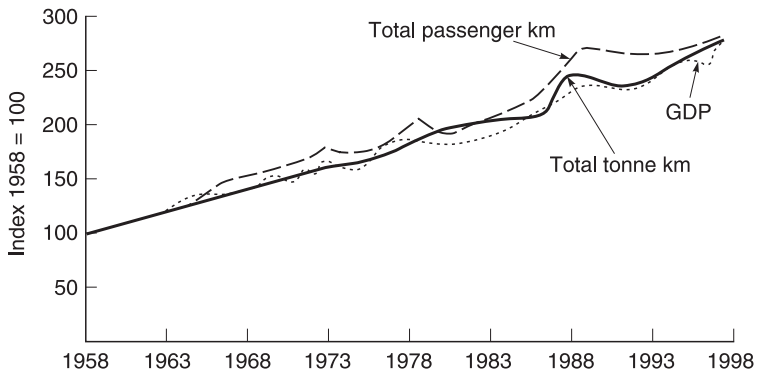
future. It is a small step from here to the acceptance of the notion that a good public transport system is necessary for sustainable development, and that its provision is a legitimate concern – perhaps it will be one of the most important concerns of city government in this century. The urban designer, working within a philosophical framework for sustainable development, does not plan or design urban structure specifically for the free movement of the private motor car, with public transport taking low priority; nor does the urban designer manipulate public transport to conform with an unsympathetic urban form which has been designed for the needs of the motor car. The form of the city under the imperative of ensuring sustainable transport is designed for public transport, the bicycle and the pedestrian, with the motor car playing a subordinate role. The change in the perception of the role of private transport will, in the medium to longer term, induce a major cultural shift, which will have a far-reaching effect on urban form.

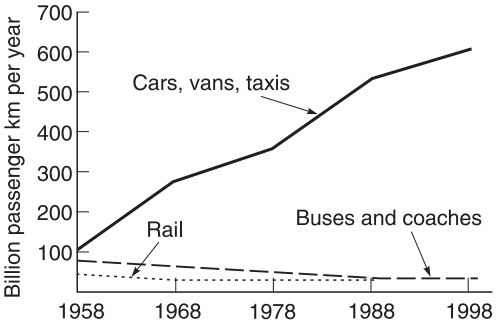
Figure 3.3 Overall growth in passenger transport and freight transport compared to GDP



TRANSPORT COSTS

The problems caused by the growth in traffic – particularly in the use of the private motor car – are in part connected with success. Increased economic activity and the growth of personal incomes generate higher demands for personal travel. This is as true for the rapidly developing countries of Asia as it is for the older developed countries such as the United Kingdom and our European partners. Figure 3.3 shows the close relationship, in this country, between the growth in both passenger transport and freight transport and the growth of GDP. Even though transport costs have risen more slowly than disposable income, households spend 70 per cent more in real terms on transport than they did a decade after Buchanan was writing. In Europe, between 1970 and 1995, the total number of cars per capita increased more rapidly than economic activity. 'In 1970, the average car ownership in all current (1995) European Member States was 181 cars per thousand persons. By 1995, the average car ownership in Europe was 428 per thousand persons: an increase of 137 per cent over 25 years.' (Bannister, 2000). In the same period, the increase in car ownership in the UK was slightly lower, at about 100 per cent.

People's choice of transport is influenced by convenience and cost. Cars are sometimes the only real choice where public transport is inadequate or non-existent: for those on low incomes, the old, the infirm, the severely incapacitated, public transport is the main means of mobility. The majority of personal transport is by road (93%), and as the car has become the dominant mode of travel public transport has declined (Figure 3.4). An equitable transport policy – that is, one



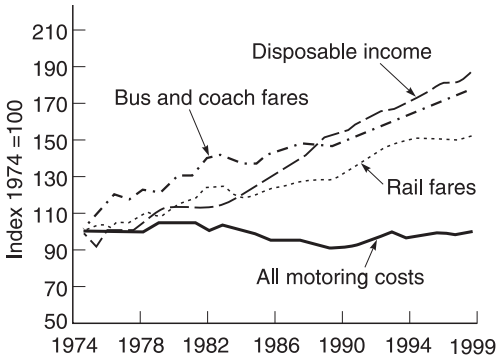


Figure 3.4 Passenger transport by mode

Figure 3.5 Real changes in the cost of transport and in disposable income. Note: 'All motoring costs' includes petrol and oil costs, and cost of vehicle purchase

that is sustainable – would be aggressively trying to reverse this trend: a trend that is, in part, the result of the decline in costs of car use while public transport costs have risen. Between 1974 and 1994, rail and bus fares increased by 50 to 70 per cent in real terms (slightly faster than the growth in disposable income), while the cost of private motoring has fallen by 2 per cent in real terms (RCEP 1997). Figure 3.5 shows the relationship between the changes in the cost of transport and disposable income. It shows quite clearly that motoring has become cheaper relative to disposable incomes and to public transport alternatives. Moreover, the cost of buying a new car also fell in real terms during the same period, having a knock-on effect on second-hand cars: the decline in the cost of new cars, to some extent, widened the range of people who can acquire cars, so reducing the potential market for the public transport industry. Even during the years when the 'fuel tax accelerator' was operating, this trend – which favours private motoring – continued. Indeed, between 1993 and 1995 while petrol and diesel costs increased by 4 per cent in real terms, overall motoring costs fell by 1 per cent. In contrast, public transport fares increased by 0.5 per cent for buses and by 3 per cent for rail.

KYOTO AND THE 10 YEAR PLAN

Transport 2010: The 10 Year Plan (DETR, 2000) identified the key challenges for transport planning until 2010. Amongst these challenges are: road traffic growth and congestion; overcrowding and congestion in London; and inadequate public transport across England. The Plan forecast that traffic, measured in vehicles/kilometre would grow by 22 per cent between 2000 and 2010. Congestion was forecast to grow by 15 per cent across the network, and by 28 per cent on the inter-urban trunk roads. Some 75 per cent of those people working in central London travel to work on overcrowded public transport: on four out of five commuter rail services the operators exceed overcrowding standards, while road congestion in London before the introduction of road pricing was three-and-a-half times the average in England. In the rest of the country, public transport does not offer an attractive alternative to the private motor car, while bus patronage has declined by two-thirds since 1990. It is these challenges – in addition to the Kyoto commitments to reduce greenhouse gases – which forms the context for transport