

Increasing fuel prices and market distortion in a domestic road haulage market: the case of the United Kingdom

Alan C. McKinnon 1*

¹Logistics Research Centre, Heriot-Watt University, Edinburgh

Abstract

Differences in diesel fuel prices can significantly distort competition both between and within domestic road haulage markets. This is well illustrated by the case of the UK, where diesel fuel prices are by far the highest in the EU. The paper examines the effects of high and rising fuel prices on cabotage penetration in the UK road freight market and reviews a series of measures that have been proposed to 'level the playing field' between British and foreign hauliers. Within domestic haulage markets, carriers also vary in the extent to which they can recover fuel price increases from shippers. The paper reviews recent empirical evidence on this subject collected in the UK and outlines several methods of compensating hauliers for fuel price rises.

Keywords: Road haulage; Fuel prices; Taxation; Cabotage; UK.

Introduction

Within the European Union, fuel typically accounts for between a quarter and a third of the total costs of operating a truck. This makes economic conditions in the road haulage industry highly sensitive to the prevailing price of fuel, particularly during periods of rising fuel prices. If changes in fuel prices and the structure of vehicle operating costs were uniform across the continent, cross-border competition in the European road haulage industry would be largely unaffected by fuel price inflation. In reality, however, fuel prices have increased at varying rates in both absolute terms and relative to other haulage costs. Fuel price rises have also had a differential impact within national haulage markets, partly because of differences in the nature of distribution operations and vehicles used, but also because some hauliers are better able than others to recover fuel price increases from their clients.

^{*} Corresponding author: Alan C. McKinnon (A.C.McKinnon@hw.ac.uk)

Increases in fuel prices have therefore had the effect of distorting the market for road haulage services both internationally and within individual countries. One country in which these distortions have been pronounced is the UK. For over twenty years, it has had both the highest fuel prices in Europe and the most liberal market for road haulage services. Its island status and relatively peripheral location within Europe has offered its domestic hauliers some protection from international competition, though in recent years foreign penetration of the British haulage market has sharply increased (Sciullo and Smihily, 2006). It is frequently argued, mainly by trade associations, that this influx of foreign hauliers is a direct consequence of Britain's high fuel duty policy. In the first part of this paper, we examine this proposition using data drawn from several sources. We also consider what can be done at both EU and national levels to moderate the effects of fuel price differences on cross-border competition in the road haulage industry.

The second part of the paper explores differences in the ability of trucking companies to recover fuel price increases from shippers and outlines several procedures that can be adopted to compensate carriers for fuel price rises over which they have no control.

International divergence of fuel duties and prices

In 1993 the duty on diesel fuel in the UK was 23% above the EU average. By 1999 it was 96% above this average (Road Haulage Association, 2000). The reason for this sharp divergence was the introduction by the British government in 1994 of a 'fuel duty escalator' policy. This policy, which was unique within Europe, was justified on the grounds that it would help Britain to meet its Kyoto target for CO₂ emissions. It initially increased fuel duty in real terms by 5% per annum and after 1997 by 6% per annum. The impact of this measure on haulage costs was mitigated in the early years by a decline in world oil prices. By 1998, however, an upward trend in oil prices coupled with the raising of the annual tax increment from 5 to 6% amplified its effect. Between May 1997 and September 2000, the diesel fuel price rose by around 30%, increasing fuel's share of the typical haulier's budget from a quarter to a third (McKinnon, 2001). The government abandoned the fuel duty escalator policy in 1999¹, the year before the 'fuel crisis' when road hauliers and farmers blockaded oil refineries and obstructed major roads in protest against high fuel prices (Lyons and Chatterjee, 2002).

Since 2000, the diesel fuel duty in the UK has declined slightly in real terms (Leicester, 2005), though still remains much higher than the levels in other EU member states (Figure 1) (European Commission, 2006a). At 0.89 Euro per litre, it is 75% higher than the EU average and 141% higher than in Latvia, the mainland EU member state that taxes fuel the least. The fact that the diesel fuel price is higher in the UK than any other EU country is entirely due to the higher level of duty and tax that the government imposes. In March 2006, the UK actually had the lowest pre-tax fuel price in the EU

¹ Although originally justified as an environmental measure the high fuel duty policy was latterly defended on the grounds that it provided additional public funds for schools and hospitals. The connection between high fuel prices and climate change therefore weakened. Britain is, nevertheless, in line to meet its Kyoto targets, mainly as a result of a large shift in electricity generation from coal to gas. It is difficult to measure the contribution that the fuel duty escalator made to the pursuit of the Kyoto targets. As discussed later in the paper, fuel efficiency in the road freight sector rose by a significant margin between 1994 and 1999, while the escalator policy was in force.

(Figure 1). At 0.48 Euro per litre, it was 6% below the EU25 average and 15% below the equivalent price in Italy of 0.56 Euro per litre.

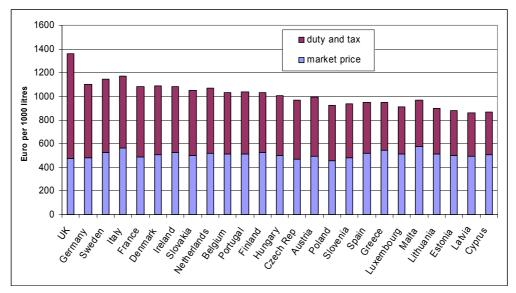


Figure 1: International Variations in Diesel Fuel Prices, Duty and Taxes: March 2006. Source: European Commission (2006).

Although there is currently a substantial difference in the diesel fuel price between the UK and other EU member states, it used to be much wider. In September 2000, at the time of the fuel protests, diesel fuel in the UK cost roughly 50% more than the EU average (the EU15 at that time) (McKinnon, 2001). By March 2006, the differential had narrowed to 24% (Figure 2). The gap in average fuel prices between the UK and its near neighbours in France, Belgium and the Netherlands also narrowed from 52% to 28% over this period (European Commission, 2006a). This recent trend has taken the gap in diesel fuel prices between the UK and the EU15 back to the level it was at in 1993, the year prior to the introduction of the UK government's fuel duty escalator policy.

