) depreciation;
- additional costs at the purchase of the vehicle can be depreciated at once.

While the definition of 'light commercial vehicle' is the same for the whole of Belgium due to the cooperation agreement, the three regions do have the autonomy to set the rules and rates of vehicle

⁷ A single cab only has the front seats making up the cabin. The rest of the vehicle is devoted to storage space in the form of the loading bin. A double cab has additional space inside the cabin for passengers or other items.

⁸ Due to a company car tax reform, non-emission-free vehicles ordered from 1 January 2026 will no longer be deductible. However, the tax rules surrounding LCVs have not changed: they will remain 100% deductible after 2025, even for non-emission-free vehicles.

taxes themselves. The fiscal treatment of LCVs is significantly more beneficial: currently, there is no registration tax for LCVs in any of the regions in Belgium and the annual road tax is also significantly lower for LCVs than for passenger cars. The different rules and rates of the regions are discussed below.

3.2 Road and registration tax per region

As mentioned above, regions in Belgium set the rules and rates of road and registration taxes. Table 3 below provides an overview of the annual road tax and registration tax per region. It should be noted that a pickup truck in Flanders and Brussels cannot be taxed like a passenger car (yet). The rates shown for 'taxed as a passenger car' only serve to demonstrate that the differences in tax rates between vehicles which are considered a passenger cars and LCVs are significant. As these rates are currently nonexistent, they are in grey. In Wallonia, pickups are supposed to be taxed as passenger cars in certain cases. This is only possible since the beginning of 2022. More explanation and specificities on the tax rates between these regions are discussed in the subchapters below.

The two popular models Ford Ranger and Dodge RAM 1500 are used for this comparison. As there is quite some variation among these models, we here further specify their characteristics explicitly, because the characteristics influence the rates. The Ford Ranger has the following characteristics: its maximum authorized mass is 3200 kg, it has a diesel engine, its euronorm is 6, it has a taxable HP of 13 and emits 214 g CO_2 /km. The Dodge RAM 1500 has a maximum authorized mass of 3500 kg, a diesel engine, a euronorm 6, a taxable HP of 19, and emits 323 g CO_2 /km.

Region	Pickup model	Taxed as	Annual road tax	Registration tax	Tax over 10- year period
Flanders	Ford Ranger	an LCV	€157	€0	€1,570
		a passenger car	€875	€4,050	€12,800
	Dodge Ram 1500	an LCV	€157	€0	€1,570
		a passenger car	€3,201	€11,557	€43,567
Brussels	Ford Ranger	an LCV	€149	€0	€1,490
		a passenger car	€650	€867	€7,367
	Dodge Ram 1500	an LCV	€149	€0	€1,490
		a passenger car	€1,915	€4,957	€24,107
Wallonia	Ford Ranger	an LCV	€149	€0	€1,490
		a passenger car	€650	€867+700 (eco-tax)	€8,067
	Dodge Ram 1500	an LCV	€149	€0	€1,490
		a passenger car	€1,915	€4,957+2,500 (eco-tax)	€26,607

Table 3 Overview of the road and registration tax per region

Note: tax rates in grey are hypothetical, describing the rates the vehicles would be subject to if they were treated as a regular passenger car.

3.2.1 Flanders

In Flanders, registration tax rates normally depend on the age and environmental characteristics of a car. This rate varies between \notin 40 and \notin 10,000. Furthermore, annual road tax rates are based on the power, euronorm and the CO₂ emissions of the vehicle. For pickups & other LCVs, however, this is

different: they are subject to a zero registration tax and the main determinant for the road tax is the maximum authorized mass of the vehicle (MAM). This is about $\pounds 20/500$ kg and can add up to maximum $\pounds 157$.

We used the calculation tool⁹ by the Flemish tax authorities to calculate how large the difference is between tax rates for a light commercial vehicle and a passenger car. For a Ford Ranger this would be as follows:

- as an LCV, this pickup is subject to a zero registration tax. The road tax would add up to €157 per year;
- would this car be considered a passenger car, the registration tax would add up to €4,050 and the yearly road tax to €875 per year.

The difference in tax rates for a Dodge Ram 1500 is even more significant:

- as an LCV, this pickup is subject to a zero registration tax. The road tax would add up to €157 per year;
- would this car be considered a passenger car, the registration tax would add up to €11,557 and the yearly road tax to €3,201 per year.

As of now, there are no concrete plans to change this taxation scheme. More detailed information on this follows in the upcoming subchapter 3.3 Barriers to changing taxation of pickups.

3.2.2 Brussels

In Brussels, the rate paid for registration tax and road tax for passenger cars depends on the power of the engine, also known as taxable HP. The rate of the registration tax is also influenced by the age of the vehicle. The rate of registration tax varies between €61.50 for the lowest power (with a taxable HP from 0 to 8) and €4,957 for cars with a fiscal HP exceeding 17. The annual road tax varies between €85.27 (with a taxable HP of 4 or less) and €5,743.58 (with a taxable HP of 50). Like in Flanders, pickups & other LCVs are taxed differently than passenger cars: first of all, they are subject to a zero registration tax. Secondly, the rate of the annual road tax is fixed at a flat rate based on the mass of the vehicle, adding up to maximum €148.76 euros per year. No eco malus has to be paid either. The table below provides an overview of the annual road tax paid per maximum allowable mass (MAM).

Table 4 Annual	road tax rates	per maximum	allowable	mass (MAM)
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MAM (kg)	Rate (€)
≤ 500	38.08
0,501-1,000	42.50
1,001-1,500	63.76
1,501-2,000	85.01
2,001-2,500	106.26
2,501-3,000	127.51
3,001-3,500	148.76

Using Table 4 and the tables¹⁰ provided by the Brussels tax authorities, it is possible to give an indication of how large the difference is between tax rates for a passenger car and an LCV. For a new Ford Ranger this would be as follows:

- as an LCV, this pickup is subject to a zero registration tax. The road tax would add up to €148.76 per year;
- would this car be considered a passenger car, the yearly road tax would add up to about €650 per year and the registration tax to €867.

