MSc in Transport Planning & Engineering

Transport Policy
Study Guide 1: Trends, Perspectives and Structures

NAPIER UNIVERSITY
EDINBURGH

School of Built
Environment

Original Authors

Andrew Nisbet
Aniscon Ltd

James Duncan
Aniscon Ltd

2008 Version Revised, Updated and Edited by

Tom Rye
Napier University

If you have any comments please address them to:

Tom Rye
School of Built Environment
Merchiston Campus
Napier University
Edinburgh
EH10 5DT
t.rye@napier.ac.uk
(44) (0)131 455 2477

Transport Policy
Module introduction

Welcome and introduction

Welcome to this module on Transport Policy. I hope you will find the issues covered as fascinating and challenging as I do. A few years into a new millennium, policy approaches and institutions are changing to meet new demands. Having spent some thirty years working for local authorities, transport operators and consultants, I have seen many changes in our transport systems. However, the Holy Grail of an Integrated Transport Policy still needs to be grasped.

This Transport Policy Module is one of eight in Napier University's MSc in Transportation Engineering. The Module is split into 15 separate units and these are grouped into four study guides. These cover:

> ◤ Study Guide 1: Trends, Perspectives and Structures (3 units)

> ◤ Study Guide 2: Policy Framework (5 units)

> ◤ Study Guide 3: Policy Tools – Economic and Fiscal (4 units)

> ◤ Study Guide 4: Policy Tools – Regulatory and Promotional (4 units)

The material in each unit is designed to build on that presented in earlier units, so you should work through the units in order.

Transport policy formulation is, unlike (cynics might say!) its implementation, highly volatile and constantly changing. Therefore, you will need to make sure that you keep yourself up to date with all the changes that are taking place in the industry and profession. One of the best periodicals for this is *Local Transport Today* (*LTT*). If you cannot get hold of a copy through your work, a subscription will pay dividends. You will note as you work your way through the units that I have included a number of articles from *LTT*. Many of them were the latest news on the topic I was writing about at the time. Discounted subscriptions to LTT currently costs £42 for students – email subs@landor.co.uk for further details. The publication offers the additional benefit of containing all the latest jobs in transport planning.

Why study transport policy?

Transport affects all our lives. We use all sorts of forms of transport to take us to work, shops and leisure activities. All the businesses involved in these activities rely on deliveries of goods and services to their premises. But the way in which we manage the transport movements relies on the policies we adopt at local, national and, increasingly, at a European and international level.

All the other modules in this MSc/ Diploma Course deal with the development of plans and solutions to particular transport problems, or the techniques used. The transport policies adopted, however, influence the nature of the solutions and the balance between the different modes of transport. The module also deals with the issue of how and why policies are implemented, or not. This is also a critical factor when we consider how to solve transport problems – we may know the answers, but if we are unable to deliver them, then they are largely useless. Therefore, this module, and an understanding of the issues involved, is central to the whole course.

◣   Recommended reading

At various points during the units you will come across this heading (Recommended reading); do not be tempted to skip it. In many cases, the document you will be referred to is included with the course materials; alternatively it will be readily available from a web site such as that for the Department for Transport (DfT, formerly DTLR (Department of Transport Local Government and the Regions); before that, DETR (Department of Environment, Transport and the Regions)).[1] So, as an introduction to the issues that will be discussed, you should read Chapter 1 of *A New Deal for Transport*[2] now.

How to use this study guide

This study guide is exactly what the name implies – it is to guide you through the study of this module. For this particular module – Transport Policy – there are 4 study guides in all, covering 15 separate units. It should take you about 130 hours to work through this module. But that is not the time taken just to read it, it also includes the time taken to read the recommended supporting texts like *A New Deal for Transport* and the excerpts that are provided from *Integrated Futures and Transport Choices: UK Transport Policy Beyond The 1998 White Paper And Transport Acts*[3]. It also assumes that you will want to make your own notes as you go through and allows time for you to complete all the activities included within

---

[1] DfT web site: http://www.dft.gov.uk

[2] Docherty I. and Shaw J. (2003) *A New Deal for Transport?* (Blackwell Publishing, Oxford)

[3] Hine, J. and Preston J. (eds.) (2003) *Integrated Futures and Transport Choices: UK Transport Policy Beyond The 1998 White Paper And Transport Acts* Ashgate.

the text.

Signposts and activities

As you work your way through this study guide you will come across a variety of 'signposts'. These are used to flag particular activities that you will need to do.

◤ Activity

This is where I will ask you to undertake a specific activity, usually at several points during a unit. Activities may include retrieving information or finding out facts yourself. This is something only you can do and so there are no set answers to activities in the study material, although your course tutors will be able to give some suggestions to you.

◤ Assignment

As part of the assessment for this module, an assignment (coursework) is included, but distributed separately. This will enable you to add breadth or depth to the knowledge acquired during your study of the module.

◤ Case study

I have included case studies at appropriate point throughout the module to illustrate the application of some of the policy tools discussed.

◤ Learning outcome

Learning Outcomes list the expected results that you should be able to achieve after studying the module and each specific unit.

◢ Recommended reading

Whilst the study guides cover all aspects of this module, your understanding of transport policy issues will be considerably enhanced by reading widely from the reading list. However, the recommended reading items are musts (see later in this section for details).

◢ Self assessment questions

These are particularly useful activities, providing you with an opportunity to apply your new knowledge and compare your answer with those provided in the study material (at the back of each study guide). Don't be tempted to skip these or look up the answers without first attempting the question. They have been designed to help you progress through the course and you may find it more difficult in the long run if you have not given yourself the opportunity to apply your knowledge and test your understanding. You will find the answer will often provide an explanation which will help you to understand where your response may be wrong. Space has been left in the text for you to insert your answer. This can be a very useful aid to revision in the future.

◢ Research exercise

I have included a number of research exercises as an alternative to self assessment questions. They aim to develop your research skills and to give yourself an opportunity to develop your understanding of the underlying issues and your own views on transport policy. Always remember that in an area such as transport policy there are rarely 'right answers'. Much of what we will be discussing will not be simple black and white matters of fact: it is very much the shades of grey. What is important is that you understand the issues and can produce evidence to support your views.

◢ Summary

A summary will be provided at the end of each unit. This will cover the main points and allow you to check whether you are conversant with all the topics covered.

◢ WWW search

At particular points during the text, reference will be made to information which can be accessed through the World Wide Web (WWW). Please bear in mind that material can become out of date quite quickly, especially in a rapidly changing policy environment, so always check it against reliable sources and try and verify it. It is, however, a useful way to

access publications and information from government and other transport specialists. Some websites will make documents available in portable document format (PDF). To read these documents you need to install Adobe Acrobat Reader which is available free from most of the websites that offer this option.

▲ Contents

As I mentioned earlier the module is divided into four study guides, covering a total of 16 units. The contents of each are as follows:

Acknowledgement

Resources

Access to a computer and the World Wide Web is essential for the study of this module. Something capable of playing last year's computer games will be more than adequate for the material that you will be dealing with. But in general, the bigger the better.

Support

You will be supported on this module through a variety of means:

▰ availability of a tutor by telephone and email; and

▰ email discussion group with electronic "drop-in" sessions (if warranted by student demand).

Assessment procedure

The assessment for this module will be in two parts:

▰ by examination; and

▰ through the submission of a coursework.

Further details of these requirements are given in Study Guide 4 and you will also be provided with details by letter and/or email by the course administrator during the Semester. The deadline for submission of coursework will be likely to be in Week 9 of the Semester, and exams take place in Week 14 or 15.

◣ **Learning outcomes**

Once you have studied this module and completed the activities it contains, you should be able to:

◣ identify relevant transport and planning legislation and summarise the statutory framework in the UK and Europe

◣ explain the interaction of social, technological and economic factors which are important in the transport decision-making and implementation processes

◣ demonstrate a capability to undertake policy formulation and analysis.

◣ **Recommended reading - IMPORTANT**

Napier University Learning Information Services (previously known as The Library) has a special site for distance learners, at http://nulis.napier.ac.uk/DL/ . The library catalogue is available at http://nuin.napier.ac.uk/F. The library offers various types of support to distance learners, including the ability to borrow books by post.

Electronic material for this module specifically is available on the School of the Built Environment webserver. This is at http://sbe.napier.ac.uk/resource_centre/downloads/browser.jsp?file=%2Fhome%2Fwebsites% 2Fsbe%2Fwebapps%2Fresource_centre%2Fdownloads%2FBE71004 and requires the username sbe and password student. Material is often added to this during Semester 1 (September to January). If you find a reference to something in this study guide, check the webserver first before asking the module tutor. Note also that there are numerous weblinks throughout this guide. As you will no doubt be aware, these are changed, or fall out of use, with monotonous regularity, perhaps the worst culprit being the UK Department for Transport (www.dft.gov.uk). If a link no longer works, first go to www.google.co.uk and type in the name of the document and the organization that authored it; if that does not work, refer to the module tutor.

Core reading list

Docherty I. and Shaw J. (2003) A New Deal for Transport? Blackwell Publishing, Oxford. £25.00 (Note – a new version of this book will be released in around October 2008. It would be worth your while buying it. It will be called *Traffic jam: 10 years of 'sustainable' transport in the UK*)

[Excerpts from] Hine, J. and Preston J. (eds.) (2003) *Integrated Futures and Transport Choices: UK Transport Policy Beyond The 1998 White Paper And Transport Acts*. Ashgate, Dewsbury. Located on the student webserver.

Institution of Highways and Transportation (1997) *Transport in the Urban Environment* (IHT)

Royal Commission on Environmental Pollution (October 1994) *18th Report: Transport and the Environment* (HMSO, London)

The following websites are also recommended for up-to-date references, articles and links to other websites (those in italics are particularly recommended):

http://www.landor.co.uk/ltt/reports.html and its new database LTT extra (link through the Landor site)

http://www.nottingham.ac.uk/sbe/planbiblios/index%20S-Z.html

http://www.vtpi.org

http://www.eltis.org

http://www.elseviersocialsciences.com/transport/konsult/index.html

There is also a large number of EU research projects on transport policy issues. Their deliverables are of random quality (i.e. sometimes very good, sometimes useless) and trying to find projects of relevance is quite a hit and miss process. They are valuable in that they give a more international perspective than is usual in most transport policy textbooks, which tend to be either British, or North American. Although all the projects are supposedly listed on the EU site www.cordis.lu, this site was evidently designed by someone whose main remit was not to disseminate information in a clear and straightforward manner, and so I would recommend searching on www.google.co.uk using the search term "EU Project" plus the particular area of transport policy in which you are interested.

Alternatively   you   can   try   the http://ec.europa.eu/transport/extra/web/search.cfm?Progr=0&Proj=1&Adv=0&color=blue   , which is much better than CORDIS. I have referred to the websites of particular projects of which I am aware in the text of the Units in this Module. Material about transport planning topics, aimed specifically at distance learners and based on EU Transport research projects, is available at the PORTAL website – *http://www.eu-portal.net/start.phtml?sprache=en* . Again, the material is of highly variable quality. This material has now been updated and can be found on www.eltis.org under "Training Materials".

Additional reading list

Colin Buchanan (1958) *Mixed Blessings: The Motor in Britain* (Leonard Hill)

Cullingworth B and Nadin V (1997) *Town and Country Planning in the UK* (Routledge)

Nigel C Lewis (1993) *Road Pricing: Theory and Practice* (Thomas Telford, London)

Our Common Future: Report of the 1987 World Commission on Environment and Development (the Brundtland Report) (Oxford University Press), 1987

David Starkie (1982) *The Motorway Age: Road Traffic Policies in Post-war Britain* (Pergamon)

Ministry of Transport (1963) *Traffic in Towns: A study of the long term problems of traffic in urban areas* (the Buchanan Report) (HMSO, London)

Study Guide 1: Trends, Perspectives and Structures

Introduction

You have chosen to learn more about transportation at a time when the problems caused by transport are demanding more imaginative and robust solutions than we have used in the past. A challenging future awaits! Good luck with your studies. Starting with Study Guide 1, this part of the course covers Trends, Perspectives and Structures. It contains three units:

▰   Unit 1: Historical perspective and trends

▰   Unit 2: The environmental context

▰   Unit 3: Government structures and responsibilities for transport.

The first unit looks at the way in which transport has developed through history, going back to before Roman Britain, but concentrating on the developments since the Industrial Revolution and in the 20th century in particular. The clear link between development and transport is illustrated and the environmental problems resulting from the growth of motorised road transport is identified.

In the second unit, the world-wide concerns for the impact that industrialisation is having on the planet are examined and the contribution that transport makes to these problems is discussed. The challenge presented by the goal of sustainable development sets the context for our study of transport policy.

Finally, in the third unit I explain the governmental structures within which transport policy makers operate and the responsibilities for planning and operation of transport infrastructure and services.

Unit 1: Historical perspectives and trends

Introduction

In this unit we are going to look at the way in which transport has developed throughout history and how it has influenced and been influenced by land use development. We will see how one form of transport has tended to replace an earlier form until in the early 1960s in the UK there was a growing realisation that, particularly in urban areas, unlimited use of the car could not be achieved. The Buchanan Report[4] was a watershed in this context. Finally we will examine the trends in transport use since that time and identify the issues that currently face us.

◣ Learning outcomes

Once you have worked your way through this unit, including the self assessment sections and recommended reading, you should be able to:

◣ explain the way in which transport systems have developed over the centuries; and

◣ be able to identify the trends in transport usage that have given rise to the current-day issues which transport policy needs to address

Historical background

As with most historical perspectives a look at the development of transportation systems in Britain offers us a wider insight into the development of society as a whole. It is by no means an understatement to say that the development of humanity ran, and indeed is still running, in parallel with and is highly dependent upon the development of a transport system.

All humans need to communicate and until the relatively recent development of telecommunications systems, this meant that people needed to travel. In addition, there has always been a need to trade and our school geography lessons showed us that the distribution of the population in the UK is closely linked to the ease or otherwise of transporting goods. The issue of trading is a good illustration of the interdependence between society and transport. To be able to trade, people needed transport. However as the transport systems have improved, people now trade further a field than just with their neighbour. Today global economies depend on efficient transportation of goods.

---

[4] Ministry of Transport (1963) *Traffic in Towns: A study of the long term problems of traffic in urban areas* (the Buchanan Report) (HMSO, London)

However, the roots of today's transportation networks can be traced back to ancient times where the demands on such systems were far more simplistic than the needs of today's consumer. If we look back to pre-Roman times (3000 BC), systems of pathways between hunting areas have been found (eg Ridgeway in the south of England). The Romans, famous for their straight, long roadways, built their roads so that they were slightly raised from the surrounding land; this gave rise to the name 'highway'. The main purpose however of their extensive network of roads was to keep the country in control and supply their garrisons. However they were soon being used for trade and for people simply to go from one city to another.

By the time that the Dark Ages came upon us (410–1066) the Scandinavian influence resulted in a pattern of smaller settlements developing. This initiated the development of petty kingdoms and in turn to a denser track network. Following on from this in 1285, the Statute of Winchester was passed and this appears to be the first piece of transport legislation. It declared that it was the landowners' responsibility to protect travellers on roads over their land. It was envisaged that this would entail simply cutting back undergrowth.

One of the biggest landowners at this time was the Church and, on the dissolution of the monasteries in England, road maintenance fell well below standard until the passing of the Highway Act in 1555. This placed responsibility for the maintenance of highways on the parish. The system was a simple one but not very satisfactory. Parishioners were elected as surveyors of the roads for one year and each person had to give four days' free labour a year. This later became six free days of labour a year. However JPs were inundated with travellers complaining about the roads. The remedies enforced by the JPs were that of fining the parishioners and ordering to put the roads in order. This formed the basis of the levy system for roads. The role of local authorities will be discussed in greater detail in later units, but it is important to note that at this time power rested with the crown in a feudal system and local authorities that existed were weak and lacked coherence.

For those of you with a particular interest in public-transport networks the first stage coach appeared in Europe in 1634, six years later a stage-coach route was established from Edinburgh to Leith. The stage-coach network continued to develop and numerous routes were included. Stage-coaches were influential in the development of a 'national mail service'; staging posts were set up every 20 miles or so along main trunk routes. This pattern can still be seen today on the Great North Road, with towns like Hatfield, Stevenage, Biggleswade, Sandy conveniently placed along the route north. These in turn became centres of development with Hatfield and Stevenage in particular being the focus for New Towns in the 1950s and 1960s. However the expansion of the stage-coach network caused great wear and tear on roads and as a consequence of this, in 1663 the first toll road was established (known as a turnpike). The surveyors commandeered parish labour, which was paid for from tolls to repair the overused roads. Eventually the parishioners were replaced by hired labour. It is important to note, however, that despite the detrimental effect on the roads that the advent of stage-coaches had, it did dramatically cut journey times. Horses were changed more regularly and compared to horseback riding of the previous centuries, the journey from Edinburgh to London could now take just two days instead of 20 days.

By 1800 there were 105,000 miles of parish roads and 23,000 miles of turnpikes. These turnpikes were a good source of revenue, with £1,500,000 being raised in 1801, to ensure the upkeep of the roads. The early 19th century also saw the introduction of a taxing regime on carriages. Carriages were graded by the number of wheels that they had. For instance a two-wheel carriage was taxed at £17 per annum and a four-wheel carriage at £21 per annum. It is through these records of licensed vehicles that we can see the dramatic increase in the number of vehicles on the road. In 1814 69,200 vehicles were registered and this had increased to 422,500 by 1865.

This increased traffic prompted further regulation from Parliament and the Highway Act of 1835 tried to establish a code of traffic management which included such rules as:

- no driving furiously

- no tethering horses

- driving on the left

- no digging holes in the road.

Surveyors were given the power to refuse dedications if roads were not up to standard.

While the efforts of great engineers like Telford and MacAdam made this a time of great road improvement and development, it did not provide a satisfactory means of moving large and heavy goods loads. Therefore, other methods were sought. The embryonic industrial era was in fact nurtured by the development of goods transportation. The inspiration for a nation-wide goods transportation system came from an abundant natural source – water. This was thought to hold the key because it was also a very cheap source of power for the new industries. However, this initially confined industry to close proximity of rivers and valleys. As early as the 17th century river navigations had been improved and extended. However, great watersheds which divided their basins remained unconquered and so any developments were regional. It was not until the 1760–70s that the first links were made. Construction of artificial waterways, often through high and difficult country was a great engineering feat of its time. However once the first connections had been made, rapid expansion occurred and many of Britain's main industrial centres of today grew up around the canal system. It is thought that the construction of a direct route between the Midlands and London in 1793 had the greatest influence upon the social and economic life of Britain before the coming of the railways and it made possible the first wave of expansion of London. But, progress being as it is, the railway builders were close on the heels of the canal builders, indeed some engineers spanned both eras. Towards the end of the 18th century and the beginning of the 19th century canal builders themselves were using railways to feed the canals and it was only a matter of time before the technology would be such that the railways would prove to be a better transport system. Indeed in 1805 the first public railway to be authorised by Parliament, independent of a canal, was finished. The Surrey Iron Railway had as its chief engineer a William Jessop – a long-time champion of the canal system. This railway was soon overtaken by the great railway-building age; it is however a milestone as it bridges between the canal and railway ages.

As seems to be the way with the development of transportation, the railways did not sit harmoniously alongside the canals and instead superseded their use. If the canals' decline had been initiated by the Surrey Iron Railway, the authorisation by Parliament in 1833 of the Grand Junction Railway was the final nail in the coffin. The Liverpool to Birmingham line was the first of Britain's great trunk lines. Transport's influence on the demographics of a country can be clearly illustrated by the rise of the railways. Railway junctions soon became the focus of development, and thriving towns still stand in these areas. Crewe, for instance, by 1842 had established itself as one of the most important railway junctions, and railway staff and engineers and so on relocated there establishing the railway town that still exists today. Similarly, Swindon developed to serve Brunel's Great Western Railway, but the decline in railway activity has been offset in recent years by the development of distributive and high-tech industry attracted to the town by its close proximity to the M4. The importance of the railway can be seen by its continued existence today. However its use, particularly for the movement of goods, has declined sharply until very recently.

With the rise of rail travel came the demise of the stage coach. For the turnpikes, this spelt disaster. Deprived of a major source of income they rapidly became incapable of maintaining their roads and eventually went bankrupt. The last turnpike company closed in 1895. Consequently, by the end of the 19th century road administration had become the responsibility of town and district councils, and county and rural district councils.

◤ Recommended reading

For further information you could read the first five pages (pp14–18) of Chapter 2 of *Transport Policy in Britain.*[5] For a more detailed discussion on the impact of the Industrial Revolution on urban growth try Chapter 2 of *Urban and Regional Planning.*[6] If you are interested in transport history the books on the lives of the great engineers written by LTC Rolt would be a light diversion from your studies. See the bibliography at the end of this unit.

It's time now to check how much you have learned so far. Spend about 10 minutes on each of the following questions.

◤ Self assessment question 1.1

---

[5] Glaister S, Burnham J, Stevens H and Travers T (1998) *Transport Policy in Britain* (Macmillan Press Ltd, Basingstoke)

[6] Peter Hall (1992) *Urban and Regional Planning* (3rd ed) (Routledge)

What were the main reasons for the development of the canal system and what effect did it have on land-use development?

◤ Self assessment question 1.2

Prior to the 20th century what taxation methods for the use of roads were used in Britain?

The rise of the motor vehicle

The most commonly used mode of transport in the 20th century is undoubtedly the motor vehicle. The first motor vehicle to appear on Britain's roads was the Benz. This three-wheeled vehicle was imported from the continent in the year 1888. Britain showed its characteristic reserve to this new road transport and the development of the motor vehicle was hampered by the Locomotive Acts, which were passed to protect the railways from competition from road steam coaches. However, this protection was only to last until 1896 when this legislation was repealed, and importation and home manufacture started in earnest. With the advent of mass production techniques by Henry Ford, gradually the motor car became an icon that every family could aspire to.

Consequently, in the early part of the 20th century the railways came under increasing pressure from the new mode of transport.

At the start of the 20th century there were no fewer than 1,900 local authorities responsible for highways in England. There was no national policy for roads. As traffic increased and lorries got heavier the need for stronger roads emerged. In 1936 the first Trunk Roads Act was passed which gave the Minister for Transport direct control over 30 principal roads in Britain covering approximately 4,500 miles. Units 3 and 4 will describe how these responsibilities have developed since that time.

Buchanan and Beeching

Following the Second World War increased prosperity in this country led to a rapid increase in car ownership. With it came the inevitable increase of traffic congestion. A glance across the Atlantic to cities like Los Angeles indicated the extreme solutions which British towns and cities might have to face. In 1961, the then Minister of Transport, Ernest Marples, set up a Steering Group and Working Group to 'study the long term problems of traffic in towns'. They reported in 1963 and this report (the Buchanan Report)[7] was, and still is, a landmark in the development of transport policy in the UK.

The use and continued development of the motor vehicle amounts to, what the Buchanan Report describes as, 'a social and economic revolution'. It went on to suggest that the motor vehicle had achieved this importance because the uses to which it could be put were incredibly diverse. Accessibility to this mode of transport by families both in the form of private and public transport would ensure that the motor vehicle remained an important part of the transport system of the UK. In addition, the Report suggested, its use for moving goods was where the motor vehicle would exert its greatest influence. The rapid demise of the local rail goods business following the Second World War was, perhaps, the greatest single impact. Its adaptability to many different purposes and its ability to provide a door to door service (loading regulations permitting) being its great strength.

The Report concluded:

> Thus, for personal and family use, for the movement of people in mass, and for the use in business, commerce and industry, the motor vehicle has become indispensable. The early, clumsy, road steam-vehicles were easily kept at bay when they tried to challenge the supremacy of the railways, but not so the motor vehicle. Gradually it has forced the railways into a defensive position and now it has emerged as the dominantly senior partner in the country's transportation system. For example, in 1959, road travel represented 81% of all inland passenger travel. Of all inland goods transport (during 1958) about 72% by tonnage or 45% by mileage, was by road.

The Buchanan Report further explores the influence that the motor vehicle had on the social and economic life of the country by outlining the numbers of people involved in one capacity or another in the operation, manufacture, repair and so on of the vehicle itself;

> The total employment in road transport amounts to approximately 10% of the country's total labour force. Consider also the fact that the manufacture of vehicles for export has become a main prop of the nation's economy, and it will be appreciated that as a nation we are inextricably committed to the motor vehicle.

---

[7] Ministry of Transport (1963) *Traffic in Towns: A study of the long term problems of traffic in urban areas* (the Buchanan Report) (HMSO, London)

The downside to that commitment was the continuing decline in rail use. Nationalisation in 1947 did nothing to stem the tide. Some might argue that it exacerbated the problem. So as Buchanan was studying traffic in towns, Dr Beeching was reshaping the railways.[8] But his term in charge of British Rail not only saw a massive reduction in our railway network, but also a radical change in the way in which the finances of railways were considered.

The years since Buchanan and Beeching

The coincidence of these two reports highlighted the need to develop a co-ordinated policy response to the problems. It fell to a newly elected Labour government, in 1964, to tackle them. The arrival of the new government also coincided with a downturn in the economy and inevitable restrictions on public spending. So, instead of a gradual diversion of funds into urban road building, which had been promised by the outgoing government, emphasis was put on getting the maximum out of the existing systems. In the meantime, planning for urban roads continued. In the late 1950s and early 1960s, traffic plans had been prepared by all the major urban areas, by using predicted growth in car ownership and population to factor up existing traffic flows. All of them identified a need for extensive urban motorways. However, Buchanan had identified the inter-relationship between land use and transportation and the need to relate predictions of future traffic forecasts to their likely origins and destinations. This provided a convenient get out for a cash-strapped government and lead to the need to undertake extensive land use transportation studies. Strangely, many of the new studies merely confirmed the earlier traffic plans for major highway building, even allowing for a continuing important role for public transport. It was also clear that, even if the enhanced highway systems were implemented, public transport in the major cities would need to be improved. The Labour government's response was the 1968 Transport Act, which:

- ▲ established Passenger Transport Executives (PTEs)

- ▲ put British Rail on a commercial footing with subsidies for unremunerative services

- ▲ established the National Bus Company and the Scottish Transport Group.

In general, it continued the theme established earlier in the century of transport being planned and operated by the public sector. The Conservative government's reorganisation of local government in 1974 (1975 in Scotland) took this a stage further by introducing a duty for local authorities to co-ordinate public transport in their areas.

However, with the arrival of Mrs Thatcher, all that changed. With a basic philosophy that the private sector could do things much better than the public sector. This led to a series of measures including:

- ▲ deregulation of bus services

---

[8] British Railways Board (1963) *The Reshaping of British Railways* (the Beeching Report) (HMSO, London)

◤ fragmentation and privatisation of the nationalised bus groups

◤ privatisation of British Airways; British Rail; Road Haulage and the British Airports Authority.

Whilst the process certainly introduced some much needed commercial reality to the operation of public transport, the inevitable fragmentation did nothing to stem the decline in patronage that bus operators, in particular, had witnessed over the years since the war. Unit 6 will look at the development of transport policy during the period since Buchanan and Beeching in more detail.

The search for the Holy Grail (an integrated transport policy)

As the shortcomings of the Thatcher approach became apparent the clamour grew for an integrated transport strategy. In achieving this goal it was thought that other desirable goals would also be realised. These include such things as:

◤ a strong economy

◤ a sustainable environment

◤ an inclusive society.

Good communications are central to improved and lasting quality of life: taking people to and from work; goods from producers to consumers; and our exports and imports to and from our ports, airports and through the Channel Tunnel. The mobility of people in an economically and environmentally sustainable framework is an admirable goal for any government, particularly when one looks at the fragmented and often unacceptable transport services that exist in Britain today.

So it was, in 1995, that the then Conservative Transport Minister opened up the 'Great Debate' on Transport. Whilst the Conservatives may have been edging towards an acceptance of the need for co-ordinated planning of our transport, it was the election, in May 1997, of a Labour government that gave the search for an Integrated Transport Strategy its current impetus. A further round of consultation in 1997 was followed in 1998 by the first Transport White Paper[9] in a generation. New Transport Acts followed this in England and Wales (2000) and Scotland (2001), and further legislation is likely in Scotland in 2006.

Unit 7 will examine in detail the current development of an integrated transport strategy.

---

[9] DETR (July 1998) *A New Deal for Transport: Better for Everyone* (TSO, London)

◣ **Recommended reading**

For further information you should read the Chapter 1 of *A New Deal for Transport.*[10]

Time to check your understanding of the work we've covered so far. Spend about 10 minutes on each of the following questions.

◣ **Self assessment question 1.3**

What are the key elements of the public-sector-orientated approach to transport systems?

◣ **Self assessment question 1.4**

What are the key elements of the private-sector-orientated approach to transport systems?

◣ **Self assessment question 1.5**

Why did the Buchanan and Beeching Reports begin to change the way in which society viewed transport?