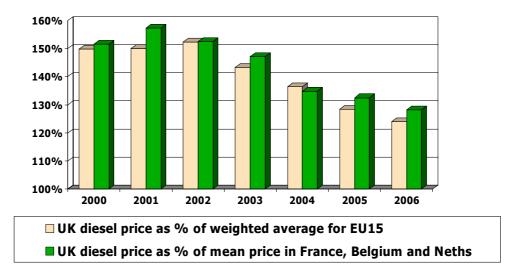


Figure 2: Narrowing of UK –EU Differential in Diesel Fuel Prices: 2000-2006 Source: European Commission (2006).

The difference in fuel prices between the UK and the rest of the EU has shrunk because increases in diesel fuel prices over the past six years have been mainly attributable to increases in the pre-tax price of fuel. As the main inflationary pressure has been exerted by the world price of oil, those countries with relatively low rates of fuel duty have experienced the largest increase in pump prices. Between January 2004 and March 2006, a period over which the market price of oil doubled from \$34 to almost \$70 a barrel, the average diesel price rose by 49% in Greece as opposed to 23% in the UK (Figure 3). Because of the buffering effect of high fuel duties, the UK experienced the lowest percentage increase in fuel prices over this period, significantly below the average 36% increase across the EU15. One of the few consolations of having fuel duty set at a relatively high level is that it reduces the sensitivity of pump prices to variations in the market price of oil.

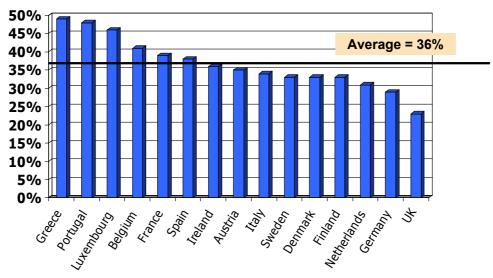


Figure 3: % Increase in Diesel Fuel Prices between Jan 2004 and March 2006 Source: European Commission (2006).

Foreign penetration of the UK road haulage market

Prior to 1991, foreign-registered hauliers were prohibited from undertaking domestic haulage work in any EU country. This practice, known as 'cabotage', was legalized during the 1990s. Increasing numbers of cabotage permits were issued each year until 1998 when cabotage was fully liberalized. Prior to the liberalisation of cabotage during the 1990s, the differences in fuel duty between the UK and other EU member states irritated British hauliers but had little direct effect on the domestic road haulage market. Since the complete liberalisation of cabotage in 1998, there has been a sharp increase in the amount of domestic haulage work undertaken in the UK by foreign carriers. The extent of this increase is uncertain, however, because of disparities between the two sets of cabotage statistics available. The level of cabotage in a country is measured by the 'cabotage penetration rate'. This is defined as 'the proportion of a country's domestic market (national transport plus cabotage) taken by cabotage' (Schiullo and Smihily,

2005). Table 1 shows the cabotage penetration rates estimated by Eurostat and the UK government between 1997 and 2004 using different survey methodologies. The latter estimates are substantially lower, but still show a steep increase in cabotage between 2000 and 2003. The Eurostat figures are based on a larger sample of operators and more consistent sampling frame. On the basis of these figures, it is estimated that the amount of freight movement on cabotage journeys within the UK increased from 79 million tonne-kms in 1997, the year preceding full liberalization of cabotage, to 1.86 billion tonne-kms in 2004.

Table 1. Estimates of road cabotage penetration rates for the UK: % of domestic road tonne-kms.

	Eurostat	UK government
1997	0.05	-
1999	0.48	-
2000	0.87	0.06
2001	0.86	-
2002	0.96	-
2003	1.05	0.4
2004	1.20	-

Sources: Allen (2001), Oberhausen (2003), Sciullo and Smihily (2005), Sciullo and Smihily (2006), Department of the Environment, Transport and the Regions (2000) and Department for Transport (2003a).

Almost all of this freight movement will have been powered by fuel purchased outside the country. Foreign operators invariably fill their fuel tanks before entering the UK. This gives them a significant cost advantage over UK-registered hauliers. In March 2006, diesel fuel could be purchased, respectively, 20% and 24% cheaper in France and Belgium than in the UK (European Commission, 2006a). Other things being equal, this would have given the typical French or Belgium haulier a 5-6% cost advantage over their British counterpart. On a full tank of fuel, typically holding 1500 litres in the case of a 40 tonne articulated lorry, they could exploit this advantage over a distance of around 3000 kms. As the average length of haul for UK domestic freight movements by articulated trucks with gross weights in excess of 33 tonnes is only 125 kms, a substantial number of cabotage journeys can be undertaken on a single tank of cheaper fuel purchased outside the UK.

There is some disagreement over the resulting distortion of the UK domestic road haulage market. The Eurostat estimate of the level of cabotage in the UK in 2004 suggests that only around 1.2% of domestic road tonne-kms were carried in foreign-registered vehicles (in line with the EU average) (Sciullo and Smihily, 2006). This figure expresses cabotage penetration as a percentage of total road tonne-kms in lorries with a gross weight of over 3.5 tonnes. This definition includes local deliveries by smaller rigid vehicles, a market in which foreign carriers seldom compete. As the vast majority of foreign trucks are articulated vehicles with a gross weight of 40 tonnes, it is more realistic to measure cabotage with respect to this heavier end of the haulage market. Confining the measure to tonne-kms carried in articulated vehicles with gross weights of 33 tonnes or more, increases the cabotage penetration rate by just under 50%, but this still represented only around 1.7% of domestic tonne-kms in 2004. The main

trade associations argue that the relevant haulage market should be more tightly defined in terms of vehicle type, length of haul and geographical area. The Road Haulage Association, for example, claims that cabotage penetration of the general haulage sector comprising 75,000 trucks of 38 tonnes or more 'could be as high as 25 per cent' (Local Government and Transport Committee, 2006). Such a high level of penetration is only likely to occur in particular geographical areas or routes.