The difference in tax rates for a new Dodge Ram 1500 is even more significant:

- as an LCV, this pickup is subject to a zero registration tax. The road tax would add up to €148.76 per year;
- would this car be considered a passenger car, the yearly road tax would add up to about €1,915 per year and the registration tax to €4,957.

In Brussels, the plan is to work on a taxation shift by introducing a smart kilometre tax (road pricing) instead of a registration and road tax. The smart kilometre tax would be determined by (1) distance driven, (2) time of the day (during rush hour or not), and (3) the engine capacity in cc¹¹ of the vehicle. Pickups are not the main focus of the tax shift, but through the engine capacity indicator, pickups would be taxed more heavily than normal passenger cars. However, other indicators that could possibly have discouraged the ownership of pickups even more, such as weight and CO₂ emissions, will not be a determining factor. As stated by the responsible minister, Sven Gatz,¹² the aim of this tax shift is to battle congestion, not to stop the growing number of pickups. According to him, the problem of pickups in Brussels is not as large as in the other regions, because such vehicles are less suitable in an urban context. Because the Council of State has stated that these tax reforms are legally sound, Minister Gatz does not expect legal difficulties. The minister does foresee potential political problems that could possibly delay the introduction of the tax: commuters from Wallonia and Flanders will namely also be subject to the kilometre tax when driving in Brussels, which means that some people will have to pay taxes in two regions. While Wallonia and Flanders could protest against this tax and ask for clarifications and/or adjustments, there are no legal grounds that can stop the plans completely. When exactly the tax shift would be implemented is not clear yet.

3.2.3 Wallonia

Wallonia used to tax vehicles similarly to Brussels. LCVs are still subject to the same tax rates as in Brussels. However, since the beginning of 2022, it seems that pickups – just like other vans – are not

¹⁰ The link can be found here: https://fisc.brussels/mytax/en/contact#road-tax.

¹¹ Cylinder capacity.

¹² In an online interview on the 27th of January, 2022.

automatically seen as LCVs anymore and that a distinction is made between personal use and professional use. In 2021, this new rule was presented as part of a larger fiscal package to make the Wallonian tax system fairer ('impôt plus juste'). While the parliament voted in favour of this decree, the responsible minister Jean-Luc Crucke eventually resigned in the beginning of January 2022. The decree had supposedly led to political tensions within his own party (Baert, 2022). Whether this new rule has actually taken effect or not, is yet unclear: at the time of final editing of this report, it was not possible to receive a response by the cabinet and/or administration to verify this.

Nevertheless, we will discuss the new fiscal policies here, as presented in the media in 2021 (i.e. Dykmans, 2021; Livis, 2021b). As mentioned, a distinction is made between personal use and professional use: tax benefits for pickups are only reserved for self-employed people and companies registered with the *Banque-Carrefour des Entreprises* (BCE), and who can prove a minimum professional use of the vehicle. This tax system is not retroactive: thus, all pickups bought and registered before December 31^{st} 2021 are not subject to the new tax system. Electric pickups are not included in this tax mechanism until 2025. When a pickup truck does not meet these requirements, they are taxed as passenger cars. Like in Brussels, the rate for registration tax¹³ and road tax¹⁴ for passenger cars is dependent on the taxable HP. The rate of the registration tax is also influenced by the age of the vehicle. Moreover, the registration tax includes an eco surcharge: the rate of this eco surcharge is calculated based on the CO₂ emissions of the vehicle, which are expressed in g/km above 146 g. This is $\notin 0$ for emissions of 145 g or lower, up to $\notin 2,500$ for emissions exceeding 255g.

For a privately registered, new Ford Ranger the tax rates are as follows:

- one-time registration tax: €867;
- one-time eco-malus: €700;
- yearly road tax: $\in 650$.

For a privately registered, new Dodge RAM 1500 model the tax rates are as follows:

- one-time registration tax: €4,957;

- one-time eco-malus: €2,500;
- yearly road tax: €1,915.

According to Leclercq (2021) on GoCar.be, Wallonia plans to change their vehicle taxation scheme even further in 2023. Among other factors, weight will become a determining factor for the tax rate. This could imply higher tax rates for heavier vehicles. However, this has also not been verified with the Wallonian authorities. As of now, it looks like passenger vehicles will be taxed as follows:

- the registration tax = basic rate based on taxable HP x (CO₂/150) x (MAM/2,000) x (0.7 for CNG and LPG, 0.8 for hybrid cars, 1 for gasoline, 1.2 for diesel);
- the road tax = (Registration tax/3) + 50.

3.3 Barriers to changing taxation of pickups

As mentioned above, the definition of LCV is determined in a cooperation agreement between the three regions in Belgium. Despite that, the Walloon government recently changed its tax rules and now distinguishes between those who use their LCV for business and those who use their LCV for personal use. By doing so, it seems that the region does not fully adhere to the rules of the cooperation

¹³ The table with an overview of the rates of the registration tax in Wallonia can be found here:

https://www.wallonie.be/sites/default/files/2019-05/baremes_taxe_de_mise_en_circulation.pdf.

https://www.wallonie.be/sites/default/files/2019-05/baremes_taxe_de_circulation.pdf.

agreement. The Council of State has pointed this out in a statement.¹⁵ This could possibly lead to legal issues requiring Wallonia to withdraw the new tax rules.

According to a representative of minister Diependaele's office,¹⁶ these legal difficulties are the reason why the fiscal policies in Flanders have not been changed yet. It would be a 'waste of time' to implement new rules if they may have to be withdrawn again. It looks like a new cooperation agreement containing a new definition of LCV would have to be created first to avoid this. It is a priority to the minister Diependaele's office to study this in more depth first. The difficulty is that fiscal policies are partly a regional and partly a federal responsibility.

On a legal level, it seems easiest to start with a revision of the existing cooperation agreement. However, on the political level, some barriers may arise: while both Wallonia and Flanders agree that pickup trucks for private use should be excluded from the definition of LCV, the regions do not seem to agree on whether this distinction should also be made for vans. Wallonia is in favour of this and, in fact, already implemented this distinction in their current policies. Flanders wants to focus on pickups trucks only. Brussels has no outspoken position on this, as their upcoming smart kilometre tax (road pricing) will not be influenced by the content of the agreement: minister Gatz shared with us that the region would support the changes which Flanders and Wallonia agree upon. There is an ongoing conversation between the regions about a new cooperation agreement, but further information about the expected timeframe and how far the discussions have progressed, could not be shared with us.