The nature and scale of the problem

Since Buchanan and Beeching much of our transport planning can be characterised as an extrapolation of trends – planning to meet demand rather than to manage it. Roads in particular have been built to meet forecast demand, with the exception of the larger urban areas where some level of restraint has been accepted. Gradually, there has been a recognition that roads in themselves can influence land use patterns. Concerns about local and global environmental problems, which include poor air quality, climate change and increasing pressure on our natural and built environment, have increased the pressure to find another way. In this final section of this unit, I have summarised the analysis of the problem.

The graphs and tables in this unit contain slightly old data although the majority of the trends seen prior to 2000 are continuing.   Up   to   date   data   is   available   at http://www.dft.gov.uk/stellent/groups/dft_transstats/documents/divisionhomepage/610986.hcs p and I strongly recommend you to browse this site.

---

[10] Docherty I. And Shaw J. (2003) *A New Deal for Transport?* Blackwell, Oxford.

Road traffic growth

The forecast growth in road traffic is generally considered to be unacceptable (see Figure 1.1 below). It suggests that in 20 years' time traffic levels will be between 36% and 57% higher than now, unless we change our policies and travel habits.
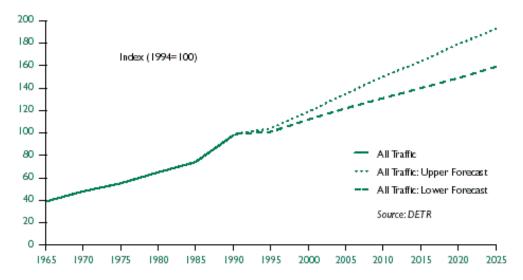

Figure 1.1 Vehicle traffic, 1965–2025

Often people use the car because they are denied a real choice. People in cars are forced to endure traffic jams and fumes, while many who wish to use public transport receive inadequate services, and those who wish to walk or cycle cannot find safe, unpolluted routes.

Looking at past traffic growth in more detail, Figure 1.2 below illustrates that car travel has shown a consistent and rapid rise from 1952 until 1988. Britain, however, is not alone in this trend and statistics such as this can be seen across Europe. Although this growth in car travel has continued since 1988, it has been slower than in the earlier period. Because average occupancy has fallen, particularly in recent years, the trend in passenger kilometres understates the growth in vehicle kilometres and therefore traffic. Bus travel, by way of contrast has declined from its leading position in the early fifties to near equality with rail travel which in turn has varied little over the years.

It is very important to be aware that Figure 1.2 shows passenger kilometers, and does not include journeys under 1 mile (1.6 km). If we look at trips (journeys), the situation is rather different: about 25% of trips in the UK are made on foot. Public transport carries the majority of trips in certain markets. Because car journeys are on average longer than trips made by any other mode except rail and air, an analysis based on passenger km tends to overstate the dominance of the private car. It is also worth noting that the number of trips that we make has remained remarkably constant, up from 979 per person per year in 1972/3 to 1019 today (and this number declined slightly during the 1990s). Thus the growth in car traffic shown in Figure 1.2 is not due to people making additional journeys, but rather, substituting longer car trips for shorter walk trips – going to the supermarket instead of the corner shop, for example.

This is part of a wider trend of our traveling further to carry out the same activities. For an update version of this figure and considerable background data, see the DfT"s *Transport Trends 2007* publication, currently (2008) available at http://www.dft.gov.uk/pgr/statistics/datatablespublications/trends/current/, Section 2.
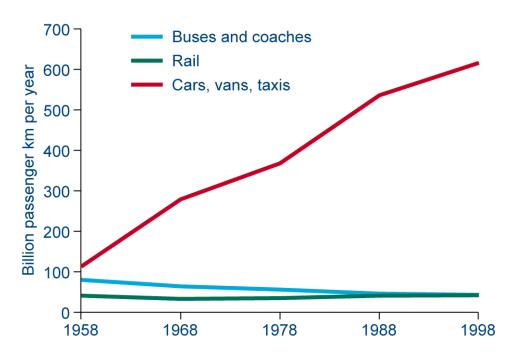
Figure 1.2 Passenger travel by mode, 1958–1998

This trend in an increasing dependence on the roads to transport people is echoed in the analysis of freight movement (see Figure 1.3 – updated figures for this graphic are available at http://www.dft.gov.uk/stellent/groups/dft_transstats/documents/page/dft_transstats_505890.xls). Road has become the dominant mode of transportation since 1952, overtaking rail, which at that time was the preferred mode. The rate of growth of road transport in this period has followed closely the growth of Gross Domestic Product (GDP). Rail, as I have just mentioned, has lost its advantage falling way behind not only road transport but also waterborne freight and is now being challenged by pipeline transport. The rise in water transport since the 1970s can be attributed to the development of the North Sea oil fields. This factor has also influenced the development of pipeline transportation.
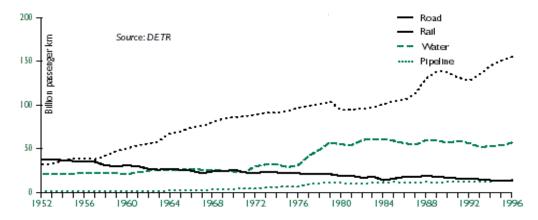
Figure 1.3 Goods moved by mode, 1952–1996

A major by-product of this increasing reliance on road transportation is the effect on the environment of the corresponding increase of Carbon Dioxide (CO_2) emissions. Transport's share of CO_2 emissions, as illustrated by Figure 1.4, has grown from around one tonne in eight in 1970 to more than one tonne in four in 1995. Transport's share is forecast to continue growing up to the year 2000 and beyond. The Earth Summit, which was held in Rio in 1992, saw the world's leaders commit themselves to a concept called sustainable development, a recognition that development could not continue as it was – at the expense of the environment. Following on from this, the Framework Convention on Climate Change saw the UK government committed to a 12.5% reduction of a basket of greenhouse gases on 1990 levels by the year 2008–2012, and more stringent targets for later. CO_2 is a main component of the gases which contribute to the greenhouse effect. In Unit 2 we will be examining this whole issue in more detail.
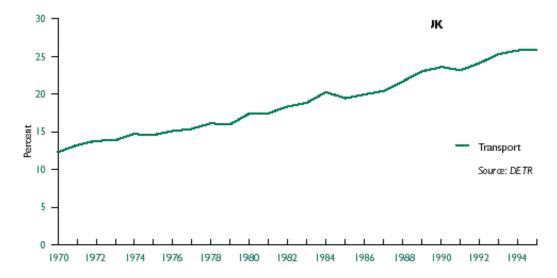
Figure 1.4 Transport share of CO_2 emissions, UK

For an update version of Figure 1.4 and considerable background data, see the DfT's *Transport Trends 2007* publication, currently (2008) available at http://www.dft.gov.uk/pgr/statistics/datatablespublications/trends/current/, Section 8.

Despite ever more efficient engines, which are cutting down on emissions, drastic action will be required if we are to achieve such targets. It is therefore interesting to look at Figure 1.5 and the relationship between motor vehicle traffic and GDP. Although passenger transport has risen more rapidly than GDP in the past, it is forecast to grow more slowly than GDP up to 2025. However the 2025 figure will still be almost double its 1990 level. Road freight growth has usually grown in line with GDP in the past; it is forecast to grow significantly more slowly in the future. Again, although there is a slowing down in growth, the year 2025 figure is still likely to be an increase of nearly two-thirds. For an updated discussion of these trends and considerable background data, see the DfT's *Transport Trends 2007* publication, currently (2008) available at http://www.dft.gov.uk/pgr/statistics/datatablespublications/trends/current/, Section 1.
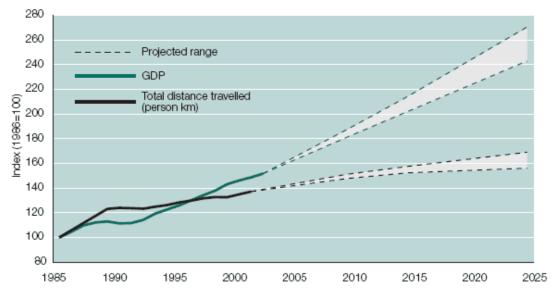
Figure 1.5 Motor vehicle traffic growth *v*. GDP, 1985-2025 (source UK DfT)

Air Transport

This module does not concern itself with air transport. However, at this point, a brief comment should be made. Between 1993 and 2003 the number of domestic airline km flown increased by 30% to 131 million. The number of passengers carried increased from 12.4 million to 21 million. On all services (international and domestic) arriving and/or departing from the UK, total passenger km flown increased from 156 billion to 254 billion over the same period. Air freight has grown much more quickly. The number of passengers passing

through UK airline terminals is forecast to almost double between 2005 and 2020 (mid range estimate). In million tonnes of oil equivalent, the percentage of transport's energy consumption accounted for by air travel rose from 20% in 1993 to 25% in 2003. (All figures from *Transport Statistics Great Britain 2004*, published by DfT and available at http://www.dft.gov.uk/stellent/groups/dft_control/documents/contentservertemplate/dft_index .hcst?n=11691&l=3. Some commentators have argued that, if UK CO2 reduction targets are to be met, and air travel (including international trips – currently outside treaty obligations) by UK citizens carries on rising at the same rate as it has over the past two decades, then we will only meet those targets by ensuring that all other sectors of the economy (not just transport) generate zero carbon by 2050 – clearly an impossibility (Tyndall Centre, 2006).

Air travel, and also surface access to airports, is therefore a growing concern of transport planners and something that you should keep an awareness of by reading the professional and technical press.

Summary

In this unit we have examined:

- the development of our transport systems and networks

- the way in which transport influences land use patterns and vice versa.

We have seen how:

- different forms of transport have superseded each other through technological advances; but

- that the spectacular growth of the latest 'new kid on the block' has brought in its wake social and environmental problems which require some form of intervention.

Transport policy in the new millennium faces its greatest challenge yet.

References

Rolt LTC (1957) *Isambard Kingdom Brunel* (Longman)
Rolt LTC (1958) *Thomas Telford* (Longman)
Rolt LTC (1960) *George and Robert Stephenson* (Longman)
Rolt LTC (1962) *Great Engineers* (Bell)
Tyndall Centre Working Paper 84, January 2006. Growth scenarios for EU & UK aviation: contradictions with climate policy. Available at http://www.tyndall.ac.uk/publications/working_papers/wp84_summary.shtml

Unit 2: The environmental context

Introduction

In Unit 1 we looked at the way in which our transport systems have evolved and the recent trends in use of the various modes. The dramatic rise in motorised, road-based transport – both passenger and freight – has brought with it a range of environmental problems. In this unit we will look at the transport problem in that environmental context. Although this unit looks quite short, I will be asking you to read from a variety of sources and to undertake some research of your own.

◤ Learning outcomes

Once you have worked your way through this unit, including the recommended reading, research and self assessment sections, you should be able to:

◣ identify the global environmental trends, and the transport contribution to those trends, that give rise to the world-wide concern for the future of the planet; and

◣ explain and quantify the implications for transport policy of the targets set and accepted by the UK in response to these trends.

Background

So what is this concept of sustainable development that I introduced in unit one? This idea has been the focus of a lot of international and national debate in recent years. *The World Commission on Environment and Development Report* (*Our Common Future*)[11] defines sustainable development as:

'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.

What factors have led the world call for this different kind of economic growth – one that does not destroy the world's resources? A look at Britain's own history can help to explain this. As an early industrialised nation the UK has experience of the uneasy relationship between economic development and protection of the environment. Whilst industrialisation has led to considerable prosperity (helped by the developing transport system), disadvantages have accompanied this development. Uncontrolled exploitation and depletion of resources, pollution, congestion and poorly planned urbanisation are just a few of these associated

---

[11] *Our Common Future: Report of the 1987 World Commission on Environment and Development* (the Brundtland Report) (Oxford University Press) 1987

problems. The UK was one of the first countries to recognise them, and to try to preserve and restore a healthy and attractive environment. In the 19th century, some remedial measures were introduced, but these were all aimed at symptoms rather than root causes.

'The series of Public Health Acts, beginning in the 1840s, tried to deal with the problems of the unplanned growth of towns; the Alkali Acts of the 1850s onwards were aimed at gross air pollution; the first nature conservation legislation concerned itself with saving particular threatened birds and animals; and, in the 1890s, the National Trust's early actions attempted to protect specific cherished landscapes from urban development. These pioneering efforts were very valuable and, in their own terms, successful, but they focused on the most apparent problems rather than the underlying causes.'[12]

It soon became apparent that the underlying causes would need to be addressed, and this came not from public-health Acts but from the development of a land use planning system. In 1947 a Town and Country Planning Act was passed and this remains the basis of the systems in force today. The systems established by this Act and its successors have influenced many other nations. However, it was not until 1987 that a world approach was considered when the World Commission on Environment and Development published its report, *Our Common Future*.[13] There was an emphasis in this report not to dwell too much on the negative and the Brundtland Commission did not want its report to be seen as a 'prediction of ever increasing environmental decay and hardship in a world of ever decreasing resources'. Instead it focused on 'the possibility of a new era of economic growth, based on policies that sustain and expand the environmental resource base'. The report led directly to the first Earth Summit which was held in Rio in 1992. Over 120 world leaders attended the conference and over 150 countries were represented overall. A framework for further action was agreed. One of the statements in particular sets out 27 general principles for achieving sustainable development and this was reinforced by the adoption of Agenda 21,[14] a comprehensive action plan for the pursuit of sustainable development into the 21st century.

The 40-chapter Agenda 21 document sets out the global action plan for sustainable development. As with any document that is agreed by 170 countries, much of the wording is ambiguous and open to different interpretations. Indeed 60% of the actions need to be implemented locally and Chapter 28 passes to local authorities the responsibility to undertake 'a consultative process with their populations and achieve a consensus on a 'Local Agenda 21' for the community'.

In the UK, local-government associations decided to implement Agenda 21 by setting up a Local Agenda 21 initiative. This encourages UK local authorities to work with their communities to produce local sustainable development plans. The Local Agenda 21 Steering Group was established to promote the Local Agenda 21 process in the UK, by supporting local authorities in this work. As part of this initiative, the Sustainable Development Unit has produced a wide range of guidance and has monitored the process regularly.

---

[12] UK Government *Sustainable Development: The UK Strategy* (HMSO, London) January 1994

[13] *Our Common Future: Report of the 1987 World Commission on Environment and Development* (the Brundtland Report) (Oxford University Press) 1987

[14] *Agenda 21 – Action plan for the 21st century*, endorsed at UNCED 1992

In his address to the UN General Assembly Special Session on the Environment, in June 1997, Tony Blair noted that 76% of UK local authorities were committed to local Agenda 21 processes and said 'I want all local authorities in the UK to adopt Local Agenda 21 strategies by the year 2000.'

In January the following year the DETR, the Local Government Association and the Improvement and Development Agency issued a guidance document which defined six components to a Local Agenda 21 Process:

- ◤ Managing and improving the local authority's sustainability performance

- ◤ Integrating sustainability issues into the local authority's policies and activities

- ◤ Awareness raising and education

- ◤ Consulting and involving the wider community and the general public

- ◤ Working in partnership with others – central-government agencies, business, community groups and the general public

- ◤ Measuring, monitoring and reporting.

The last three elements, in particular, have strong linkages with the government's 'best value' initiative. Subsequent guidance stressed the need for local authority services to better meet the needs of communities and to be developed, and continuously improved, through a process of consultation and partnership.

A recent (2006) trawl of government websites finds little current reference to LA21 but the spirit of LA21 lives on – see for example http://www.sustainable-development.gov.uk/advice/local/index.htm.

◤ The government's response

The UK government was among the first to respond to the documents that flowed from the Rio Summit.[15] In January 1994, following many progress reports and white papers, it produced its strategy for the UK.[16] (There were not any separate chapters on Scotland, Wales and Northern Ireland. However, since the introduction of devolution in Scotland a document setting out the position in Scotland has been published.)[17] More recently, in 1999, a new

---

[15] See *Rio Declaration on Environment and Development* (1992) ISBN 9–21–100509–4 and *Agenda 21 - Action plan for the 21st century*, endorsed at UNCED 1992

[16] UK Government *Sustainable Development: the UK strategy* (HMSO, London) January 1994

[17] The Scottish Office *Down to earth: The Scottish perspective on sustainable development* (The Scottish Office) 1998

strategy was produced by the Labour government. Essentially the over-riding objectives and themes are not dissimilar to the 1994 strategy.[18] This document identified 150 indicators of sustainable development against which future progress is to be judged. These indicators were published separately again and in more detail in a report by DETR in late 1999. A 2004 review of progress against the general indicators can be found at http://www.sd-commission.org.uk/publications/downloads/040413%20Assessment%20of%20progress%20against%20the%20headline%20indicators.pdf. Finally, the most recent version of the Strategy was published in 2005 and is available at http://www.sustainable-development.gov.uk/publications/uk-strategy/index.htm. The latest indicators are set out in Chapter 7 of this strategy.

The Government's progress generally is monitored by the Sustainable Development Commission, who run an excellent website at http://www.sd-commission.org.uk/.

Key summits since Rio have been Kyoto in 1997, and Johnannesburg in 2002. At these, the European Union (and therefore the UK Government) have made commitments to reduce CO2 emissions (see below for further details). These commitments are having an important impact on emissions standards for new vehicles. The challenge for the Government is to ensure that reductions from emissions realized by improved standards are not negated by increased car use.

Transport obviously has a significant role to play in these new sustainable development policies. We have already seen (in Unit 1) that economic growth and industrialisation are closely related to growth in transport use. Also, from your earlier research exercise you will have seen that many of the adverse effects on the world's environment can be directly related to various modes of transport.

Under the current (2005) UK Sustainable Development Strategy, *Securing the Future* (http://www.sustainable-development.gov.uk/publications/uk-strategy/index.htm), the government makes a number of statements and commitments related to transport, summarised below:

▲ Pursue, fund and provide various incentives for low emission vehicles to take a larger share of the overall market; and some disincentives for higher emission vehicles.

▲ Use the local transport plan (LTP) process to bring about changes in the local transport system to provide people with more sustainable travel choices.

▲ Campaign for intra-EU air travel to be included within any EU wide aviation emissions' trading scheme.

▲ Pursue some travel behaviour change through campaigns, travel plans, and school travel plans.

---

[18] DETR (1999) *A Better Quality of Life: A Strategy for Sustainable Development for the United Kingdom.* London. Available at http://www.sustainable-development.gov.uk/uk_strategy/content.htm

▲ meet its commitments under the Kyoto Protocol (see http://europa.eu.int/scadplus/leg/en/lvb/l28060.htm for details) to reduce its greenhouse gas emissions to 12.5% below 1990 levels by 2008-12. The UK remains on course to meet this target (one of the few EU member states in this position), although transport's share of total emissions continues to rise;

▲ In its 2004 White Paper on Transport (see http://www.dft.gov.uk/stellent/groups/dft_about/documents/divisionhomepage/031259.hcsp) the UK Government states (para 10.3) "We remain committed to our own, more challenging, national goal of a 20 per cent reduction in emissions of the main greenhouse gas, carbon dioxide (CO_2), by 2010 and to putting the UK on a path to reduce total carbon dioxide emissions by some 60 per cent by 2050, with real progress by 2020"; and

▲ reduce local air pollution: emissions of NO_x and PM_{10} continue to fall, driven by the impact of progressively tighter EU legislation and improvements in vehicle and fuel technology. The Government expects to meet its objective for NO_x for 2005 and PM_{10} for 2010 over most of the country.

▲ Recommended reading

Take a break now from my summarising and read the real thing. From *Securing the Future* I suggest that you read the Summary (pp6–19) and pages 84-86, 124, 147 and 148.

Time to check how well you are understanding all this information. Spend about 10 minutes on each of the following questions.

▲ Self assessment question 2.1

List the six environmental areas identified in *Securing the Future* which transport impacts and identify the specific targets set for CO_2 and NO_x.

▲ Self assessment question 2.2

What does the current (2006) government believe are the essential elements of a sustainable transport policy?

Climate Change policy

In the later part of the first decade of the 21st century, climate change caused by humans, which the majority of scientists attribute to increasing concentrations of greenhouse gases (GHGs) in the atmosphere due to the combustion of fossil fuels and destruction of biomass, has become a major political issue. Since transport, (even when aviation is excluded), is one of the fastest growing sources of GHGs, then the need to manage transport demand to reduce these emissions appears to be becoming much more of a political priority. For this reason both the UK and Scottish Government are pursuing their own Climate Change Bills. However, the amount of change that each government is expecting in the field of transport appears somewhat limited and concentrated on technological rather than behavioural change even though, as we will see from the analysis below and as further explored by Potter (2007), both are necessary to stabilize and reduce GHG emissions from transport. For information on the Climate Change bills (as they are in 2008), you should look at:

http://www.defra.gov.uk/environment/climatechange/uk/legislation/

http://www.scotland.gov.uk/Topics/Environment/Climate-Change/16327/Climate-Change-Bill

Transport and climate change: the problem

The current scientific and political consensus, as represented by the International Panel on Climate Change, is that rising man made emissions of carbon dioxide and other greenhouse gases (GHGs) are causing a significant rise in global average temperatures, over and above that which might be due to any natural phenomena (IPCC, 2007). Depending on the scale of the rise in average temperatures (compared to the pre-industrial period), this is predicted to lead to reduced food yields, significant water shortages, sea level rise on a scale that will threaten many major cities, species extinction, extreme weather and, ultimately, abrupt and large scale changes in global climate. These changes together are likely to bring about enormous social and economic upheaval. Their impacts on the economy (in terms of reduced production, and the costs of adaptation/mitigation) are also likely to be large: 5% of world GDP per year if no action is taken, rising to 20% if and when catastrophic climate change occurs (Stern Report, 2007).

Transport is a major contributor to GHG emissions. Whilst overall UK GHG emissions fell by 13% from 1990 to 2003 (over 75% of which was due to a decline in heavy industry and changes in fuel used for energy supply, from coal to gas), UK GHG emissions from transport rose by 9% (Scottish Executive, 2006), due largely to continuing increases in private vehicle km travelled. All these figures exclude emissions from domestic and international air travel, as no international agreement has been reached on how to allocate these to individual states; however, these are growing faster than emissions from transport overall. So although transport (excluding air travel) accounts for only around 20% of GHG emissions, it is an important sector because it is growing so fast. Very recent research (DeFRA, 2008) has shown that if GHG emissions from international aviation and the production of goods consumed in the UK are taken into account, the country's total GHG emissions actually

increased by 17% from 1990 to 2005.

In response to the analyses of bodies such as the IPCC and the Stern Report, and in line with EU policy to attempt to limit global temperature rise to 2 degrees Celsius, the UK Government has set challenging targets for GHG emissions reductions, of 20% by 2010 and around 60% by 2050 compared to a 1990 base. The Scottish Government is considering a tougher target of an 80% reduction over the same timeframe. These targets equate to a reduction of 2-3% per year.

Transport and climate change: (proposed) solutions

GHG emissions from transport can be seen as a product of the following factors:

- Population;
- Emissions per vehicle km, where applicable (since walking and cycling produce no direct emissions);
- Number of trips per person by different modes (walk, cycle, air, bus, train etc); and
- Trip length by different modes.

Since it is unlikely that government policy (in the UK at least) can have a direct influence over the size of the population, any policies to reduce transport emissions must concentrate on the other factors. Potter et al (2007) argue that it is unlikely that emissions reductions targets on the scale proposed in the UK can be achieved from the transport sector without concentrating effort on all three of these factors – i.e. it would be difficult or impossible to reduce emissions by 60% by 2050 through vehicle efficiency improvements alone. Actual and current policy responses under each heading are now discussed in turn; these are also related to the level(s) of government that have the competence to influence these factors. For example, emissions from new vehicles are largely a matter of EU competence (jurisdiction), but speed limits – which can also influence emissions - are set at a national level, and their implementation and enforcement are most often a combination of national, regional and local actions.

Emissions per vehicle km – vehicle efficiency savings

The EU regulates new truck and bus engines but only in relation to local air quality, not CO_2 emissions; and these local emissions are measured in relation to the power of the engine, which has acted as an incentive on manufacturers to increase engine output. CO_2 emissions from trucks and buses therefore remained largely stable in the period 1990-2000, at least (see EEA, 2003). There are also no regulations governing GHG emissions from aircraft engines but, due to the high proportion of airlines' costs accounted for by fuel, there is a strong incentive on them to pressure manufacturers to increase engine efficiency.

For new private cars sold in the EU, there are currently no binding limits on CO_2 emissions, although there is a voluntary target of 140g CO_2 per km that has seen CO_2 emissions in grammes per km from the average new car fall from 163 g CO_2/km in 2004, 12.4% below the

1995 starting point of 186 g CO_2/km (European Commission, 2007). Given that the target now appears unlikely to be met, the EU is now considering mandatory limits on emissions for new cars (Ryan and Turton, 2008).

Whilst manufacturers already produce cars with emissions well below the current EU target, the average car sold does not meet the target in part due to consumer preferences for larger, heavier, faster cars. Such preferences can, however, be influenced by purchase and circulation tax – the latter is an annual tax to licence a vehicle to be used, is levied by most member states in the EU, and is a member state matter. COWI (2002) found, in a study of nine member states, that they would have to raise average circulation taxes from their projected 2008 levels by between 26% and 169% (petrol cars) and 0% to 50% (diesel cars) to achieve a 4.4% reduction in private vehicle CO_2 emissions.

The reform of company car taxation in the UK in 2002 related the employee's tax charge to a car's value weighted by its CO_2 emissions. The charge rises from a base level of 15 percent of a car's purchase price, for cars emitting 165 grams per kilometre (g/km) of CO_2, in 1 percent steps for every additional 5g/km over 165g/km, to a maximum of 35 percent of a car's price. There are further reductions for company cars using cleaner fuels and technologies. An evaluation of the measure in 2004 found that it had led to a 0.5% reduction in total road transport CO2 emissions in the UK (Potter, 2008, forthcoming).

At the regional and local level it would be possible for governments to provide incentives to individuals and companies to use more fuel efficient vehicles. For example, where public transport companies are directly owned by, or operate under contract to, public authorities, it is possible for those authorities to stipulate minimum vehicle standards (including emissions) and/or to subsidise operators to buy such vehicles. London Buses, for example, does the former within its contracts with operators. In theory, local authorities could also offer subsidies to individuals for scrapping fuel-inefficient vehicles and acquiring something more efficient. Finally, traffic management regulations can be relaxed for low-emitting vehicles or tightened for more polluting vehicles; this is discussed further in the next section.

Number of trips per person by different modes

It may be problematic for public policy to influence the number of trips each of us makes per day, as this seems to have been quite stable for many years, unrelated to factors such as the availability of infrastructure, modes of transport, family structure or income. The National Travel Survey (NTS) does indicate a small fall in the average number of trips per person per year from 1995/97 to 2006 of 4%, to about 1,040, but the reasons for this are unknown (ONS, 2007).

Policy aimed at reducing GHG emissions from transport should therefore include some element of behaviour change, to shift travellers from less to more fuel efficient modes – essentially from air and (low occupancy) car to public transport, walking and cycling. The literature on mode shift is too large to replicate here, but it points to the following conclusions:

- The greatest changes in travel behaviour will be brought about by changing the relative time and money cost of one mode compared to another. The cheaper a mode is (perceived to be), then the more likely travellers are to use it (see for example Balcome *et al*, 2004).

- That said, for routine trips, there is a great deal of inertia in people's choice of mode – only when there is some major change (e.g. moving house, change in size of household, significant and sudden increase in petrol price or availability of a new concession on the bus) may they consider changing behaviour (see for example ITS, 2004). Thus incremental changes in relative generalised costs may go un-noticed by many travellers.

- There is growing evidence from psychology/social science that promotional campaigns, personalised travel planning, and other measures to make people more aware of the travel choices available to them, can have a significant impact on mode choice even when the time and money cost of modes remain unchanged, perhaps by overcoming the inertia referred to previously (Cairns et al, 2004).

There are no countries in the world that have brought about large scale mode shift at a national scale, except in times of war. Evidence from cities and city regions that have reversed the growth in car use and increased the proportion trips made by cycling, walking and public transport, shows commonalities in their experiences. They have to a greater or lesser degree improved their public transport systems' speed and coverage with network simplification, priority and increased network length; kept public transport prices down, especially for multi-journey (season) tickets; promoted easy interchange between modes and services; improved walking and cycling conditions; and made car travel slower and more costly through traffic and parking management measures. In addition, in some cases, careful land-use to manage the demand for travel and to focus high trip generating land uses around public transport stops, has also contributed. There also appears to be a relationship between the presence of rail-based urban public transport (e.g. metro, tram, S-bahn) and a high mode share for public transport. (See Scottish Executive, 2003; CfIT (2001); HiTRANS (2005).)