By combining data from the Foreign Vehicle Survey (FVS) and the Continuing Survey Road Goods Transport (CSRGT) for 2003 it is possible to conduct a geographical analysis of foreign penetration of the British road haulage market (Department for Transport, 2003 and 2004a). The available data from the FVS combines cabotage journeys with the UK legs of cross-border trips and transit movements between Ireland and the European mainland. It is not possible, therefore, to calculate cabotage penetration rates on a geographically disaggregated basis. Tables 2 and 3 measure the foreign penetration of inter-regional and intra-regional haulage markets expressed, respectively, in tonnes and tonne-kms². They reveal wide geographical variations in the extent to which foreign operators have penetrated the UK haulage market. This market penetration is greatest on inter-regional routes to and from the South East of England and East England, regions in which the main roll-on roll-off ferry ports are located. Relatively high penetration rates were also recorded on routes to and from Wales through which most of the Irish transit traffic passes. Overall 6 (7%) of the inter-regional links had penetration rates between 5 and 9.9%, 8 (9%) between 10 and 19.9% and 7 (8%) over 20%. This suggests that foreign competition is having a significant impact on the road haulage market in particular parts of the country.

Table 2: Percentage of Road Tonnes-lifted Carried by Foreign-Registered Hauliers on Intra- and Interregional Routes in the UK.

	North East	North West	Yorks/ Humb	East Midlands	West Midlands	East of England	South East	South West	Wales	Scotland
North East	0.0%	0.1%	0.3%	0.1%	0.5%	9.1%	12.3%	-	-	0.9%
North West	0.3%	0.2%	1.9%	0.9%	1.2%	4.1%	19.7%	2.8%	2.1%	0.7%
Yorks Humber	0.9%	1.5%	0.3%	0.2%	0.5%	5.9%	16.0%	0.1%	3.6%	3.0%
East Midlands	1.4%	1.0%	0.7%	0.1%	0.6%	1.8%	3.2%	0.1%	4.5%	0.7%
West Midlands	0.6%	2.9%	2.5%	1.4%	0.2%	3.4%	9.6%	0.9%	3.4%	0.7%
East of England	6.3%	2.5%	2.7%	3.1%	4.1%	1.0%	2.6%	1.5%	7.1%	4.2%
South East	17.4%	33.6%	30.9%	16.5%	25.9%	11.9%	3.7%	7.2%	44.2%	21.7%
South West	-	0.6%	0.3%	0.3%	2.4%	1.9%	3.0%	0.2%	1.2%	-
Wales	-	1.4%	9.0%	4.4%	2.5%	5.9%	25.1%	0.2%	0.1%	-
Scotland	0.4%	1.5%	2.9%	0.0%	2.2%	-	38.6%	-	-	0.1%

Source: Department for Transport (2003 and 2004).

² The Burns Inquiry, commissioned by the two main trade bodies (FTA and RHA), conducted a similar analysis using the same data to assess 'foreign vehicle activity as a % of goods moved by road in Great Britain'. It is not clear what unit of measurement was used for vehicle activity. Although the results are broadly similar to those in Tables 2 and 3, there are significant disparities.

Table3: Percentage of Road Tonnes-kms Carried by Foreign-Registered Hauliers on Intra- and Interregional Routes in the UK

	North East	North West	Yorks/ Humber	East Midlands	West Midlands	East of England	South East	South West	Wales	Scotland
North East	0.0%	0.1%	0.8%	0.0%	0.6%	10.2%	21.6%	0.0%	6.8%	1.0%
North West	0.3%	0.4%	2.3%	0.8%	1.6%	5.7%	25.6%	2.7%	2.6%	1.0%
Yorks Humber	1.4%	2.6%	0.5%	0.2%	0.6%	8.2%	20.9%	0.1%	4.2%	4.2%
East Midlands	1.7%	1.3%	0.9%	0.2%	0.9%	3.5%	5.9%	0.0%	6.9%	0.8%
West Midlands	0.9%	3.2%	3.5%	1.5%	0.2%	4.5%	16.7%	1.6%	6.8%	0.7%
East of England	10.9%	3.3%	4.4%	5.0%	6.0%	1.6%	5.9%	2.9%	17.1%	10.9%
South East	33.7%	51.9%	46.0%	33.9%	46.3%	24.3%	10.6%	16.2%	-	36.1%
South West	0.0%	0.7%	0.2%	0.4%	4.1%	2.0%	6.2%	0.4%	3.6%	1.2%
Wales	8.7%	2.3%	8.6%	7.6%	4.0%	13.6%	45.0%	0.5%	0.2%	2.4%
Scotland	0.4%	2.2%	4.2%	0.0%	2.0%	4.5%	68.7%	0.4%	4.1%	0.4%

Source: Department for Transport (2003 and 2004).

Foreign hauliers not only exert market influence by capturing traffic from domestic operators. Their presence in the market can also depress haulage rates on particular routes, squeezing the profit margins of domestic hauliers. 26% of hauliers responding to a survey conducted by the Burns Inquiry (2005) partly attributed worsening 'terms and conditions' to the 'effects of foreign competition' though they tended to be 'localised and sector-specific' (p.34-5). The financial position of hauliers operating on routes and in areas most affected by foreign competition is, therefore, likely to have been adversely affected by the differential fuel costs of British and foreign operators.

This is a problem largely confined to domestic carriers. International road hauliers are able to buy all or most of their fuel in other countries at the same prices as foreign carriers. An analysis commissioned by European Conference of Ministers of Transport (2000) revealed that, despite national differences in the taxes paid by hauliers (fuel duty, vehicle excise duty and road tolls) the total amount of tax paid on international journeys varied little between hauliers registered in different countries.