3.4 Taxes on fuels

When studying the fiscal treatment and market trends of pickups, one should not overlook the importance of taxes on fuels. In Belgium, the rate of the excise duty is determined at the federal level. This is an absolute value which is currently set at 0.60/litre for both diesel and gasoline and 0.00/litre for liquified petroleum gas (LPG). In all three regions in Belgium, there is an additional tax for cars with an LPG system - varying from 0.208.20 per year - but LCVs are exempted from this tax.

On average, people in passenger cars drive about 15,000 kilometres per year in Belgium (FOD Mobiliteit en Vervoer via Febiac, 2020b). According to Kwanten (2017), the average distance driven by LCVs was higher - around 17,000 kilometres per year in 2016. As it is quite ambiguous in which category pickups fall and because there is no data available specifically on pickup trucks, we take the average of these two numbers - 16,000 kilometres per year – to calculate the approximate difference in excise duty. The excise duty for a diesel or gasoline Ford Ranger that consumes 10 litre/100 km is roughly €960 per year.¹⁷ The excise duty for a diesel or gasoline Dodge RAM 1500 that consumes 15 litre/100 km is roughly €1,440 every year.¹⁸ For LPG vehicles, this is €0. Table 5 shows an overview of what this means in a time span of ten years. Note that the annual excise duty rates in the table are only *estimates* based on average driving distances and average fuel consumption. Moreover, the excise duty for vehicles with a bi-fuel engine (i.e. the engine starts on gasoline and then switches to LPG) is naturally slightly more than €0, as they do also consume some gasoline.

¹⁵ The full text can be read (in French) here: http://www.raadvst-

consetat.be/dbx/avis/69930.pdf#search=fiscalit%C3%A9%20automobile%20camionnette.

¹⁶ In an online interview on the 13th of January, 2022.

¹⁷ Assuming it drives 16,000 km in a year, it consumes 1600 litre per year.

¹⁸ Assuming it drives 16,000 km in a year, it consumes 2400 litre per year.

Pickup model	Fuel type	Annual excise duty	Excise duty over 10 years
Ford Ranger	Diesel	€960	€9,600
	LPG	€0	€0
Dodge Ram 1500	Diesel	€1,440	€14,400
	LPG	€0	€0

Table 5 Excise duty for diesel and LPG

According to data by Febiac (2020c), in 2020, of all newly registered vehicles, 994 were on LPG (0.2%). Among the newly bought vehicles, LPG engines thus do not seem to be a widespread phenomenon. However, conversions of existing vehicles on gasoline to LPG have become a prevalent practise, especially for fuel inefficient vehicles such as pickup trucks. We did not find any specific data on this, but according to an official Dodge RAM dealer and an LPG conversion specialist, it seems that nearly every pickup owner chooses to convert their gasoline engine to a combined LPG/gasoline engine. For example, the website of the Dodge RAM dealer Leie Auto's¹⁹ openly promotes this option: 'An LPG installation makes your American car - which is usually delivered without one - immediately a lot more attractive. [...] The result is a car that is more powerful, more economical, smoother and more environmentally-friendly. At present, LPG is by far the cheapest fuel in Belgium.'

Like stated in the above quote, LPG is often claimed to be more environmentally-friendly compared to diesel and gasoline. This assertion has not yet been examined extensively, but the studies that are available on this seem to question the validity of this statement. For example, a study by Van Mierlo et al. (2017) shows that over their complete life cycle, the global warming potential of LPG is slightly higher than diesel and somewhat lower than gasoline. Moreover, a study by Natuur & Milieu (2017) displays that LPG is 70% more harmful to human health than gasoline, mainly due to higher nitrogen oxide emissions (NO_x). Even if LPG were (slightly) less polluting, the advantages of LPG are minimal: it is still a fossil fuel and a byproduct of oil refining. By not taxing LPG, the government provides people the option to drive fuel-inefficient vehicles at a lower cost and thereby lowering the threshold to buy fuel-inefficient vehicles. Raising the excise duty on LPG could not only increase the tax revenues for the federal government, but also discourage people from buying a pickup truck.

3.5 Approximating the revenue forgone of one pickup truck

In conclusion, this chapter analysed the three existing preferential tax treatments for pickup trucks in Belgium: 1) Pickups are subject to a zero registration tax, 2) the yearly road tax of a pickup is significantly lower and 3) pickups with an LPG engine are subject to zero excise duty. Based on the information and calculations above, Table 6 shows an overview of what this preferential tax treatment entails. The table provides an approximation of the revenue forgone for two pickup truck models. Over a ten-year period, the revenue forgone could add up to $\pounds 20,830$ for a Ford Ranger (on LPG) and $\pounds 56,397$ for a Dodge Ram 1500 (on LPG). A macro-analysis on the revenue forgone follows in chapter 6.2.

Table 6 Revenue	forgone of	f one pickup	truck
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Region	Pickup model	Revenue forgone: road and registration tax over 10 years ²⁰	Revenue forgone: excise duty over 10 years ²¹	Total revenue forgone over a 10-year period per pickup
Flanders	Ford Ranger	(€12,800 - €1,570 =) €11,230	€9,600	€20,830
	Dodge Ram 1500	(€43,567 - €1,570 =) €41,997	€14,400	€56,397

20 This is the difference in tax rate paid for a pickup truck considered a passenger car vs. an LCV.

²¹ This amount is based on what a pickup truck would pay in excise duty if it did not have an LPG engine. This is an approximation based on a few assumptions that are explained in subchapter 3.4.

- PART 3 COMPARATIVE ANALYSIS -

4 | How do other countries tax pickups?

4.1 The Netherlands

In the Netherlands, there are two taxes to be paid by vehicle-owners: the Motor Vehicle Tax (known as the 'motorrijtuigenbelasting') and the 'BPM'²². There is a clear distinction between the rates paid by people who use the vehicle for their business (and thus have a VAT number) and by those who use it for personal purposes.