The responsibility for bringing about such changes in the UK is currently split between a wide range of public and private sector bodies and levels of government, as explained in Unit 3. Clearly, then, any body that seeks to reduce GHG emissions from transport is likely to require the participation of other agencies and levels of government. To take one level of government, the Greater London Authority/Mayor of London, its Climate Change Action Plan (Greater London Authority 2007) sets out a number of measures to reduce emissions from transport. The Mayor has a level of direct control over much of the public transport system in and around the capital that is atypical of much of the rest of the UK, but he must nonetheless still work with private rail operators, national government and Network Rail to deliver the rail improvements that are required as part of a more general commitment in the Action Plan to improving the value for money, frequency and quality of public transport in the capital to switch more travellers from car to public transport. He is also reliant on, although able to influence through financing, the London Borough councils who control local roads and footways. As the Action Plan points out, the Mayor is also heavily dependent on the EU and national government to bring in carbon trading and budgeting needed if – the plan argues - targets for CO2 reduction are to be met.

What should be done if GHG emissions from transport are to be reduced and targets met?

This section compares the findings of various expert reports on this issue, with the policy statements set out at national government level on how to reduce GHG emissions from transport to a level considered to be environmentally and economically sustainable. These reports are:

- The Stern Review: the Economics of Climate Change (HM Treasury, 2006);
- The Eddington Transport Study (HM Treasury and DfT, 2006);
- The Commission for Integrated Transport's (CfIT) Transport and Climate Change report (CfIT, 2007); and
- The Mayor of London's Climate Change Action Plan (Mayor of London, 2006) (this latter is included because it considers at the level of a major city how emissions from transport might be controlled).

The Stern Review took a global view of GHG reduction so its detailed comments on UK transport are few, but it does note that significant technical changes are required to aircraft and surface transport vehicles to help reduce emissions to a point where they are less likely to cause catastrophic climate change. The Eddington Review makes an extremely strong case for the inclusion of environmental costs – including GHG emissions - into all transport investment decisions ("the user pays"), but also a very strong case for further investment in road and, to a lesser extent, rail, to realise economic benefits. The CfIT report recommends a package of measures, as follows (Executive Summary, available at http://www.cfit.gov.uk/docs/2007/climatechange/index.htm#exec

- "a mandatory EU target for new car sales of 100g CO_2/km but with a deadline (2020) that allows a more cost-effective response by the industry, combined with measures to stimulate demand for lower-emission vehicles;
- an incentive and reward approach to promoting more efficient use of cars through the price of fuel, greater promotion of eco-driving and better enforcement of speed limits;
- more intensive promotion of smarter choices to encourage take-up of alternatives to car travel supported by improvements to the carbon performance of public transport;
- measures to capture the significant opportunities for carbon reduction in van and lorry fleets; and
- the inclusion of aviation in the EU-ETS [emissions trading] and consideration of supplementary measures to crystallise and develop further the emissions reduction potential of this sector."

In the Mayor's Climate Change Action Plan, there are five main means proposed to deliver a London-wide reduction of 4.5 million tonnes CO2 by 2025 (a contribution to a planned total of nearly 20 MT CO2 from all sources excluding aviation). These are improved public transport, cycling and walking facilities together with promotion of these; encouraging eco-driving; encouraging more efficient private vehicles to be used; carbon pricing for transport through a planned differential congestion charge (now abandoned since the election of conservative Mayor Boris Johnson), and more efficient, cleaner public transport vehicles. The largest contribution would come from more efficient private vehicles.

In conclusion it can be seen that, whilst there are notable differences between them in terms of their emphasis on mode shift compared to technological fixes, these various reports all advocate significant interventions and policy changes to realise levels of GHG emissions reduction necessary to stabilise atmospheric GHG concentrations at a "safe" level.

Activity
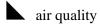
Read the Executive Summaries of the following reports (all are available on the internet) and compare their strategies for dealing with GHG emissions from transport.

- The Stern Review: the Economics of Climate Change (HM Treasury, 2006);
- The Eddington Transport Study (HM Treasury and DfT, 2006);
- The Commission for Integrated Transport's (CfIT) Transport and Climate Change report (CfIT, 2007); and
- The Mayor of London's Climate Change Action Plan (Mayor of London, 2006).

Transport and health

You will recall, earlier in this section, I mentioned the close link between planning and transport policy. The WHO ministerial conference on the environment and health (held in June 1999) highlighted yet another overlap in government policies, that of transport, the environment and health. At the conference, a Charter on Transport, The Environment and Health was devised and 50 nations signed it. This charter is not legally binding but ministers have agreed to review their current legislation on these areas and investigate by spring 2000 whether changes are needed.

As soon as possible, or by the year 2004 at least, each nation was supposed to define national quantitative or qualitative targets towards the attainment of health targets. The areas that these targets focus on are:

- ◣ air quality

- ◣ traffic deaths and serious injuries

- ◣ promoting cycling and walking for physical activity

- ◣ noise.

In the WHO Europe region, 50% of adults do not take enough exercise; a 1999 study in Canada found that if they did, it would save 2.5% of its total healthcare costs each year, whilst the costs of lack of exercise to the Swiss economy have been put at €150-€300/person/year (HEPA Europe, 2007). Lack of exercise is a key cause of obesity; in the UK, its total costs in 1998 were already over €3 billion, and rising. These problems are growing fastest in

Europe's new member states. There are also links between lack of exercise and mental health problems whilst, for employers, staff who are physically fit are more productive and take fewer sick days than their colleagues who do not take enough exercise. The importance of using the transport environment to encourage physical activity and/or not to discourage it has been recognized by the UK Health body, the National Institute for Clinical Excellence (NICE), in its 2008 publication *Physical Activity and the Environment*, a summary of which is available at http://www.nice.org.uk/nicemedia/pdf/PH008PhysicalActivityAndTheEnvironmentQRG.pdf and which you should read. More detailed parts of the work are at http://www.nice.org.uk/Guidance/PH8#summary. The document is aimed at transport and urban planners and encourages them (us) to develop and implement policies that will produce a built environment that makes everyday walking and cycling easy, safe and pleasant.

Other units in this module, especially those on walking and cycling, land use planning and on Local Transport Plans will also highlight links between transport and health. This topic is currently (2008) very high profile in much of the EU and helps to make the case for "sustainable" transport policies.

◤ Recommended reading

For more information the WHO web site is http://www.who.dk/healthtopics#T

There are also excellent links on this topic at www.cavill.net

References (you do not have to read these unless you want to)

Balcombe, R. *et al* (2004) *The Demand for Public Transport.*   Transport Research Laboratory, Crowthorne.

Cairns, S. *et al* (2004) *Smarter Choices: Changing the way we travel.* DfT, London.

CfIT (Commission for Integrated Transport) (2001) *A Study of European Best Practice in the Delivery of Integrated Transport.* CfIT, London.

Commission for Integrated Transport (CfIT) (2007) *Transport and Climate Change.* CfIT, London.

Department for Food, Environment and Rural Affairs (DeFRA) (2008) *Development of an Embedded Carbon Emissions Indicator.*   DeFRA, London.   See http://randd.defra.gov.uk/Document.aspx?Document=EV02033_7331_FRP.pdf

European Commission (2007) *Communication from the Commission to the Council and the European Parliament. Results of the review of the Community Strategy to reduce CO2*

emissions from passenger cars and light-commercial vehicles {SEC(2007) 60} {SEC(2007) 61} /* COM/2007/0019 final */ Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52007DC0019:EN:HTML

European Environment Agency (EEA) (2003) *TERM 2003 27 EEA 31 — Overall energy efficiency and specific CO$_2$ emissions for passenger and freight transport.* EEA, Copenhagen.

HiTRANS (2005) *Public transport – citizens' requirements.* Report on Strand 5 of the HiTRANS project. County of Rogaland, Stavanger, Norway.

HM Treasury (2006) *The Stern Review: the Economics of Climate Change* HM Treasury, London.

HM Treasury and DfT (2006) *The Eddington Transport Study.* HM Treasury and DfT, London.

International Panel on Climate Change (IPCC) (2007) *4th Assessment Report on Climate Change.* IPCC, Geneva.

ITS (Leeds University Institute for Transport Studies) (2004) Mode choice model Study for Competition   Commission.   Available   at   http://www.competition-commission.org.uk/Inquiries/completed/2004/natexpress/evidence_mode_choice_model.pdf

Mayor of London (2006) *London's Climate Change Action Plan.* Greater London Authority, London.

Office for National Statistics (ONS) (2007) National Travel Survey. ONS/DfT, London.

Potter, S. (2008, forthcoming) 'Transport Demand Management and Purchase, Circulation and Fuel Taxation' in Ison, S. and Rye, T. (eds), *The Implementation and Effectiveness of Transport Demand Management measures: An International Perspective* Ashgate, Dewsbury. Ryan, L. and Turton, H. (2008) *Sustainable Automobile Transport - Shaping Climate Change Policy.* Edward Elgar, London.

Scottish Executive (2003) *Transferability of Best Practice in Transport Policy Delivery.* Scottish Executive, Edinburgh.

Scottish Executive (2006) *Changing Our Ways: Scotland's Climate Change Programme.* Scottish Executive, Edinburgh.

Scottish Government (2008) *Consultation on proposals for a Scottish Climate Change Bill.* Scottish Government, Edinburgh.

Transport Scotland (2007) *Scottish Motorway and Trunk Road Programme - June 2007.* Transport   Scotland,   Glasgow.   Available   at http://www.transportscotland.gov.uk/files/documents/roads/otorways-Trunk-Road-rogramme-June2007-final_0.pdf

◣ **Summary**

Over the course of this century, the relationship between the human world and the planet that sustains it has undergone a profound change … The rate of change is outstripping the ability of scientific disciplines and our current capabilities to assess and advise … The next few decades are crucial. The time has come to break out of past patterns … We are unanimous in our conviction that the security, well being, and very survival of the planet depends on such changes, now.[19]

The world has taken notice, and changes in attitudes are taking place. Transport has a major role to play in effecting those changes by reducing emissions of pollutants and greenhouse gases, as well as reducing the amounts of non-renewable material resources used. All the evidence points to a change in our attitude to the car, towards the development of communities that are less dependent on the car as the main source of mobility.

The challenge for transport policy makers is to effect that attitude change. The evidence suggests that a range of policy tools will be needed, working in concert, if we are to be successful.

---
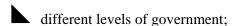
[19] *Our Common Future: Report of the 1987 World Commission on Environment and Development* (the Brundtland Report) (Oxford University Press) 1987

Unit 3: Government structures and responsibilities for transport

Introduction

In this unit we are going to examine the division of responsibility for the planning, control and operation of transport, both in the UK and in Europe. Units 4 and 5 will then examine the way in which those responsibilities are exercised. In Great Britain, in the period since the Second World War, the prime responsibility for the operation of public transport has moved from the private sector to the public sector and back to the private sector. The planning and control of transport rests primarily with the public sector, but the scope of responsibilities involved have changed significantly over the same period. In particular, as part of the UK Conservative government's drive to minimise bureaucratic control, many of the day to day regulatory and operational functions of government have been transferred to Executive Agencies. Moreover, bus deregulation and rail privatization have transferred much of the operational and strategic decision making in public transport to private companies, whose aspirations may not match those of public authorities. A significant consideration for the current government is the extent to which it is able to 'claw back' some of this control and regulation to be able to achieve an integrated transport system.

The responsibility for development of transport policy is essentially one for the public sector. However, the split of responsibilities between:

► different levels of government;

► the development and operation of infrastructure and services;
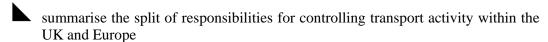
► the public and private sectors; and

can have major impacts on the way in which the implementation of transport policy is achieved, or not.

► Learning outcomes

Once you have worked your way through this unit, including the self assessment sections, you should be able to:

► summarise the split of responsibilities for controlling transport activity within the UK and Europe

► identify potential issues arising from this split in responsibilities for policy makers.

Three tiers of government

Within the United Kingdom, there are essentially three tiers of government engaged in the development of transport policy:

▶ the European Union (EU)

▶ central government

▶ local government.

Until recently, the primary policy formulator was central government. Clearly, local government has a subsidiary role to central government, in that it owes its existence to statutes enacted by central government. However, although the Treaty of Rome (1957) was created to establish a common market based on freedom of movement of people, goods, services and capital, the development of a common transport policy foundered on the unwillingness of the member states to surrender narrow national interests. Consequently, it was not until the late 1980, and a succession of legal challenges to the Council of Ministers, that the impetus for the development of a European transport policy gathered momentum. Now with the growing influence of the European Union, increasingly UK policy will need to be in step with that set down by the EU. That said, at this stage of its development, European Transport Policy has principally concentrated on harmonisation and co-ordination of national policies. Consequently, this examination of the governmental structures and responsibilities will start with those of central government.

Central government structures

The introduction, by the last Conservative government, of free market principles and a 'hands off' approach to the management of transport can be argued to have fragmented government control of transport policy. Indeed, the splitting up of the Department of Environment in the early 1980s was regarded by many as a retrograde step. However, the creation of the Department of Environment, Transport and the Regions (DETR), as one of the new Labour government's first acts was perhaps more symbolic than real in terms of providing a basis for a co-ordination of transport policy making in central government. This is all the more so since the planning and environmental responsibilities have now been split away from transport once again, and are now covered by the Department for Communities (www.communities.gov.uk).   In Scotland, these responsibilities are also split, and (arguably) the low priority afforded to transport is shown by the fact that it is part of a joint ministerial portfolio, Transport, Infrastructure and Climate Change.

As we will see, when we examine the allocation of functions and responsibilities within central government, achieving an integrated transport policy will require 'joined-up' government not just joining two departments. Conversely, it can be argued that the fragmentation of the former Department of Transport, through the creation of a variety of Executive Agencies and the privatisation of the nationalised transport industries, has left ministers and the remaining civil servants free to concentrate on policy formulation. For example, with the creation of the Highways Agency, day-to-day responsibility for the

management of trunk roads no longer rests with the DETR (and its successors) and its ministers in England and Wales. A more detailed explanation of the functions of the Highways Agency can be found in Unit 5.

So, within central government, who has responsibility for what? Before looking at that, we need to recognise that the current government radically changed the structure of central government through its programme of devolution. The creation of a Scottish Parliament and Assemblies for Wales and Northern Ireland created the opportunity, particularly in Scotland (where the Parliament has law-making powers), of the development of a different approaches to transport policy. The election of a mayor and Authority for Greater London also to a great extent removed the need for central government's former co-ordinating role in the capital – although the relative importance of the Greater London Authority compared with national level organizations such as DfT and the Office of Rail Regulation and the London [economic] Development Agency means that a co-ordinating role for central Government remains.

ENGLAND

Within Whitehall (the collective term for the civil service in London) a number of departments influence the planning, organisation and operation of transport in the UK:

▰ Department for Transport www.dft.gov.uk

▰ Department for Communities and Local Government www.communities.gov.uk

▰ The Department for Business, Enterprise & Regulatory Reform – www.berr.gov.uk – formerly Department of Trade and Industry

▰ Home Office

▰ Treasury, traditionally a very powerful ministry

▰ Cabinet Office.

To these, we need to add:

▰ Scottish Government (formerly Scottish Executive) www.scotland.gov.uk/transport

▰ Welsh Assembly and Executive http://new.wales.gov.uk/topics/transport/?lang=en

▰ Northern Ireland Executive.

The Department for Transport (DfT)
Established following the General Election on 1st May 1997, the former departments of Environment and Transport merged to become the Department of the Environment, Transport and the Regions (DETR). The main aim was to achieve a more integrated approach to policy

on these issues.   Subsequently, however – and largely before the new "super-department" could be properly integrated - environmental protection was removed to a different department (it is now covered by DEFRA, www.defra.gov.uk), and planning and local government to the Office of the Deputy Prime Minister (www.odpm.gov.uk), now Communities and Local Government (DCLG). Thus by 2002 we were back to square one, with the sole responsibility of the Department for Transport being just that, transport. However, at a regional level within England, there is some co-ordination between these functions through the 9 Government Offices, which represent 9 central government ministries in each region. The Government Offices report, ultimately, to the DCLG; see its website for more details www.communities.gov.uk.

In addition to their responsibilities for the Department for Transport and its agencies, the DfT ministers oversee the work of a number of important executive and advisory non-departmental public bodies and nationalised industries. The geographical scope of the Department's responsibilities vary depending on the nature of the function. For some they exercise the responsibilities for the whole of the UK, for some for Great Britain (England, Scotland and Wales) and for some just for England. In general terms, the overseeing of regional and local transport matters is exercised just for England. In addition, the DfT's responsibility for trunk roads applies only to England. On the other hand, its responsibility for railways used to cover the whole of Great Britain, but changed with the 2005 Railways Act which devolved most rail powers to Wales, Scotland and some to the Greater London Authority, within their respective areas.

At a political level, the department is headed by the Secretary of State who carries the ultimate responsibility for all that is done in his or her name. (Most legislation will confer a range of powers on the Secretary of State.) The Secretary of State is supported, currently, by a range of ministers including a Minister for Transport.

As I mentioned earlier, many of the former duties of the former departments have now been transferred to Executive Agencies. In all, there are six Executive Agencies:

- Driver and Vehicle Licensing Agency

- Driving Standards Agency

- Vehicle Inspectorate

- Vehicle Certification Agency

- Maritime and Coastguard Agency

- Highways Agency.

The geographical coverage of these agencies varies in the same way as the general responsibilities for DETR vary. The Highways Agency, for example, is responsible for the management of the Trunk Road Network in England only. Whereas, the Maritime and Coastguard Agency has a UK-wide remit and the Driver and Vehicle Licensing Agency, the Driving Standards Agency, the Vehicle Inspectorate and the Vehicle Certification Agency

operate across Great Britain only. A seventh executive agency the Transport Research laboratory was privatised in 1997.

Department for Business, Enterprise & Regulatory Reform
Department for Business, Enterprise & Regulatory Reform (BERR) has as its main function the promotion and regulation of trade and industry across the whole of the UK. It is therefore responsible for sponsoring industries such as vehicle manufacturers and has to consider issues such as the impact on manufacturers of emission control legislation. Despite having incorporated the former Department of Energy its prime function is seen as supporting the interests of industry at large. On the trade front its main area of involvement with transport is the promotion of transport expertise abroad.

The BERR also has responsibility for the Office of Fair Trading (OFT). The OFT has an influence over competition issues within the transport industry, notably with buses, and has adjudicated in a number of incidences of 'bus wars' which have followed the deregulation of the bus industry in 1986. It also has a concurrent responsibility with the Office of the Rail Regulator for overseeing the rail industry. Finally, it appoints the Regional Development Agencies (RDAs) in England, which will soon take over the role (from Regional Assemblies) of providing advice to the DfT on the prioritization of regionally-important projects.

The Home Office
The Home Office's responsibilities include overseeing the operation of the police service and the operation of radio frequencies. This latter area is one which may influence the development of information systems which rely on radio communications. However, the key role of the police in the enforcement of traffic regulations has been a source of much frustration in transport circles. It is understandable, perhaps, that the police and the Home Office do not regard the enforcement of parking and traffic regulations as the highest of their priorities but lack of enforcement can lead to the undermining of many plans aimed at better management of urban streets. It was this frustration with the lack of enforcement that led to the decriminalisation of parking legislation in the 1991 Road Traffic Act. This allows local authorities to create Special Parking Areas where enforcement is carried out by the council's own agents. Subsequent legislation has permitted the extension of bus lane enforcement (moving vehicles) to a Council's agents, although, to the author's knowledge, no authority outside London has yet taken on this power.
For similar reasons, the Traffic Management Act (2004) similarly allows local authorities to take over the enforcement of many minor traffic offences in England and Wales, although no such legislation is currently planned in Scotland.

The Treasury
As in most organisations the person who controls the purse strings has a major control over the way in which the organisation is run. And, given that the Treasury is also responsible for raising the funds which are then distributed to the spending departments, central government is no exception.

▰   **Chancellor of the Exchequer**

The Chancellor has overall responsibility for the work of the Treasury and is supported in the first instance by two senior ministers with responsibility for the two main functions of the Treasury – Income and Expenditure. They, in turn, are supported by three junior ministers. The senior ministers are:

◣ **Chief Secretary to the Treasury**
The Chief Secretary to the Treasury is the Minister who controls spending in government. As such he or she has significant influence over central government expenditure on trunk roads, local authorities' spending on roads and public transport, and grants to support rail services and investment. The responsibilities of the Chief Secretary include:

   ◣ public expenditure planning and control
   ◣ value for money in the public services
   ◣ Departmental Investment Strategies
   ◣ Public/Private Partnerships including PFI
   ◣ procurement policy
   ◣ devolution
   ◣ Resource Accounting and Budgeting.

◣ **Paymaster General**
The Paymaster General is the minister with overall responsibility for raising taxes and oversees the Inland Revenue and Customs and Excise. He or she is responsible for taxation policy and the Finance Bill. Of particular significance for transport policy are taxation in the following areas:

   ◣ taxation of personal benefits (eg company cars)
   ◣ fuel tax
   ◣ VAT on fuel and cars
   ◣ fuel tax rebates for public-service vehicles
   ◣ road vehicle tax.

Clearly, the scope for the Chancellor of the Exchequer to influence transport policy through taxation and public expenditure plans is enormous. Sadly, all to often, short-term political perspectives mitigate against the long-term perspective that transport policy requires.

The Cabinet Office
The Cabinet Office acts as the co-ordinating body within government, to ensure that policy is presented in a coherent way. However, increasingly it is being used to lead cross-departmental issues such as privatisation policy, social inclusion and the Next Steps Programme, which led to the establishment of many of the Executive Agencies. See http://www.socialexclusionunit.gov.uk/publications/reports/html/Making%20the%20Connections/index.htm for an example of some of its work related to transport.

Nationalised industries and other public bodies
A very large number of nationalised industries and public bodies (in excess of 50) is sponsored by the DfT and ODPM including:

- British Waterways (a public corporation)

- Expert Panel on Air Quality Standards

- British Government Panel on Sustainable Development

- Royal Commission on Environmental Pollution

- UK Round Table on Sustainable Development

- Audit Commission

- Regional Development Agencies

- Disabled Persons' Transport Advisory Committee

- Standing Advisory Committee on Trunk Road Assessment

- Traffic Commissioners and Deputies

- British Railways Board (BRB)

- Civil Aviation Authority

- Health and Safety Executive

The Scottish Parliament
The Scottish Parliament took up its responsibilities on 1 July 1999. The Parliament has the power to legislate in respect of any matter which is not specifically reserved to the UK Parliament at Westminster. With some exceptions, local government, transport and land-use planning are all within the competence of the Scottish Parliament. Table 3.1 below indicates the split of responsibilities on transport.

Full legislative responsibilities of the Scottish Parliament	Scottish Executive responsibilities	Reserved matters (Westminster and DETR)
• the Scottish road network • parking controls • bus policy • promotion of road safety • concessionary fares • cycling • taxis and minicabs • non-technical aspects of transport for disabled people • rail and bus responsibilities of Strathclyde Passenger Transport Executive/Authority and any new such bodies • promotion and construction of new railways in Scotland • grants for passenger rail services • consultative arrangements in respect of public transport • ports, harbours, piers and boat slips • provision of freight shipping and ferry services, including CalMac • financial assistance for bulk freight services under the HISS Act 1960 • activities of Highlands and Islands Airports Ltd • planning and environmental issues relating to airports • inland waterways.	• issuing of objectives, instructions and guidance in relation to passenger rail services that both end and start in Scotland • issuing of objectives, instructions and guidance in respect of ScotRail sleeper services • responsibility for funding of rail services in Scotland • administration of rail freight facilities and track access grants • applications to the EU for the designation of lifeline air services • enforcement vehicle emission standards.	Transport safety and regulation, including: • regulation of aviation and shipping • marine and air safety, provision and regulation of railway services including rail safety • marine, air and rail accident prevention and investigation Some aspects of road traffic regulation, including: • driver and vehicle licensing and testing • road signing • vehicle standards • general speed limits • some aspects of road safety • technical standards relating to transport of disabled persons • transport security.

Table 3.1 Transport responsibilities of the Scottish Parliament (2005)

Note that from 2006 the Scottish Executive had full responsibility for specifying rail services in Scotland and for negotiating with Network Rail about infrastructure capacity enhancements, via the Rail Regulator and his/her specification of track access charges. It will also be empowered to fund Network Rail directly to enhance the infrastructure.

The National Assembly for Wales
The Welsh Assembly does not have the legislative powers given to Scotland but has similar executive powers. Its powers are generally described as 'powers to develop and implement policies'. These of course have to be done within the legislative framework and powers set down by Westminster. It is common practice for all primary legislation (The Acts of Parliament) to include powers for the 'Secretary of State' to introduce by order secondary legislation to cover the detail of the government's policy. So for example, whilst the 1968 Transport Act introduced the concept of Passenger Transport Authorities and Executives, it

was the Secretaries of State for Transport and Scotland that created the existing seven bodies through separate orders. As a result of the Government of Wales Act 1998, the power to implement policy through secondary legislation has passed from the Secretary of State for Wales (at Westminster) to the Welsh Assembly. In addition, the administration of the Welsh Office budget is the responsibility of the Assembly; thus, they are able to make decisions about how to spend their available budget in different ways from England. An example relevant to transport is the Welsh Assembly's decision to allow free concessionary travel throughout Wales for the over-60s who live there. This has cost considerably more per head than the less generous concession in England.

London

Greater London has a population of 7 million people and an area of about 1500 km^2. Its public transport system consists of heavy rail, underground, light rail, tram and bus; heavy rail and underground focus predominantly on serving flows into the central business area, whilst bus is the main suburb to suburb mode of public transport. Central and inner London – home to about 3 million people – has transport characteristics that are unique in Britain, due to heavy traffic congestion, lower car ownership and a great reliance on public transport. Outer London is much more typical (in transport terms) of other British conurbations.

Transport policies for London are set out in the Mayor's Transport Strategy (available at www.london.gov.uk) and these policies are supposed to be implemented through the business plan produced by Transport for London (TfL), the executive regional transport agency, which controls strategic roads, buses and LRT. Boroughs must produce local Transport Delivery Plans, whose objectives and programmes – for local roads – must be consistent with those of the Mayor's Transport Strategy and the TfL Business Plan; if they are not, TfL does not give the Borough in question very much money to implement their plans. Buses are run under franchise to TfL. The Underground is also operated managed by TfL but upgrade and maintenance of the tube lines and rolling stock is the responsibility of three private companies, who are in a complex PPP contract with TfL (although the contract was specified and negotiated by national government).

The objectives of the Mayor's strategy are:

(a)   Reducing **traffic congestion**.
(b)   Overcoming the backlog of investment on the **Underground** so as to safely increase capacity, reduce overcrowding, and increase both reliability and frequency of services.
(c)   Making radical improvements to **bus services** across London, including increasing the bus system's capacity, improving reliability and increasing frequency of services.
(d)   Better integration of the **National Rail** system with London's other transport systems to facilitate commuting, reduce overcrowding, increase safety and move towards a London-wide, high frequency 'turn up and go' Metro service.
(e)   Increasing the overall **capacity of London's transport system** by promoting: major new cross-London rail links including improving access to international transport facilities, improved orbital rail links in inner London; and new Thames river crossings in east London.
(f)   Improving journey time reliability for **car users**, which will particularly benefit outer

London where car use dominates, whilst reducing car dependency by increasing **travel choice**.

(g)   Supporting **local transport initiatives**, including improved access to town centres and regeneration areas, walking and cycling schemes, Safer Routes to School, road safety improvements, better maintenance of roads and bridges, and improved co-ordination of streetworks.

(h)   Making the distribution of **goods and services** in London more reliable, sustainable and efficient, whilst minimising negative environmental impacts.

(i)   Improving the **accessibility** of London's transport system so that everyone, regardless of disability, can enjoy the benefits of living in, working in and visiting the Capital, thus improving social inclusion.

(j)   Bringing forward new **integration initiatives** to: provide integrated, simple and affordable public transport fares; improve key interchanges; enhance safety and security across all means of travel; ensure that taxis and private hire vehicles are improved and fully incorporated into London's transport system; and provide much better information and waiting environments.

The London Government Act (1999), which came into effect that year, set up a new structure of transport governance in the capital. Effectively, Greater London – which stretches from Heathrow in the west to Upminster in the east, and Enfield in the north to Croydon in the south - is the only region in Great Britain with its own tier of statutory, directly elected regional government with responsibilities for transport and land use. The government in question is the Mayor, whose Executive powers are scrutinised by the Greater London Assembly. However, the powers of the Assembly are limited to scrutiny, requiring changes in the Mayor's budget, and a power of impeachment. All other regional powers rest directly with the Mayor. In May 2008 the "high profile" Labour Mayor Ken Livingstone, who had a particular interest in transport and who introduced congestion charging in the capital, was replaced by a conservative, Boris Johnson, who may change the direction of transport policy in London. Keep an eye out in LTT for any further details.

