

Addendum to MTRU 2014 report

February 2015

Impact of DfT's revised MSB external cost values on HGV track cost calculations

The table below updates Table 4.1 in the original MTRU report. Using the latest available traffic figures (2013) and the new DfT costs, the order of magnitude unmet costs can be calculated. Please note the detailed description in the original report sets out the basis on which the costs are derived.

New Table: MSB values by road type and component (pence per lorry mile)

	Motorways				
	High	Low	A	Other	Weighted Average
Congestion	99	24	72	78	57
Accidents	0.5	0.5	5.6	5.5	2.7
Noise	9	7	8	14	8
Pollution	0	0	0.1	0.2	0.1
Greenhouse Gases	6	6	7	9	7
Infrastructure	7	7	24	171	18
Other (roads)	6	6	6	6	6
Gross Total	127.5	50.5	122.7	283.7	98.8
Taxation	-31	-31	-32	-40	-32
Marginal cost gap	96.5	19.5	90.7	243.7	66.8
Road Tax as % Gross	24%	61%	26%	14%	32%

Source: MSB Technical report refresh, DfT 2014

Unmet costs calculation

The costs are assumed by DfT to be allocated to articulated vehicles and the calculation of any shortfall uses this as its basis. The method followed is set out below and consists of multiplying the weighted average cost by the number of vehicle miles. The MSB rail element of tax used by DfT has been removed, since this is not relevant for assessing net road costs.

Source 1 is the final column from the table above, the second is:

Billion vehicle miles from articulated vehicles: 2013

Extract from: DfT Table TRA 3105 (updated).

Articulated (number of axles)			
3 or 4	5	6 or more	Total
0.6	2.7	5.0	8.2

Order of magnitude calculation of unmet costs:

@66.8p per mile

= £5.48billion

Please note the previous calculation based on 8.1 billion vehicle miles in 2012 and earlier MSB cost table used in the original MTRU report from 2014:

@ 49.8p per mile

= £4.03billion

Rigid HGVs

Vehicle miles from the heaviest rigid HGVs, which are likely to have similar types of marginal external costs to articulated vehicles, are lower than artics, at 1.7 billion (2013). This has only changed marginally from 2012. MEC values have risen, so they could be causing another £1.1billion of unmet costs. This is similar to original estimate of about £1billion. The rigid costs are less well documented in the DfT report, although they compete with other modes for the transport of bulk items such as minerals and waste. They undertake a higher proportion of their vehicle miles on minor roads (10%) while the articulated HGVs use minor roads for only 2% of their travel. The latter appears to be extremely low and it should be noted that the average is very sensitive to this proportion. This would be a sensible area for further research.