Understanding And Valuing Road Freight Travel Time: Feedback on Proposals

The Chartered Institute of Logistics and Transport (UK)

Introduction

The Chartered Institute of Logistics and Transport UK (CILT(UK)) is a professional institution embracing all transport modes whose members are engaged in the provision of transport services for both passengers and freight, the management of logistics and the supply chain, transport planning, government and administration. Our principal concern is that transport policies and procedures should be effective and efficient, based on objective analysis of the issues and practical experience, and that good practice should be widely disseminated and adopted. The Institute has a number of specialist policy groups, a nationwide structure of locally based groups and a Public Policies Committee which considers the broad canvass of transport policy. This submission draws on contributions from a number of these sources.

The Importance of Appropriate Travel Time Values of Freight

As the report points out, as long ago as 2010 it was recognised a need to improve the road freight VTT recommended in DfT appraisal guidance. Since then the approach and scope has not been altered, leading to a low assessment of the VTT for goods carriers, and effectively no assessment of the VTT for goods shippers. Effectively there is no VTTR nor Reliability Ratio for goods.

The DfT and National Highways recognise the importance of freight transport to the UK economy, and the fundamental role of providing high quality infrastructure to support freight movement. In our view, the undervaluation of time for road freight, along with other issues (such as a mode agnostic valuation for example), has an impact on the outcomes of transport strategies and transport investment business cases. The main result is that models are dominated by the economic impacts of cars. This means that solutions often favour incremental improvements to car journey times, particularly in the peak hours. Too often, any freight proposals focus on known issues such as the lack of lorry parking, or treat freight movement as a constraint to be managed rather than as a lever to improve the productivity and output of the economy.

We believe that more realistic freight VTT and VTTR will result in improved strategies and investments. For example, in focussing more investment on access to ports or key logistics hubs, or encouraging investment in diversionary routes and incident recovery. However, mitigations will need to be implemented to ensure that the changes don't distort investment in favour of road projects as compared with non road modes.

The Challenges of Modelling Freight Economics

Freight is complicated. Modelling freight and logistics is particularly challenging due to the large differences between categories of freight movement (type of goods, position in the supply chain, etc.) and the role of major decision makers in key businesses over supply chain strategy.

In passenger or people movements large numbers of people make decisions in ways which are well understood as the result of decades of research and hundreds of millions spent on transport modelling. It is tempting to apply the same processes and principles to freight transport, and maybe this is a necessity to bring freight into line with the modelling of people movement, but simplified values will inevitably be inappropriate for large segments of the market.

It is not even clear that hauliers or shippers make simple trade offs of time against cost. The haulage price tends towards haulage costs which are based on distance and time, with an allowance for unreliability, plus a small margin. Shippers and logistics companies have a sophisticated understanding of the value of their goods and the value of reliability. Changes in price, reliability, or travel time led to changes in market positioning (reaching or not reaching markets) or changes in supply chains (centralisation versus local depots). But fundamentally carriers allow for the reliability required by shippers by building slack into scheduling, which means that those parts of the network which are unreliable because of varying impact of congestion impose heavier costs than a single value can reflect while a single value that covered longer distance less congested length of the road network could distort competition with non road modes.

This is before getting on to the challenges of LGVs. This is, of course, a fast growing sector, particularly important for last mile deliveries. But knowledge and data for this sector is poor. On any given route the mix of uses could be very different. Far more research is needed before models can begin to reflect economic reality for LGVs.

Comments on the Methodology

As a result of this complexity, we feel that Stated Preference was not an appropriate methodology to estimate VTT or VTTR. This is not just with the benefit of hindsight – there are too few examples of SP being used for freight and the complexity of the freight sector should have been recognised.

We will not comment in detail on the methodology. The study team seem to have done a good job given a difficult requirement. We value Ian Williams' comments which are helpful.

We do think that the project would have benefited from an initial qualitative survey of freight decision makers to understand how they actually make decisions on travel time and price, and what information they have available to support those decisions. The project has brought us no closer to understanding such questions.

General Comments on the Proposals

Importantly, we support the need to have more realistic values for all modes of freight. Initially, the exact values aren't as important as the recognition that the cost of time and the impact on costs of reliability to the wider economy are currently under estimated.

In the short term, along with implementing the new values, we think that the DfT, National Highways, Network Rail /GBR, and Appraisal Guidance should specify involvement of the freight sector throughout project development and appraisal. We note the other devolved nations should also be included in the work.

In the medium term we would welcome more research into these important issues, research which CILT would be happy to support.