This system replaced the previous region which was the Government Office for London – effectively a branch office of (for transport purposes) what was, at the time, the Department for Transport, Local Government and the Regions (DTLR) – governing roads functions; and London Transport, with its board selected directly by central Government, managing buses and underground. Both old and new systems keep/kept control of heavy rail largely in the hands of central government, through the former SRA and DfT (see Unit 5), although, under the new Railways Act (2005) the Mayor now has given powers to specify and fund some London commuter rail services that run mostly within the capital (see www.tfl.gov.uk/rail).

The lower tier of Government – the 32 Borough Councils (e.g. Croydon) and the Corporation of the City of London – has not changed in extent, but its autonomy has been slightly further restricted compared to the previous system, where implementation of cross-boundary transport projects was much more dependent on voluntary co-operation between authorities (and consequently varied considerably depending on how well the Boroughs in question related with one another).

Schemes and funding in London

The Mayor has the power to raise revenue to fund transport operations and investment in

London, through an additional precept on the council tax levied in each Borough. In the 2002/03 budget, the precept rose by 16%. S/he also has the power to raise revenue through congestion charging schemes, and one has now been introduced around the central area of London (in March 2003).

TfL's budget, which comes from Central Government block grant and the council tax precept was, for 2002/03, in £m

Surface transport (mainly buses)	428
Rail services	21
Docklands Light Railway	73
Roads (of which a portion is passed to Boroughs)	430
Central Directorates (management)	111

Under the previous administrative system, regional measures were implemented, but the quality of their delivery varied greatly from Borough to Borough, since they were delivered by voluntary co-operation between Boroughs, under the watchful eye of the Government Office for London. Thus the London Bus Priority Network (LBPN), which was born in 1992, was a regional programme of route-length bus priority on all roads with more than 10 buses per hour one way. Implementation was much more enthusiastic by some Boroughs than others – long lengths of bus lane on a route might stop at a Borough boundary, after which the only evidence of the LBPN might be the occasional bus stop clearway. The London Cycle Network is similarly varied in its quality from Borough to Borough. TfL now has a much more direct mandate to ensure a consistency of implementation throughout the capital.

In spite of the new system, however, the implementation of major underground and rail projects in London remains very slow. The Jubilee Line Extension, the last major underground project that opened in late 1999, was 25 years in planning. Heavy rail projects such as Thameslink "2000" are almost as slow. The most pertinent factor here appears to be the UK Treasury's reluctance to grant the necessary funding, or borrowing consent. The privatisation of the rail network and the dependence on the former Railtrack for rail projects has also undoubtedly increased the cost and time involved in these schemes' delivery, as it has fragmented decision making and increased reliance on many different actors, each with their own priorities. That said, some schemes are now going ahead, such as the East London Line extension, and Stirling-Alloa. (Search for their respective websites through Google.)

The Northern Ireland Assembly

Devolution in Northern Ireland is on a similar model to that in Scotland, and the Assembly has taken over responsibility for the full legislative and executive functions of the six government departments. One of these is the Department of Environment which, as well as covering those similar responsibilities transferred to the Scottish Executive, also has responsibility for the nationalised rail and bus operators that exist in Northern Ireland.

Local government responsibilities

The organisation of local authorities has varied quite considerably in Great Britain over the past 30 years. In the early 1970s reorganisation of local government saw the creation of a two-tier system across the whole of Great Britain (with the exception of three island council areas in Scotland, which were unitary councils). In general this sought to create larger more powerful local authorities and in the more urbanised areas the creation of regions and counties which were generally well placed to consider the strategic planning and transportation issues of their areas. Table 3.2 on the next page shows the split between the two tiers of council.

Despite declining budgets for road building at this time, the larger councils had significant spending power and, under the new Transport Policies system, considerable discretion on how to spend it. This led to several well publicised clashes between a number of the more powerful, left-wing-controlled councils and the Thatcher government of the 1980s. Perhaps the most public was the dispute with the GLC and its leader Ken Livingstone and his policy of promoting cheap public transport fares. It, of course, all ended in tears with the abolition of the GLC and the English Metropolitan County Councils and, in due course, with a further re-organisation of local government in the rest of Great Britain in the 1990s. The trend until recently has been away from powerful regional bodies and towards smaller unitary authorities, although with some exceptions.

County or Regional Councils	District or Borough Councils
Strategic Planning (Structure Plans)	Local Planning (Local Plans; Development Control; Building Control)
Highway Authority for Principal Roads and Local Roads	Highway Authority for Local Roads (some English Districts under Agency from County)
Parking Control	Parking Control (Districts in England)
Public Transport Co-ordination	Housing
Transport Planning	
Municipal Bus Operation (Scotland)	Municipal Bus Operation (England and Wales)
Concessionary Fares	Concessionary Fares (English and Welsh Districts)
Education and Social Services (Non Met Counties and Regions)	Education and Social Services (Met Districts)

Table 3.2 Division of council responsibilities post 1974

The local government system currently in existence in Great Britain is confusing, particularly in England outside London where there is a mish-mash of single tier (unitary) and two-tier (District (lower) and County (higher)) councils, covering often quite small areas, and not coincident with travel-to-work areas. There are also some metropolitan areas with regional public transport co-ordination bodies called Passenger Transport Authorities and Executives (PTAs/PTEs).

In recognition of this complexity, the Government in England is giving a progressively stronger role to new regional bodies although, since the defeat in a referendum of the idea of a regional assembly for North East England, it appears that these regional bodies are unlikely to be elected. However, each region (there are eight, plus London) has an unelected regional assembly, made up of councillors from elected County and District councils in the region – see for example www.wmra.gov.uk. The regional assembly has the role of preparing a statutory Regional Spatial Strategy (strategic land-use planning document) and a non-statutory Regional Transport Strategy. It also has the role of providing advice to DfT on the regional prioritization of Highways Agency roads schemes; of regionally important rail schemes; and of local authority "large" (> £5m) transport schemes. Thus the Regional Assembly currently has some influence over which schemes will be funded, in England. However, this situation is likely to change in 2009 due to new legislation which will abolish the regional assemblies; their regional project prioritization function will switch to the appointed Regional Development Agencies. Those civil servants, they can't leave any structure unchanged for more than about three years…
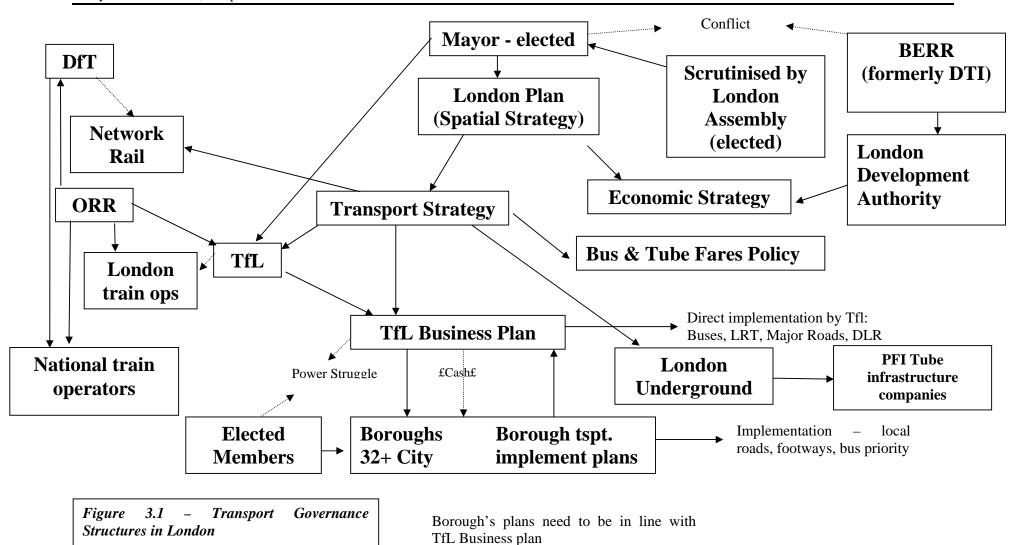
The current structure of local transport governance in Britain is summarised in Table 3.3 on the next page. Figures 3.1 to 3.3 show the structure of transport governance overall, in London, in Scotland and in England. (Do not worry if not all the terms in the table and figures are familiar – they will become so as you work your way through the module.   £££ signs in the Figures indicate flows of money.) It is worth reiterating at this point that these structures are quite fragmented and, compared with many parts of Western Europe, unusual in that there is – with the exception of London and to an extent the metropolitan areas – no regional level of government with responsibility for transport. Obviously, however, people's travel does not respect local authority boundaries. This can cause problems when trying to co-ordinate transport policies and implement measures to deal with travel on a regional or even sub-regional basis. A good example of this is the aspiration in the Bristol, England, region for a new Light Rapid Transit (LRT) line. Here, two unitary authorities – Bristol City and South Gloucestershire – wished to implement the new LRT, connecting their two areas. However, due to differing (political) viewpoints, they were unable to agree on something as fundamental as the northern terminus for the LRT! On a less dramatic scale, the implementation of a bus priority corridor across local authority boundaries may be fine in theory, but the level of actual priority afforded in one part of the corridor may in fact be markedly different, due to the different political situation in each of the two authorities.

It is also worth pointing out that, with the exception again of the GLA and the PTAs/PTEs, all British local government is accountable to a Council of elected members who represent small areas within their Authority's overall areas. For example, in the City of Edinburgh, there are 54 Councillors, three for each of 18 wards, which are small geographical areas of between 10,000 and 20,000 people. This can sometimes make decision making rather parochial and, some may argue, open to the influence of small but vocal interest groups who are most able to

lobby their councillor effectively. This is particularly the case when new schemes – e.g. bus priority – are implemented. Lowe (1989, cited in *Roads and Transport in the Urban Environment*) found that the views of those who object to such schemes are unrepresentative of the community as a whole, but they are able to influence their councillor very effectively. In the Greater London Authority, in contrast, the Mayor is the sole elected decision maker with anything other than scrutiny powers and so is not dependent on small local constituencies. A PTA – the political body that directs a PTE - is made up of councillors chosen   from   the   Local

Table 3.3 – Local Government Transport and Planning Responsibilities, Britain

Type of council	Unitary (English metropolitan)	London Borough	County	District	Unitary (Scotland and Wales)	Unitary (English shire)
Number of levels	Single	Two (of which Borough is lower level)	Two (of which County is upper level)	Two (lower level)	Single	Single
Areas with this type	Areas around Birmingham, Leeds, Sheffield, Manchester, Liverpool, Newcastle	London (32 plus City of London)	England outside metropolitan areas	England outside metropolitan areas	All Scotland and Wales	Certain large shire cities e.g. Hull, Nottingham
Responsibilities	Roads Local planning and policy (Produce Local Development Framework (LDF)) Development control (planning applications)	Roads Local planning and policy Development control (planning applications)	Roads Strategic planning and policy through Regional Assembly NOT development control (planning applications)	NOT Roads Local planning and policy (Produce Local Development Framework (LDF)) But development control (planning applications)	Roads Strategic planning and policy - sort of Development control (planning applications)	Roads Local planning and policy (Produce Local Development Framework (LDF)) Development control (planning applications)
Public transport co-ordination	Responsibility of regional Passenger Transport Authority and Executive (PTA/E)	Responsibility of Greater London Authority	Responsibility of County	Responsibility of County	Responsibility of the Unitary EXCEPT in Glasgow area where 12 Council areas covered at least in part by PTA/E	Responsibility of the Unitary
Local Transport Plan co-ordination	Unitaries in the region must by law produce joint LTP; PTE normally takes co-ordinating role	Co-ordinated by GLA	Not required though occurs on voluntary basis e.g. Nottinghamshire and Nottingham City	N/a (do not produce LTPs or LTSs)	Not required by law though sometimes occurs on voluntary basis e.g. Aberdeen and Aberdeenshire	Not required though occurs on voluntary basis e.g. Nottinghamshire and Nottingham City
Strategic regional plan? (Regional Spatial Strategy (RSS))	LDF must refer to RSS	Yes – strategic spatial strategy responsibility of Greater London Authority	Yes – produced by Counties' planners seconded to Regional Assembly	LDF must refer to RSS	Voluntary joint committees of Unitaries put together structure plans – moving to City Region Plans in urban regions	LDF must refer to RSS

Conflict

Mayor - elected

DfT

Scrutinised by London Assembly (elected)

BERR (formerly DTI)

Network Rail

London Plan (Spatial Strategy)

ORR

Economic Strategy

London Development Authority

Transport Strategy

TfL

Bus & Tube Fares Policy

London train ops

Direct implementation by Tfl: Buses, LRT, Major Roads, DLR

TfL Business Plan

National train operators

Power Struggle

£Cash£

London Underground

PFI Tube infrastructure companies

Elected Members

Boroughs 32+ City

Borough tspt. implement plans

Implementation – local roads, footways, bus priority

Figure 3.1 – Transport Governance Structures in London

Borough's plans need to be in line with TfL Business plan

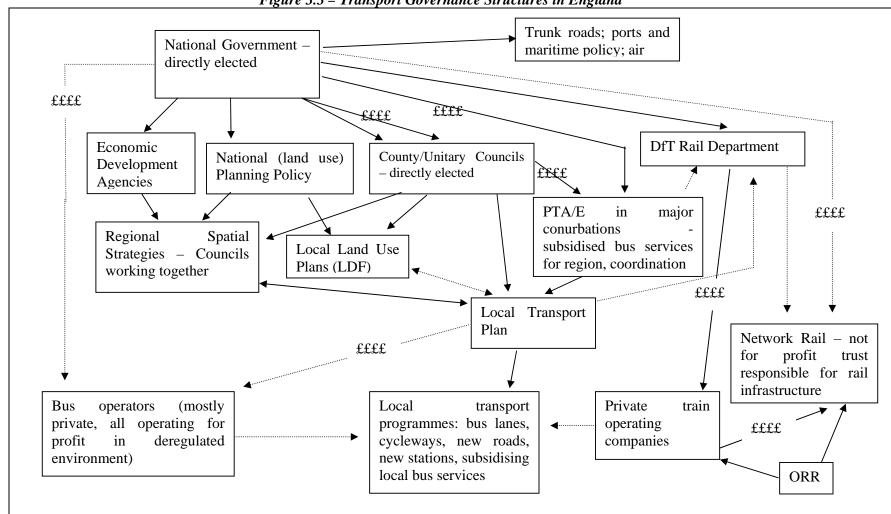**Figure 3.2 – Transport Governance Structures in Scotland**

Figure 3.3 – Transport Governance Structures in England

Authorities in the PTE area, and so in their decision making on the PTA they are, nominally at least, one step removed from representing their local ward.

A good example of an area with fragmented local transport governance is the north east of England, illustrated at http://www.statistics.gov.uk/geography/downloads/nenuts.pdf or http://www.wordiq.com/definition/North_East_England . Here, all forms of English local government are represented:

- In the metropolitan Newcastle area (about 1.1 million people) there are five Unitary metropolitan authorities, which have all transport and planning powers apart from public transport co-ordination. These authorities are Newcastle, Gateshead, North Tyneside, South Tyneside and Sunderland. In these areas only, public transport co-ordination is the legal duty of the Passenger Transport Authority and Executive (PTA/PTE). The PTE also co-ordinates the Local Transport Plan for the area covered by the five Unitaries. The Unitaries produce Local Development Frameworks (LDFs) which are local planning documents, which have to be in line with the Regional Spatial Strategy (RSS), produced by the unelected regional assembly for the Northeast.
- People travel to Newcastle from well beyond the metropolitan area. Surrounding Newcastle are the Counties of Northumberland, to the north and west, and Durham, to the south. Here, there is a two tier local government structure, so all transport matters are dealt with at the higher County level. Local planning (LDFs) is dealt with at the District level (Easington, Durham, Sedgefield, Teesdale, Wear Valley, Derwentside and Chester-le-Street in County Durham; and Blyth Valley, Wansbeck, Castle Morpeth, Alnwick, Tynedale and Berwick-upon-Tweed in Northumberland). There is no PTA/E. LDFs must be in line with the RSS for the Northeast.
- South and east of County Durham there used to be two tiers of local government. However, the former Cleveland County was abolished in the mid-1990s and replaced by five Unitary districts, each with transport powers and local planning powers, including the production of LDFs. These are Darlington, Hartlepool, Redcar, Middlesbrough and Stockton. There is no PTA/E. LDFs must be in line with the RSS for the Northeast.

Such a confusing structure is quite typical of many parts of England and it is generally acknowledged that it does not assist the delivery of a coherent transport strategy on a regional basis. A theme to which we will return many times in this module is the difficulty in actually implementing transport policy in the UK – in delivering the schemes on the ground that are supposed to achieve our transport policy objectives. It has been suggested that one reason that we have these problems is because the structures that exist, and their interrelationships, are not conducive to delivery. To address this problem, a number of actions have been taken; these are detailed below.

Voluntary partnerships

Where unitary authorities, in particular, are small and travel extends well beyond their boundaries, some have attempted to work in partnership with their neighbours on planning and delivering cross-boundary schemes to meet joint transport objectives. There were 4 such bodies in Scotland – SESTRAN, HITRANS, NESTRANS and WESTRANS (you can work out the regions that they covered). All of Wales (with the exception of Mid Wales) is also now covered by such voluntary partnerships (see

http://demserv.powys.gov.uk/english/ncagenda/highls/2002-12-13/2002-12-13%20hls69%20a%20transport%20consortium%20for%20mid%20wales.pdf   for   more
details). The proposed Transport (Wales) Bill is also proposing a pilot statutory partnership
in southeast Wales (see http://www.landor.co.uk/ltt/reports.html).

SESTRAN, for example, was a voluntary partnership of the nine local authorities in south east
Scotland, plus the Forth Estuary Transport Authority (FETA - the body that is responsible for
the Forth Road Bridge and its approaches). It is composed of a steering group made up of
elected members from each Council and a representative from FETA, whose decisions are put
into effect by a management team made up of Council officers. All decisions are at the
present time made by consensus, and are then ratified by the individual constituent
authorities. In March 2003 the steering group agreed to draw up proposals for SESTRAN to
become a joint committee, with powers ceded to it by constituent authorities. This would
have allowed decisions to be put to a majority vote. But, because these partnerships were
voluntary, all decisions had to be reached by consensus and it was very difficult to make
decisions that disbenefited one partner at the expense of another, even where the aggregate
regional effect of such decisions might have been beneficial overall. Nonetheless, SESTRAN
played an important role in project planning and delivery; projects in which it was involved
since its foundation in 1998 include:

- The OneTicket Integrated Ticketing scheme. This was set up as a result of a bid by
  SESTRAN to the first round of the Public Transport Fund (PTF) and was launched for
  sale in late 2001. It already has ticket sales in excess of £300,000 per year with a
  marketing plan for rapid growth. It offers a range of tickets valid for bus travel with all
  operators in south east Scotland, together with some rail journeys.
- Cross-Forth bus enhancements. Joint working by Fife and City of Edinburgh Councils
  delivered, in May 2001, major bus priority on the A90 together with a 500-space park
  and ride site at Ferrytoll, on the north side of the Forth bridge. This project has led to
  modal shift from car and has been so successful that work is now in hand to double the
  size of the car park.
- Edinburgh CrossRail. The only new passenger rail service to open in Scotland between
  rail privatisation in 1996 and early 2002, this project has extended Bathgate and
  Dunblane to Edinburgh services through Edinburgh Waverley to Brunstane and a new
  500-space park and ride site at Newcraighall in the east of the city. This project is the
  first phase of restoring the Waverley Railway line to the Central Borders.
- Fife rail stations. Two new stations, Dunfermline Queen Margaret's and Dalgety Bay,
  have opened in Fife since the formation of SESTRAN.
- Railway station enhancements. Funded through PTF, these have provided additional
  car parking at stations in East Lothian, and will do the same at stations in West Lothian
  over the next three years. Similar enhancements have also been funded for Rosyth,
  Dalgety Bay and Kirkcaldy stations in Fife.
- Three successful bids have been made by SESTRAN as a corporate body (as opposed to
  its constituent authorities on an individual basis) for PTF funding: firstly, the OneTicket
  bid, as mentioned above; secondly, for Sustainable Access to Edinburgh (particularly
  expansion of Ferrytoll Park and Ride); and, thirdly, a preparatory pool bid ("Enabling
  Step Change") to further develop a number of regional schemes to enhance inter-
  regional links, including those with Edinburgh.

Nonetheless, the power of these regional partnerships to implement schemes was, because of their voluntary nature, limited. Frustrated perhaps with the slow pace of delivery, in Scotland the Scottish Executive, under the Transport (Scotland) Act 2005, created new statutory Regional Transport Partnerships to whom local authorities may if they wish cede transport powers.

◣ Changes

In Scotland, on 1st April 2006 the Scottish Executive formalised the formerly voluntary transport partnerships into Regional Transport Partnerships, whose primary responsibility is to prepare a joint statutory regional transport strategy, but to which member councils (the bottom rung of government) may have to cede transport powers if requested to do so by the Board of the partnership, and if the Scottish Executive agrees. It was implied that those areas ceding more powers to the regional level would receive more transport funding. However, the SNP government that took power in 2008 basically reversed this decision, leaving the RTPs largely with money, or powers. Their future looks quite uncertain at the time of writing (July 2008). Whilst these changes may seem very minor, which in a way they are, they are symptomatic of a general issue in UK transport policy delivery, which is that there are abrupt changes of policy direction from central government – and not only with a change of party in power – that make it difficult for local authorities and other agencies on the ground to deliver a consistent policy over a number of years. Experience from those places that have been effective in implementing their policies shows that this consistency over a lengthy period is very important.

◣ Recommended reading

You must look at a website of one of the new regional transport partnerships in Scotland. www.sestran.org.uk or http://www.spt.co.uk/about/index.html to familiarise yourself with the structure and responsibilities of these organisations. See also http://www.scotland.gov.uk/Topics/Transport/regional-partnerships.

You are strongly recommended to look at the Executive Summary of a report for the Scottish Executive on the success factors in transport delivery in other parts of the world, and comparing these to the situation in Scotland. This considers the relative importance of structures for delivery compared with other possible barriers. It is available at http://www.scotland.gov.uk/library5/development/bpitp-00.asp

A more detailed discussion of governmental structures and responsibilities in the UK can be found in:

A New Deal for Transport

H Elcock (1994) *Local Government – Policy and Management in Local Authorities*, Chapters 1 and 2

Mark Tewdr-Jones (ed.) (1996) *British Planning Policy in Transition* (UCL Press) Chapter 7, John Clotworthy and Neil Harris 'Planning policy implications of local government reorganisation'

Spend about half an hour setting down, in note form, answers to the following questions:

◣ Self assessment question 3.1

How is local government structured in England, Scotland and Wales, and what are the main responsibilities of each tier of local government?

◣ Self assessment question 3.2

Which central government departments and bodies have an influence on transport costs?

◣ Self assessment question 3.3

What are the implications for transport planning of the local-government reorganisations of the 1990s; and of the plans for new structures that are emerging in the new millennium? How relatively important are these structures compared to other constraints on transport policy delivery?

European dimension

During the last ten years, the European Union (EU) has made significant progress towards creating a single market by breaking down the barriers between its member states. Free movement of people and the free circulation of goods are two of the mainsprings for the future growth of the single market. To be fully effective, they need a transport system which is up to the task.

That is why the EU's transport policy seeks to achieve an integrated trans-European transport network which responds to people's demands for a cleaner environment and safer, reliable mobility.

To maximise the benefits of an integrated network, the Commission and the member states are seeking greater integration of national transport policies, more competition between transport suppliers, a co-ordinated approach to infrastructure development and firm constraints on state aids to national operators. Since 1995 it has put special emphasis on the need to create a better balance between road and other means of transport so as to reduce pollution and congestion and increase safety.

Developing EU transport policy
Though Article 74 of the Treaty of Rome provided for a common transport policy, progress was slow until 1985 when the Court of Justice partially upheld an action brought against the Council of Ministers by the European Parliament. The Court ruled that the Council had infringed the Treaty's rules on the freedom to provide international transport services.

The Court's ruling, coupled with the Community's commitment to the goal of a single market by the end of 1992, finally established a political momentum which delivered progress across a broad front:

▲ liberalising international road transport of goods with full freedom to operate services in other member states from 1998 (cabotage) – similar freedoms have already opened, or are opening up for shipping, rail and air services, including in the area of price setting

▲ setting safety standards and speed limits for lorries and coaches and limiting the risks involved in the carriage of dangerous goods

▲ plans have been drawn up for an integrated trans-European transport network – and this will also connect with the countries of central and eastern Europe and of the Mediterranean.

The Roles of the European Institutions

▶ **Role of the European Parliament**: transport legislation is largely dealt with under the co-operation procedure whereby the Parliament has the opportunity to amend proposals. However, the Council can in such cases reject Parliament's amendments.

▶ **Role of the Council of Ministers**: most transport policy decisions are adopted by qualified majority voting except when going against the proposal of the Commission. In the casing of laying down guidelines for a trans-European transport network (TENs), the co-decision procedure requires that both Parliament and Council reach an agreement which both can support.

▶ **Role of the Commission**: the Commission initiates all proposals for legislation and manages Community spending on transport projects from the Union's budget, as well as transport research projects. It ensures that legislation is put into effect by member states. It acts as a catalyst to mobilise public/private partnerships for the financing and construction of trans-European transport network projects.

▶ **Directorate General TREN**: Reporting to the Commissioner, DGVII's mission is to work with national, regional and local authorities, business and non-governmental organisations to improve the way in which Europe's transport system serves the economic, environmental and social aspirations of European citizens. Have a look at their home page http://ec.europa.eu/dgs/energy_transport/index_en.html and you will probably be none the wiser about what they do! ☺ Apparently, their main areas of work are:

▸ environmental, safety and social standards for transport
▸ competition, market forces and fair and efficient pricing in transport
▸ catalysing investment in transport
▸ supporting research and technical development in transport
▸ transport links with countries outside the European Union.

The influence of the EU on UK transport operations and policy

The curious and evolving structure of the EU and its institutions does not mean that it does not have a profound influence on the UK transport system. The EU (Commission) can and does issue policy statements, but these can be and often are ignored by member states. So, when you do the recommended reading, below, you will note that the last White Paper from the Commission was very supportive of congestion charging, but that member states – with a few exceptions – are emphatically not supportive.

On the other hand, member states cannot ignore Directives (laws) initiated by the Commission, debated and amended by the Parliament and, ultimately, signed into effect by the Council of Ministers. There are also voluntary agreements that can have some influence. So, for example:

- Social legislation on maximum working hours and other conditions of employment has a massive influence on the economics of industries dependent on drivers.
- Competition legislation is very important. The general thrust of the Commission's competition directorate general is to decrease regulation and open up markets across the EU, so that theoretically free competition can ensue, although ultimately this may mean that a small number of very large companies are able to form EU-wide oligopolistic operations (see Transport Economics and Appraisal module for definitions). Examples include the deregulation of the EU aviation industry, permitting the rise of low-cost airlines; and permitting cabotage, when a truck company from one country can operate entirely within another country.
- Environmental legislation also plays a role. For many years there have been legal standards for the local air emissions from new trucks and buses in the EU; these have gradually been made more stringent. The EU secured a voluntary agreement with car manufacturers on CO_2 emissions from new cars; as this has not been as effective as had hoped (although emissions have reduced), the EU is now considering legislation in this area.
- Safety and interoperability are areas where legislation exists. For example, high speed trains in one country should now be capable of operating on the lines of another.

In conclusion, the EU's influence is strong, and growing, over UK transport.

◣ Recommended reading

You should now read the summary of the EU White Paper available at http://ec.europa.eu/transport/white_paper/index_en.htm, and also the critique of the White Paper by van Elburg (2002), on the student webserver. An excellent critique was also conducted by the UK Parliament Select Committee on Transport; this is available at http://www.parliament.the-stationery-office.co.uk/pa/cm200102/cmselect/cmtlgr /556/55603.htm.

A new policy Green Paper is available at http://ec.europa.eu/transport/clean/green_paper_urban_transport/index_en.htm and is worth a quick read.

Take half an hour to answer in note form the following questions.

◣ Self assessment question 3.4

In what ways does the European Union influence transport legislation in the UK? What is it trying to achieve?

◣ Self assessment question 3.5

In what ways does the European Union wish to influence national transport strategies and programmes? Are national governments interested? Why or why not?

◣ Summary

There are three governmental tiers which influence and control the development of transport policy in Britain:

◣ European Union

◣ central government

◣ local government.

In the past the primary responsibility has resided with central government at Westminster, since the responsibilities of local government are defined by statute. Increasingly, the creation of a Single European Market is influencing UK legislation, particularly in operational areas such as safety and environmental standards.

