Fuel price increases: economic significance

By Simon Forster, May 2008*

On 21 February 2007, the then Prime Minister, Tony Blair, posted a written reply to the 1.7 million petitioners who objected to the Government's proposed road pricing policy. Many petitioners objected to the pricing policy on the grounds that it would be a stealth tax, unlikely to relieve congestion and designed primarily to raise additional revenue from hard-pressed motorists. Many pointed out that the fuel levies were already a form of road user tax and questioned the wisdom of introducing a new tax with extremely high implementation costs.

The comments of the objectors and Mr Blair's reply to them, both demonstrated a weak understanding of the mechanisms at play in the UK motoring economy. This is not surprising given that Government's transport and energy policies during the last fifteen years have been myopic and wholly inadequate for an economy of the size of the UK's, as was highlighted by the 2006 Eddington Report. The recent sharp increases in global oil prices provide an illuminating insight into these inadequacies, and are therefore worthy of further scrutiny, if for no other reason than to demonstrate the strengths and weaknesses of the road pricing policy.

The issue of why another form of motoring tax, in addition to road tax and fuel levies, is required was not fully explained by government. To do this we need to distinguish between revenue raising taxes and behaviour-changing taxes.

The UK has some of the highest consumer fuel prices in the world due largely to the high government duty on petrol and diesel. There is no evidence to show that this high level of taxation has resulted in a reduction in motoring. Indeed, the opposite is true. UK car numbers and motoring distances have continued to rise despite increased fuel levies. Economists explain this phenomenon in terms of their understanding of the *price-elasticity of demand,* which states that as the price of a particular good increases, the demand for it will decrease. Where there is no decrease in demand, as in the case of UK fuel prices up until 2008, it means that the price is in the inelastic zone. That is to say that an increase in price does not result in a reduction in demand. The reason for this, as far as motoring in the UK is concerned, is that people are fully prepared to pay the higher price for fuel in order to continue to enjoy the social benefits of unhindered motoring. The important point to note from this understanding is that while the fuel price is in the inelastic zone, there is no behavioural modification and the additional tax simply increases revenue. Hence, Government should have pointed out that a congestion charge was necessary because the prevailing fuel price was not having any effect on the motoring behaviour of the public. Of course this would have raised the issue of if, and how the Government knew that a specific congestion charge level would result in a reduction in the number of vehicles using a particular road? Had the Government been unable to clearly demonstrate that the proposed charge fell in the elastic zone, then they would have been guilty of revenue raising or instituting a stealth tax. But Mr Blair stated in his letter to the petitioners that:

> *"I know many people's biggest worry about road pricing is that it will be a 'stealth tax' on motorists. It won't. Road pricing is about tackling congestion."*

This statement would suggest that the Government possessed price-elasticity information that they were not disclosing to the public. Or were they just guessing?

So do we have any transport behaviour-changing taxes? Two recently introduced levies have, according to government, been motivated on the basis of environmental concerns, or more specifically carbon emissions. These are, the passenger levy on air transport and the sliding scale road tax based on vehicle carbon emissions. The passenger levy has not had any discernible impact on the number of passengers using air transport. It is too small and in some instances has been obliterated by cost cutting between the airlines. Therefore this is a purely revenue-raising tax. The road tax adjustments have not yet come into effect. However, as the tax levels for high carbon emitting vehicles remain miniscule relative to the purchase price of such vehicles, it is likely that this gesture is also another form of revenue raising and has little to do with modifying the purchasing behaviour of motorists.

Before we begin to look at the effects of the recent price rises in oil, it is important to note that the price-elasticity of demand assumes that the consumer has options. In other words, if it becomes too expensive to use a vehicle on a given route, then there is an alternative and affordable means of transport. Again this was an issue that was raised by the road-pricing objectors and poorly answered by Government. If there is no affordable or viable alternative means of transportation, the inelastic zone becomes extended. In other words, if a congestion charge was applied to a stretch of road and there was no alternative congestion-free route or no form of alternative public transport with available capacity, then the charge would have no effect whatsoever on congestion, and would exclusively be a revenue raising levy. Admittedly, Government did promise to invest in additional public transport capacity as part of the proposed road pricing policy, but they were vague on the timing of this investment in relation to the introduction of road pricing.

Now we come to the recent and dramatic increase in world oil prices. It may have come as a shock to many people, but in reality it has been predicted for many years and the only real surprise was that it took so long for the speculators to realise the growing shortfall between supply and demand. Certainly the shortfall was exacerbated by the invasion of Iraq in 2003, which reduced output by about 1.5 billion barrels per year, but that just served to postpone the inevitable by about three years. It did however provide the UK Government with five years notice of the present situation. Which raises the question of where are the contingency plans? A great deal of energy and transportation planning can be achieved in five years. Unfortunately the Government’s response to the current crisis suggests that that they were as surprised as the speculators when the shortfall was uncovered. And do not for one moment blame the speculators; their behaviour serves merely to warn of things to come and to signal the market to make the necessary adjustments. It has been predicted that the speculative bubble will burst and this may well be the case. However, motorists should guard against any expectation that there will be a fall in fuel prices.