- The first tax is the 'motorrijtuigenbelasting'. The rate of this tax depends firstly on the type of vehicle that is taxed (e.g. whether it is a passenger car, a motorbike, LCV, etc.). Secondly, the following factors are of influence: the weight, the fuel, how environmentally polluting the vehicle is and the province in which the owner is located.
 - Private individuals who own an LCV ('bestelbus') are subject to the tax rate for private individuals. In this case, the rate for a diesel pickup of 3,200 kg is €3,272 per year.
 - There is a lower rate for entrepreneurs (as well as for vans equipped to transport a disabled person). The rate for a diesel pickup of 3,200 kg is reduced to €824 per year. The following conditions must be met to qualify for these lower rates:
 - the owner is an entrepreneur for VAT purposes and has a VAT number;
 - The van is in the name of the owner and is the legal entity to whom the VAT number has been allocated;
 - The owner uses the van more than incidentally for their business. This means that they use the LCV for more than 10% of the annual kilometres driven for your business.
- The second tax is the BPM: this tax is based on de CO₂ emissions (in gramme/kilometre) for passenger cars and a percentage of the net list price for LCVs.²³ For a pickup with a diesel engine and a net list price of €35,000, the BPM is €13,468.
 - However, again, for entrepreneurs there is an exemption, which is called the 'ondernemersregeling'. Once qualified for this exemption, the BPM does not have to be paid at all. The conditions are as follows: the owner has to be an entrepreneur and use the van for more than 10% for their business.

In The Netherlands, the authorities tax owners of pickups based on whether they have a VAT number and use the car for business purposes. The rates for personal use are substantially higher than for professional users. What is more, the Dutch rates for those who use their pickup for their business are still significantly higher than those paid in Belgium. Comparing the tax system to Belgium, something else can be noted: not all pickup trucks fall under the category of LCV (or 'bestelwagen' in Dutch). There requirements are remarkably stricter than in Belgium: for example, a pickup truck is only considered an LCV if the remaining cargo space is at least twice the length of the cab.

²² This abbreviation stands for Belasting van Personenauto's en Motorrijwielen (translated: taxation of passenger cars and motorbikes).

²³ From 1 January to 31 December 2022, this is 37.7 percent of the net list price. If the vehicle has a diesel engine €273 has to be added to the rate. If the vehicle has a gasoline engine €1,283 can be deducted from the rate.

4.2 France

If pickups (1) have less than five seats²⁴ or (2) are used exclusively for the operation of ski lifts and ski areas, they are considered a Light Commercial Vehicle. LCVs in France are subject to a registration tax, but this is significantly less than the rate paid by passenger cars. The calculation of the rate is based on the engine power of the vehicle. The price of the registration tax in France varies from one region to another and is fixed by the Regional Council, but this does not vary substantially across the country. The registrations tax for both LCVs and passenger cars are the same. LCVs are fully exempted from an Eco Tax. This Eco Tax is explained in more detail below. There is no yearly road tax for neither LCVs nor passenger cars.

- The tax rate for a new, diesel pickup with an engine power of 168 HP in the Nord of France is €5,591.76 upon registration. This consists of the following taxes:
 - regional tax (area dependent): €13.76;
 - registration tax (Y1): €5,544.00;
 - additional tax (Y2), because it is an LCV: €34.00.

If a pickup has more than five seats and is not used for ski areas, they are considered passenger cars, meaning they are also subject to the Eco Tax. This tax applies to all new vehicles and vehicles younger than 10 years old. The tax that has to be paid when the car is registered and can currently add up to \notin 40,000.

- A CO₂ emissions tax applies to vehicles with emission levels higher than 117 gramme of CO₂ per kilometre: this can range from €35 to maximum €40,000 for 224 gramme of CO₂ per kilometre. This tax is progressive and evolves every year.
- The second tax is based on the weight of the vehicle: this is €10 per kilogramme for all vehicles above 1,800 kg.

This Eco Tax makes a large difference: the tax for a diesel pickup - that has five seats with an engine power of 168 HP and is worth €35,000 - is €37,057.76 upon registration in the Nord of France. This consists of the following taxes:

- regional tax (area dependent): €13.76;
- registration tax (Y1): €5,544.00;
- eco tax (Y3): €31,500.00:
 - malus CO₂: \notin 17,500.00 (this cannot be more than $\frac{1}{2}$ the price of the new vehicle);
 - weight tax: €14,000.00.

There are some exemptions: these taxes do not apply for vehicles used by drivers holding the Mobility Inclusion Card or used for the transportation of disabled people. This is also the case for vehicles registered in the diplomatic series.

Cases that are partially exempted from the CO₂ emissions based tax are:

- vehicles purchased with at least 5 seats get a reduction of 20 g CO_2/km per dependent child of the CO_2 rate taken into account, from the 3rd child onwards;
- vehicle running on ethanol get a 40% reduction of the CO₂ rate;
- vehicles imported into France after having been registered in another European country.

Cases that are partially exempted from the mass based tax are:

- families with a family car get a discount of 200 kg per child;
- electric & hybrid vehicles;

24 It should technologically not be possible to install five seats.

- vehicles bought with a main function of living (such as vans or campers) if they have the VASP label and irremovable fittings.

4.3 Germany

In Germany, vehicle owners are subject to the Motor Vehicle Tax (known as 'Kfz-steuer'). There is a difference in tax rates based on whether a vehicle is classified as passenger car ('Pkw') or as LCV ('Lkw'). In this sense, German taxation is quite similar to the Belgian taxing system.