With the devolution of some central-government responsibilities to the Northern Ireland Assembly, the Scottish Parliament and the Welsh Assembly, the opportunity exists for different approaches to develop in the four parts of the UK.

Answers to self assessment questions
and research exercises

Unit 1

1.1
What were the main reasons for the development of the canal system and what effect did it have on land-use development?

Outline answer
The early stages of the Industrial Revolution were led by water power. In general, the opportunities for harnessing this power were in the upland areas of the country. These areas were above the navigable reaches of rivers. The condition of roads in the late 18th century was still very poor and the horse and cart transport was slow and could only cater for relatively small loads.

The construction of canals allowed raw materials to be brought to the developing factories and finished goods to be shipped out. Inevitably, where employment developed, so too did housing. New communities developed around the new source of power.

1.2
Prior to the 20th century what taxation methods for the use of roads were used in Britain?

Outline answer
Early legislation (The Highways Act 1555) imposed a duty on parishes to maintain highways. This was enforced through fines by JPs.

In 1663 the first toll road was opened, establishing a direct payment for use of the highway.

By the early 19th century, taxation on carriages had been introduced. The charge varied according to the size of the carriage (the number of wheels).

1.3
What are the key elements of the public sector orientated approach to transport systems?

Outline answer
The public sector approach is essentially interventionist (critics would say interfering). It depends on central control and ownership to ensure the passenger and freight services that central and local government politicians believe are necessary actually run. In addition, it requires infrastructure to be owned and managed by the public sector. Licensing and regulation of services covers quantity as well as quality.

The free for all of the 1930's in bus services and the experience during the two world wars suggested that the co-ordination and control were the way forward and that the national interest would not be served by leaving transport to the market.

1.4
What are the key elements of the private sector orientated approach to transport systems?

Outline answer
The private sector approach has been described as 'laissez faire' and works on the premise that the market knows best what transport services are needed. The approach is perhaps best illustrated by the deregulation of bus services where virtually all quantity controls were abandoned. Intervention was confined to quality controls and the ability given to local authorities to subsidise services where none were provided by the market. The approach has also been applied to the ownership and operation of infrastructure with the creation of Railtrack and the use of Design Build Finance and Operate (DBFO) schemes for some trunk road schemes. In the latter case ownership has stayed with the state.

1.5
Why did the Buchanan and Beeching Reports begin to change the way in which society viewed transport?

Outline answer
Both reports highlighted the different costs of the policy choices confronting society. Buchanan brought into sharp relief the consequences for the physical and social environment of urban traffic congestion that would inevitably accompany the unrestrained use of cars. Beeching's approach to costing rail services was narrowly focused (it ignored environmental and social costs associated with increasing urban traffic congestion) and his recommendations for wholesale closures acted as a wake up call to the nation. Together these two reports ultimately prompted the 1968 Transport Act which introduced:

- ▲ the concept of subsidising unprofitable but socially necessary services

- ▲ Passenger Transport Executives and their duty to 'secure a properly integrated passenger transport system'

- ▲ recognised the need to offer an alternative to the car in major urban centres.

Unit 2

2.1
List the six environmental areas identified in Sustainable Development *which transport impacts and identify the specific targets set for CO_2 and NO_X.*

Outline answer
Sustainable Development suggests that transport impact the environment in the following ways:

1.   Climate change – transport is responsible for some 24% of CO_2.

2.   Air quality – transport is the major single contributor of pollutants such as oxides of nitrogen (NO_X), carbon monoxide (CO), smoke and tropospheric ozone.

3.   Noise – transport is identified as a major source of annoyance for over 10% of the population.

4.   Waste – 75% of used tyres (20 million) are disposed of in landfill sites each year. Oil and fuel spillage on roads is washed into natural watercourses.

5.   Aggregates – 32% of all aggregates used are for road construction or maintenance.

6.   Wildlife and countryside – land take for roads from rural uses is second only to housing. In addition many road proposals threaten Areas of Outstanding Natural Beauty and Green Belts. New roads also increase pressure for further development in rural areas.

CO_2 and NO_X targets are:

1. CO_2 target: to return total UK emissions to 1990 levels (165.7 MT) by 2000 and thereafter to contain within the range 187.2 to 232.0 MT by 2010.

2. NO_X target: to reduce total UK emissions to between 1.9 to 2.3 MT by 2000 and to 1.8 t0 2.1 MT by 2010.

2.2
What did the Conservative government believe were the essential elements of a sustainable transport policy?

Outline answer
The Conservative government of 1994 believed that it needed to provide a framework within which people could exercise their transport choice in ways which were compatible with environmental goals. To do this, the policy needed to strike a balance between serving economic development, protecting the environment and future ability to sustain quality of life. One aim was to enable people to access goods and services whilst substantially reducing the amount of movement needed to do this. Key to this would be getting price signals right and reflecting environmental and other costs in the price of transport.

2.3
Spend about half an hour setting down in note form the essential features of the six policy perspectives identified in the Royal Commission Report.

Outline answer
The six policy perspectives identified in the report are:

1.   letting congestion find its own level
2.   predict and provide
3.   greening the way we live
4.   collective action
5.   selling road space
6.   relying on technology.
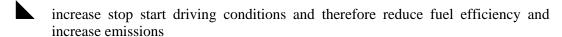
The essential features of each of these can be summarised as follows:

Letting congestion find its own level
This is based on two assumptions:

1.   congestion is inescapable
2.   it is ultimately self regulating.

Therefore if we do nothing things will not get any worse. However, experience elsewhere suggests the opposite. The commission concluded that this approach would:

▲   increase stop start driving conditions and therefore reduce fuel efficiency and increase emissions

▲   there are significant numbers of current car trips which cannot be immediately ceased or changed

▲   where buses are the main form of public transport, even the most extensive bus priority will have difficulty in protecting them from severe congestion thereby increasing the attractiveness of car travel

▲   congestion will affect emergency vehicles and essential delivery services

▲   badly congested streets are very susceptible to minor incidents causing major hold ups

▲   Self regulation is not an economically efficient method of managing road space.

Predict and provide
Throughout the 1970's and 1980's conventional wisdom dictated that, particularly for interurban roads, improvements and replacements to the network were designed to meet forecast traffic levels. Many people who opposed this approach claimed that this was a 'self fulfilling' prophecy since the existence of new or improved traffic generated new or longer journeys. Certainly, the opening of the M25 offered a whole range of new employment opportunities to people who had previously only considered jobs in a radial corridor into and out of London.

The Standing Advisory Committee on Trunk Road Appraisal (SACTRA) report on generated traffic added weight to the argument. However, perhaps more critically, the realization that the cost of continuing the predict and provide approach was unsustainable, led to a rethink on this approach.

Greening the way we live
This approach requires a complete change to current life styles and would require a reversal of the trends of the past half-century:

◤ Higher than average increases in the numbers of people over 16 years of age and the increasing tendency for older people to remain active longer.

◤ Increasing car ownership amongst women.

◤ Decentralization of work and shift from large scale manufacturing to smaller scale service industries.

◤ Increased use of nursery and child care facilities by working mothers with children being dropped off by their parents on the way to work.

◤ Increasing development of out of town shopping and entertainment centres.

Creation of self-contained sustainable communities would reduce the need for motorized travel.

Collective Action
This approach advocates the creation of public transport systems that will meet the needs for travel that cannot be satisfied by walking or cycling. The emphasis is on the role of the community in ensuring the provision of an attractive public transport system. This includes the use of traffic regulation and control to ensure that public transport is allowed to operate efficiently, effective marketing and promotion of public transport, co-ordination between operators and curbs being put on the use of cars.

Selling Road Space
This approach starts from the premise that road space is just another commodity and should be subject to normal market forces. When demand for road space is high the cost of using it should also be high (to suppress demand). Road Pricing was also originally advocated as a means for identifying where demand was greatest and, therefore, where investment was most needed. In recent times it has been 're-badged' as congestion charging and is being actively investigated and developed by the Mayor in London and in Edinburgh and Leeds. In these case it is seen as a means of suppressing demand and raising revenue to fund improvements in public transport. Unit 12 deals in depth with this subject.

Relying on technology
The final perspective looks at the opportunities for technological advances to resolve the problems. There are three broad categories:

1.   The emergence of a new mode of transport that will replace current modes.

2.   The development of telecommunications that result in a reduction in demand for travel.

3.   Advances in technology that render current modes of travel less damaging to the environment.

Footnote
You should have also noted that the general conclusion to Chapter 6 was that perspectives 1 and 2 were discredited and that all the other four had a contribution to make. In other words, there is no single fix for the problem.

Unit 3

3.1
How is local government structured in England, Scotland and Wales, and what are the main responsibilities of each tier of local government?

Outline answer
In England outside London there is a mixed system of single and two tiers of local government. All the metropolitan areas have unitary authorities:
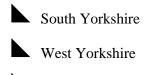
▰   West Midlands

▰   Greater Manchester

▰   Merseyside

▰ South Yorkshire

▰ West Yorkshire

▰ Tyne and Wear.

In most other parts of the country a two-tier system of counties and districts applies. Exceptions to this include Berkshire and Avon, where the former counties have been scrapped and unitaries replace them. In addition, a number of larger towns and cities have been established as unitaries with the remainder of the county maintaining a two-tier system. Examples of these are:

▰ Derby (Derbyshire)

▰ Leicester (Leicestershire)

▰ Telford and Wrekin (Shropshire)

▰ York (North Yorkshire).

In Scotland and Wales the reorganisations of 1996 created a uniform pattern of unitary authorities. However in Scotland there is also a PTE in the greater Glasgow area.

In two-tier areas the split of responsibility as it affects transport matters is as follows:

County	District
County roads	Minor roads (under Agency)
Local Transport Plans	Parking
Structure plans	Local plans
Public transport co-ordination	Development control
	Concessionary fares
Economic development	Economic development

In unitary authorities all these functions are exercised by the same authority. However, in some unitary authorities they produce a unitary development plan rather than a structure plan and local plans. We will be discussing the detail of this in Unit 4.

3.2
Which central government departments and bodies have an influence over transport costs?

Outline answer

▰ The Department for Transport, and the Department for Communities, oversees Planning and Transportation and Local government particularly in England. It also manages the trunk-road network, through the Highways Agency, in England. In areas such as railways, vehicle and driver licensing and standards, maritime and coastguard matters it operates across the whole of Britain. The DfT and Department for Communities also sponsor in excess of 50 nationalised industries and public bodies. These include British Waterways, the Royal Commission on Environmental Pollution (RCEP), the Disabled Persons' Transport Advisory Committee (DPTAC) and the Standing Committee on Trunk Road Assessment (SACTRA). Environmental Protection is the responsibility of DEFRA in England.

▰ The Department of Trade and Industry regulates and sponsors vehicle manufacturers (this includes emission standards). It has responsibility for the Office of Fair trading and can therefore influence competition issues within the privatised public transport industry.

▰ The Home Office is responsible for policing and the operation of radio frequencies. Lack of effective enforcement of parking and other traffic regulations has, in the past, led to an undermining of the effectiveness of transport plans. Decriminalisation of parking is one solution to this.

▰ The Treasury exerts enormous influence over transport through the tax system. Taxation such as fuel tax (and rebates for public transport operation), taxation on company cars and Vehicle Excise Duty (VED) can impact on demand for transport. Just as important is the Treasury's influence over capital investment and local authority spending plans.

▰ The Cabinet Office co-ordinates policy between departments and has been at the forefront of initiatives such as privatisation and the establishment of Executive Agencies.

To these, we need to add:

▰ Scottish Executive

▰ Welsh Executive

▰ Northern Ireland Executive.

These exercise many of the powers of the English ministries in their countries. In addition, of course, the Scottish Parliament is a legislative body and in 2001 passed its own Transport Act.

3.3

What are the implications for transport planning of the local government reorganisations of the 1990s? How relatively important are these structures compared to other constraints on transport policy delivery?

Outline answer
The creation of unitary authorities in a number of areas has reduced the possibility of conflict between the two tiers of local government where functions overlapped. (See the chart in the answer to self assessment question 3.1.) However, the size of the unitary authorities are such that their sphere of influence, in transport terms, is much wider than their geographic boundaries. In Scotland, this problem is being addressed by the creation of regional transport partnerships and by adopting a regional framework for Structure Plans. In England, Regional Spatial Strategies have been developed to set a framework. This move towards regionalisation is likely to assist transport planning in that transport does not respect restricted local boundaries, and so it is generally acknowledged to be helpful if it is possible to plan regionally. However, as we will see in Study Guide 2, there are many other powers that may be required if implementation is to occur; simply having regional bodies that are in most respects relatively powerless may not achieve that much.

3.4
In what ways has the European Union influenced transport legislation in the UK?

Outline answer
European Legislation has had a significant impact on the way in which commercial traffic is operated. The Single Market requires equality of standards for freight hauliers and this has resulted in a range of unifying measures to ensure fair competition, including:

- Lorry and Coach Drivers Hours

- Vehicle Construction Standards

- Lorry Weights

- Vehicle Emission Standards.

The overall aim of such legislation is to create a single market for goods and services within which companies from one member state can operate, without barriers, right across the Union.

3.5
In what ways does the European Union wish to influence national transport strategies and programmes? Are national governments interested? Why or why not?

The EU has probably had a greater impact on Transport Policy in the UK through its various funding programmes and through the identification of Trans European Networks. The availability of additional funds for particular projects, or particular types of projects, has certainly been instrumental in encouraging local authorities to adopt more environmentally minded transport programmes. The significant sums of money available through funds such as the European Regional Development Fund (ERDF) were conditional upon schemes satisfying European guidelines on environmental sustainability and developing access to job

opportunities and markets.

The European White Paper 2010 Time to Decide sets out a number of policy aspirations, many of which relate to powers that are largely retained at the member state level, whilst failing to make meaningful statements related to the powers that the EU does possess, for example over vehicle design. Member states may well be at odds with the policies set out in the document.

MSc in Transport Planning & Engineering

Transport Policy
Study Guide 2: Policy Framework

NAPIER UNIVERSITY
EDINBURGH

School of Built
Environment

Study Guide 2: Policy framework

Introduction

This is the second study guide of the Transport Policy Module and covers:

Policy framework
There are five units, the first of which (Unit 4) looks at the relevant legislation, both European and national, that impacts the provision, planning and operation of transport in the UK. It also looks at the land-use planning framework. (The way in which land-use planning and transport interact is dealt with in a later unit.) In Unit 5 we look at the way in which transport and transport infrastructure is planned, managed, operated and funded in the UK. We look, in particular at the way in which the operation of the national rail network has been transformed in recent years by the last government's privatising legislation. Then in Unit 6 we build on our historical review in Units 1 and 2, by looking in more detail at the evolution of transport policy since the 1963 Buchanan Report. In Unit 7 we review the evolution of UK government transport policy since 1997. Finally, in Unit 8 – recognising that much of the emphasis elsewhere in the module is on passenger transport – we examine in detail the government's approach to freight transport and the opportunities for the transfer of road freight to rail.

How to use this study guide

This study guide is exactly what the name implies – it is to guide you through the study of this module. For this particular module – Transport Policy – there are four study guides in all, covering 15 separate units. It should take you about 130 hours to work through this module. But that is not the time taken just to read it, it also includes the time taken to read the recommended supporting texts like *A New Deal for Transport?*. It also assumes that you will want to make your own notes as you go through and allows time for you to complete all the activities included within the text.

Signposts and activities

As you work your way through this study guide you will come across a variety of signposts. These are used to flag particular activities that you will need to do.

◣ Activity

This is where I will ask you to undertake a specific activity, usually at several points during a unit. Activities may include retrieving information or finding out facts yourself. This is something only you can do and so there are no set answers to activities in the study material, although your course tutors will be able to give some suggestions to you.

◣ Assignment

As part of the assessment for this module, an assignment is included. This will enable you to add breadth or depth to the knowledge acquired during your study of the module.

◣ Case study

I have included case studies at appropriate points throughout the module to illustrate the application of some of the policy tools discussed.

◣ Learning outcome

Learning Outcomes list the expected results which you should be able to achieve after studying the module and each specific unit.

◣ Recommended reading

Whilst the study guides cover all aspects of this module, your understanding of transport policy issues will be considerably enhanced by reading widely from the reading list. However, the recommended reading items are musts.

◣ Self assessment questions

These are particularly useful activities, providing you with an opportunity to apply your new knowledge and compare your answer with those provided in the study material (at the back of each study guide). Don't be tempted to skip these or look up the answers without first attempting the question. They have been designed to help you progress through the course and you may find it more difficult in the long run if you have not given yourself the

opportunity to apply your knowledge and test your understanding. You will find the answer will often provide an explanation which will help you to understand where your response may be wrong. Space has been left in the text for you to insert your answer. This can be a very useful aid to revision in the future.

◣ Research exercise

I have included a number of research exercises as an alternative to self assessment questions. They aim to develop your research skills and to give yourself an opportunity to develop your understanding of the underlying issues and your own views on transport policy. Always remember that in an area such as transport policy there are rarely right answers. Much of what we will be discussing will not be simple black and white matters of fact: it is very much the shades of grey. What is important is that you understand the issues and can produce evidence to support your views.

◣ Summary

A summary will be provided at the end of each unit. This will cover the main points and allow you to check whether you are conversant with all the topics covered.

◣ WWW search

At particular points during the text, reference will be made to information which can be accessed through the World Wide Web (WWW). Please bear in mind that material can become out of date quite quickly, especially in a rapidly changing policy environment, so always check it against reliable sources and try and verify it. It is, however, a useful way to access publications and information from government and other transport specialists.

Some websites will make documents available in portable document format (pdf); to read these documents you need to install Adobe Acrobat Reader which is available free from most of the websites that offer this option.

Unit 4: Relevant legislation and the planning framework

Introduction

In the previous units we have looked at the way in which:

▶ transport has developed through history and how it relates to land-use development

▶ the nature and scale of the problems which face us in searching for sustainable development

▶ the government structures and the split of responsibilities for planning and managing transport.

This unit is going to look in more detail at the framework within which transport policy makers work. That framework is influenced by international agreements (such as those struck at the Rio and Kyoto Summits) and European legislation, directives and programmes. These will, increasingly, be reflected in UK legislation and policy-making guidance.

Before we start, however, I would like to remind you (should that be necessary) that transport provides the means of getting from one place to another. It very rarely has any real value in itself. Being mobile allows us to access a range of activities from which we can get some value. The debate on transport sometimes forgets this fundamental point – our needs are satisfied by having access to facilities or activities which cater for those needs. Transport just connects us from where we are to where we want to be. The rise of the car has created the perception that we can place our activities wherever we want, because the car's inherent flexibility makes all sites accessible. Indeed one of the major considerations for determining the siting of many out of town shopping centres used to be the number of car-owning households within 10 or 20 minutes' drive of the site. Very little consideration used to be given to issues such as the needs of those without access to a car. Current planning guidance presumes against this sort of approach and rightly recognises the need to consider land use and transport together. In keeping with this, this unit will set out the town and country planning framework as well as the narrower transport planning aspects.

◣ Learning outcomes

Once you have worked your way through this unit, including the self assessment questions, you should be able to:

◣ list the main legislative measures which influence the ability of the various levels of government to control transport in the UK and Europe

◣ summarise their scope.

Background

The Planning System in the UK, and the Transport Planning System within it, is defined by a vast array of statutes, rules, regulations, guidance and sundry other documentation. These provide the formal definition of the system but the way in which it operates is influenced by the people operating the system and by a range of external influences. For example, all local authorities in Great Britain operate under essentially the same body of planning and transport legislation and central government guidance, but the transport strategies of similar types of local authority can vary quite dramatically. This can be the result of different political priorities or different cultural values. So that different approaches to policy formulation can result without any change to the formal framework.

Equally, wholesale changes in legislation do not necessarily bring about major changes in the operation of the system if that legislation is responding to and reflecting current practice. For instance, the cynic in me might argue that a large part of the Labour government's 1998 White Paper on Integrated Transport was a repackaging of good practice. Indeed, the White Paper made a virtue out of including examples of good practice to illustrate the value of the policy measure. So, whilst primary legislation is important in changing the way in which we operate, lower level measures such as planning guidelines and advisory notes provide a very flexible means of changing the development and implementation of policy.

The European dimension

In Unit 3 we saw how the development of a transport policy within the European Union (EU) had had a slow start. However, gradually in recent years harmonisation of legislation and regulations has been achieved to assist the policy of freedom of movement across the whole of the Union's geographic area. With this has come the implementation of a Regional Development Strategy (with funding to support it – ERDF) and the creation of Trans-European Transport Networks (TENs). This supra national planning framework has influenced and is continuing to influence the development of policy in the UK in a number of ways:

▰ Harmonisation of legislation and regulations requires all the member states to incorporate the measures into their own national legislation.

▰ Revised UK legislation and regulations change the way in which UK policy is developed and applied at national, regional and local level.

▰ The availability of substantial funds through the European Regional Development Fund (ERDF) has encouraged significant investment in transport infrastructure in many of the less buoyant economic regions of the UK.

▰ The designation of a Trans-European Transport Network is attempting to ensure that all parts of the Union's area have ease of access to each other. (A pre-requisite for a common market.)

▰ European Spatial Development Perspective (ESDP) is a non-statutory EU-scale planning policy document. It is a marker that the EU believes that land-use planning, as something that affects the operation of the single market, is something in which the Commission should play some role. As with many EU policies, the relative role of the Commission versus member states continues to be negotiated.

Instruments of transport policy

▰ **Legislation:** most directives and regulations aim at the harmonisation of fiscal, technical and social provisions in member states which affect competition between companies in the transport sector.

▰ **Guidelines:** these are detailed maps which present the 'missing link', cross-border projects needed to achieve the Trans-European Transport Network by joining up national infrastructures for road, rail, air, sea and inland waterway transport.

▰ **Research and Technical Development (RTD):** major programmes focus on applying new digital information technologies to road, rail, air and sea traffic management to make travel safer, easier and less environmentally polluting. Other RTD areas include materials technologies, energy efficiency, electric vehicles research and 'black boxes' for ships as well as aircraft.

▰ **Financing:** funding of transport projects via the European Regional Development Fund and – through the Cohesion Fund – additional funds are available for Spain, Portugal, Greece and Ireland.

▰ **The European Investment Bank** provides low interest loans for large Trans-European Networks (TENs) while loan guarantees are available from the European Investment Fund.

The European Structural Funds
With the aim of adapting the Treaty of Rome to the Community of the 1980s, the Single European Act which came into force in 1987 brought together all the elements of the policy of economic and social cohesion. The policy required the member states to 'conduct their economic policies … and co-ordinate them in such a way as … to attain the objectives set out in Article 130a'. Implementation of the policy aimed to ensure the structural adjustment of regions whose development is lagging behind and the conversion of declining industrial areas. The means of implementation was through the European Structural Funds and the European Investment Bank. From a planning and transportation viewpoint, the most significant of these funds is the European Regional Development Fund (ERDF). Throughout the 1980s and 1990s it helped central and local government to fund significant transportation infrastructure investments in struggling regional economies such as the Highlands and Islands; central Scotland; southern Scotland; Merseyside; Wales; the north-east and north-west of England.

The influence of these European Structural Funds on national and local transport policy should not be underestimated. Initially, ERDF funding of 50% of the eligible costs of schemes was available. Consequently, the inclusion of ERDF-funded schemes in a council's Transport Policies and Programmes (TPP (the 1990s equivalent of an LTS/LTP)) submission meant that significant increases in spending on transport could be afforded at a time when central government was continually reducing, in real terms, the level of funding allocated for transport. The quid pro quo was, of course, that for a scheme to be eligible it had to satisfy a range of European criteria. Equally, at central government level, the inclusion of some trunk roads in the Trans-European Transport Network could change the priority of some improvement schemes if they attracted ERDF funding.

In general, ERDF programmes sought to improve conditions for growth and employment in the under-performing regions. Efficient transport networks and systems were seen to have an important role to play in supporting economic development. Initially to be eligible, investments had to show that they would reduce transport costs, congestion and travel times, and improve network capacity, performance and service quality (including safety). As attitudes shifted over time so did the criteria. In recent years the key criteria have been:

> **Efficiency**: not just modernising and upgrading infrastructure but also emphasising better management of the networks, through use of Intelligent Transport Systems and Integration between Modes.

> **Modal balance**: this sought to redress the balance of too much investment in roads in the early years of the programme and to focus more on more local schemes rather major schemes. In general priority for the development of coherent inter-modal and combined transport systems, including the development of transfer nodes was signalled.

> **Accessibility**: As well as focusing on the access needs of people with mobility difficulties, the need to complete the TENs network and secondary connections to it was stressed.

► **Sustainability**: member states' strategies for achieving sustainable transport systems needed to demonstrate the reduction in environmental impact and a shift to more sustainable forms of transport. In particular, programmes need to be consistent with the Community's commitment to reduce greenhouse gas emissions.

With the approach of the millennium, the Commission under (at that time) President Jacques Santer presented the European Parliament with a detailed strategy for strengthening and widening the European Union – Agenda 2000. At its heart was a strategy for strengthening growth, competitiveness and employment, for modernising key policies and for extending the Union's borders through enlargement. In presenting Agenda 2000 to the Parliament, Jacques Santer explained that the objectives were closely linked: 'We cannot think of pursuing agricultural reforms or the reforms of structural policies without at the same time taking into account enlargement and the financial constraints.'

Agenda 2000 resulted in the accession of ten new states into the EU in 2004. The majority of these are in central and eastern Europe, and they are on a per-capita GDP basis far less well-off than the UK. The implications for EU-funded transport infrastructure programmes in the UK (and therefore policy) are significant. The current seven objectives of Article 130a are to be reduced to three. This will mean that the Structural Funds will in the future be targeted at:

► regions whose development is lagging behind

► areas undergoing economic and social conversion

► the development of human resources.

Whilst this simplification is in itself not particularly significant for the allocation of funds, the enlargement of the community to include many of the eastern European countries will be. Whilst many parts of the UK have been able to qualify as 'regions whose development is lagging behind' or 'areas undergoing economic and social conversion' over the past 20 years, enlargement will rapidly change that. The per capita incomes of the applicant countries are only one-third of the Union's average, and whilst the reallocation of funding will be phased over ten or more years, increasingly the UK's regions will benefit less from this source of funding. In addition, the bulk of funding is concentrated in what are called "Objective 1" areas (i.e. those that are lagging behind the most). Due to relative economic development in the UK over the past 10 years, the number of Objective 1 areas has been reduced dramatically and is now limited to South Yorkshire, Merseyside, Cornwall, West Wales, and the Valleys (also in Wales). There are now no longer Objective 1 areas in Scotland, since the Highlands and Islands lost this status in 1999. Industrialised Scotland has benefited from Objective 2 funding – see http://www.cec.org.uk/info/pubs/regional/sc/chap3p1.htm for more details - but on a per-head basis this is worth less than Objective 1.

More information about EU transport policies, and the EU in general, can be found at http://www.europarl.eu.int/factsheets/default_en.htm. The style of these factsheets is rather legalistic but they are at least mercifully short, and quite informative.

Trans-European Transport Networks (TENs)
The individual member states of the EU continue to spend large sums on developing their transport infrastructures, although the total is a lower share of their national incomes than 15 years ago. Because much of this investment has been aligned to national needs and priorities, from a European perspective the network is more of a patchwork with many missing rail, road and waterway links.

Europe's patchwork features railways with incompatible power and signalling systems, air services that are managed by 52 air-traffic control centres with 20 different operating systems and 70 computer-programming languages, and motorways that come to an abrupt end at frontiers.

The aim of the TENs policy is to transform the 15 networks into a single network of European dimension integrating remote and outlying regions of the Community and, progressively, linking with the EFTA countries and other parts of Europe. It is intended that TENs will:

- **create** a more vigorous, competitive economy capable of generating many more new jobs

- **embody** the concept of sustainable mobility by improving the quality of today's environment and preserving tomorrow's natural resources without sacrificing today's economic growth

- **guarantee** higher personal safety and a decline in traffic congestion and pollution

- **offer** travellers and goods a wider choice of transport means and deliver them to their destinations more quickly

- **establish** better connections between regions on the periphery of the Union and those at its centre

- **include** links with partner countries in central and eastern Europe moving towards membership of the Union.

The European Commission has prepared a TENs design which it estimates will cost around ECU 400 billion to make a reality by 2010. All of the projects in the design have been approved by the member states concerned and several are already underway. But many more are still at the planning stage. Financing is a problem given the very large sums involved so opportunities for attracting private are being investigated.

The Commission's proposal envisages: 70,000 km of rail track, including 22,000 km of new and upgraded track for high-speed trains; 15,000 km of new roads, nearly half in regions on the outskirts of the Union, to complete a 58,000 km network; combined transport corridors and terminals; 267 airports of common interest and networks of inland waterways and sea ports.

Since they need final approval by the other legislative institutions, the list of projects could be altered by the Council of Ministers and the European Parliament. All must be positively assessed for their impact on the environment before they can go ahead.

