

Commission on Travel Demand : An Initial Submission

Tom Hart February 2017

- 1 THE COMMISSION** Establishing the Commission is timely in relation to new thinking on how to impact more rapidly on UK End Use Energy Demand as part of steps to accelerate cuts in greenhouse gas emissions from the transport sector but clarity is needed on whether the Commission will consider freight as well as passenger movement and opportunities for improved access with potentially less movement. Should reference should be made to additional work relating to demand for international movement? Should the title be modified to **The Commission on Future Movement and Access** and a reference added to the need for further work and international agreement on the future scale and nature of international movement?

At present, international movement by air has a high rate of growth though international shipping may be affected by some shift to intra-regional trade and major cuts in longer distance shipping influenced by large cuts in oil and coal movement and an increasing emphasis on the recycling of materials in ways involving lower energy costs.

- 2 RATIONALE FOR COMMISSION** There is a case for modifying the three main rationales to be:-

- 1 carbon and other international obligations which will increasingly require demand reduction (this would recognise, not only carbon issues, but also the difficult, yet important, issues of moving towards carefully phased reduction, or stabilisation, in the human population to allow improved well-being for humans and reducing pressures leading to major, but adverse, impacts on the conservation of habitat and wildlife)
- 2 retained as stated
- 3 Institutional inertia in changing governance, skills training and the overall fiscal, regulatory and international framework affecting personal and business decisions on spending (though beginning to change, transport modelling and evaluation has tended to have a bias towards previous trends and towards infrastructure investment rather than testing future scenarios. It has failed to appreciate actual shifts in levels of overall movement and modal share reflecting personal decisions despite a pricing/regulatory framework tending to favour car use)

2 RECENT CHANGE and its ROBUSTNESS

As outlined in the previous submission on *Phases in role of Transport in the Economy and Society : Past, Present and Future* there are clear indications that for at least 20 years the volume of passenger movement per head of population within Britain (and in other countries of similar size and levels of development) has been stabilising but with a shift in share towards public surface-based transport, especially if rail-based and in larger cities. Domestic

aviation growth has also slowed substantially while freight movement within Britain has fallen even with an economy still growing – though with rail increasing its share, especially for longer-distance internal movement.

Government policies have been slow to recognise these changes with great reluctance to apply stronger pricing and regulatory policies to the road sector. Record growth in rail passengers and income has already contributed to a large fall in annual payments to rail franchise operators and a major increase in payments to government by several franchise operators.

Rail investment has risen to ensure some network enhancements and reduce the backlog of major track and signalling renewals yet there has been inertia in moving towards better control of costs, identifying top priorities and moving towards the levels of skills and technical innovation required.

Several cities have seen impressive gains in combinations of rail, tram and bus improvements but distinct regulatory frameworks for rail, bus and taxi/DRT have inhibited fares/services co-ordination. Shifts to public transport, walking and cycling could have been higher than those actually delivered with an arguable case that cycling has received more attention than that given to encouraging shifts to public transport.

In Scotland, Lothian Buses (owned by Edinburgh and adjacent Local Authorities) has had particular success in raising bus usage despite the introduction of a curtailed tram route in 2014 with integrated bus/tram ticketing. The introduction of trams, and planned extensions, is designed to cope with significant growth in the city population, including increased emphasis on employment in west Edinburgh and towards the south east in the coming decades. Parking charges have aided shifts to bus use.

Despite indications of change, land use strategies (in practice if not in theory) often retain an assumption that rising car use (and parking) has to be facilitated by appropriate land use policies for cities and regions despite actual demand for car use likely to be lower due to greater shifts to transport alternatives and to working, shopping and being entertained at home rather than requiring movement.

The Scottish Government is revising Transport and Land Use Strategy in the light of sustainable and fundable objectives. Present objectives already include inter-city rail trip times within Scotland shorter than by car. Yet actual funding continues to prioritise major funding for full dualling of the Inverness to Perth and to Aberdeen A9 and A96 routes by 2025 with much more modest investment in the parallel rail corridors

ROBUSTNESS ISSUES The current official view is that rail growth will now stabilise with the economy gaining more from acceleration of some major road schemes helping to accommodate population growth in areas designed for easy use of non-oil cars – possibly including electronic road pricing and significant shifts to automated cars in cities and on adapted motorways by the 2030s.

This view seems out of line with actual personal and business preferences (and health pressures) to move to much higher levels of car rental associated with greater use of high-frequency public transport and active travel in cities and also stronger preferences for rail use over longer distances. Such a shift could ease present parking problems and cut longer-distance road use (including shifts from HGVs to rail). It could also lead to some shorter-distance bus and taxi trips being made by automated cars but with roadspace and amenity considerations still encouraging higher, rather than lower, levels of high-frequency public transport use in cities and some other areas with large elements of tourist and leisure travel. Automation may apply more easily to mainly segregated rail routes than to road use

However, the case for extensive and expensive sections of ultra-high speed rail route (suited to 200-225 mph operation) may be weakened due to better overall value coming from enhancements in city region and existing inter-regional networks with good interchange at city centre hubs. Ultra high-speed rail has the drawback of the length of time and distance needed to reach top speed with top speeds never reached if stations are less than 100 miles apart. Better value may come from upgrades of existing inter-city route and some sections of new construction to 140/150 mph maximum speeds. Existing plans already envisage such services sharing with possible HS2 ultra high speed trains on route north from the West Midlands (as already happens on the HS1 line through Kent).

The Problem of Peak Electricity Demand

Since many rail services are more heavily used at commuting peaks, this has meant (despite measures to improve fuel efficiency), that more intensive rail electrification could increase rail demand for peak electricity whereas battery or hydrogen powered road vehicles could be refuelled from electrical sources outwith peaks.

The existing shift to hybrid trains able to run directly on electricity or use diesel could be seen as easing this problem but the immediate reason has been to deliver cuts in the provision of electrical wiring which has risen well above budgets. The downsides include higher build and operating costs for such bimode trains. On busy and easy to electrify routes, full electric operation even at peaks is likely to remain preferable. Electrified longer-distance routes also have a more even pattern of demand over most of the day (and with nightline freight). Regenerative braking and further easing of the intensity of commuting 'high peaks' could ease electricity supply issues and ensure a larger contribution to greenhouse gas reduction and to urban air quality than the alternative of slower progress in shifting road vehicles to non-petrol and non-diesel power sources.

Tom Hart Phone 01505 502164 email thstsg@btinternet.com