- For passenger cars, in German called 'Pkw', the Motor Vehicle Tax is based on two components:
 - CO2 emissions: this rate was recently changed to a progressive increase. The tax rate from January 2021 is shown in Figure 4 on the next page;
 - engine size: €2.00 per 100 cm3 if the vehicle has a gasoline engine and €9.50 if the car has a diesel engine.
- The Motor Vehicle Tax for light and heavy commercial vehicles ('Lkw') is based on their weight (about €12 per 200 kg per year). Pickups fall under 'Nutzfahrzeuge' with the following rates:
 - up until 2,000 kilo: €11.25 per 200 kg per year;
 - from 2,000 to 3,000 kilo: €12.02 per 200 kg per year;
 - from 3,000 to 3,500 kilo: €12.78 per 200 kg per year.
- The only exemptions that exist for the Motor Vehicle Tax are:
 - severely disabled people can receive a vehicle tax reduction of 50% or even receive an exemption from the tax;
 - owners of electric vehicles registered before December 31, 2025, are exempted from the tax until December 31, 2030.



Figure 4 German tax rates based on CO₂ emissions

The tax rate for owners of pickups are significantly less because they fall under the 'Lkw'-scheme instead of the 'Pkw'-scheme. Presently, the Motor Vehicle Tax for pickup owners would not add up

to much more than €200 per year. A Dodge Ram 1500 falling under the 'Pkw' category would cost about €1,200 per year.

From 2018 to 2021, this tax scheme was different: based on, for example, the number of passenger seats and size of the cargo area, some pickup trucks were considered to be under the 'Pkw'-scheme meaning they were subject to higher taxes. Entrepreneurs had to appeal and prove that their vehicle was used for their work to be considered under the 'Lkw'-scheme. Due to corona and probably high administration costs, this system was changed. Now, all light commercial vehicles (including pickups) are considered under the 'Lkw' scheme.

4.4 The United Kingdom

In the UK, pickup trucks are in most cases classified as Light Commercial Vehicles and taxed in the same way as vans. There are some exceptions for double-cab pickups, which will be discussed below. The following taxes have to be paid by owners of vehicles classified as Light Commercial Vehicles (LCV):

- Road tax officially known as Vehicle Excise Duty (VED) is set at a flat rate for LCVs: for the 2021/2022 tax year, the cost is £ 275 per year.
- Those who use their pickup exclusively for their business, are subject to a zero tax rate.
- People who also use the vehicle for private use, are subject to a Benefit-in-Kind (BIK) on top of the road tax: the BIK for vans is currently \pounds 3,500, which means owners are taxed on this rate.
 - for those who are taxed 20%, 25 the rate is £700 per year;
 - for those who are taxed 40%, the rate is \pounds 1,400 per year.
- Tax on fuel only has to be paid by people who claim the cost of fuel from their employer and do not use the pickup exclusively for business use. The yearly fuel benefit is taxed as a benefit in kind. For the 2021/22 tax year the rate is £669.
 - the tax on this if the owner is a 20% taxpayer is ± 134 ;
 - the tax is $\pounds 268$ if the owner is a 40% taxpayer.
- Moreover, VAT-registered purchasers of pickups have the following benefits:
 - They can reclaim a substantial portion of their VAT: the portion of VAT that is reclaimable depends on how much of the vehicle's mileage is driven for business. If it's 80 per cent business mileage, then 80 per cent of the VAT can be reclaimed.
- There is one exemption: double-cab pickups that can't carry a 1,000 kg payload are not considered a Light Commercial Vehicle and therefore charged at company car rates instead of Light Commercial Vehicles. This does not only result in much higher BIK rates, other benefits also do not apply to these pickups (like reclaiming VAT and a fuel benefit charge).
 - The company car tax is a percentage of the official value of the car (called the 'P11D'). The percentage that has to be paid is determined by the vehicle's CO_2 emissions. This can easily add up to a bill of around £600 per month for those who are taxed 40%.

4.5 Overview of road and registration tax per country

As the taxation models differ noticeably per country, we created an overview of the taxes paid over a timespan of 10 years. This provides an indication of what it entails to own a pickup truck in every

25 Whether someone is taxed 20 or 40% depends on someone's taxable income.

country and allows for a more adequate comparison. We used the same hypothetical Ford Ranger for every country with the following characteristics: it has a maximum allowable mass of 3200 kg, it has a diesel engine, its emissions are 214 gramme of CO₂ per kilometre, its euronorm is 6, the net list price is €35,000, its payload capacity is more than 1,000 kg, the size of the engine is 2500 cm³ (taxable HP of 13 in Belgium) and the power of the engine is 125 kw or 168 HP. The emissions of particulate matter are 0.005 g per km or less. Being transparent about these characteristics is important, as they determine the rates shown in Table 7.

Country	Specificities	Registration tax	Yearly tax	Total tax over 10 years
Belgium	Flanders	-	€157	€1,570
	Brussels	-	€149	€1,490
	Wallonia - professional	-	€149	€1,490
	Wallonia - private	€1,567	€650	€8,067
The Netherlands	With VAT number	-	€824	€8,240
	Without VAT number	€13,468	€3,272	€46,188
France	Less than 5 seats	€5,592	-	€5,592
	5 or more seats	€37,058	-	€37,058
Germany	-	-	€185	€1,850
The UK	Exclusively for business	-	£, 275	£2,750
	Personal use: 20% taxed	-	£1,109	£11,090
	Personal use: 40% taxed	-	£1,943	£19,430

Table 7 Overview of taxes per country

As Table 7 shows, the differences in tax rates are quite striking. Belgium and Gemany both have comparatively low tax rates. On the other hand, the rates in the Netherlands are relatively high: even for those who have a VAT number, tax rates are significantly higher than for any pickup owner in Germany, Flanders or Brussels. The rates in France are more comparable to the Netherlands. The difference between these two countries lies in the distinction between the more expensive and the cheaper rate: in France this is determined by the number of seats, in the Netherlands by a VAT number. Interestingly, France is the only country in this comparison without a yearly tax and with solely a registration tax. The rates in the UK are somewhat in the middle. It is the only country where the tax rates depend on the taxable income.