The schemes are designed to integrate the Community's transport networks. They will give Europe an operating network of high-speed trains, much more efficient air-traffic control systems, airports and ports which connect well with the territories they serve, motorways in regions which have few or none at all, and some new and redeveloped inland waterways. State-of-the-art transport telematics are woven into the network to ensure the best possible use of its capacity. The network aims to encourage the transfer of passengers and goods from road-based transport.

For a critical analysis of the TENs and the way in which they have been used both by the Commission and by member states, see Wixey (2002, enclosed with your study pack or on the student webserver).

The UK planning system

Planning has a critical role to play in shaping our communities and our country. It requires a number of different partners to work closely together. The government is responsible for national legislation and guidance and, in England, regional guidance. Local Planning Authorities produce development plans and take local planning decisions, and in England assist with the production of regional guidance.

Current planning legislation and responsibilities

The Planning Framework is provided by primary and secondary legislation, and through local authority statutory development plans. A synopsis of the primary legislation (the Acts of Parliament) and secondary legislation (Statutory Instruments such as Orders made by the Secretary of State) is shown below for the individual countries of the UK. The planning system in England has changed considerably recently (2004) – a very good guide is provided at http://www.planninghelp.org.uk/learn-about-the-planning-system/.   In Scotland, similar changes were made in 2006 with the Planning Act (Scotland) - see http://www.scotland.gov.uk/Publications/2007/03/07131521/1.

Legislation in England:

- Town and Country Planning Act 1990

- Planning and Compulsory Purchase Act 2004

- Planning (Listed Buildings and Conservation Areas) Act 1990

- Town and Country Planning (General Development Procedure) Order 1995

- Town and Country Planning (General Permitted Development) Order 1995

- Town and Country Planning (Uses Classes) Order 1987.

In Northern Ireland:

- The Planning (Northern Ireland) Order 1991 under the Northern Ireland Act 1974

- Planning (Uses Classes) Order (Northern Ireland) 1989

- Planning (General Development) Order (Northern Ireland) 1993

In Scotland:

- Town and Country Planning (Scotland) Act 1997

- Town and Country Planning (General Permitted Development) (Scotland) Order 1992

▲ Town and Country Planning (Uses Classes) (Scotland) Order 1989.

In Wales:

▲ Town and Country Planning Act 1990

▲ Town and Country Planning (General Development Procedure) Order 1996

▲ Town and Country Planning (General Permitted Development) Order 1996

▲ Town and Country Planning (Uses Classes) Order 1992.

Legislative measure	Responsibility
Primary legislation Town and Country Planning Acts	**UK Parliament** for England, Northern Ireland and Wales Scottish Parliament for Scotland
Secondary legislation eg Orders **Circulars** Further explanation of procedures **Planning policy guidance and advice notes**	**Secretary of State DCLG** for England Scottish Minister for Scotland Welsh Assembly for Wales Northern Ireland Assembly for Northern Ireland
Development plans Regional Spatial Strategies and Local Development Frameworks (England) Structure Plans/Local Plans (Scotland) Subject Plans (minerals, waste)	**Local authorities/Regional Assemblies** in England, Scotland and Wales Planning Services Executive Agency in Northern Ireland

Figure 4.1 UK planning framework (see also Table 3.3)

Responsibility for the legislation and development planning process is summarised in Figure 4.1 above. In simple terms, central government creates the primary legislation (the Acts). For

England and Wales this is done at Westminster; for Scotland at the Scottish Parliament; and for Northern Ireland at its Assembly.

Secondary Legislation, Guidance and Advice is then issued (under powers granted by the Acts) by the Office of the Deputy Prime Minister in England; by the appropriate Scottish Minister in Scotland; by the Welsh Assembly in Wales; and by the Northern Ireland Assembly in Northern Ireland.

Reading exercise

The various development plans which provide the framework within which planning decisions are taken are produced by the appropriate local authority. Familiarise yourself with the way in which the planning system works within the context of these plans by taking 30 minutes to go through the information provided at http://www.planninghelp.org.uk/learn-about-the-planning-system/.

The national perspective
There is no national planning undertaken in the sense that government produces a plan for the country. National legislation provides the basis for local authorities to work within. However, increasingly central government has moved to co-ordinate and direct development planning at the local level by the introduction of national planning guidance. Introduced initially in Scotland, the principle is now firmly established across the UK that planning at a local level should comply with nationally set guidance. In England, the role of regional guidance is also becoming increasingly important; the Regional Spatial Strategy is now a statutory (legally required) document.

Today, it is an essential part of the preparation of a development plan that the authority is able to demonstrate that the policies it is proposing comply with national guidance. Indeed, non compliance with national policy can be a reason for refusing planning consent for an application that otherwise is in accordance with the development plan.

Probably the area where national guidance has been used to shift the emphasis of planning practice has been in the area of sustainability. During the 1980s the Conservative government, under a succession of Secretaries of State for the Environment, pursued policies which essentially let the market have its head. This led to a rush for residential and retail development which were facilitated by car use. Concerns mounted over the proliferation of out-of-town shopping centres and the impact they had on existing town centres. In addition, there was the growing realisation that unrestricted car use was not sustainable, and developers also lobbied for a more certain framework. Eventually, the Department of the Environment started to change policy guidance. Significantly for us with our prime interest in transport, it was the revision of Policy Planning Guidance 13 (PPG13) on Transport that marked a sea change. The new PPG 13 *Transport* replaced a previous 1988 version called *Highway Considerations and Development Control.* It marked a move away from requiring developers to provide highway and traffic facilities to meet the projected traffic impact of their development, to a consideration of the locational policies that could lead to a significant change in travel choices.

The regional perspective

In England, regional assemblies in each region are required to work with each other, with the Development Agency and the Government Office to produce the Regional Spatial Strategy (RSS). The assemblies were originally to be elected, but are now simply made up of elected councillors from County and Unitary authorities within the region, with staff seconded from Counties working for them. As noted earlier, they are about to be abolished and their role will be taken over by appointed Regional Development Agencies. This is likely to increase the prominence given to economic development in these documents.

The RSS is a statutory document and attempts to provide guidance on matters such as the total number of new houses required in a region; the main transport developments and how land use should relate to these (and vice versa); and key foci for development. It can be a material consideration in development control decisions. For a sample RSS, have a look at www.wmra.gov.uk.

Development planning
Detailed local planning policy used to justify development control decisions on actual planning cases e.g. a new shopping centre is prepared by Unitary and District authorities as a Local Development Framework (LDF). Refer to http://www.planninghelp.org.uk/learn-about-the-planning-system/ for more on LDFs. Preparation of RSSs and LDFs is defined in statute and requires formal consultation and discussion of the proposals.

Government changes to the planning system

The changes in to the planning system brought about by the Planning and Compulsory Purchase Act 2004 were significant. This legislation radically reformed the statutory plans ("the development plan") that formed the backbone of our planning system up until then – although it will not affect, in most areas, the principle that development must in general conform with the development plan. The reasons that the Government made such radical reforms are as follows:

- The planning system was complicated, given the number of plans and pieces of guidance that have bearing on a planning decision.
- Decision-making on individual planning applications was slow and the outcome un-predictable.
- Plans took years to update.
- Community engagement, though extensive was, in the Government's view, ineffective.
- Section 106 planning obligations (Section 75 agreements in Scotland) take a long time to negotiate and were inconsistent from development to development in the contributions to transport and other community infrastructure and services that developers were asked to provide.

Therefore, the Act:

- Made Regional Planning Guidance statutory and called it a Regional Spatial Strategy (RSS).
- Abolished Structure Plans (statutory regional plans but ones that covered a smaller area than RSS).
- Abolished Local Plans and replaced them with rather more general, strategic Local Development Frameworks (LDFs) encompassing the Authority's statement of core planning and related objectives, which would be applied throughout the area to the control of development. This would also include a statement of Community Involvement.
- Allowed the declaration of certain zones where planning permission is not required.
- In most cases, replace negotiated developer contributions in planning agreements with a standard levy on new development to fund local infrastructure and services that are required as a result of the new development.

For more details of these changes, refer to:

http://www.communities.gov.uk/index.asp?id=1143108

The justifications of and the planned changes in Scotland are similar to those in England.

In England, yet another Planning Act is in preparation. According to the website, this will introduce:

"a new system for approving major infrastructure of national importance, such as harbours and waste facilities, and replaces current regimes under several pieces of legislation. The objective is to streamline these decisions and avoid long public inquiries.

Key areas

- Decisions would be taken by a new Infrastructure Planning Commission (IPC)
- Decisions would be based on new national policy statements
- The hearing and decision-making process by the Commission would be timetabled
- The new regime would be used for energy developments like nuclear power
- The Secretary of State would no longer have the final say on major infrastructure decisions
- There would be a new Community Infrastructure Levy on developments to finance infrastructure. The idea of this would be to raise money from developers to pay for facilities needed as a consequence of new developments, such as schools, hospitals and sewage plants.
- Planning appeals for minor developments would be heard by a panel of local councillors rather than by a planning inspector."

See http://services.parliament.uk/bills/2007-08/planning.html for more details. The Bill has been attacked because it will reduce local people's right to object to major schemes and because the IPC will be appointed and therefore lack democratic accountability.

A further key criticism is that, for all this planning legislation, England still lacks any kind of national spatial plan; nor is there a national transport plan. In the Netherlands, to take one example, national transport and spatial plans have been produced every five years, for several decades now.
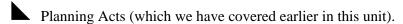
▲ Recommended reading

To understand more fully the processes involved in the UK Planning System you should now read:

Barry Cullingworth and Vincent Nadin (1997) *Town and Country Planning in the UK* (Routledge) (Chapters 4 and 5).

The transport planning system in the UK

The framework which defines the way in which transport responsibilities are distributed and managed are contained in a range of Acts of Parliament, statutory regulations, guidance notes and circulars. Again, whilst detailed arrangements vary between the countries of the UK the general framework is similar. The primary legislation (Acts of Parliament) can be considered under a number of broad headings:

> ▲ Planning Acts (which we have covered earlier in this unit).

> ▲ Local Government Acts define local authority boundaries, legal and financial powers, functions.

> ▲ Highways Acts (Roads Acts in Scotland) define the basis on which those who have a responsibility for constructing, maintaining and administering roads can operate.

> ▲ Road Traffic Acts – these primarily deal with the management of the use of roads. This includes the licensing of vehicles and drivers; road safety; traffic management; parking; and, recently, traffic reduction.

> ▲ Transport Acts – in recent history Transport Acts have been introduced where a range of modes or activities are involved.

> ▲ Acts dealing with specific modes (eg Railway Acts, Ports Acts).
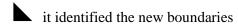
> ▲ Acts which impact on the functioning of the transport (devolution, health and safety).

Some of the legislation is of a more fundamental nature than others (which tend just to modify previous statutes). An example of this would be the 1968 Transport Act, which among other

things established the Passenger Transport Authorities and Executives. Although there have been a number of Local Government Acts and Transport Acts since then, many of the functions of PTA/PTEs are referenced to the 1968 Act as modified.

Local Government Acts

The 1972 Local Government Act in England and Wales established the two-tier system of local government in those countries. Some of the main elements of the Act were:

- it identified the new boundaries

- designated the counties as the prime highway authority (although districts in England could retain some responsibility (under agency arrangement) for maintenance, traffic management and parking

- municipal bus operations remained with district councils but it made the Metropolitan Counties the Passenger Transport Authority for their area

- counties given duty to co-ordinate public transport

- local authorities empowered to subsidise public transport.

This Act was subsequently modified by:

- the abolition of the Greater London Council (GLC) and the Met Counties

- creation of some other unitary authorities in England

- 1994 Local Government (Wales) Act created Unitaries throughout Wales.

The 1973 Local Government (Scotland) Act created a two-tier system (Regions and Districts) with similar functions to Counties and Districts in England and Wales. Three Unitary Authorities were created for the islands areas. Significant differences were:

- the regions were the roads authorities with no agency arrangement with the districts

- Strathclyde Region became the PTA for the Greater Glasgow Area (a smaller geographical area)
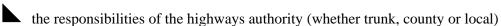
- ownership of the municipal bus operations passed to the regions.

The 1994 Local Government etc. Act (Scotland) modified this Act by introducing Unitary Authorities across the whole of Scotland.

The implications for transport planning of these changes to local government structures will be examined at the end of this unit, but is also examined in Unit 3.

Highways (Roads) Acts
The first modern Highways Act was in 1959 and this was updated by the 1980 Highways Act. This defines:

- the responsibilities of the highways authority (whether trunk, county or local)

- ownership of land over which the highway passes

- powers to create a highway (including land acquisition)

- procedures for adopting new roads.

The 1991 New Roads and Street Works Act applies to the whole of Great Britain and provides:
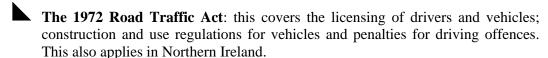
- powers to create privately funded toll roads

- reformed procedures for controlling access by Statutory Undertakers to their plant located in the highway.

In Scotland, the 1984 Roads (Scotland) Act has similar scope to the 1980 Highways (Act).

Road Traffic Acts
Road Traffic Acts are primarily concerned with the management of activity on the public highway. The most significant pieces of legislation, which apply across the whole of Great Britain, are:

- **The 1972 Road Traffic Act**: this covers the licensing of drivers and vehicles; construction and use regulations for vehicles and penalties for driving offences. This also applies in Northern Ireland.

- **The 1974 Road Traffic Act**: introduced the duty for local authorities to maintain records of road accidents and promote road safety.

- **The 1984 Road Traffic Regulation Act**: includes many of the powers used by local authorities to implement traffic management measures. Associated with this Act are a range of Orders, made by the relevant Secretary of State, which provide the necessary regulations for implementing these powers.

- **The 1991 Road Traffic Act**: transferred the management of on-street parking in London from the police to the London Boroughs and, with the approval of the relevant Secretary of State, authorities in the rest of the UK can obtain the same powers. In addition, it made amendments to some driving offence definitions and penalties.

▲ **The 1992 Traffic Calming Act** (and subsequent regulations amending it). Sets out the rules under which local authorities can install traffic calming measures to reduce speeds and improve road safety on local roads.

▲ **The 1997 Road Traffic Reduction Act**: this obliges local authorities to undertake a review of existing and forecast levels of traffic on local roads in their area and to prepare a report. The report should contain targets for reducing either existing traffic levels of their rate of growth; or should state why the local authority considers it inappropriate to do so.

▲ **The 2004 Traffic Management Act (England and Wales)**: this changes responsibilities for managing traffic incidents and enforcing certain traffic related offences such as driving in bus lanes, blocking junctions etc. It also gives local authorities more powers over utility companies when they need to dig up the road. For more information see http://www.dft.gov.uk/stellent/groups/dft_roads/documents/divisionhomepage/03 2064.hcsp.

Transport Acts
The Transport Acts are primarily concerned with the organisation of transport services. The most significant of these have been:

▲ **The 1947 Transport Act**: this Act created the British Transport Commission (with a remit to provide a 'properly integrated system of public inland transport') and nationalised large parts of the transport industry in the UK.

▲ **The 1953 Transport Act**: this de-nationalised the long-distance road-haulage industry.

▲ **The 1962 Transport Act** abolished the British Transport Commission but retained in public ownership the railways, docks, canals, non-municipal bus services and London Transport. It also set in place the review of the railways under Dr Beeching.

▲ **The 1968 Transport Act** created Passenger Transport Authorities and Executives with a duty to 'promote the provision of a properly integrated system of public passenger transport'. Their powers included the ability to agree the specification of and subsidise rail services in their area; and own, operate and subsidise bus services. Seven PTAs were established around Leeds, Sheffield, Manchester, Newcastle, Liverpool, Glasgow and Birmingham. In addition, the Act endeavoured to put the railways on a commercial footing by agreed subsidies for unremunerative service outside the PTA areas. The National Bus Company and the Scottish Transport Group were set up.

▲ **The 1980 Transport Act** deregulated long-distance coach services.

▲ **The 1985 Transport Act** deregulated the bus industry; privatised the National Bus Company; and forced local authorities to put their bus operations 'at arm's length' leading to the privatisation of all but a few municipal operators.

▲ **The 1989 Transport (Scotland) Act** privatised the Scottish Bus Group.

The 2000 Transport Act and 2001 Transport (Scotland) Act are detailed below**.** There are also the **2006 Transport (Wales) Act and 2006 Transport (Scotland) Act** both of which led to reorganisation of the way local transport is governed in each country.

▲ The **2005 Railways Act** abolished the SRA and transferred its powers to DfT, devolved the DfT's powers in Wales and Scotland, transferred rail safety responsibilities to ORR, and removed direct PTE control over rail services in their areas.

Mode-specific Acts
There are three main areas of mode-specific legislation – railways, port and civil aviation. By the end of the Second World War, and following the 1947 Transport Act, all these services were operating as nationalised industries.

The Civil Aviation Acts of 1960 and 1971 developed the licensing of air services and the subsequent increased competition. This led ultimately to the privatisation of British Airways and the British Airports Authority.

The 1993 Railways Act resulted in the privatisation of the railways, the separation of the infrastructure provider (Railtrack), the train operators and a range of service providers (such as engineering maintenance, rolling stock manufacturers and maintenance operators). The details of the regulatory framework and franchising system will be discussed in detail in Unit 5.

The 1989 Dock Work Act abolished the 1940s dock labour scheme and opened up the market to competition. The 1991 Ports Act enabled trust ports to become private-sector companies.

Other Acts
A number of other legislative measures influence the operation of transport in this country, principally:

▲ **The 1974 Health and Safety at Work Act**: the Act is concerned with the adoption of safe working practices and imposes responsibilities on managers and workforce to ensure that they are in place and complied with.

▲ **The Finance Acts**: each year the Chancellor of the Exchequer implements the government's revenue raising and expenditure plans through the annual Finance

Act. As I have said earlier the implications of taxation and funding for transport policy should not be underestimated.

▶ **CCT Legislation**: principally the 1980 Local Government, Planning and Land Act, the 1988 Local Government Act and the 1992 Local Government Act. These measures progressively forced local authorities to subject their contracts and services to competition. They apply across Great Britain and have led to greater private-sector involvement in the provision of services. Some local authorities have adopted the principle underlying the legislation and have moved towards the concept of an enabling authority – concentrating on policy issues and buying in services to meet their policy objectives.

▶ **The 1992 Transport and Works Act**: prior to the passing of this Act, all fixed-track public-transport infrastructure, railways, light rapid transit schemes and so on, were authorised through the promotion of a Private Act of Parliament. The growth in interest in such schemes during the 1980s led to the need for a simplified system. The 1992 Act allows these schemes to be approved through an inquiry and ministerial order of a similar form to that applied to road schemes. In Scotland the 1896 Light Railways Act still applies, with similar procedures.

▶ **The 1999 Local Government Act**: the Act introduces the duty of 'best value' to replace CCT in England and Wales. Best value applies to all local authority functions, and it focus on outputs and outcomes. It will give local authorities discretion over deciding how services are to be provided in order to meet the needs and wishes of local people. Under best value, local authorities are required to **make arrangements to secure continuous improvement** in the way in which their functions are exercised, having regard to a combination of economy, efficiency and effectiveness. In deciding how to fulfil the duty, a best value authority must **consult** people who have an interest in the area.

▶ Best value authorities (in England) have to provide an assessment of their performance by reference to national **performance indicators and standards**, which are specified by the Secretary of State, and also to indicators and targets that authorities determine themselves which reflect **local priorities**. Best value authorities have to conduct **reviews** of all their functions over a five-year cycle. Through these reviews, authorities are expected to:

- ▶ *challenge* the way they are delivering services
- ▶ *consult* users, potential users and others
- ▶ demonstrate that the services are delivered *competitively*
- ▶ demonstrate how their performance *compares* with that of other authorities delivering similar services.

▶ Best value authorities are required to publish a **best value performance plan** (see for example www.manchester.gov.uk/bestvalue/perform/perfplan.htm) by 31 March each year, starting from 31 March 2000. The performance plan provides local people with an assessment of the authority's performance over the previous

year, sets out targets and action plans for the coming year and lists the schedule of best value reviews. The performance plan is audited by an independent auditor appointed by the Audit Commission (a national body responsible for assessing the value derived from public spending – see http://www.audit-commission.gov.uk/) in order to provide local people with an assessment of how well authorities are fulfilling their best value duties. Periodic inspections of particular services or functions bring closer scrutiny to authorities' activities.

▶ Where an authority is failing to meet the duty of best value, and there is clear evidence that it is unwilling or unable to make the improvements that are necessary, the Secretary of State has the power to take appropriate action to secure improvement.

▶ The best value concept is also in place in Scotland and Northern Ireland - see www.audit-scotland.gov.uk.

Why is best value important for transport?

Best value is important in relation to local transport because, if followed properly, it should ensure that local authorities are monitoring their services and achievements, and trying to improve the situation all the time. Certainly, English local authorities must produce reports of their progress on statutory national best value indicators for transport within their Local Transport Plan Annual Progress Reports (see for example http://www.york.gov.uk/transport/plan.html#apr – here you can see how York monitors progress against national as well as local indicators).

Best value provides flexibility in the way that services are procured, which can make it quicker and easier to do so – for example, network integrity of bus services can be maintained by procuring a subsidised route directly from the incumbent operator rather than from the absolute lowest bidder. Best value has its drawbacks, also: because compulsory competitive tendering is no longer required if another "best value" justification can be provided, then it is possible that services may be procured through mechanisms whose value for money has not been adequately assessed. There have been questions asked in the Scottish Parliament on this topic by Lothians MSP Kenny McAskill regarding the City of Edinburgh Council's "arms-length" transport delivery organisation, TIE Ltd (see www.tieltd.co.uk), for example. However, it should be noted that best value does not preclude the need to adhere to EU Legislation on the competitive tendering and procurement of services.

Local Transport Plans and strategies

If the Finance Acts are important in setting the parameters at a national level for transport policy makers, the local authorities' annual financial planning system provides the detail. The 1972 Local Government Act (1973 Act in Scotland) led to the introduction of a revised method of funding local transport. Until that time local authorities had gained spending approval for major schemes on a scheme-by-scheme basis. From 1974 (1975 in Scotland) local authorities were required to produce an annual Transport Policies and Programmes (TPP) document which set out their spending plans for the whole of the service. The spending plan had to be justified by and related to an explanation of the needs of the area and the Council's transport policy objectives. A number of modifications have been introduced but the annual submission has continued to be required.

As part of the 1998 White Paper proposals the government has brought forward a replacement for the TPP – the Local Transport Plan (Local Transport Strategy in Scotland). The focus of the Local Transport Plan (Strategy) is on the local authority's plan for the next three years but set within the context of a longer term vision. The process needs to build in the authority's response to its responsibilities under the 1997 Road Traffic Reduction Act. The Plans have to cover all forms of transport and should reflect an integrated package of measures. More details of LTPs are to be found in Unit 16.

Transport legislation in the 21ˢᵗ Century

The main legislative actions of the Labour Governments since 1997 with regard to transport have been to pass two Transport Acts, one for England and Wales in 2000, and one in Scotland in 2001. These have given some legislative backing to the aspirations set out in the 1998 White Paper on transport, and to the Ten Year Plan for transport (see Unit 7). With the exception of clauses relating to heavy rail, the Acts do not apply in Greater London, where the main legislation pertaining to transport is covered in Acts of earlier Governments, and in the 1999 Greater London Act, which gives the Mayor the power to implement a congestion charging scheme.

The UK Acts give powers to local authorities to use **if they wish** to increase the quality and service provided by public transport (except heavy rail) in their area; and to implement congestion charging or (in England and Wales only) workplace parking levies to control congestion and raise money for local transport investment and services. It is very important to note that Local Authorities need not use these powers; however, if they have objectives in their Local Transport Strategies (LTS; Local Transport Plan (LTP) in England) that could be achieved by these powers, but choose not to use them, some questions *may* ultimately be asked by National Government. At the present time, however, there has been only one authority in the UK outside London – City of Edinburgh – that actively pursued plans for large scale congestion charging, although these are now abandoned; and only one – City of Nottingham – doing the same, but for the workplace parking levy. Two or three authorities have expressed serious interest in the use of powers to exert greater public control over bus services, but no authority (except City of Dundee) has yet (2006) used these powers. The authorities most likely to use them, due to their greater resources in planning and

implementing such schemes, are the PTEs/PTAs. They have useful briefing notes on this issue at http://www.pteg.net/BusCentre/. Nonetheless you may wish to consider why as yet no authorities have used QC or statutory QP powers.

Very similar powers exist in England and Wales under the Transport Act 2000 and in Scotland under the 2001 Act; where there are differences, these are highlighted in the text below.

The Scottish Act can be viewed at:

http://www.scotland-legislation.hmso.gov.uk/legislation/scotland/acts2001/20010002.htm

A consultation version of Guidance on how to use the powers in the Act can be viewed at:

http://www.scotland.gov.uk/consultations/transport/2001act-s79letter.asp

The English Act can be viewed at:

http://www.hmso.gov.uk/acts/acts2000/20000038.htm

In addition to mode-specific powers, the English Act:

- Made Local Transport Plans (LTPs) a statutory document – i.e. local authorities have to produce them. This is in marked contrast to the Act in Scotland where LTSs have no statutory status. The LTP system is discussed in more detail in Unit 17.
- Set up the Strategic Rail Authority and made other changes to the structure of the rail industry.
- Mandated national minimum entitlements for elderly people to travel at a reduced fare on local bus services; the minimum is half fare (outwith the morning weekday peak) within the home local authority area in England and Wales (although the Welsh Assembly has chosen to enhance this minimum within Wales); and free travel within the home local authority in Scotland (enhanced to the whole of Scotland since April 2006).

The three powers listed above are mandatory – that is, they must be implemented. Some common principles run through the other, discretionary, powers:

- They must be used in a way that is consistent with LTS/LTP objectives.
- Local Authorities must make their plans known and consult on them prior to using them, otherwise they will be in breach of the law.
- There is a general presumption towards using more voluntary and less draconian measures first and then if these do not work, moving to a situation where Local Authorities use the powers in the Acts to require operators to do things.

The use of the powers on congestion charging and (in England and Wales) workplace parking levies is discussed in detail in Unit 12. The rest of the discussion here focuses on specific powers relating to public transport. Table 4.2, below, demonstrates what public transport objectives can be achieved using which powers (as well as negotiation, which is obviously not a statutory action). Tendered services are an existing power under the 1985 Transport Act,

which allows Local Authorities to pay operators to provide "socially necessary" services that would not be supplied by the market.

Table 4.2 – means to improve bus services under current legislation

Objective or problem	Potential Solution
IMPROVING GENERAL SERVICE QUALITY	
Improving quality of the bus product	• Negotiation • Tendered services • QP (Quality Partnership) • QC (Quality Contract)
Running competing services at even service Intervals (subject to competition issues)	• Negotiation • QC
Reducing fares	• Negotiation • Tendered services (where these do not compete with commercial services) • QC
Increasing service frequencies at certain times	• Negotiation • Pay for more services • QP • QC
Ensuring that all areas are served with a minimum level of service and that services are integrated (e.g. bus rail connections)	• Negotiation • Tendered services • QP • QC
Joint and through ticketing	• Propose/negotiate ticketing scheme • Impose ticketing scheme • QC
IMPROVING INFORMATION	
Standardise information provision (primarily bus stop information)	• Determine what information should be provided and seek voluntary agreement
One operator supplies information but another does not	• Charge the non-supplier; including the cost of more timetable display cases

No operators supply information	• Council arranges/provides and charge all operators
Information provision costs a great deal	• Charge operators (but only if operators will not provide information themselves)
Responsibility for bus stop information	• Voluntary arrangement with operators to provide it themselves • Local authority takes control • Contract out provision
OTHER	
Keep up-to-date with service changes	• Registration period is [56 days], preceded by a requirement to inform the relevant local authority of any changes 14 days before submitting the application to the traffic commissioner. • Traveline Scotland Data Management Service
Operators pull out of QPs	• Negotiation • Tendered services • QC

The powers

Most of the powers granted under the Act leave the main decisions on operations – timetables, fares and frequencies – to the bus operators. Only the Quality Contract (QC) would bring these back into public hands. However, it is unclear whether and or when the Executive or DfT would permit a Local Authority to move to a QC.

Quality Partnerships

A Quality Partnership (QP) is an agreement between one or more Local Authority, bus operator and, sometimes, other parties such as large employers, airports, a PTA (where one exists), and the Scottish Executive (where trunk roads are involved). In some circumstances, contributions for a partnership may be received from other parties, such as developers along the corridor, or bus stop manufacturers /their agents. Each party commits to delivering improvements aimed at securing better quality bus services in an area or along a corridor. Typically this involves both the introduction of better infrastructure and better vehicles.

