



Heavy Goods Vehicles: Do they pay their way? - impacts on road surfaces

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Table of Contents

1	Introduction	1
2	Analysis of HGV Costs	1
2.1	Headline Results	1
3	Summary of Research	1
4	Direct Taxes	2
4.1	Fuel Duty	2
4.2	VED and Road User Levy (RUL)	2
5	HGV Damage and Taxation	3
6	Spending on Roads	3
6.1	Government Spending on Roads	3
6.2	Maintenance Expenditure on UK roads	3
7	Cabotage and Foreign HGV Traffic	4
8	Tolls and Charges	4

1 Introduction

The logistics sector contributes over £110 billion Gross Value Added (GVA) to the UK economy, equating to 10 per cent of UK non-financial business economy with the road sector alone adding £22bn.¹ Road is the main method of transporting freight across Great Britain, with almost three times more goods moved by road than by water and rail combined with Heavy Goods Vehicles (HGVs) playing a vital role. There is now ten times more traffic on the roads than in 1950 and 38 per cent more vehicles than there were 20 years ago however Heavy Goods Vehicles (HGVs) accounted for only 5.1 per cent of overall traffic in the UK travelling, 17.2 billion vehicle miles in 2016.

2 Analysis of HGV Costs

The focus of this analysis is to determine the extent to which HGVs contribute to the cost of maintaining the country's roads in proportion to road use and damage imposed. The research explores direct taxation, cost of HGV damage to infrastructure and spending on road maintenance by local authorities, central government and devolved governments.²

2.1 Headline Results

HGVs pay three times more in direct taxation (vehicle excise duty (VED), HGV road user levy (RUL) and fuel duty) than their estimated damage costs to infrastructure. Total UK spending by all authorities on highway maintenance (including bridges, footpaths etc.) was £4.7bn in the financial year 2015-16 (table 1). Tax take from HGVs alone covered almost all of this cost (94 per cent).

Table 1 Headline figures for the UK: HGV payments, costs and spending

	UK 2015-16
Motoring taxes paid by HGVs (fuel duty, VED and HGV RUL)	£4.4bn
Marginal cost estimate for infrastructure damage imposed by HGVs	£1.5bn
Central/devolved government and local authority spending on road maintenance	£4.7bn

3 Summary of Research

- Direct motoring taxes (fuel duty + VED) yielded £33.5bn in the fiscal year 2015-16
 - VED raised £5.9bn in the fiscal year 2015-16
 - Fuel duty raised £27.6bn in 2015-16
- Total government spending on roads was £9.3bn in 2015-16 or 27 per cent of taxation
 - Total spending on highway maintenance (including bridges, footpaths etc.) was £4.7bn
 - Tax take from HGVs alone covered the vast majority of this cost (94 per cent)
- HGVs paid an estimated 14 per cent of road taxes but only accounted for 5 per cent of traffic
- In 2016, UK goods vehicles travelled 17.2bn vehicle miles. Damage to roads by HGVs is estimated at 9 pence per mile yielding a total cost of £1.5bn. However HGVs paid nearly three times that amount in taxation (£4.4bn)
- The HGV Road User Levy (RUL) raised £198m in 2015-16 of which £50m or one quarter of the revenue came from foreign registered vehicles, although these represented only 4.8 per cent of HGV traffic
- HGV cabotage accounted for just 0.9 per cent of road freight activity within the UK

1. Annual Business Survey 2015, revised June 2017

2. Toll revenue from public and private toll crossings will be included and published at a later date

4 Direct Taxes

4.1 Fuel Duty

Fuel duties are levied on purchases of petrol, diesel and other fuels. The main rate of fuel duty for petrol and diesel is 57.95 pence per litre. In 2015-16 fuel duty raised £27.6bn in tax with an estimated £25.4bn coming from petrol and diesel.³ The standard rate for fuel duty has been frozen since 2011-12.

4.2 VED and Road User Levy (RUL)

Vehicle Excise Duty (VED) raised £5.9bn in the fiscal year 2015-16. Since 1 April 2014 all HGVs at or above 12 tonnes gross weight using UK roads have been required to pay the HGV road user levy (RUL). The levy was introduced to ensure that all HGVs in scope contribute to the costs of UK road maintenance. The levy costs up to £10 per day or £1,000 per year.

For most UK-registered HGVs, VED was reduced by the same amount as the levy and is paid alongside VED. The RUL is rolled into the VED estimates (excluding the tax take from non-UK HGVs). HGV VED and RUL was frozen from 1 April 2017.