While travelling in other countries, British hauliers can engage in cabotage operations, partly offsetting cabotage penetration in the UK domestic haulage market. British hauliers, however, accounted for only 1.4% of all road cabotage in the EU in 2004. This compares with the 12.9% of total EU cabotage activity performed in the UK (Sciullo and Smihily, 2006). A country's overall road cabotage position can be measured by expressing cabotage tonne-kms handled by its registered hauliers in other countries as a ratio of the total tonne-kms carried by foreign operators in its domestic market (Figure 4). In 2004, the UK's position was the weakest in the EU with its hauliers carrying only 10.9 tonne-kms on a cabotage basis elsewhere for every 100 tonne-kms of cabotage in its home market.

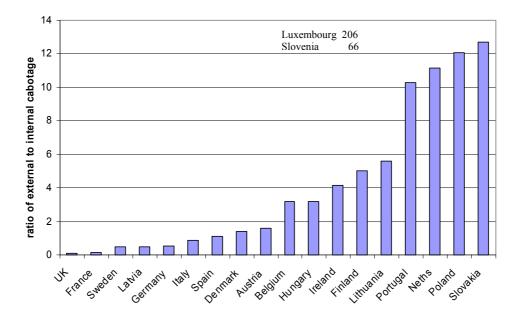


Figure 4: Ratio of External Cabotage by Country's Hauliers to Internal Cabotage Undertaken by Foreign-registered Hauliers within the Country (based on tonne-kms). Source: Sciullo and Smihily (2006).

Reasons for the increase in foreign haulage activity in the UK

The sharp increase in foreign haulage activity in the UK cannot be attributed solely to the difference in fuel duties between the UK and other EU member states. It is one of a number of factors that have promoted this trend. Two other factors are also likely to have been important:

1. Growth of imports into the UK: The overall degree of import penetration into the UK has risen sharply since 1997. Companies exporting by road to the UK tend to use hauliers registered in their home countries to transport their goods. This partly explains the influx of foreign-registered trucks into the UK. This trend is reinforced by differences in freight rates. Over the past decade, imports of goods from other EU countries have increased much faster than exports (Figure 5). The traffic imbalance is reflected in freight rates charged for haulage movements to and from the UK. As the dominant flow is inbound and hauliers find it difficult to find return loads from the UK, rates for import consignments are significantly higher than those for exports. Foreign carriers that can charge relatively high tariffs on journeys into the UK can offer low backhaul rates on return journeys to the European mainland. British international hauliers find it very difficult to compete with these low outbound rates. This helps to explain why the proportion of British registered lorries travelling between the UK and mainland Europe has dropped sharply over the past decade (Figure 6) and why British hauliers account for such a small proportion of cabotage in other countries.

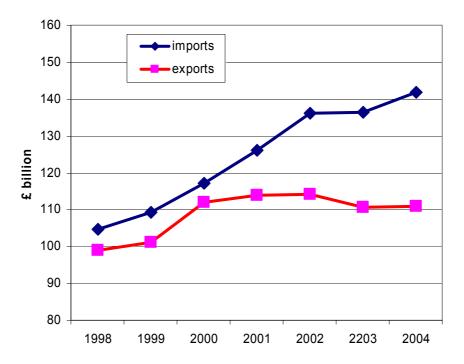


Figure 5: Value of UK Imports and Exports to / from the European Union. Source: Office of National Statistics (2006).

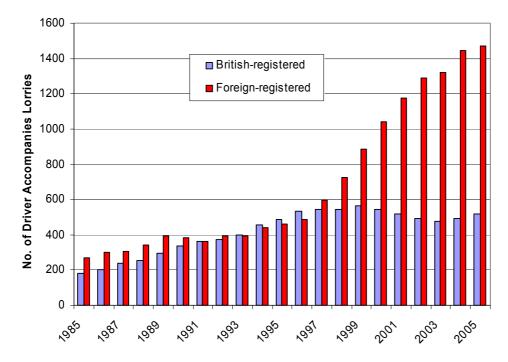


Figure 6: Numbers of British- and Foreign-registered Lorries Travelling between UK and Mainland Europe.

Source: Department for Transport (2006a).

2. Widening international differences in other haulage costs: The Burns Inquiry compiled comparative data on the costs of operating a 40 tonne 5-axle truck in six European countries. This indicated that operating costs were, respectively, 4%, 8%, 21%, 37% and 69% higher in the UK than in Germany, Belgium, the Czech Republic, Hungary and Bulgaria (Figure 7). Differences in fuel prices accounted for, respectively, 139%, 110%, 49%, 30% and 31% of the variations in total vehicle operating costs. In Germany and Belgium, lower fuel prices were more than offset by higher labour costs, while in the three Eastern European states, the cost differential with the UK was even greater for drivers than for fuel.

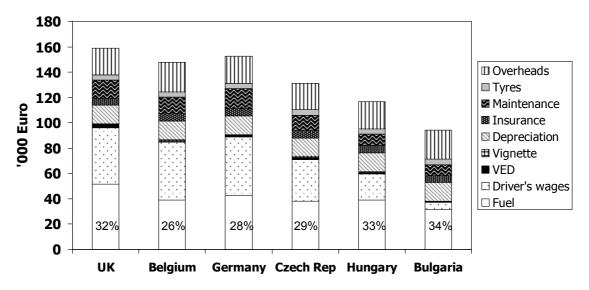


Figure 7: Structure of Truck Operating Costs in Six European Countries: annual expenditure. Source: Burns Inquiry (2005).

Foreign operators can substantially undercut the labour costs paid by British-registered hauliers, particularly by employing Eastern European drivers. According to the Burns Inquiry, driver costs in Hungary and Bulgaria were, respectively, 45% and 27% of those in the UK. As operators need only comply with minimum wage regulations in the country in which the driver is employed, foreign trucks can be driven on UK roads by drivers employed at these low wage rates. This labour cost advantage is reinforced by the failure of many foreign carriers to fully observe the Road Transport Directive while operating in the UK. This Directive restricts working hours in the road haulage industry (Department for Transport, 2005a). While operating in the UK, foreign drivers are covered by Britain's RTD regulations. It is very difficult, however, for the UK enforcement authority, VOSA, to check compliance as company records relating to working time are held at the foreign operator's base outside the UK. This situation is further aggravated by the fact that many of the EU member states in which foreign operators are based have so far failed to implement the RTD (Local Government and Transport Committee, 2006).