The powers in the Acts give these previously voluntary arrangements a statutory basis. The major benefits of statutory partnerships over voluntary ones are the enforceability of the commitments from the parties and the ability to exclude non-conforming operators from particular facilities.

The powers are that an Authority can select a route, or group of routes in its area and, after due consultation, designate these a formal QP area. Under the QP agreement:

- The Council must supply bus lanes, shelters etc. as it promised to do.
- In order to be allowed to use the route, operators' vehicles must meet certain quality standards (e.g. age, type of bus) and (in Scotland only) certain minimum frequencies, as set by the Council. If they do not then they will be banned from operating their service.

What is a Quality Partnership?

Partnerships can be subdivided into umbrella partnerships, that normally cover a whole area and are a general statement of commitment by both parties to enhance services; and route-based partnerships. The latter may be a subset of a former, and concentrate on specific improvements to vehicles, services and infrastructure on particular route(s).

Generally there will be a number of planning meetings to set up the partnership, to delegate and agree key responsibilities and commitments. Once the partnership is up and running, it is typical for the parties to meet regularly to discuss its progress and to resolve any difficulties.

In addition to the elements provided by the operator, a route-based partnership would normally include improved infrastructure, to be provided by the transport authority and, in the area covered by the Strathclyde PTA, the PTE. In some cases (e.g. Glasgow, Aberdeen) infrastructure measures have been funded by bus operators. A list of elements that are found in QPs is given below, divided into those usually provided by the public transport/roads authority, those usually provided by the operator, and those for which there is often shared responsibility.

Not all QPs contain all elements; those that are *less* typical are marked with an asterisk in the list below. In rural areas in particular not all the measures listed below may be relevant; it is for the Local Authority to decide, in consultation with the operator, what should constitute the specifics of a QP for their area.

Elements normally provided by operators

- New or refurbished, usually low-floor, buses
- Route branded buses
- Simplified routes/timetables
- Enhanced frequencies
- Driver customer care training
- Fare refunds for poor performance (e.g. reliability/ punctuality)*
- New ticketing products*

Elements normally provided by local authorities and PTEs

- New shelters, maintenance and replacement of existing shelters
- Bus priority measures
- Display cases for timetables
- Parking restrictions at stops/on key sections of route
- Enhanced enforcement of parking regulations and bus lanes*
- Bus boarders at stops

Elements for which responsibility is shared

- Paper based information at stops
- House to house leaflet drops to promote the service*
- Real time information*

INFORMATION

Local Authorities also have new powers to require operators to pay to supply local transport information. This can take many forms:

- Timetables at stops and bus stations.
- Timetable leaflets and maps distributed at public buildings.
- Staffed inquiry centres.
- Stand alone electronic information booths.

Authorities must define their information provision objectives in their LTS. They should then attempt to get operators to provide information of this standard voluntarily. If this does not work, authorities must notify their intention to require operators to pay for information provision. Subject to the required consultation period, they can then provide the information and send the bill to the operators.

However, local authorities are not allowed to bill operators for the cost of internet or telephone inquiry bureaux, as these are supposed to be supplied at a national level by PTI 2000, a national initiative led by the Scottish Executive.

SERVICE ENHANCEMENT

Tucked away in the Act is a small and difficult to understand section that gives Local Authorities the power to pay operators a subsidy to increase the frequency on a commercial service – something that was previously illegal. However, this has now been superseded by powers under the relevant Local Government Acts in the UK. There is a general move away from a requirement on local authorities to have lowest price competitive tendering regimes, towards a system where they are required to demonstrate that they are spending resources in a way that secures Best Value. This means that they are in some circumstances able to pay commercial operators subsidy, without tendering, to enhance commercial services (as long as they do not fall foul of EU legislation on tendering).

TICKETING

Integrated ticketing is key to integrated public transport. The Act allows Local Authorities to require operators to make 'ticketing arrangements' to allow people to overcome the restrictions of single operator, one way tickets. This may, at one end of the spectrum, simply allow limited through travel between two places using any operator and a 'single through' ticket or, at the other end of the spectrum, a 'multi-operator travelcard' would allow travel on all the routes provided by all the operators in a particular area.

The Strathclyde 'Zonecard' is the largest 'ticketing arrangement' in Scotland. It covers the whole of the Strathclyde Passenger Transport (SPT) area with the involvement of 70 operators (all willing commercial bus operators, all supported bus services, ScotRail, Glasgow Underground, Renfrew Ferry, and Clyde Marine). Only a very small number of minor operators in the area do not participate. The annual revenue within the scheme is £12m and it provides 800,000 ticket weeks of travel every year. The area is divided into zones (of which there are 74) and travel can be bought in multiples of those zones. The period of travel can be for 1 week, 4 weeks, 10 weeks or 1 year. The cards can also be bought for adults or juveniles (with slightly different multiples of zone and time periods).   See www.**spt**.co.uk/tickets/**zonecard**.html.

Phase 1 of the new SESTRAN 'ONE-TICKET' Travel ticket Scheme was established in May 2001 to cover travel by 'Bus+Rail' and 'Bus-Only' in East Lothian (+ Edinburgh). It allows travel on a daily, weekly or 4-weekly basis. This has been established within the requirements of the 2001 Block Exemption and is managed by a partnership company owned by 9 Local Authorities and participating operators. See http://www.one-ticket.co.uk/ for an up-to-date summary of what is available.

Local transport authorities must identify their overall requirements for 'ticketing arrangements' as an integral part of their LTS. Consideration should be given to the needs of both local users, visitors/tourists and special needs groups. This may be for a single local authority area or for an area covering more than one authority.

Section 28 of the Act sets the rules for determining the 'ticketing arrangements' and monitoring whether they are achieved. The definition of 'ticketing arrangements' under this Section should relate to the actual functional aspects of such arrangements as viewed by the potential user (an output specification). It should very specifically not be prescriptive as to how it should be achieved, although the Council (or Councils acting together) must ensure that it can be achieved practically. The elements included in the definition of the 'ticketing arrangements' are likely to include:

- The range of tickets to be included ('travelcards (by day, week, 4 week, 6 month, year)'; 'through' 'singles / returns'; or possibly day tour tickets);
- The geographical validity of the tickets (the area(s) covered by the 'travelcards', whether the 'through' tickets are from anywhere-to-anywhere or particularly focussed on particular key settlements, the extent of validity at the boundaries and into neighbouring local transport authority areas, etc.);
- The time availability of ticket use (off-peak, all-day, weekends only, etc);
- The types of service on which the tickets must be valid;
- Whether the Council(s) wishes that the 'ticketing arrangements' include coach / rail / ferry travel (this cannot be enforced under the Act, but may be achieved by negotiation with relevant Operating Companies – see 4.9 below);
- Who the tickets are available for (non-transferable adults, juveniles, families, or transferable);
- In general it will be expected that tickets will priced at a level commensurate with commercial and supported service fares in the area(s) in which they are available (e.g.

equal to commercial fare levels for equivalent journey(s) with a single operator). Where the majority of services in an area are run on a tendered basis, it may be more appropriate for the Authority to require joint ticketing arrangements as part of the tendering process;

The sale availability of the tickets (on-vehicle, from sales points in defined settlements, during certain times, etc.).

QUALITY CONTRACTS

These are the most significant power under the new Acts. They allow local authorities to re-regulate buses along the lines of the London situation in part or all of their area. In London, London Buses (a part of Transport *for* London, itself controlled by the Greater London Authority) controls the fares, services, timetables, ticketing, vehicle specification and bus network of virtually all local bus services. **On the road competition, commonplace outwith London, is not permitted.** Competition occurs when London Buses invites tenders (bids) from bus companies to operate a given service or group of services; that operator meeting the specification at the lowest price is awarded a contract for 3-5 years, subject to satisfactory performance. All services operate under the TfL brand and have the same fares structure and accept the same integrated tickets.

Previously TfL used a net-cost (minimum subsidy) tendering system, where it paid operators the minimum subsidy that they needed to run the service, and they kept the revenue. However, higher tender prices (as operators attempted to reduce their risk) and problems in allocating travelcard revenue have meant that that it has reverted to a gross cost system, where operators are paid the full amount that they need to run a service and TfL keeps all revenue.

QCs might operate in a similar way to the London system and in theory allow L.A.s control over the following items; however, it has been suggested that L.A. control might be more loosely defined than in London, whose system has been accused of stifling innovation.

- Fares
- Service levels
- Frequencies
- Timetables
- Places served
- Vehicle specification
- Acceptance of integrated ticketing
- Subsidy and cross-subsidy

This will obviously require subsidy, probably more than goes into local bus systems at the moment. It also requires consultation; and the permission of the Executive or DfT in England. The Executive in Scotland has been more positive than the DfT, but its current Guidance states that it believes QCs may be more suited to rural than urban areas. The DfT's approximate position is that a QP approach must be shown to have failed (in terms of not delivering LTP objectives) before a QC can be permitted. Some specific circumstances in

which QCs might be considered, include:

- Where QPs are demonstrably not appropriate or have failed to deliver the required improvements;
- To ensure a frequency level and/or fare structure which meets social inclusion objectives which would otherwise not be provided commercially;
- To provide connecting bus services and inter-modal connections;
- Economies in rationalising services ie where the benefits of rationalising commercial services, or a mixture of commercial and tendered services outweigh the costs;
- In rural areas and on inter urban routes where operators have found that services cannot be run commercially;
- To provide necessary links of benefits to particular groups of people where operators have failed to provide socially necessary services;
- That monopolistic or excessive profits have been made (though in the first place monopolistic behaviour should be reported to OFT).
- Where fares are too high and/or frequencies too low.

However, it is unclear as to what level of detail of information will be required to demonstrate this and thus gain permission for a QC – nor how it will be funded.

During 2006 South Yorkshire and Tyne and Wear Passenger Transport Executives have gone through a shadow tendering exercise for Quality Contracts. (See PTEG references, below.)

A key question in relation to all these powers is why they have not been used (with the exception of information powers, which have been relatively widely employed). The Scottish Parliament carried out an inquiry into the lack of use of powers in the 2001 Transport (Scotland) Act, which is available at http://www.scottish.parliament.uk/business/committees/lg/reports-05/lgr05-04-vol01-01.htm; you should at least read the four page report (and the Annexes if you are particularly interested).

Local Transport Bill 2007 (England and Wales)

Concerned, perhaps, at the lack of take-up of the powers in the 2000 Act, the English government is pushing through yet another Bill, the Local Transport Bill 2007. This includes the possibility for a local authority to specify maximum fares and minimum frequencies in a Statutory Quality Partnership – but only if an operator does not make what is called an "admissible objection". This is where the operator can show that the requirement for minimum frequencies or maximum fares in the proposed scheme were either **not practicable** or **not commercially viable** (or both) for them to comply with. The cynic might argue that almost any operator would be able to put forward an admissible objection – and some commentators have suggested that the new powers in the 2007 Bill will, if passed into law, get as much use as their predecessors in the 2000 Act. For more gripping details on the QBP aspects of the new Bill, see http://www.dft.gov.uk/consultations/open/buspartnership/.

The Bill proposes a new Voluntary Partnership Agreement – this would be formal but not legally binding. The advantage of a VPA would be that it would allow bus operators to agree

to run services on the same route in a coordinated way, without risking a massive fine from the OFT for breaking competition law.

In addition, the bill is supposed to make it easier for local authorities to enter into quality contracts. Approval for these will move from the DfT to a committee chaired by a Senior Traffic Commissioner. Traffic Commissioners are employed by the DfT, but have a different office.

Finally, the Bill includes provisions for city-regions to reform the way that transport is governed in this area. In theory, this could lead to the setting up of a body similar to the Greater London Authority in an area such as West Yorkshire or Greater Manchester; the draft Bill even holds out the carrot of these bodies being judged (by DfT) to be big and organized enough to take back some of the rail powers that were removed from the PTEs by DfT just two years ago.

The difficulty in practice may be securing the agreement of all existing bodies (e.g. local authorities in the area) to their ceding powers to a new central body. This has been an issue in Scotland, where local authorities could cede some or all of their transport powers to regional transport partnerships but, curiously, have chosen not to do so. There were, in the 1980s, regional transport bodies in England's metropolitan areas; they controlled local public transport as well as roads. These were called Metropolitan County Councils. However, they were directly abolished by central government, as opposed to being given the opportunity to choose to whether or not to abolish themselves. For the student of public organisational science, there are some interesting lessons to be learnt here.

It is worth your while looking into the mind of a central government civil servant by reading the   consultation   on   the   Bill,   at http://www.dft.gov.uk/consultations/closed/localtransportbill/consultationdoc.

◣ (More) recommended reading

A New Deal for Transport? Chapter 7

The Passenger Transport Executive Group's (PTEG) website at www.pteg.net and in particular http://www.pteg.net/BusCentre/03-QualityContracts.htm and http://www.pteg.net/BusCentre/05-BusPlanningPerformanceandRegulation.htm

---

It should be borne in mind, though, that the rapid pace of change (in policy formulation, if not implementation) can render what I have written above out of date rather quickly! To keep up to date, and for information on the current position, a visit to the various web sites is recommended.

◣ DfT: http://www.dft.gov.uk

◣

Scottish Executive: http://www.scotland.gov.uk

▲ Welsh Assembly: http://www.wales.gov.uk

Northern Ireland Assembly: http://www.nireland.gov.uk

▲ Self assessment questions 4.1 and 4.2

The implications of changing government structures for transport planning
I mentioned in Unit 3 that 'In many cases, the latest reorganisation has created local authorities which have a sphere of influence – in transport planning terms – which is very much wider than that of their narrowly drawn boundaries.' We also considered the implications for the planning system of that reorganisation. I would now like you to investigate this further with particular reference to Scotland.

▲ The Scottish Executive (2003) *Scotland's Transport – Proposals for a New Approach to Transport in Scotland - A Consultation Paper* (http://www.scotland.gov.uk/Publications/2003/09/18226/26711). It is likely that if you are doing this Module in 2004 or later, some of the changes proposed in this paper for the structure of transport governance in Scotland – most notably the setting up of a National Transport Authority with regional partnerships working to it – will have been implemented. You should check the relevant websites for details (www.scotland.gov.uk/transport). This Scottish process is also relevant to the on-going regionalization of government in England.

Once you have read these spend about half an hour setting out, in note form, your response to the following questions.

4.1 Did the changes to the structure of local government (in 1996) make the achievement of a co-ordinated transport policy for the main centres of population in Scotland easier or more difficult? And why?

4.2 What are your views on the need for Regional Transport Partnerships? If they are needed what form should they take? [If you are reading this in 2004 or later and there are such partnerships in place, do you think that their structure and responsibilities are the right ones?]

4.3 What are the disadvantages of re-structuring, at least in the short term?

4.4 Will re-structuring in itself overcome the problems in delivering transport schemes and achieving policy objectives that it was intended to do, or do other problems remain that re-structuring does not overcome? [You may wish to return to this question at the end of the module.]

▲ **Summary**

The Transport Planning System, in Britain, is defined by a series of Acts, regulations, guidance notes and so on. The main primary legislation (with the associated secondary legislation) which affects transport policy makers are:

▲ Planning Acts

▲ Local Government Acts

▲ Highways (Roads) Acts

▲ Road Traffic Acts

▲ Transport Acts (including mode specific Acts)

When central government pursues highly political agendas, such as the privatisation programme, it can be argued that the resulting legislation is a hindrance to effective transport planning. However, experience shows that much can still be achieved, even within the limitations of the system, where the various organisations involved in the planning and provision of transport co-operate with each other. Unit 6 will examine the development of transport policy during the years since the Second World War and how it has adapted to legislative and other changes.

Unit 5: Transport provision – services and infrastructure

Introduction

In Units 3 and 4 we looked at the legislative and administrative framework within which transport policy is developed. We saw that, during the early and middle part of the 20th century, national need (in times of war) and political thinking led to the centralising of co-ordination and control, with public ownership. The latter part of the century saw a return to letting market forces guide the development of transport services, but this too has been found wanting. Whilst there is now, across Europe, a general consensus that market forces must have a role within the provision of transport services, the sixty-four thousand dollar question is how much regulation is needed to ensure that the market delivers the transport services that the community needs.

This unit will look in more detail at the way in which the provision of infrastructure and transport services are planned and delivered, and how they are monitored on behalf of the consumer.

Perhaps the most fundamental point about the provision of transport infrastructure and services in the UK, and something that makes it very different from most other European countries, as well as from the USA and from Canada, is the extent to which the private sector is not only responsible for the provision of, but also has full control over, so much of it. In summary in this country:

- Ports are almost completely privately owned and operated, with minimal regulation.
- Most main airports with the exception of Manchester and some medium-sized ones such as East Midlands and Birmingham are privately owned and operated; the main (highly profitable) private operator, BAA, is however quite heavily regulated in some respects.
- Outside London, bus services are privately controlled, owned and operated with very little regulation.
- Rail services are privately owned and operated but in a very regulated and subsidised environment. Rail infrastructure is controlled, owned and operated by a quasi-private company but with large injections of public money via access charges from operators and direct from government.
- Within London, the underground is privately maintained and improved, but publicly funded and operated, via an immensely complicated contract which does not make the control of the network transparent. Buses are privately owned and operated but within a regulated franchised and highly subsidised environment.
- Trams are generally controlled and operated as private concessions.
- Roads have been traditionally completely publicly funded and maintained, with almost no use of tolling (except on bridges) as can be found on other countries' motorway networks. The role of the private sector in providing and in particular

maintaining the infrastructure has increased in recent years, but the private companies involved receive payment direct from government, not from users, except in one example (a relief road north of Birmingham - http://www.m6toll.co.uk/).

This is not necessarily a bad situation. However, it can mean that when the public sector sets its objectives for transport, these may not necessarily be congruent with those of the private sector that controls and operates so much of our transport system. It also means that if the public sector wants to change something in the transport system in order to achieve its objectives, it may not be able to do so.

◥ Learning outcomes

Once you have worked your way through this unit, including the self assessment sections, you should be able to:

▶ identify the different responsibilities for transport infrastructure in the UK

▶ identify the means of controlling the provision of rail and bus services in the UK.

Railways

The Railways Act 1993
The Railways Act 1993 received royal assent on the 5 November 1993. It provided:

▶ a new industry structure and arrangements (including franchising)

▶ the reorganisation of the then nationalised, vertically integrated railway company British Rail (which controlled all aspects of the railway operation) to allow the franchising and other private-sector activities to take place.

Within the new structure three main authorities were identified to regulate the railway:

- the Secretary of State for Transport

- the Rail Regulator

- the Office for/Director of Passenger Rail Franchising (the Franchising Director (OPRAF)). Between 2000 and 2005, this role was assumed by the Strategic Rail Authority (SRA); and it is now carried out by DfT rail http://www.dft.gov.uk/stellent/groups/dft_railways/documents/sectionhomepage/dft_railways_page.hcsp - OPRAF is no longer.

The main regulatory functions and arrangements which are defined by the Act are:

- the licensing of the various industry activities

- the requirements for access agreements for various industry parties

- the procedures for franchising passenger services and the treatment of related assets

- closure procedures in relation to passenger services and related infrastructure

- enforcement powers for the new authorities and powers for the courts to make 'railway administration orders' to ensure continuance of activities in the event of insolvency.

The scope of the Act also covered London Underground and other railways not then in the government's proposals for privatisation.

In addition to the creation of the Rail Regulator and the Director of Passenger Rail Franchising to share the regulation of the new industry with the Secretary of State, the Act effected the break-up of British Rail into:

- Railtrack – with responsibility for infrastructure throughout Great Britain (track signalling stations and depots). Since 2001, Railtrack has become part of the Network Rail group of companies (see below).

- Train Operating Companies (TOCs) – 21 in number – they operate the passenger services under franchise, with the exception of one "open-access" operator that runs services in direct competition with franchised ones.

- Four trainload freight companies

- Rail Express Systems

- European Passenger Services

◤ Union Railways

◤ Rolling Stock Leasing Companies (ROSCOs) - three

◤ British Rail Infrastructure Services (BRIS)

◤ Central Services.

Despite a range of difficulties for the Franchising Director, in finalising the franchises, he achieved the seemingly impossible political imperative of transferring all passenger services to the private sector before the General Election in May, 1997. The last British Rail trains to operate were the ScotRail Sleeper Services between Scotland and London on 31 March/1 April 1997 (and I was on one – a night to remember [if one enjoys the company of train spotters]!).

The basic structure of the new industry was one where a regulated but privately-owned monopoly provider of rail infrastructure – Railtrack – charged privately-owned but publicly-subsidised train operators to run trains on franchises let by OPRAF. Maintenance was carried out by private contractors for Railtrack. Thus infrastructure and operations were entirely private, but dependent on public subsidy and in a context of very tight public regulatory control. Although the Act permitted some "open access" services (i.e. anyone could in theory set up a train service and run it in competition with other franchised services), these have in practice been very few and far between. This is because of the high entry costs to the industry, the lack of capacity on the network and also because the Act to a large extent protects franchised operators from open access competition through a complex set of regulations relating to revenue allocation. Christian Wolmar's book *Off the Rails* provides an excellent analysis of the industry as it was set up and how it functioned to the point at which Railtrack went into receivership in 2001. If you are particularly interested in this subject, the book is highly recommended (and the background contained therein would probably gain you extra marks in an exam, were you able to recall it in answering any question on the rail industry!). You should also note that the railway industry is covered in much greater detail in the Public Transport and Terminal Design module on this course.

The amendments brought about by the 2000 Transport Act

The 2000 Transport Act amended the 1993 Railways Act as follows:

◤ It set up the Strategic Rail Authority which took on the role of OPRAF and also some regulatory powers from the Regulator.

◤ Additionally, although not as a result of the Act, Railtrack was forced into receivership (by the Government's refusal to continue to underwrite its losses) and, in October 2001, the new Network Rail was formed. This is a not-for-profit company that can raise private capital but, although publicly owned, does not appear on national accounts.

The authorities

The regulatory authorities are the DfT (formerly the Strategic Rail Authority (SRA)) http://www.dft.gov.uk/stellent/groups/dft_railways/documents/sectionhomepage/dft_railways _page.hcsp:, the Rail Regulator, the Rail Passengers Councils, the Monopolies and Mergers Commission, the Director General of Fair Trading, the Secretary of State BERR. The key functions of the first two authorities in the list are as follows:

The Secretary of State for Transport:

- licensing

- initial exemptions in relation to the access regime

- objective setting for franchises

- exemptions from franchising

- closures (including securing continued services in certain cases)

- closure exemptions and closure appeals

- railway administration orders

- franchising

- enforcement orders (franchises)

- railway administration orders in relation to passenger operators

- consumer protection.

The Office of the Rail Regulator (www.orr.gov.uk):

- licensing and licence modification – in particular, Network Rail's licence.

- access agreements

- enforcement orders (licences and closure conditions)

- setting track access charges

- rail safety

- enforcement of competition law.

In addition to the specific responsibilities outlined above, the Secretary of State and the DfT have a general duty to exercise their respective functions (taking into account the need to protect people from danger) in such a way that they:

▶ protect the users of the railway

▶ promote the use and development of the railway

▶ promote efficiency and economy

▶ promote competition

▶ promote interchange between operators

▶ impose the minimum of restrictions on operators

▶ enable service providers to plan for the future

▶ protect the interests of non-franchised private-sector passenger-service providers

▶ passenger- and goods-service operators using private facilities.

An indication of this wider role of the Rail Regulator can be seen in the list of publications issued by him. The areas covered by these publications include:

▶ penalty fares rules

▶ competition

▶ track access charges (passenger and freight)

▶ environmental guidance

▶ meeting the needs of disabled passengers

▶ ticket retailing

▶ charter trains

▶ investment.

The Regulator's role in setting access charges is crucial to the operation of the railway. Too high, and they require increased subsidy and act as a disincentive on operators to run trains. Too low, and Network Rail's income is too low to attract and fund required investment.

Franchising

A   guide   to   the   rail   franchising   process   is   available   at
http://www.dft.gov.uk/stellent/groups/dft_railways/documents/page/dft_railways_611464.hcs
p. It is a complex and jargon ridden process but at its heart is the idea that the exclusive right
to run train services in a given area/over a given line is awarded periodically in response to an
invitation to tender. Bids are evaluated and the bidder offering the best combination of price,
quality, innovation and evidence of reliability is awarded the contract to run the service for an
initial period, with a possibility of extension. The weight given to the different evaluation
criteria varies according to the priorities of those people letting the franchise. Price is
currently an important criterion in British rail franchising.

London Underground
On 16 June 1999 the Secretary of State for the Environment, Transport and the Regions
announced that he had instructed London Transport (LT) to invite companies to pre-qualify as
bidders to invest in three packages of London Underground (LUL) infrastructure. The three
packages of lines are:

- the sub-surface lines (SSL - the Circle, District, East London, Hammersmith and
  City and Metropolitan lines)

- Infraco JNP (the Jubilee, Northern and Piccadilly lines)

- Infraco BCV (the Bakerloo, Central and Victoria Lines).

After a long battle between the Mayor and central Government over the legality of Tube PPP,
the scheme went ahead in April 2003. One company, Metronet, won the SSL and BCV
contracts, and Tubelines won the other. In July 2003, control of London Underground
transferred to the Mayor from Central Government. PPP is intended to deliver a package of
enhancements to the underground over the next 20 years. London Underground, a publicly
owned company, retains control over operations, while the private sector partners maintain
and improve the trains and infrastructure in exchange for annual (performance-linked)
payments from London Underground. A good summary of how PPP is supposed to work and
what it is intended to deliver is available at:

http://tube.tfl.gov.uk/content/pressreleases/0307/tflFOT.pdf

A   critique   from   Parliament's   Public   Accounts   committee   is   available   at
http://www.publications.parliament.uk/pa/cm200405/cmselect/cmpubacc/446/44602.htm

Alternatively, and if you are particularly interested in this topic, Christian Wolmar's *Down the
Tube* provides an excellent and more in-depth analysis.

In 2007, one of the tube PPP consortia, Metronet, went bankrupt. It blamed "contract creep"
by TfL (TfL asking for things not originally specified in the contract); TfL blamed – and was
subsequently largely upheld in this view by an independent arbiter – inefficiencies in the way
Metronet was run. Given the scale of the contract – around £4 billion at the time of the

bankruptcy – the £70 million lost by each of the consortium members seems a small amount of risk transfer to the private sector.

Some interesting newspaper articles on this issue are listed below. Note that the information in these articles may not be 100% accurate; read them critically, and do your own research.

http://findarticles.com/p/articles/mi_qn4158/is_20070717/ai_n19369905

http://www.guardian.co.uk/business/2007/jul/17/politics.localgovernment

TfL's own publications on the PPP, including some FAQs on the Metronet debacle, are at http://www.tfl.gov.uk/corporate/modesoftransport/londonunderground/management/1580.aspx   and http://www.tfl.gov.uk/corporate/modesoftransport/londonunderground/management/5500.aspx

Infrastructure development on the railways
Network Rail receives its income from the operators who pay track access charges in relation to the amount of use they make of the network, and also in direct grant (for enhancements) from national government in the relevant country. The level of charge is controlled by the Rail Regulator, but is set at a commercial level – to cover all of Network Rail's costs. Failure to provide network access, in line with the agreements with operators (leading to delays and cancellations to services), results in penalties. These offset the penalties operators incur in failing to meet their franchise obligations.

Subsidy to rail services is distributed to the passenger operators through their franchise agreement. Consequently, Network Rail's primary investment programme is to maintain and improve the network to ensure the continuation of their revenue from the operators through the track access charges. Where infrastructure developments cannot be justified in commercial terms (ie from increased track access charges) a range of grants is available, primarily through central and local government, to support the scheme. Unit 10 will deal with this area in more depth.

Other rail systems
Of the other rail systems Glasgow Underground, the Tyne and Wear Metro system and Blackpool's tram system remain in the public sector. However, the new generation of light rail systems is now being developed through the private finance initiative and automatically have private-sector involvement. Most have websites that are worth a look. They include:

- Manchester Metrolink

- Sheffield Supertram

- Croydon Tramlink

- Nottingham Express Transit

◤ Midland Metro.

Changes

In July 2004 the UK Government's Department for Transport published two White Papers: the first, a statement of its overall transport policy, *The Future of Transport – a network for 2030* (updating the 1998 White Paper *A New Deal for Transport*);   the second, the conclusions from its "Rail Review" into the structure and governance of Britain's National Railway and its proposals for changes to that structure (*The Future of Rail)*   Full details are available in the two White Papers, available at www.dft.gov.uk and it is well worth your reading the Executive Summaries, at least, and the commentary provided in the 29th July 2004 edition of Local Transport Today.