In 2014-15 the levy raised £192.5 million (£46.5 million from foreign-registered HGVs and the balance from UK-registered HGVs). In 2015-16 it raised £198m (£50m from foreign-registered HGVs the balance from UK registered HGVs). This is significantly above the original Government estimate of approximately £50 million per year.⁴

Table 2 UK motoring taxes and traffic volume by vehicle type⁵

Type of Vehicle	VED £ million	Fuel Duty ^a £ million	RUL £ million	Total £ million	% tax	Traffic billion vkm	% Traffic
Heavy goods vehicles	279	4,093	50 ^b	4,422	14.1%	27.7	5.1%
Light goods vehicles	297	1,812		2,109	6.7%	37.8	7.0%
Light goods vehicles (non-freight)	334	2,034		2,368	7.5%	42.4	7.8%
Buses & Coaches	31	845		876	2.8%	4.1	0.8%
Cars	4,903	16,520		21,423	68.2%	424.2	78.5%
Motorcycles, scooters & mopeds	65	134		199	0.6%	4.5	0.8%
Other vehicles	21			21	0.1%		0.0%
All vehicles	5,930	25,438		31,418	100.0%	540.7	100.0%

a. Petrol and diesel only, excludes gas and other fuels

b. RUL for foreign registered HGVs only as it is assumed that RUL is included in VED for UK registered HGVs

3. Source: DfT, Transport Statistics GB 2016 - Table TSGB1311

4. House of Commons Library Briefing Paper: Vehicle Excise Duty (VED), Number SN01482, 12 June 2017

5. Sources: DfT, Transport Statistics GB 2016 - Tables TSGB 1310, TSGB 1311, ENV0101

DfT, Vehicle Licensing Statistics - Tables: VEHO103, VEH 0402

DfT, Road Traffic Estimates in GB 2016 - Table TRA0201

Infrastructure NI, Annual Road Traffic Estimates 2014 (latest available)

5 HGV Damage and Taxation

Road freight (travelling by HGV) pays both VED and fuel duty. In 2016 direct road taxation from HGVs was £4,422 million. According to Mode Shift Benefit (MSB)⁶ values, the marginal external cost to infrastructure from HGVs is 9 pence per mile. In 2016, UK goods vehicles travelled 17.2bn vehicle miles; at 9 pence per mile this is a total cost of £1.5 bn but HGVs pay nearly three times that amount in taxation (£4.4 bn).

6 Spending on Roads

The Strategic Road Network (SRN) represents only 2.4 per cent of the road network length but carries a third of all of traffic⁷ with HGVs in particular depending on the SRN, comprising 11.4 per cent of traffic on motorways.⁷ The remaining 97.6 per cent are managed by local highways authorities. These local roads carry two thirds of all motorised traffic on the network.

6.1 Government Spending on Roads

The Government spent around £9bn on Britain's roads in 2015-16 and spending on Northern Ireland's roads was estimated at £0.3bn (table 3).⁸

Table 3 Government Spending on roads in the UK 2015-16

Great Britain		Northern Ireland	Total
National roads	£3.8bn		
Local roads	£5.2bn		
Total	£9.0bn	£0.3bn	£9.3bn

6.2 Maintenance Expenditure on UK roads

Overall in 2015-16, £4.7bn was spent on structural and routine maintenance of roads in the UK (table 4). It should be noted that this included expenditure on bridges and other highway structure elements, unplanned patching of roads and items not directly related to wear and tear of the road surface (e.g. footpaths, retaining walls, culverts etc.). A total of £1.8bn was spent on UK routine road and £2.97bn on structural maintenance.

Table 4 Maintenance expenditure on UK roads 2015-16⁹

Country		Routine	Structural
England		£1,352.1m	£2,856.9m
	<i>Motorways, Trunk Roads, A Roads (central government)</i>	<i>£266.2m</i>	<i>£688.3m</i>
	<i>Local Authorities (all roads)</i>	<i>£1085.9m</i>	<i>£2,168.6m</i>
Scotland ^a		£336m	£18.8m
Wales		£59.4m	£43.8m
Northern Ireland		£32.2m	£49.8m
Total		£1,779.7m	£2,969.3m

a. 2014-15 is latest available year

6. MTRU: Heavy Goods Vehicles - do they pay for the damage they cause? 2014

7. Road Traffic Statistics, 2016, Department for Transport

8. DfT Transport Statistics GB 2016 - Table TSGB1302

9. Sources: DfT, Road Network Size and Condition - Table RDC0310
StatsWales, Roads and transport revenue expenditure, by service
Northern Ireland Transport Statistics
Scottish Transport statistics - Table 10.1

7 Cabotage and Foreign HGV Traffic

Cabotage refers to road haulage solely within one country by a vehicle registered in another country. According to International Road Freight Statistics (July 2017 update) HGV cabotage accounted for just 0.9 per cent of road freight activity within the UK measured as 1.46 billion tonne kilometres of goods moved compared to 156.36 billion tonne kilometres of goods moved by UK based hauliers.¹⁰ Total HGV traffic undertaken by foreign registered vehicles has increased from 3.3 per cent to 4.8 per cent between 2013 and 2015.¹¹

8 Tolls and Charges

There are 23 tolls, or toll roads, in the UK; 18 of which are river crossings. And two are the London congestion charge and the Durham congestion charge. At present we are conducting research into the amount of revenue yielded from HGVs by all public and private tolls as a proportion of traffic. This will be published as an addendum when the data are available.

10. *DfT Road Freight Statistics: 2017, Table RFS0212*

11. *DfT Road Traffic Statistics 2017, Table TRA3201*