5 | The pickup fleet: comparing Belgium to other countries

5.1 How many LCVs and pickup trucks drive around in Belgium?

Table 8 provides an overview of the fleet of pickups in Belgium on the 31st of December 2021. Presently, Belgium has 64,945 registered pickup trucks. 39,724 are registered as private cars: that is 61%. Of all regions, most pickups are registered in Flanders: 36,549, which accounts for 56%. This is followed by Wallonia (26,108) and Brussels (2,236). In 2020, when Minister Diependaele spoke about his plans to change the fiscal treatment of pickup trucks, he said that about 31,000 pickups were registered in Flanders (Commissie voor Algemeen Beleid, Financien, Begroting en Justitie, 2020). In the meantime, as the table shows, this number has risen to 36,549.

Region	Туре	Registered pickup trucks (#)
Brussels	Firm	1,495
Brussels	Leasing Firm	189
Brussels	Private	552
Total in Brussels		2,236
Flanders	Firm	14,421
Flanders	Leasing Firm	749
Flanders	Private	21,379
Total in Flanders		36,549
Wallonia	Firm	8,257
Wallonia	Leasing Firm	105
Wallonia	Private	17,746
Total in Wallonia		26,108
Region unknown	Firm	5
Region unknown	Private	47
Total fleet in Belgium		64,945

Table 8 Fleet of pickup trucks per region in Belgium (31st December, 2021)

Source FOD Mobiliteit

Figure 5 shows how the size of the total pickup fleet in Belgium has evolved from 2012 to 2021. In this period, the Belgian pickup fleet has increased by 63%. If this growth were to continue, one could expect a fleet of more than 100,000 pickup trucks by 2030.



Figure 5 Belgian pickup fleet on the 31st of December (2012-2021)

5.2 Country comparison

From an EEA (2021a, 2021b) database,²⁶ the following can be extracted about new registration figures of pickup trucks in Belgium, the Netherlands, France, Germany and the UK. The EEA database provides a yearly overview of all van and car models that were registered. In total, 27²⁷ pickup models were present in the EEA dataset. In the tables below, new registration figures of pickups for 2018, 2019 and 2020 are shown. The data provided by the EEA for 2020 are provisional. Interestingly, across the entire European Union, only 56 pickups were registered as cars in 2018, 67 pickups in 2019 and 26 pickups in 2020.

26 This data analysis was conducted by Transport & Environment. The data were created on 07/01/2022.

27 One of these models was discontinued in 2019 and two were in 2020.

Table 9 Country	comparison:	new registrations	of pick	ups in 2018
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2018	New registrations of pickups	% of total amount of van & car registrations	Inhabitants	Number of pickups per 100,000 inhabitants
Belgium	6,392	1.03	11,482,178	55.7
The Netherlands	357	0.07	17,059,560	2.1
France	25,112	0.95	64,990,511	38.6
Germany	27,451	0.76	83,124,418	33.0
The UK	50,282	1.87	67,141,684	74.9

Tuble to country comparison. new registrations of pickops in 201	Table	10 Country	comparison:	new registrations	of pickups	in 2019
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2019	New registrations of pickups	% of total amount of van & car registrations	Inhabitants	Number of pickups per 100,000 inhabitants
Belgium	5,873	0.94	11,539,328	50.9
The Netherlands	482	0.11	17,097,130	2.8
France	16,797	0.64	65,129,728	25.8
Germany	27,993	0.74	83,517,045	33.5
The UK	42,040	1.60	67,530,172	62.3

Table 11 Country comparison: new registrations of pickups in 2020 (provisional data)

2020	New registrations of pickups	% of total amount of van & car registrations	Inhabitants	Number of pickups per 100,000 inhabitants
Belgium	4,783	0.73	11,589,623	41.3
The Netherlands	507	0.14	17,134,872	3.0
France	10,498	0.52	65,273,511	16.1
Germany	18,336	0.60	83,783,942	21.9
The UK	27,671	1.48	67,886,011	40.8

The information in the tables shows that Belgium and the UK are frontrunners when it comes to new pickup registrations. In 2018, 2019 and 2020, on average 5,682 pickup trucks were registered per year in Belgium. The Netherlands, on the other hand, has substantially lower registration numbers than any of the other countries: on average 449 registrations per year. Over 2018, 2019 and 2020, pickup registrations per capita were 18.7 times lower in the Netherlands compared to Belgium. The registrations per capita in Germany and France appear to be quite similar: in France the average is 26.8 and in Germany 29.5 pickups per 100,000 inhabitants.

5.3 Explaining the differences

One cannot draw any direct conclusions from comparing the pickup registrations and the fiscal treatment of different countries, as there are also other factors of influence. But it does seem likely that the high tax rates in the Netherlands have played a role in the low pickup sales numbers. Another factor that could have affected pickup sales is the landscape of a country: in countries with rougher or more mountainous landscapes, people are more likely to buy a pickup, because (they think) it is necessary to get around. For example, the Netherlands has hardly any areas that are impassable

without a pickup truck. Furthermore, vehicle choice is also determined by the quality and availability of public, and transport is also a cultural phenomenon: the symbolism of owning a pickup truck may be of more importance in some countries than in others.

Another factor that may have influenced pickup sales is the definition of LCV and which pickup models are considered to be one. This varies per country. In the Netherlands, a pickup truck can only be considered an LCV if the remaining cargo space is at least twice the length of the cab. In France, pickups with five seats or more are not considered an LCV. In the UK, double-cabs that cannot carry more than 1,000 kg payload are also not considered an LCV. Both in Germany and Belgium (at least in the fiscal definition), all pickup trucks are automatically considered an LCV.

In all countries, except for the Netherlands, pickup sales have decreased over the past years. The COVID-19-pandemic could possibly explain this decrease. Another explanation could be the fear of new, stricter taxation regimes: for example, many car websites in the UK have warned consumers to be careful buying a double-cab pickup model with a payload of less than 1,000 kg as these could be taxed higher rates retroactively. However, this is only applicable when taxes are retroactive.

- PART 4 MACRO ANALYSES, DISCUSSION & CONCLUSION -

6 | Environmental cost & revenue forgone

6.1 Macro analysis: environmental impact of pickups in Belgium

One could very roughly estimate the saved carbon footprint at the macro level if less pickup trucks were sold in Belgium. On average, people in passenger cars drive about 15,000 kilometres per year in Belgium (FOB Mobiliteit en Vervoer via Febiac, 2020b). According to Kwanten (2017), the number for LCVs was higher - around 17,000 km/y in 2016. As it is quite ambiguous in which category pickups fall and because there is no data available specifically on pickup trucks, we take the average of these two numbers - 16,000 km/y - for the calculations below.