Wider economic issues

In assessing the net effect of foreign penetration of the British road haulage market, it is necessary to look beyond the interests of the domestic haulage industry. Many users of freight transport services have benefited from the arrival of foreign carriers offering lower rates. They have either benefited directly by employing their services or indirectly from the downward pressure on the general level of rates exerted by greater foreign competition in the market. No attempt has yet been made to quantify these benefits to shippers.

In evidence to a Scottish Parliamentary inquiry into freight transport, the representative of the Freight Transport Association, which represents mainly users of transport, claimed that he 'did not think that the vast majority of his members regard the arrival of foreign operators as a good thing. They would rather deal with domestic operators with which they can build up long-term relationships that are founded on trust between parties'. The final report by the Parliament's Local Government and Transport Committee (2006), nevertheless, disputed this claim, arguing that:

'If Scottish businesses wish to remain loyal to the indigenous road haulage industry and cultivate longer term relationships with local hauliers they can do so. If this were the prevailing view across Scottish industry, very little use would be made of foreign operators and the issue of cabotage penetration would not arise. The fact that the Committee's attention has been drawn to the issue and it has been highlighted as a problem, suggests that some Scottish firms aim to minimise their transport costs regardless of the haulier used. This is perfectly reasonable behaviour.'

The intensification of competition in the UK haulage market is likely to have had the effect of improving the efficiency of domestic operations, as well as squeezing the hauliers' profit margins. It may also have contributed to the increased rate of bankruptcies and insolvencies in the transport / communication sector between 1998 and 2004 (Burns Inquiry, 2005). Many of the less competitive operators will have been forced to leave the industry. This would be in keeping with the government's objective of 'modernising the UK road haulage' (HM Treasury, 2000)

On the negative side, the British government loses large amounts of potential revenue that it could earn from foreign hauliers if they bought their fuel in the UK. We estimate that if foreign operators bought all the fuel required for their UK operations within the UK the government would gain around £200million more each year in fuel duty.

There is legitimate concern too that, as foreign hauliers pay neither fuel duty nor vehicle excise duty in the UK, they contribute nothing to the construction, maintenance and policing of the UK road network nor do they cover any of the environmental costs they impose while travelling in the UK. Recent research undertaken by NERA (2005) for the Freight Transport Association has valued the environmental, accident-related and road track costs imposed in the UK by foreign trucks at £236 million per annum.

Possible ways of correcting the fuel duty anomaly

As noted earlier, steep increases in the market price of fuel during a period of relatively stable duties has had the effect of narrowing differentials in pump prices. The gap between fuel tax levels in the UK and those of other EU countries remain wide, however. It has been argued, therefore, that government initiatives are required to reduce or possibly close this gap. These initiatives could be introduced at an EU level or internally within the UK.

EU initiative

In its 2001 Transport Policy White Paper, the European Commission (2001) proposed 'harmonisation of fuel taxation for commercial users, particularly in road transport'. It published a draft directive in 2002 to standardise excise duty for the commercial use of diesel in goods vehicles of over 16 tonnes gross weight by 2010 for the EU15 and 2012 for the new accession states. Countries would have been allowed initially to vary their level of duty around a 'central rate' of 350 Euros per 1000 litres of fuel. The 'fluctuation band' around the central value would narrow, however, with convergence on the harmonized rate by 2010 for the EU15. Annual indexation of the central rate would raise it to 410 Euros by 2010.

The two main aims of this proposal were to:

- 1. remove market distortions in the European road haulage industry and level the competitive 'playing field', at least as far as fuel purchases were concerned.
- 2. recover a higher proportion of the environmental costs imposed by road freight transport.

The Commission is, after all, committed to applying the 'polluter pays' principle in the transport sector³ (European Commission, 2001). Harmonising fuel duty at 410 Euro per 1000 litres would have increased the tax burden on hauliers in most EU15 countries and raised the total tax revenue from road freight operations across the continent. It would, however, have had the opposite effect in the UK, where, at the time the draft directive was published, fuel duty was already 80% higher. Harmonising on the 410 Euro central value would have cost the UK Exchequer around £2bn in lost revenue (House of Lords Select Committee on the European Union, 2003). It is hardly surprising therefore that the UK government strongly opposed the 2002 draft directive. At an EU level it was rejected by the European Parliament in November 2003. Undeterred by this earlier rejection, the European Commission has recently launched a new round of consultation on the issue of fuel tax harmonisation. It has identified three options:

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³ For consistency the same principle should be applied to all sectors, though in recent years much of the debate about the internalization of environmental costs has focused on the transport sector.

Option A: No further intervention at an EU level, with individual states retaining freedom to set the level of fuel duty.

Option B: Gradual harmonisation on a single EU fuel duty. It is proposed that this single duty level should be 400 Euro per 1000 litres of diesel fuel and universally adopted by 2018.

Option C: Gradual convergence on a narrow range of fuel duty rates delimited by EU-wide maximum and minimum values. This range would be progressively reduced to 100 Euro by 2010.

It remains to be seen if this new EU initiative will command greater support today than the previous attempt to harmonise fuel duties across the continent.