Due to the high level of fuel tax in the UK, the British motorist may be one of the more vulnerable people in the world to sharply rising oil prices. Moreover, the increases have come at a time when disposable incomes have been reduced due to the mortgage crisis and utility bill inflation. Hence there is little or no surplus in the average household budget to absorb the current fuel price increase. The Government is not in a position to assist the motorist with reductions in fuel tax as they are already struggling with budgetary deficits that are likely to worsen as consumer spending reductions impact on fiscal revenues. This means that controlling inflationary pressure will become increasingly difficult as the cost of fuel starts to impact on the price of food and consumer goods. Ideally, the Government should be considering a reduction in fuel tax on diesel to reduce immediate inflationary pressure. However, this would require a sudden and significant curtailment in public expenditure, which may prove both difficult to bring about and may affect economic growth projections.

There is as yet, no data to indicate how motorists are responding to the fuel price increase. There is anecdotal information that suggests that the current trend in UK fuel prices may be taking the motorist into the elastic zone. In other words, an increase in the price of fuel will result in a concomitant reduction in the distance travelled by motorists. Time will tell if this is indeed the case. But lets assume for arguments sake that in the coming months fuel prices do start to affect motoring behaviour and the demand for fuel. What will be the effects of this on social welfare, the domestic economy, road congestion and the environment?

Much of the Governments argument in favour of road pricing was based on the belief that a significant number of journeys undertaken by motorists were either superfluous or just grossly inefficient. The implication being that road pricing would discourage motorists from undertaking unnecessary journeys and force car commuters to share transport, and that this in turn would alleviate congestion. Again we sit with the problem of how does the government know the proportion of journeys that fall into this category? If the Government were guessing on this issue then the recent increase in fuel prices will provide them with a much clearer indication. The moment the fuel price moves into the elastic zone then non-essential journeys and one-person-per-car commuting will tend to be sacrificed. This response was demonstrated during the fuel crisis of the early 1970s. Where motorists fail to adjust their habits, either through reluctance or an inability to change, then the pattern of domestic expenditure will change, with less money being available for luxury items such as new appliances, eating out and holidays.

An obvious statement to make at this juncture is that the use of public transport will increase. However, rail and bus operators already report near capacity passenger levels during the commuting periods, suggesting that there is little available commuting capacity to absorb any additional shift from car commuting. The Government are aware of this and were planning to increase capacity before road pricing was introduced. However, they clearly did not anticipate the sharp increase in fuel prices beating them to it. But public transport can still assist in alleviating the rising cost burden on the motoring public in the difficult months ahead provided that employers are prepared to be more flexible. There is still available capacity on non-peak public transport, which could be used if employers adopt more flexible working hours and if more work is conducted at home using broadband connectivity. Those towns offering free wireless broadband to residents will be the winners in a future characterised by high transportation costs.

But what about those motorists who have no alternative but to use their cars to meet all their transportation needs? Decades of decentralisation and extending commuting distances are set to haunt the rural dweller, and the UK economy. The ideal home in the outlying village may no longer be a cost-effective housing option and people may add the increasing cost of commuting to the mortgage repayment for an urban property: and why not? With less congestion, better public transport, better amenities and less pollution, the average UK town is no longer a place that people must escape from. City dwelling has always been more economically efficient than rural habitation. But it does mean that urban property prices might strengthen while rural prices may weaken.

Retail activity, by far the greatest pastime of the UK motorist, will also be affected. If the frequency and distance of car journeys is a constraining factor then there will be a tendency to purchase *under one roof* and shop around on-line for all the less-easyto-find items. We could see a further growth in internet sales offset by a decline in high street receipts, but with a marked increase in so-called 'long tail' on-line sales as people become increasingly averse to hunting for items by car.

Retailers have a major role to play in improving the transport efficiency of consumer items, and some outlets are already achieving significant reductions in road haulage costs through a reduction in packaging, purchasing fresh produce closer to the point of sale, and the streamlining of supply chain systems. Those that are making the effort will soon reap the rewards as less transport efficient retailers are forced to increase prices to offset the cost of fuel price increases.

Which brings us to the issue of the importation of goods and, in particular, food from developing countries. Shipping costs will not be as affected by the increase in oil prices due to the huge economies of scale inherent in container traffic. The transportation of goods to and from ports will still constitute the major per kilometre transportation cost. Therefore those producers who operate close to ports or rail infrastructure will fare much better than those whose produce must be transported over long distances by road. As transport economists have been at pains to point out for many years, spatial development in developing economies is dictated largely by road transportation costs. Land locked countries such as Zambia, Rwanda and Malawi are going to struggle in the face of rising oil prices.

But the fuel price increase does not spell doom and gloom for every sector of the economy. The environment will be a clear winner with fewer carbon emissions as will the UK's domestic tourism industry. Although as with all economic shifts, these impacts may not be as predictable as they seem at first. For example, foreign tourist numbers may fall, there may be increased pressure on the UK natural environment and domestic vehicle emissions may increase as people substitute domestic touring for costly flight tickets.

So, does the recent sharp increase in the fuel price mean that the Government can forget about road pricing for the time being? Given the limited availability of funds for new Government expenditure projects, they may have no alternative. But there is little doubt that the intelligent implementation of road pricing will benefit greatly from a close scrutiny of the impact on motorist's behaviour of the current fuel price escalation.

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