As seen in chapter 1, pickup trucks emit on average 209 g CO_2 /km compared to 121 g CO_2 /km for passenger cars (EEA, 2021a; EEA, 2021b). Thus, per kilometre 88 g CO_2 could be saved if a pickup truck were to be replaced by a passenger car: for a whole year, this could save 1.4 tonne of CO_2 per pickup truck – assuming pickups drive 16,000 kilometres per year. The carbon emissions that could be saved by replacing pickups by carbon-neutral transport is even higher: this is 3.3 tonne of CO_2 per pickup truck per year. Additionally, replacing a pickup truck by a (significantly lighter) regular passenger car would also save non-exhaust particulate matter (PM) emissions originating from brakes and tyres.

Table 8 shows that 39,724 pickup trucks are registered in Belgium for private use. Replacing the privately used pickups by passenger cars could save:

1.4 * 39,724 = 55,613.6 tonne of CO2 per year

The carbon emissions that could be saved by replacing privately-used pickups in Belgium by carbonneutral transport is evidently even higher:

3.3 * 39,724 = 131,089.2 tonne of CO2 per year

As a reference, an average person in Belgium emits about 10 tonne of CO₂ per year (De Graeve & Torfs, 2019 in VRT).

6.2 Macro analysis: revenue forgone due to tax benefits

Not only do pickup trucks in Belgium have a significant carbon footprint, the government also misses out on tax revenues due to the current tax benefits for pickups. Estimating the revenue forgone is a challenge, as the phase-out of the tax benefits would expectedly entail decreasing pickup truck sales. Moreover, it is uncertain where buyers would shift to: would they take no car, take an SUV or a small car? Other people might try to find a way to get a pickup truck, but as a company car. This all influences the revenue forgone, and the environmental impact. The fact that there are 27 pickup models which all have different features further complexifies the calculation. That is outside the scope of this research. Hence, the calculations below do not aim to provide a realistic estimation, they rather serve to illustrate the point that the revenue forgone is significant in any scenario and adds up to millions of euros.

Table 12 and Table 13 show the revenue forgone in Flanders for several scenarios: when registrations would stay the same, and when registrations would drop by 20%, 40% and 60%

(assuming that higher taxes could possibly lead to such decreases in registration numbers). The calculations are focused on Flanders as the number of registered pickups are the highest and the tax rates have not changed in the region (yet). Table 12 is based on the tax rates of a Ford Ranger and Table 13 on a Dodge Ram model.²⁸ In 2018, 2019 and 2020, on average 5,682 pickup trucks were registered per year in Belgium. 61% of all pickups are registered for private use in Belgium and 56% of all pickups are registered in Flanders. This is how we estimated the number of privately registered pickups in Flanders per year: 5,682*0.61*0.56 = 1,941. The tables show the revenue forgone over a ten-year period based on the sales of one year: thus, *every year* the government would miss out on these taxes for the following ten years to come. Although the numbers are only estimates, it is clear that from a financial point of view for the government, it could easily become very interesting to transform the fiscal treatment of pickup trucks.

	If private registrations do not drop	If private registrations drop by 20%	If private registrations drop by 40%	If private registrations drop by 60%
Registration tax (one-time)	€4,050	€4,050	€4,050	€4,050
Road tax per year	€875 - €157 ²⁹	€875 - €157	€875 - €157	€875 - €157
Revenue forgone over 10 years per pickup	€11,230	€11,230	€11,230	€11,230
Number of privately registered pickups per year	(5,682*0.61*0.56 =) 1,941	(1,941*0.80 =) 1,553	(1,941*0.60 =) 1,165	(1,941*0.40 =) 776
Total revenue forgone over 10 years	€21,797,430	€17,440,190	€13,082,950	€8,714,480

Table	12	Revenue	forgone	in Flan	ders bo	ised on	Ford R	anger	model
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Table 13 Revenue forgone in Flanders based on Dodge RAM model

	If private registrations do not drop	If private registrations drop by 20%	If private registrations drop by 40%	If private registrations drop by 60%
Registration tax (one-time)	€11,557	€11,557	€11,557	€11,557
Road tax per year	€3,201 - €157 ³⁰	€3,201 - €157	€3,201 - €157	€3,201 - €157
Revenue forgone over 10 years per pickup	€41,997	€41,997	€41,997	€41,997
Number of privately registered pickups per year	(5,682*0.61*0.56 =) 1,941	(1,941*0.80 =) 1,553	(1,941*0.60 =) 1,165	(1,941*0.40 =) 776
Total revenue forgone over 10 years	€81,516,177	€65,221,341	€48,926,505	€32,589,672

²⁸ Chapter 3 provides an overview of the tax rate differences for a Ford Ranger and Dodge Ram when considered an LCV and a passenaer car.

²⁹ This is the difference in road tax paid if the pickup were to be taxed as a passenger car instead of LCV.

³⁰ This is the difference in road tax paid if the pickup were to be taxed as a passenger car instead of LCV.

7 | Discussion

Although pickups emit more CO_2 and pose a greater safety threat compared to passenger cars, they enjoy high tax benefits in Belgium, because they are considered LCVs. In reality, however, pickups are not only bought for professional, but for private use too: the Belgian fleet now counts 64,945 pickups of which almost two third is registered privately. From an environmental and social point of view as well as a financial point of view (for the governments), new fiscal policies seem essential. They can be a strong instrument to influence consumers' choices: if designed appropriately, taxes can help to leverage efforts to reduce CO_2 emissions, while reducing the governments' revenue forgone. The measures suggested below, could potentially help to address the issues related to rising popularity of pickup trucks. More in-depth research would be needed on the specificities, the possibilities and consequences of each measure. As was pointed out before, it is important to take into considerations that the introduction of new policies are only effective when citizens are aware of it.