UK initiatives

UK fuel duties deviate much further from the EU mean than those of other countries and this deviation appears to have a greater impact on the competitive position of road hauliers in Britain than in other parts of the EU. It can be argued, therefore, that the UK presents a special case which requires country-specific initiatives. The Burns Inquiry (2005) identified a total of fifteen options (or 'potential solutions') which the British government could adopt to correct the fuel duty anomaly or at least ease its effects on the UK road haulage industry. These were assessed, on a subjective basis, against a set of eight criteria. None of the options satisfied more than six of the eight criteria, with most of them unlikely to gain 'political acceptability'. The options can be grouped into three categories:

- 1. Reduce diesel fuel duty for all users
- 2. Reduce the fuel duty paid by road hauliers
- 3. Increase the fuel duty paid by foreign haulers operating in the UK

1. Reduce diesel fuel duty for all users:

This would be a relatively simple fiscal measure, but one which would sharply reduce government tax revenue and conflict with its energy conservation and sustainable distribution goals (Department of the Environment, Transport and the Regions, 1999). Every 1 pence reduction in fuel duty would cut government tax revenue by £200 million (Burns Inquiry, 2005). Bringing the UK diesel fuel duty down to the EU average would require a 25 pence per litre reduction and represent a loss of £5.2 billion per annum in

⁴ These criteria were: (i) extent to which the scheme corrected the fuel duty anomaly (ii) ease of operation (iii) cost to government (iv) extent to which it made foreign carriers pay the true costs of operating on UK roads (v) acceptability to fuel suppliers (vi) speed of implementation (vii) ability to decouple truck taxation from that of cars (viii) political acceptability.

tax revenue. This would require a major restructuring of government finances. There is no evidence that the government is seriously contemplating this option.

2. Reduce fuel duty paid by road hauliers:

This option would involve decoupling the diesel fuel taxes paid by different road users. Road hauliers could then pay less fuel duty than diesel car users. This decoupling could be achieved in several ways:

- (i) <u>differentiation of diesel fuel used in trucks</u>: this could be done by placing a coloured dye in the fuel, as already happens in the case of 'red' diesel used, for example, in farm vehicles and refrigeration units. Currently red diesel carries a very low rate of duty (only 6.4 p per litre). As the reduced level of fuel duty for hauliers would be substantially higher than this, a different colour dye would have to be added (blue has been proposed). This option was suggested by the government in a consultation exercise in 2001 and commanded little support (HM Treasury, 2001). The current system of red diesel is widely infringed and the creation of another category of coloured fuel would further complicate the enforcement process.
- (ii) <u>introduction of a rebating system</u>: trade associations have argued that British road hauliers deserve an Essential User Rebate on fuel duty to compensate them for the fact that foreign carriers can avoid paying this duty (Road Haulage Association, 2000). Such a 'fuel duty rebate' scheme has operated successfully for many years for buses in the UK. Several methods could be used to rebate a proportion of the fuel duty paid by hauliers. For example, hauliers could provide receipts to confirm fuel purchases or by using special fuel cards they could have the rebate deducted automatically from the price at the refuelling point.
- (iii) <u>transfer a proportion of the fuel duty onto VAT</u>: as road hauliers, unlike most diesel car users, are VAT-registered they would be able to reclaim the VAT, effectively gaining a fuel duty rebate. The Burns Inquiry investigated this option, however, and found that it would infringe current EU rules on VAT.

This option would also cut government tax revenues, though by a smaller amount than the first option (£2 billion per annum as opposed to £5.2 billion). The government would be unlikely to countenance such a loss of revenue. It has, nevertheless, been argued by the Centre for Business Research (quoted in Burns Inquiry, 2005) that this loss would be largely offset by additional tax revenues raised mainly from three sources:

- increase in the share of domestic and international road haulage undertaken by British-registered hauliers paying taxes to the UK government
- UK hauliers, particularly those engaged on international operations and foreign carriers, switching the purchase of their fuel from other countries (including Eire) to the UK and thus paying UK duty
- additional employment created in the UK as a result of the new tax policy

Several of the assumptions underpinning this analysis are rather tenuous. For example, it is assumed that aligning UK fuel duty with the EU mean would virtually eliminate cabotage. The government also disputes the claim that rebating fuel duty for hauliers in this way would be self-financing.

3. Increase the taxes / charges paid by foreign hauliers

Rather than levelling fuel duty for UK hauliers down to the EU mean, this option would impose British levels of fuel duty on foreign carriers operating in the UK. To comply with EU rules, this could only be done in a way that did not discriminate against foreign operators and / or present a barrier to trade. Two proposals considered by the Burns Inquiry would clearly fail this test. These are the suggestions all trucks must enter the UK with an empty fuel tank and / or leave the country with a full tank of fuel.

The other means of achieving this option would entail the introduction of some form of road user charging for trucks. Truck tolling schemes have been introduced in Switzerland, Germany and Austria, partly to ensure that foreign-registered vehicles are adequately charged for their use of road infrastructure (McKinnon, 2006a). In its 2001 consultation exercise the UK government sought views on the adoption of either a distance- or time-based system of road user charging in the UK (HM Treasury, 2001). The distance-based charging option received much more support than a time-based scheme employing vignettes (or 'Britdisks') (HM Treasury, 2002a). The UK government then embarked on the development of a Lorry Road User Charging (LRUC) scheme, which would have charged all lorries with a gross weight of over 3.5 tonnes a per-kilometre toll for using the UK road network. Hauliers, registered either in the UK or other countries, would have been able to reclaim a proportion of their fuel duty to offset against the road user charge. The government assured the British road haulage industry that its overall tax burden would not increase as a result of LRUC, at least in its early stages (HM Treasury, 2002b; HM Treasury, 2003). The fuel duty rebate system would ensure fiscal neutrality for UK operators. Foreign hauliers, on the other hand, would have to pay charges on an equivalent basis to their British counterparts for their use of UK road infrastructure.

The government's plans for LRUC were criticised for being over-specified, too expensive and poorly aligned with its declared policy objectives (House of Commons Transport Committee, 2005; McKinnon, 2006b). Although portrayed essentially as a means of 'levelling the playing field' between British and foreign operators, LRUC would also have had the capability to vary charges by road type, geographical area and time of day (HM Customs and Excise, 2004). An alternative, much simpler and cheaper system of road user charging for trucks has been proposed, which would rely on tachograph readings rather than vehicle tracking to measure the distance travelled by lorries on UK roads (McKinnon, 2006b).

