Transport emissions and travel behaviour: A critical review of recent European Union and UK policy initiatives

GEORGE M. J. BARRETT
ECOTEC Research and Consulting Limited and University of Kingston, 28-34, Albert Street, Birmingham, B4 7UD

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Abstract. There are clear signs of a shift in the UK transport policy in response to concerns about the environmental impacts of road transport and anxieties about the implications of the projected future growth in demand.

Much of the framework of UK transport policy is now determined at the overall European Union level. To date most European legislation and policy proposals have been concerned with reducing the specific externalities associated with the transport sector, with none of the measures involved likely to have more than a marginal impact on the growth in demand. The emerging research evidence suggests however that the private costs of car use in Europe may fall substantially short of its total social costs and there is an important emerging policy debate about how this gap might be closed.

The UK has introduced a policy package designed to reduce the growth of car travel and its environmental impact, within which land-use planning measures feature prominently. The land-use policies, which to some extent represent a reassertion of many traditional UK planning policies, include: an emphasis on focussing new development in urban areas, increasing residential densities, strengthening the role of existing centres and improving provision for walking and cycling.

A number of factors will constrain the effectiveness of the package in practice. There are also concerns about its impact on key environmental objectives, including air quality. There are important questions too about the welfare effects of increasing densities and about the wider impacts of the package on economic efficiency.

Introduction

Over the 1980s UK economic policy as a whole was determined by the policy prescriptions of the "new right" — involving an emphasis on individual choice and minimisation of the role of the government, particularly in relation to regulation. In the transportation sphere this involved acceptance of rapid growth in private car travel to which policy — at least outside the major urban areas — sought to respond primarily through road building and improvement. The efforts to contain public expenditure in order to support policies of monetary restraint and direct tax reductions led simultaneously to substantial pressures on the investment programmes of BR, the nationalised rail operator, and
legislation to curtail local subsidies to bus operators. At the same time, attempts were made to revitalise bus services through policies of privatisation and deregulation.

The result of these policies — and the, at least by European standards, relatively strong growth of the economy over this period — was that the UK saw particularly rapid growth in car travel over the 1980s. Distance travelled by car grew by 49% between 1980 and 1990, a rate of growth matched only by Italy amongst the major European countries. In contrast to other European countries, distance travelled by public transport actually fell. (Department of Transport, 20)

Over recent years there have been clear indications of some shift in policy. Several factors have been involved:

- growing problems of congestion in most urban areas and on many inter-urban routes, although these have been mitigated to some extent more recently by recession;
- heightened concerns about the environmental impacts of road transport and its other external costs in terms of factors such as: air pollution, accidents, noise and severance;
- concerns about the environmental impacts of road building and associated local resistance to many projects. The major road building programme set out in the Department of Transport’s “Roads for Prosperity” White Paper (Department of Transport, 21) has been the subject of particular criticism and debate;
- a range of concerns amongst public and policy makers alike about the implications of National Road Traffic Forecasts, published in 1989 (Department of Transport, 22), which suggested that traffic levels would increase by between 83% and 142% by 2025.

Transport emissions have been a significant, but by no means the dominant, issue in the transport policy debate. Differentials in duties between leaded and unleaded petrol were introduced in 1988 in response to research findings which suggested that lead pollution in urban areas was having detrimental effects on the mental development of children (for example, Lawther, 38 and Royal Commission on Environmental Pollution, 50). There are also significant current public debates about the role of transport related air pollution in the growth of asthma (Pope, Schwartz and Ransom, 47), and about the relative adverse effects of fumes from petrol and diesel engines (QUARG, 48).

Whilst the evidence points to CO, NOx, SO2, ozone and particulates as the major emissions of concern, the debate over the future of UK transport policy has become linked in particular to the issue of CO2 emissions and the conditional policy commitment to reduce these emissions to 1990 levels by 2000 (Climate Change 1992: 4). The 1990 White Paper, “This Common