7.1 Transforming the fiscal treatment of pickups in Belgium

7.1.1 Fiscal definition of LCV

Changing the fiscal definition of 'light commercial vehicle' in the so-called cooperation agreement seems an essential step to be considered first. This has to be done in accordance with the three regions of Belgium. Presently, all pickup models are automatically seen as an LCV in the cooperation agreement. In the light of the new company car tax reform in Belgium, it seems even more pressing to redefine what a 'light commercial vehicle' is. Due to this tax reform, nonemission-free vehicles ordered from 1 January 2026, will no longer be deductible (Livis, 2021a). However, LCVs are exempted from this reform and will remain 100% deductible after 2025 - even the nonemission-free vehicles (Livis, 2021a). This could possibly lead to a shift to more pickup trucks if not addressed appropriately.

7.1.1.1 Distinction between professional and private use

First of all, a distinction could be made between private and professional users of pickups. For example, pickups could only be considered an LCV when they are linked to a VAT nummer. One could also consider making a list of essential occupations who would solely be eligible for the tax benefits for pickup trucks.

7.1.1.2 Imposing additional requirements

Secondly, additional requirements could be introduced that pickup models have to meet before they are considered an LCV. For instance, it would be less appealing for many users to buy a pickup if only single-cab pickups were to be considered an LCV. Outlining a maximum number of seats (such as in France), a minimum payload capacity (such as in the UK) or a set ratio between the length of the cargo space and the cab (such as in The Netherlands) are other examples of conditions that could be imposed.

7.1.2 Increasing tax rates

In the Netherlands, tax rates paid by pickup owners are both for private as for professional users higher than in Belgium. The Netherlands is also the country with the lowest pickup registrations per capita. Therefore, it seems plausible that, along with changing the fiscal definition of LCV, significantly increasing tax rates for private and nonessential professional use, and to a lesser extent also for essential professional use, could further discourage (unnecessary) pickup use in Belgium. Progressive tax rates based on indicators such as CO₂ emisions and Maximum Allowable Mass, could be considered when specifically trying to target pickups. Setting the tax rates and rules are the responsibility of the regions.

7.1.3 Excise duty on LPG

Pickup trucks are fuel-inefficient vehicles, which makes driving costly. Most pickup owners choose to convert their engine to an LPG engine: this allows for a significant reduction of the fuel price, primarily because there is no excise duty on LPG. By not taxing LPG, the federal government provides drivers of fuel-inefficient vehicles the option to drive cheaper, making the purchase of a fuel-inefficient vehicle more appealing. While it is often claimed that LPG is a cleaner fuel, there is reason to question this assumption as can be read in chapter 3.4 Taxes on fuels. Raising the excise duty on LPG could reduce the incentive to buy a fuel-inefficient vehicle and increase government revenue.

7.1.4 Other manners to discourage pickup use

Fiscal policies are not the only measures that can discourage pickup use and sales. One could, for example, actively try to avoid increasing the average size of parking spots and to limit the number of *large* parking spots in cities, while ramping up parking controls. Moreover, the price of parking permits could be based on the weight or emissions of a vehicle. Finally, in order to increase road safety, it could also be considered to introduce a driving ban for nonessential pickups (or LCVs in general) in some parts of the city or during the hours that kids go and come from school.

8 | Conclusion

In this report the fiscal treatment and market trends of pickup trucks in Belgium were studied. Without exceptions, pickup trucks fall under the Belgian fiscal definition of 'light commercial vehicle' (LCV). Both the one-time registration tax as well as the yearly road tax are significantly lower when a vehicle is considered an LCV instead of a passenger car. As a consequence, owners of pickup trucks enjoy high tax benefits – whether they use the vehicle professionally or privately – eventhough pickups emit considerably more CO_2 and pose a greater safety threat compared to passenger cars. The fact that there is no excise duty on LPG makes the choice for a pickup even more attractive, as it offers the possibility to drive fuel-inefficient cars at a low cost. LPG-conversions of the engine appear to be a common practice among pickup owners.

When investigating the Belgian pickup fleet more closely, improper use of the fiscal benefits seems to be widespread: the Belgian fleet now counts 64,945 pickups of which 61% is registered for private use. When comparing the Belgian situation to France, Germany, The Netherlands and the UK, Belgium's tax rates for pickups appear to be one of the lowest. On the other hand, the yearly registration figures of pickups are among the highest. In Belgium, yearly pickup registrations per capita were even 18.7 times higher than in the Netherlands over the years 2018, 2019 and 2020.

Fiscal policies can be a strong instrument to influence consumers' choices. The current tax benefits do not only have social and environmental consequences, the revenue forgone of the Belgian governments amounts to millions of euros every year too. Redesigning the fiscal treatment of pickup trucks in Belgium could thus not only help to reduce the emissions of the transportation sector, but also increase tax revenue for the governments.

Awareness about this is raising in Belgium, but not resulting in successful policy reforms yet. Although Wallonia has supposedly changed their fiscal policies and now distinguishes between professionally and privately used LCVs, the region might face (legal) problems as the policies do not fully adhere to the rules of the cooperation agreement between the regions. In Flanders, the responsible minister has expressed his willingness to work on the fiscal treatment of pickups, but this has not led to any tangible results yet. In Brussels, the focus of the upcoming tax shift is not focused on discouraging pickup sales specifically, but rather on reducing congestions in the city. These plans have not been implemented either and it is unsure when they will.

Several measures could address the rising popularity of pickup trucks in Belgium. First of all, the fiscal definition of LCV could be adjusted in a manner that not all pickup trucks are automatically considered an LCV anymore (and thus not entitled to the tax benefits). Secondly, the tax rates for both private and (mainly nonessential) professional use of pickup trucks could be raised to discourage nonessential pickup use further. Moreover, the excity duty on LPG could be increased, as the low cost of this fuel makes it more attractive to drive fuel-inefficient vehicles such as pickups. Finally, along with fiscal policies, basing the price of parking permits on weight or emissions, introducing additional parking controls and considering possible driving bans for nonessiantial pickups/LCVs in cities are measures that could further disincentivize pickup use and ownership.

- APPENDICES -

appendix 1



Figure 6 Top pickup models in Europe in 2020

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