The government decided to abandon its plans for LRUC in July 2005, arguing that it would be more sensible to develop road user charging for trucks within the context of a more general programme of road pricing for all categories of vehicle. According to government reports, general road pricing is unlikely to be introduced before 2015 at the earliest (Department for Transport, 2004b). Representatives of the UK haulage industry have argued that the fuel duty anomaly needs to be corrected before then (Wright,

2006). A simpler, low technology scheme, involving distance measurement and fuel duty rebating, could be implemented on an interim basis until general road pricing is technically feasible and politically acceptable (McKinnon, 2006b). A joint government-industry committee is currently re-examining the whole issue of fuel duty differentials, foreign competition and cabotage.

Little progress has therefore been made towards correcting the fuel duty anomaly. As noted earlier, however, the upward trend in the market price of fuel, combined with stable duty levels, is gradually narrowing the gap between the UK and average EU diesel prices.

The remainder of the paper considers the opportunities for addressing another issue which has been seriously concerning the British road haulage industry. This is the difficulty of recovering fuel price increases from shippers, particularly during periods of high fuel price inflation.

Recovery of fuel price increases from shippers

Across the EU15, diesel fuel prices rose by an average 36% between January 2004 and March 2006 (European Commission, 2006a). In the UK, they rose by an average of 23%, inflating average vehicle operating costs by roughly 6% (European Commission, 2006a; Phillips, 2006). In an ideal world, these increases would be passed down the supply chain and ultimately borne by the final consumer. It is possible to make a rough estimate of the inflationary effect of such an eventuality. According to a quinquennial survey undertaken for the European Logistics Association (A.T.Kearney, 2004), in 2003 the logistics costs of European businesses averaged 6.1% of sales revenue and transport accounted for 43% of these costs. If one assumes that fuel constitutes on average 27% of truck operating costs, the 36% increase in diesel fuel prices between January 2004 and March 2006 would have added only around 25.5 cents to a 100 Euro shopping bill. If averaged over the typical family shopping budget such an increase would be barely noticed.

The suggestion that fuel price increases should ripple down the supply chain, in much the way that VAT is added, may seem far-fetched. It was, however, another formal proposal in the Transport White Paper of the European Commission (2001). The Commission indicated that it would propose 'legislation allowing harmonisation of certain clauses in contracts in order to protect carriers from consignors and enable them to revise their tariffs in the event of a sharp rise in fuel prices' (p.16). In other words, it would become a legal requirement to build clauses into haulage contracts giving carriers the right to reclaim fuel price increases. It is difficult to see how such legislation could be enforced in an industry as intensely competitive as road haulage. Nor would this proposed legislation offer much support for the large section of the haulage industry relying mainly on spot-hire rather than longer term contracts.

A survey conducted by Aleszewicz (2005) found that a sample of 29 hauliers managed to recover an average of only 27% of the fuel price increase over the previous year. Underlying this average, however, was a wide variation in the % of the price increase recovered. Twelve of the 29 claimed to have recovered less than 5%, while

nine were compensated for 50% or more of the fuel price increase. Only around a quarter of the companies responding (27%) indicated that shippers with whom they had contracts automatically compensated them if the fuel price rose above an agreed margin. Three out of four claimed that compensation for fuel price increases 'always or usually' involved negotiation.

A larger survey conducted several months later for the Burns Inquiry (2005, p.36) found that around 60% of UK hauliers were 'able to substantially recover fuel costs' in 2005. The ability to gain compensation for fuel price rises depended on the size of the operator, however. Only 50% of hauliers with five or fewer vehicles managed to 'substantially recover fuel costs', while for operators with 26 or more vehicles the corresponding percentage was almost 80% (Table 4). Between 2000 and 2005, differences in the extent to which the three size classes of haulier were able to recover fuel price increases markedly widened. This will have strengthened the market position and profitability of the larger operators, particularly as this deviation coincided with sharp increases in fuel prices.

Table 4: Percentage of hauliers able to 'substantially recover' fuel price rises from shippers.

	1-5 trucks	6-25 trucks	>26 trucks
2000	43	40	43
2001	39	43	48
2002	35	45	50
2003	34	48	58
2004	45	50	85
2005	53	77	79

Source: Burns Inquiry (2005)

The differing experiences of hauliers of varying size can be partly explained by the greater reliance of larger operators on contracts containing 'fuel clauses'. Many logistics companies have open-book contracts which allow them to reclaim fuel price increases. The vast majority of hauliers, however, are small and lack this type of contractual relationship. For example, according to unpublished data from the Traffic Commissioner, the average road freight operator in the Scotland runs only four vehicles, while 79% of them have five our fewer vehicles.

Improvement in fuel efficiency

Fuel price increases give operators an incentive to improve the energy efficiency of their operations, particularly when they cannot be recouped in full by rate increases. A commonly held view among shippers is that hauliers should not be compensated in full for fuel price rises as this would remove the incentive to improve fuel efficiency. By raising the energy efficiency of their transport operations, hauliers are not only able to offer more competitive rates. They can also reduce their exposure to future fuel price increases.

Between 1990 and 2005, average fuel efficiency across the entire UK truck fleet increased by roughly 10.5%. Most of this increase occurred over two time periods, 1994-1998 and 2004-5 (Figure 8). These were periods of high fuel price inflation. The first coincided with the first four years of the government's fuel duty escalator policy. In 2004-5, the surge in fuel prices occurred as a result of the increase in the world price of oil. The close correlation between fuel efficiency and fuel price trends suggests that demand for fuel from the haulage industry is price-sensitive and that companies respond to sharp fuel price increases by running their vehicles more fuel efficiently, especially larger and heavier articulated lorries.

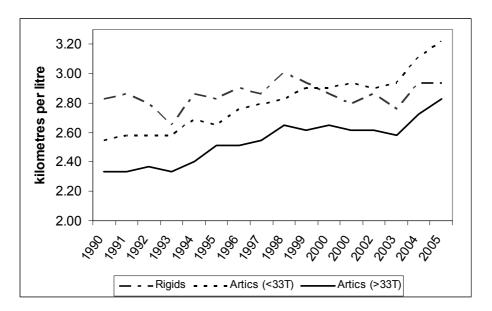


Figure 8: Average Fuel Efficiency of Different Classes of Truck in the UK. Source: Department for Transport (2006b).