Specific Questions

1. On the basis of the evidence presented here and in the research reports, do you agree that we should use the Arup et al (2023) estimates from carriers (£81.24 in 2022 prices/values) as the basis for the HGV VTT?

Our feeling is that the £81.24 value is too high, and should be closer to the factor haulage costs faced by carriers that include the cost of purchasing and maintaining the vehicle itself. The values described in Motor Transport do reflect actual freight rates. However, this cost does not reflect the cost of poor reliability caused by congestion, which carriers build into their costs to reflect the value shippers place on their goods arriving on time.

2. Do you agree that we should exclude the explicit valuation of HGV shipper willingness-to-pay (£73.35 in 2022 prices/values), on the basis of the evidence presented here and in the research reports? Do you think some element of this valuation may be reflected, implicitly, in a carrier-based VTT?

Yes, agreed. We believe that carriers reflect the cost of poor reliability in the rates they charge to shippers (and the costs they face) by building in safety margins on each trip and not just the trip delayed and that this cost should be reflected in VTT calculations. This would focus attention on those links on the network where congestion is a serious cost factor. We would recommend immediate consultation with key business decision makers to obtain their understanding of these values.

3. Do you agree with the proposal to exclude differentiation of trips to/from port and not to/from port from guidance?

We think that the "to port" (and, indeed, the "from port") market is vital to the UK economy and needs to be better understood. The attempt to measure this for the project was

invalidated by not separating accompanied from unaccompanied trucks. Projects involving significant volumes of traffic to and from ports should initially employ “bottom up” assessments of the VTT and VTTR for shippers and hauliers.

Ultimately we know that VTT and VTR must vary in a way which is segmented by commodity and the role of the haul in the supply chain. It would be impossible to model all segments, but at least some segmentation should be attempted, for example to look at retail goods, bulk goods, the courier market, or last mile deliveries. Data is available that can distinguish commodity by traffic corridor.

4. On the basis of the evidence presented here and in the research reports, do you agree that we should avoid using estimates of freight LGV VTT from the Arup et al (2023) study? If so, do you agree with our proposal to use a bottom-up estimate of time-related transport costs (£21.34 in 2022 prices/values), combining data from the Office for National Statistics and Motor Transport publication? Should we prioritise further work to build on these values to develop improved LGV VTTs?

Yes. LGV was too much of a challenge. Initially we agree with using the average figure. If possible projects should seek to better understand the split of LGV journey purpose on roads impacted and adjust the average accordingly. Resolving values for LGVs should not delay resolution of VTT for HGVs as they carry the overwhelming majority of freight.

5. Do you agree with the proposed updates to LGV occupancy and trip purpose splits? If so, do you agree with the proposed ‘Work (Services)’ LGV VTT, based on the Cost-Savings Approach?

As above, where possible surveys of LGV use should be undertaken.

6. Do you generally view the proposed HGV and LGV VTTs to represent an improvement in how we capture the benefit to businesses of road freight journey time improvements?

An increase is an improvement. We support the proposed VTTs as an interim, and subject to assurances that the high values will not distort projects. **In particular we would like to understand better the impact of the higher values on non road modes, and how measures to achieve modal change can be evaluated on an equitable basis. In particular we believe consistency with the values of time to the carriers employed in making grants towards rail or water transport is important (e.g. MSRS).**

7. On the basis of the evidence presented here and in the research reports, do you agree that we should use the Arup et al (2023) reliability ratio from the carrier segment, for both HGVs (RR=0.58) and freight LGVs (RR=0.70)?

The numbers seem reasonable, but in practice the value for reliability will vary dramatically across sectors. Strategies and projects using modelling should attempt to understand the real impact of changes on the logistics sector. See our response above to question 2.

8. Do you agree with our proposed methodology for growing HGV and LGV VTT over time? Do you think the proposed implementation in TAG provides sufficient flexibility of application, for different types of model?

No comment.

9. Do you agree with the proposal to apply a single VTT for all HGV vehicle types? Do you agree with the proposal to remove existing advice in TAG relating to doubling the recommended HGV VTT in modelling?

A sensible differentiation would be between articulated and non articulated vehicles, with the latter being mostly bulk. Carriers of non-perishable bulk goods between storage sites are less affected by issues of reliability than carriers engaged in complex supply chains who will build in greater safety margins. However, in the absence of better data a single VTT should be implemented initially until further consultation with the freight industry is conducted.

10. Do you agree with our proposal to restrict the direct application of the updated evidence to highway modelling and appraisal only?

Yes, we agree. But we would like to see some immediate analysis done of the impact of the higher values on non road modes as an important priority.

Submitted by:

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