Fuel efficiency gains, however, cannot possibly offset price rises of the magnitude experienced over the past two years. Where hauliers are unable to recover fuel price increases in higher rates or achieve offsetting improvements in fuel efficiency, they have to absorb at least a proportion of the higher fuel costs within their profit margins. As average profit margins in the British road haulage industry are only around 3%, most hauliers can ill-afford to do this (Plimsoll, 2005).

As it is predicted that fuel prices are likely to remain volatile and follow a longer-term upward trend, some method needs to be found to compensate hauliers for these inflationary pressures on one of the main inputs into their business.

Methods of compensating hauliers for fuel price rises

Road haulage is typically a buyer's market. It is a sector characterised by over-supply of capacity and intense competition. This can make it easy for shippers to refuse to compensate hauliers for fuel price increases, particularly in the spot-hire, general

haulage market. If one haulier insists on getting a higher rate to cover higher fuel costs, another can usually be found that will undercut this rate. Where haulage work is undertaken on a contractual basis, however, it can be advantageous for a shipper to incorporate a fuel price clause into the contract. Where oil prices are relatively high, as at present, shippers risk accepting rates based on high fuel prices that may drop during the period of the contract. Also, during periods of rapidly increasing fuel prices, failure to compensate hauliers can risk driving them into bankruptcy and disrupting the transport operation. The Burns Inquiry (2005), for example, found that hauliers were able to recover a much higher proportion of fuel price increases during periods of high fuel price inflation (2004 – 2005) than over periods when fuel price rises were more modest (2001-2003) (Table 4).

An ideal method of compensating hauliers for fuel price increases would adhere to four principles:

- Visibility both parties should have open access to fuel price and use data
- Equity opportunistic behaviour by one party should be discouraged
- Symmetry as fuel prices can go down as well as up, adjustments should operate in both directions.
- Sustainability the arrangement should survive periods of high price volatility

Four methods have been proposed (Aleszewicz, 2005)

entrust fuel purchasing to their carriers.

- The shipper buys the fuel for the carrier. Safeguards must be put in place, however, to ensure that carriers do not abuse this situation. This can be done by giving them fuel efficiency targets.
 There are a few instances of this happening in practice, though it is relatively uncommon. When companies outsource their transport operations, they prefer to
- 2. The shipper and carrier agree an open-book contract establishing full transparency of fuel consumption, expenditure and price levels. The contract sets out the fuel price compensation rules, preferably incorporating fuel efficiency targets. This tends only to work, however, in the case of dedicated contracts where shippers have the exclusive use of vehicle assets. It is more difficult to apply to groupage / network services where several shippers' traffic is consolidated in the same vehicle
- 3. The shipper tries independently to determine an adequate level of fuel price compensation. To do this, he requires information about changes in the fuel price and the % of the contract value which is spent on fuel. The first figure should be quite easy to find. This latter, however, is much harder to estimate. Annual surveys of road haulage costs, such as those compiled in the UK by *Motor Transport*, DFF and the Freight Transport Association, give an indication of the proportion of total costs allocated to fuel, but their estimates vary. The haulage work undertaken for a particular shipper can also differ significantly from the industry averages used in these published cost tables. In the case of cross-border operations, the situation is even more complicated as the % of

- operating costs spent on fuel and fuel price increases vary from country to country, as discussed earlier.
- 4. At the time of tendering the carrier specifies the percentage of the contract value to be spent on fuel and agrees with the shipper that fuel price increases, above a certain margin, will automatically trigger additional payments in proportion to the declared expenditure on fuel. This allows the shipper to take the fuel cost % into account during the tendering process. The main problem with this method is that many carriers would have difficulty estimating the fuel cost component in a tender, particularly for a complex mix of loads and routes. Aleszewicz (2005) found that almost a third of hauliers seldom or never disaggregated fuel costs by shipper and journey. Many hauliers might also be reluctant to accept the risk involved in fixing the fuel costs incorporated within a contract at the time of tendering.

Conclusion

In its mid-term review of its 2001 Transport White Paper, the European Commission (2006) acknowledges that 'the predominance of small companies and the impact on competition of considerable differences in fuel tax levels between Member States are important factors that will influence future development' (p.9). Despite the Commission's earlier efforts to narrow variations in fuel duty across the EU, they remain guite wide, with the British duty level 24% above the mean for the EU15. The development of the British road haulage industry over the past decade illustrates what can happen when a government unilaterally imposes a high fuel duty policy within a liberalised international freight market. This policy has undoubtedly contributed to the sharp increase in the level of cabotage in the UK since 1998, when this practice was fully deregulated within the EU15. Foreign-registered hauliers buying all their fuel before entering the UK gain a significant cost advantage over domestic hauliers and avoid contributing to the cost of building, maintaining and policing the country's road infrastructure. This fuel cost advantage, however, is only one of several factors that have reinforced the growth of cabotage. It is also important to put cabotage into perspective. By 2004, cabotage had captured only around 1.2% of domestic road tonnekms in the UK, in line with the EU25 average. Spatial analysis of cabotage penetration in the UK nevertheless reveals that its impact on the domestic haulage market is much greater, in some cases twenty times greater, on particular inter-regional routes.

Increases in the market price of fuel during a period when fuel duties have remained reasonably stable are narrowing international variations in pump prices. This is reducing the relative cost advantage that foreign operators gain from 'fuelling-up' outside the UK. It is, however, exacerbating another problem for British, and other European, hauliers – that of recovering fuel price increases from shippers. The extent to which they are able to recover these price increases and protect their margins varies with the size of carrier, the nature of the business and industrial sector. The steep rise in the oil price over the past two years has strengthened the need for more fair and consistent

methods of compensating hauliers for higher fuel costs. This paper has identified four possible methods. While none of them are ideal, they at least put the issue of fuel cost recovery on a more formal basis and offer a more practical solution to the problem than the European Commission's proposal that legislation be used for this purpose.

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