The changes proposed by the Rail White Paper required new primary legislation, and the Railways Act 2005 was passed by the UK Parliament in April 2005. In essence, the structural changes proposed to the rail industry are as follows; they all came into effect by the end of 2005:

- To abolish the SRA and for its functions to be transferred. In England and Wales, the specification and award of passenger franchises, the setting of rail strategy and the responsibility for funding upgrades to rail infrastructure transferred to the DfT; in Scotland, to the Scottish Executive
- To incorporate the Health and Safety and safety inspection functions within the Office of Rail Regulation (ORR).
- To give Network Rail clear direction, from the DfT (or Scottish Executive in Scotland) as to what it is expected to deliver in terms of maintenance and capacity enhancements (it is intended that this will be through the so-called High Level Output Statement).
- The ORR will have a key role in deciding how much Network Rail can/will charge the operators (in increased access charges) for what is required by DfT/Scottish Executive. This will be an iterative process.
- To reduce the number of passenger franchises.
- To give the Mayor of London the power to specify and secure additional local rail services in and around London, as well as a unified zonal fare structure and smartcard ticketing across all modes including heavy rail (Oystercard) (see www.tfl.gov.uk/rail).
- To give PTEs greater funding responsibility for local rail services within their areas.

In many respects, in my opinion, the most disappointing thing about the White Paper for all those that hope for a more expanded role for the railways in meeting local traffic reduction targets and congestion reduction aspirations, is that it says very little about capacity enhancements and the like. In fact, the main focus of the paper is on reducing the cost of the railways to the public purse. There is talk of reductions in service, and the new powers for the PTEs in the metropolitan areas are designed to incentivise them to cut the rail service (they get to keep the money saved).

In addition, the mechanism by which the Government can give direction to Network Rail on the standard to which the network is to be maintained, is confused. Because the government was unwilling to renationalise Network Rail (for macro-economic reasons), Network Rail remains a notionally private sector company, independent of Government, and therefore it is impossible for it to be controlled directly by Government. Therefore a rather more indirect mechanism via the ORR has to be employed: the Government will specify what it wants from Network Rail, and the ORR will decide how much Network Rail can charge the Government for that. If the government considers that the ORR's price for Network Rail's services is too high, negotiation will be entered into. This iterative process will find the high level output (ie the extent, capability and condition of the national rail infrastructure) for which the Government is willing to pay, at an independently judged "fair price". Grey areas remaining could mean that the UK's rail industry will remain a veritable paradise for contract lawyers.

But you should read the White Paper – especially Chapter 4 of *The Future of Rail* and come to your own view on the degree to which it represents an improvement over the existing situation.

Conclusions

Rail privatisation was part of a wider policy to create 'an efficient and competitive transport market to serve the interests of the economy, with maximum emphasis on safety and the environment'. Even before the arrival of a Labour government committed to 'an integrated transport policy' there were several issues which were not entirely resolved during the privatisation process. Within the integrated approach they still need to be squared. The main issues can be summarised as:

- ◤ Competition versus monopoly – could free competition be allowed across the network and should bus and rail co-ordination be allowed through area monopolies?

- ◤ Passenger track access charges – what is the role of track access charges in competition?

- ◤ Passenger fares – how much regulation should be applied to fares?

- ◤ Freight track access charges – a balance needs to be struck between recovering the costs imposed by freight movements and encouraging transfer of freight from road to rail.

- ◤ The new operators – how much amalgamation of operators into large groups should be allowed?

- ◤ Costs, revenues and subsidies – projections for future subsidy will require significant cost reductions and increased revenues. Is this achievable? In addition, would greater openness of competition help reduce subsidy still further?

▲ Freight – is the concentration of trainload freight in one company anti-competitive or economy of scale?

▲ Investment – should investment decisions be made entirely on commercial grounds?

▲ Who should be subsidized: operators or Network Rail?

▲ Who should take responsibility for the enhancement of the network?

▲ Performance – the whole issue of how success or failure is measured.

▲ Does the new structure compromise safety?

The recommended reading and the research exercise which follows will help develop these issues. They will also be covered in greater depth in the module Public Transport and Terminal Design.

▲ Recommended reading

At this point I would like you to read Chapter 5 in *A New Deal for Transport?* and Chapter 14 by Bonsall and Milne in *Integrated Futures and Transport Choices*.

▲ Research exercise 5.1

Assess the success and failures, to date, of rail privatisation. Additionally, consider whether the changes to the rail industry made in the 2000 Transport Act and 2005 Railways Act were sufficient to cure its ills and, if not, why not. If not, what powers and changes should be included in new legislation?

The privatisation of the railways has had a significant impact, not only on the structure of the railways but also on the funding, usage and performance regimes. I would like you to carry out your own research into the impact of this legislation and form your own views as to the successes and failures to date.

When you have reviewed all this material and made your own notes, I would like you to spend about 45 minutes setting out your own assessment of the successes and failures of rail privatisation (and the subsequent Labour government changes). Structure your response around the issues identified above. Remember that there is no right answer to this. So the more you can justify your opinions with hard statistical facts the better.

Buses and coaches

Ownership
The regulation and ownership of bus and coach operations has been through significant change during the latter part of the 20th century. Following the 1968 Transport Act, ownership of bus and coach service operation was primarily public sector. Scheduled services in the larger urban areas were provided by 'municipal' operators answerable to local authorities or passenger transport authorities, while inter urban, rural and smaller town services were operated by the National Bus Company (NBC) or Scottish Bus Group (SBG) subsidiaries. The only exceptions to this were a few localised areas, such as Ayrshire, where small private operators still maintained their independence. The rest of the bus and coach industry operated in the private hire and contract hire market.

The Transport Act 1985 (and the Transport Act (Scotland) 1989) led to a complete change in the ownership structure of the bus and coach industry. The regional operating companies of NBC and SBG were sold, either to management buy-outs or to one of the emerging private companies. The local authority/PTE operations were required to be at arm's length from the authority and gradually the vast majority of these have been privatised. Over a period of time, through a process of acquisition and amalgamation, three major companies have emerged:

▰ Stagecoach

▰ First Bus

▰ Arriva.

In addition, there are a few slightly smaller groups such as Travel West Midlands, and Go-Ahead, that are also quite important. At the same time, London Buses (the bus-operating arm of London Transport) was split into ten companies. Whilst deregulation did not apply in London, a system of franchising has been introduced. This has led, indirectly, to the 'privatisation' of services in the London area. Again with the 'big three' operating most of the franchises.

The smaller independent operators have continued to survive in local areas and niche markets (contracts, private hire work and specialist services such as disabled persons' dial-a-ride services).

In Northern Ireland Ulsterbus Ltd, which was set up under the Transport (NI) Act of 1969 continues to operate as a state-owned enterprise within a regulated environment.

Express coach services, although opened up to competition under the Transport Act of 1980, are dominated by National Express Ltd. Originally part of the National Bus Company it was the subject of a management buy-out and then floated in 1992. It acquired the former Scottish Bus Group subsidiary, Scottish Citylink, in 1993. It owns very few vehicles directly and hires in from former NBC/SBG subsidiaries.

Stagecoach, First Group, National Express and Arriva all have wider transport interests including airports; rail passenger franchises; and rail and motor vehicle leasing.

Regulation
The Transport Acts of 1980 and 1985 moved the emphasis of scheduled bus and coach licensing from a quantity and quality control to just quality control. Quality control of bus and coach operators is exercised through eight regional Traffic Commissioners operating under the Public Passenger Vehicles Act 1981. This created a system of operator licences. In general terms, Public Service Vehicles (PSV) are buses and coaches. Operator licences are issued for a specific maximum number of vehicles and are related to the capability and capacity that the Traffic Commissioner judges the operator to have. Each PSV is subjected to an annual test and each driver has to hold a PCV (passenger-carrying vehicle licence).

Before the 1980 and 1985 Acts, the Traffic Commissioners had very wide-ranging powers to control the quantity and price of bus services. All scheduled services, excursions and tours required a road service licence. This specified the route, timetable and the fares charged. The size of the vehicle and the use of duplicates could also be controlled by attaching conditions to the licence. In general, the Traffic Commissioners presumed against competition on routes and protected the established operators. It was common in the larger urban areas for the municipal operator to have a monopoly within the urban boundary. Those operators providing bus services from outside the urban area, but terminating in the town centre, were allowed to set down passengers on in bound journeys, but not uplift them. On outbound journeys they could uplift but not set down.

The 1980 Act started the removal of these restrictions by removing the need for road service licences for express services carrying passengers over 30 miles. Operators were required only to advise the Traffic Commissioner of the starting date and route for the service. The 1980 Act also removed the control of fares from the Traffic Commissioner.

The 1985 Act went further by removing the need to obtain a road service licence for a stage carriage service. It also defined services as local (those carrying passengers distances of less than 15 miles) and all others (this changed the definition of express). Now the operator must register a proposed route with the Traffic Commissioner at least 42 days before operation is due to begin. For other services no registration is required. For local services, provided the applicant holds an operator's licence, the process is automatic. The only restrictions the Traffic Commissioner can impose is on the use of certain streets and stops. However, this must not discriminate between operators.

Impacts of regulation
The 1985 Transport Act introduced deregulation of bus services. The *theoretical* virtues of deregulation compared to regulation are well rehearsed:

- downward pressure on fare increases;
- flexibility in the provision of services to meet demand;
- greater incentives to innovate;
- continual pressures toward efficiency;
- lower administration and contract tendering costs; and

- greater allocation of resources for investment without public sector spending constraints.

However, in practice, a deregulated environment has not always benefited bus customers. There have been both successes and disappointments.

Since deregulation of the bus industry, several positive and encouraging trends that have become apparent. These are almost certainly due in some part to the effect of on-road competition. These include:

- **Bus operating costs have fallen**: operating costs per vehicle kilometre have fallen continuously and very significantly, by a total of 31% in real terms in Scotland over the 10 years to 1999/00. In 1999/00 they were 7% lower than the previous year.   Such year on year efficiency improvements are notable, especially as they have been achieved without regulatory pressures.
- **Local bus services have increased**: in Scotland, the distance travelled by local bus services in 1999/00 was 362 million vehicle kilometres, an increase of 1% on the previous year. There has been an 8% increase over 10 years, compared with a 6% increase in Great Britain. However, we know that the increase in distance run in some cases does not serve the whole community. For instance, 13% of rural dwellers have no access to bus services. Another problem is that service provision has not always kept pace with changes in land-use patterns for residential, business or leisure developments.
- **Subsidised services have increased, but cost per Km has fallen**: transport authority subsidised bus operations increased by 36%, from 48 million kilometres in 1987 to 64 million by 1999/00. In the same period real terms public expenditure (excluding concessionary fares and Bus Fuel Duty Rebate) on these services increased by only 17%.
- **Increasing investment**: the last few years have seen a period of major investment in new vehicles by many bus operators.   The bus industry in Scotland invested over £167m over the last five years, and we have seen real innovation and other benefits from this.   eg Developments such as the Greenways in Edinburgh, the Glasgow Overground, Edinburgh Airport Express links, park and ride developments, bus priority measures, and discounted off-peak pricing, etc have helped to encourage investment and patronage.

However passengers in some areas have suffered from declining service provision. There are differences between commercial and public sector objectives that have in some instances failed to meet the expectations of the bus customer. This was especially evident in the turbulent period following deregulation in the early to mid 1990s which were marked by bus "wars" and over-provision on some key routes.   The market is more stable now, but problems remain in some areas and markets including:

- Withdrawal of socially important or economically marginal services: many of the services considered necessary by many authorities to meet social needs have not been delivered on a commercial basis, and many marginal services have been cut. The Executive's Rural Transport Fund Support to local authorities and community groups is, however, attempting to assist in rural bus provision.

- Falling patronage: despite increased bus kilometres at the national level, patronage has, on the whole, tended to decline. From 1990/91 to 1999/00 passenger journeys declined by 26%. Since 1989, the percentage of Scottish households with a car have increased from 56% to 62% in 1998. However, the popularity of the bus as a mode of transport had been declining prior to deregulation, partly due to increasing car ownership levels. Patronage declined by 31% over the period from 1975-1989. Recent trends suggest this long-term decline in bus passengers may have stabilised and may even be in the process of reversal. The total number of passenger journeys on local bus services in Scotland was 431m in 1999/00; 4% more than in the previous year. However this was only the 3rd year on year increase since 1975 - in a year or two we will be able to analyse recent trends with more certainty. That said, patronage in both Glasgow and Edinburgh is now rising, following over 30 years of decline under both regulated and deregulated regimes. DfT websites on transport statistics provide the most up to date situation; however, in general, it is that patronage in London's regulated environment has been increasing consistently since 1986; patronage in England and Wales outside London has continued to fall, although there are certain towns and cities that have bucked this trend; and patronage was falling in Scotland until 1999, since when it has risen – although the bulk of this increase was accounted for by the Edinburgh area.
- Rising fares: the increase in fares in real terms from 1989-00 to 1999-00 in Scotland was 24% which is almost the same as the 23% rise for GB (outside London). During this period, average Scottish earnings kept pace with the rise in bus fares. Over the same period, average motoring expenditure rose by only 10%, although petrol prices increased faster than bus fares. There is little doubt that for those whose incomes have not kept pace with increases in bus fares, in particular, there may be a danger of increasing social exclusion.
- Rising tender prices for supported services: the ATCO Local Authority Bus Contracts Price Expenditure and Competition Survey 2000 demonstrated increases in contract prices of the order of 22% when contracts were retendered – due in part to a declining number of tenderers.

◣ Recommended reading

At this stage I would like you to read pages 158-161 of *A New Deal for Transport?*, and the first part of the paper by Rye and Wilson included on your course CD. Read only up to the end of the description of the effects of bus deregulation.

◣ Self assessment question 5.2

Reflect on the success or otherwise of bus deregulation.

I would like you to reflect on the success or otherwise of deregulation from what you have read so far and your own experience of bus services in the 1990s. Spend about half an hour

listing the successes and failures of the policy as you see it and set out your thoughts on what could be done to improve the current arrangements. I will want you to refer back to these notes when we come to Unit 14.

◢ Accessibility and Disability Discrimination

A major theme of the present Labour Government's policies is that of social inclusion - in other words, ensuring that no one is prevented from participating in society's many activities. However, even before the change of government, it was widely recognised that people with a variety of disabilities experienced difficulty in using the transport system.

This then meant that they could be excluded from a whole range of other activities.

The 1985 Transport Act sought to tackle this problem by establishing, under Section 125 of the Act, the Disabled Persons Transport Advisory Committee (DiPTAC) to advise the Government on transport policy as it affects the mobility of disabled people.

The Secretary of State for Environment, Transport and the Regions is responsible for appointing a chairman and, after consultation, between 10 and 20 other members - at least half of whom should be people with disabilities.

The role of DiPTAC and the powers of the Secretary of State were further strengthened by the 1995 Disability Discrimination Act. This allows the Secretary of State to make regulations regarding the accessibility of public transport vehicles for people with a disability. The Mobility Unit Home Page[20] in the DETR web site will give you the up to date position on the introduction of these regulations. At the time of writing the following documents relating to public transport issues were available there:

- The Public Service Vehicles Accessibility Regulations 1999;
- The Public Service Vehicles (Conditions of Fitness, Equipment, Use and Certification) Regulations 1999;
- The Public Service Vehicles Conduct of Drivers, Inspectors, Conductors and Passengers) (Amendment) Regulations 1999;
- Proposals for Railways;
- Proposals for Taxis;
- Proposals for Buses and Coaches.

It is the duty of the Committee to consider any matter, relating to the needs of disabled persons in connection with public passenger transport. In particular, the Committee has been

---

[20] www.dft.gov.uk, then look at the link **Access for Disabled People**

very active in developing guidelines for operators to:

- Make access to vehicles used in the provision of public passenger transport services by road easier for disabled people; and
- Making such vehicles better adapted to the needs of disabled persons.

The detailed work of the Committee is managed by a number of working groups that deal with individual areas. The groups are:

- The Bus and Coach Working Group;
- The Taxi Working Group;
- The Railway Working Group;
- The Ferries Working Group; and
- The Air Working Group.

As well as producing an Annual Report, the Committee has produced a range of reports and leaflets providing advice on the provision of appropriate facilities for people with disabilities. These include:

- Recommended Specification for Buses Used to Operate Local Services;
- Legibility of Timetables;
- Guidelines for the Establishment of Taxicard Schemes;
- Recommended Specification for Low Floor Buses;
- Advice for Taxi Drivers; and
- Take Care of Your Customers.

All of these documents can be accessed via the DfT web site under the Mobility section. http://www.dft.gov.uk/stellent/groups/dft_mobility/documents/sectionhomepage/dft_access_page.hcsp

After more than ten years of activity from DiPTAC, the fruits of their labours are becoming increasingly apparent on the public transport networks of Britain. The new generation of low floor buses, with bright yellow textured handgrips is an increasingly frequent sight, as are spaces for wheelchairs on suburban trains and accessible taxicabs. Perhaps as important is the changing attitude within public transport (and society as a whole) towards those less able to move about freely.

In addition to this successful influencing of new vehicle design, DiPTAC has helped develop the thinking behind a number of local authority initiatives to provide demand responsive public transport services specifically for people with disabilities. Many authorities now fund Dial-a Ride bus services and Taxicard schemes.

The key piece of relevant legislation that affects transport provision for people with mobility difficulties is the Disability Discrimination Acts (DDA) 1995 and 2005. Its provisions are

being implemented gradually, and it is a complex area legally but its ultimate aim is to ensure that people who have a mobility difficulty do not receive less of a service from a transport operator or infrastructure provider than they would if they were able-bodied. This has meant in practice that:

- Since 1998 all new trains have to be fully accessible.
- From January 2004 operators of trains will have to take steps to retrofit vehicles – where "reasonable" – to make them accessible.
- The Government is also consulting on the option of enhancing disability awareness training for staff in the transport industry.

There is more about the whole issue of transport for people with mobility difficulties in the module on Public Transport and Terminal Design but, do remember, it's not just someone in a wheelchair who is disabled. A few years ago, when I had one (yelling) child in a pushchair, and other pulling at my jacket, while I was trying to carry several plastic bags full of groceries onto a bus with high steps, I **really** found out what was meant by "mobility impaired"!

Roads

Trunk roads

Responsibility for Roads is shared between central (trunk roads) and local government (principal and local roads). In England, the Highways Agency was established in 1994 as an executive agency of DfT. The Secretary of State is responsible for overall government policy on motorways and trunk roads and determining the strategic framework and financial resources within which it operates. See www.highways.gov.uk

In recent years, the focus of trunk-road authority has changed from one of developing a comprehensive network to meet forecast traffic demand to one of managing the existing network. Following the publication of the Transport White Paper trunk-road reviews have or are being carried out in England, Scotland and Wales. In England, the results of that review were published in July 1998.[21] The main outputs were:

► a new direction for the Highways Agency encapsulated in a new strategic aim and new objectives

► a core network of nationally important routes

► new planning arrangements for trunk roads

► better maintenance and making better use of trunk roads

► new dedicated budgets for noise and safety improvements

►

---

[21] DETR (July 1998) *A New Deal for Trunk Roads in England* (TSO, London)

a carefully targeted programme of larger scale improvements.

The strategic aim of the Highways Agency is now defined as:

'To contribute to sustainable development by maintaining, operating and improving the trunk road network in support of the government's integrated transport and land use planning policies.'

The DETR Trunk Roads Review also developed the concept of multi-modal corridor studies so that trunk roads would be seen as part of an integrated transport strategy. To achieve this the review suggested that there was a need to:

▰ bring transport and land-use planning together at regional level

▰ plan future improvements to trunk roads at regional level

▰ focus on strategic road and rail transport corridors, ensuring that these are planned together in an integrated way

▰ provide safer more accessible interchanges between different forms of transport, eg park and ride and freight transfer facilities

▰ consider trunk roads as part of an overall transport network which includes local roads, railways, inland waterways, ports, airports and public-transport interchanges.

The same emphasis applies in the rest of the UK. The degree to which the emphasis has already changed can be illustrated by a number of recent developments.

The Agency's plan for Strategic Traffic Management. This project aims to establish a series of regional traffic control centres for the trunk-road network in England. It is proposed that these centres will manage actively the level and flow of traffic on the network. They will also provide road users with information to make informed choices about how and when they travel. What is interesting about this development is that the Agency aims to provide '*quality traffic and travel information to travellers, even before they start a journey, to help them decide the best way to reach their destination. This will help to balance traffic across the network and encourage drivers to consider alternative forms of transport, to change their time of travel, or perhaps encourage them not to travel at all.*'

The M4 bus lane – following the introduction of the Heathrow Express rail-link to Paddington, the Highways Agency has converted one lane of the in-bound M4 carriageway into a bus lane.

The Government's emphasis on managing roads as well as building new ones – key documents can be found at http://www.dft.gov.uk/stellent/groups/dft_roads/documents/divisionhomepage/030684.hcsp. Whilst management is seen to be key, the Highways Agency website also shows that a great number of new trunk road schemes are now being built, supposedly to deal with congestion

hotspots.

◣   Recommended reading

"Managing our roads", the English government's latest statement of roads policy, is at http://www.dft.gov.uk/stellent/groups/dft_roads/documents/page/dft_roads_610510.pdf

The Highways Agency has been criticized in recent years for failing to maintain and manage the Trunk Road network adequately. It would be worth your while to read the UK Parliament Transport Select Committee Report on Highways Agency 2003 - http://www.publications.parliament.uk/pa/cm200203/cmselect/cmtran/453/45302.htm .
A further report from the Public Accounts Committee is available at http://www.publications.parliament.uk/pa/cm200405/cmselect/cmpubacc/134/13402.htm.
Some of this material deals with the issue of financing roads (see below).
The Highways Agency's own website is at www.highways.gov.uk

Funding trunk roads
As part of the process of rolling back the state, the method of procuring new trunk roads has changed significantly during the 1990s. Increasingly, the Private Finance Initiative (PFI) has become an important means for funding trunk roads, primarily because it reduces the need for the public sector to borrow significant capital sums up front, paying instead for road construction from current revenue spending, rather like a mortgage. The Highways Agency launched its use of the PFI in August 1994 and set as its objectives:

◣   to ensure that the project road is designed, maintained and operated safely and satisfactorily so as to minimise any adverse impact on the environment and maximise benefits to road users

◣   to transfer the appropriate level of risk to the private sector

◣   to promote innovation, not only in technical and operational, but also in financial and commercial arrangements to foster the development of a private-sector road-operating in the UK

◣   to minimise the financial contribution required from the public sector.

In a recent review of the workings of Design, Build, Finance and Operate (DBFO) in England by the Highways Agency[22] the key messages to emerge were:

◣   DBFO contracts have accelerated the introduction of cost efficiencies, innovative techniques and whole-life cost analysis into the design and construction of road schemes and the operation of roads (although the Agency had started to review these possibilities in the context of traditional methods of procurement).

◣

---

[22] The Highways Agency, DBFO, *Value in Roads* (The Highways Agency, London)

The full potential of efficiencies, innovation and whole-life cost analysis inherent in PFI is likely to be fully unlocked only when the private sector is involved in the outline design of the road scheme, which they are then obliged to construct, operate and maintain under a DBFO contract. This requires the private sector to assume some planning risk. Some of the DBFO projects announced introduce the concept of planning risk and will test the proposition that this will deliver better value for money.

▲ The risk allocation on DBFO contracts has been encouraging. Two areas where transfer of risk to the private sector has delivered good value for money are protester action and latent defect risk. The Agency will continue to look for risk transfer to ensure that the DBFO contract liabilities remain off-balance sheet.

▲ DBFO contracts have delivered value for money. Cost savings (compared with the public-sector comparator) have ranged from marginal to substantial; for Tranche 1 and 1A DBFO contracts, the average cost saving is 15%.

▲ Use of a model contract as the basis of negotiation for each DBFO contract saves bidders time in preparing their bids and provides significant efficiencies for the Agency, both in negotiation and in operating the contracts. The updating of the model contract is welcome as it will reflect changes to provisions arising from negotiation.

▲ Training in negotiation for project teams and dissemination of accumulated knowledge on DBFOs – and PFI generally – within the Agency continues to improve the quality of DBFO projects delivered.

▲ When devising the payment structure, the contracting body should determine what its objectives are for the service being provided, and the payment mechanism should be designed to incentivise the private sector to achieve those objectives.

▲ With eight contracts let and expressions of interest received for further projects, it is clear that a road-operating industry is developing. The same consortia (with a few changes in composition) have appeared as bidders on projects within each group.

Over the same period, the Scottish Office Roads Directorate was following a similar route on procurement. In a 1999 paper,[23] to the Annual Meeting of the Association of Municipal Engineers, they reported similar benefits.

Principal and local roads
Funding of Principal and Local Roads is managed through the local authority funding mechanisms, which were discussed in Unit 4. In July 2000, local authorities in Great Britain

---

[23] 'An Alternative Tendering Initiative for Trunk Roads', Neil MacKenzie, Director of Network Maintenance and Management Division, the Scottish Executive, AME Conference, York, June 1999.

which have responsibility for roads and local transport were for the first time required to submit their Local Transport Plans (Strategies in Scotland) to central government. These set out their spending plans for transport over the financial years 2001/2 to 2003/4. 2005 saw the submission of the second round of Local Transport Plans in England titled, prosaically, LTP2.

As I explained in Unit 4, the authority's plans will need to reflect an integrated package of measures and set out the authority's response to its responsibilities under the 1997 Road Traffic Reduction Act. It seems likely, therefore, that the building of roads will only be permitted where it is seen to be an essential element of an integrated transport strategy and achieves objectives related to modes of transport other than the car. Increasingly, those roads that are built – and indeed large-scale public-transport projects – will need to rely on the PFI as a means of securing funding. This situation does not seem to have changed greatly in LTP2. This whole issue will be discussed in detail in Unit 10.

Historically, local authorities exercised their responsibilities for roads by maintaining in-house design, construction and maintenance teams. The Thatcher government in the 1980s took the view that this was not providing good value for money and introduced the compulsory competitive tendering (CCT) legislation referred to in Unit 4 to improve performance and to force increased use of the private sector. The response of local authorities has varied across the country. In general, authorities in the traditional Labour heartlands have tended to fight tooth and nail to retain services in house whereas some others – more in tune with concept of the 'enabling authority' – have actively sought to externalise service provision. With the advent of 'best value' under the current government, the method of procuring transportation infrastructure by local authority will need to stand comparison with the best in the industry. The impact of this new requirement is to put greater emphasis on the policy element of the work of local authority transportation engineers.

▲ Summary

Provision and maintenance of roads infrastructure has for many years been a function of government. Operation of public passenger transport and freight transport was centralised/nationalised (municipalised) during the period following the Second World War. Additionally, responsibility for the provision of railway infrastructure was primarily under central government control (through BR). Progressively, through its Next Steps programme and through the privatisation of public passenger transport and freight transport, the Conservative government of the 1980s and 1990s moved these responsibilities to the private sector or to arm's length Executive Agencies. Also, through the use of Compulsory Competitive Tendering (CCT) legislation, greater involvement of the private sector has been encouraged in the design and maintenance of local authority roads infrastructure.

In England, whilst the Highways Agency is still a public-sector organisation, responsible for the planning and maintenance of the trunk-road system, almost all the day-to-day management of the network is carried out by the private sector. This is also the case in Wales and Scotland. In recent years, most new trunk-road schemes, in Great Britain, have been

achieved through the Private Finance Initiative (PFI). The most popular mechanism is now Design, Build, Finance and Operate (DBFO). DBFO involves a consortium entering into a long-term contract (usually 30 years) to provide and maintain a section of road for that period, in return for a 'rental income' for the use of the road, paid by the government. The rental income is often based on actual usage of the stretch of road on a 'shadow toll' basis.

Following the 1993 Railways Act responsibility for the former British Rail infrastructure transferred to Railtrack (now Network Rail), which was then privatised. Only the London Underground, the Glasgow Underground and the Tyne and Wear Metro system remain in the public sector. All new light rail systems are being developed through the private-finance initiative and automatically have private sector involvement.

Rail Passenger Services formerly operated by British Rail are now operated by one of the 21 private-sector Train Operating Companies under franchises granted by the DfT.

Bus services outside London were deregulated in 1986 and are almost entirely run by the private sector. Lack of quantity regulation leads to lack of co-ordination of these services. In London, Transport for London operates a franchising system for bus services which has avoided the worst excesses of deregulation and has led to some increase in bus patronage.

Freight transport is now operated entirely by the private sector. A separate unit (Unit 8) is devoted to this particular topic.

So having looked at how transport services are currently provided in the UK, in the next unit (Unit 6) we will look at the way in which our views on transport and, in particular, the car have evolved and changed over the years since the Second World War.

Unit 6: Changing attitudes

Introduction

In Unit 1 we looked at the historical development of transport and in Unit 2 we looked at the environmental pressures which have forced all developed countries to re-assess their environmental policies. We saw also in Unit 1 that the Buchanan Report identified the emerging problems of living with the car. In addition, we noted briefly the development of transport policy since that time. In this unit I will look in more detail at the evolution of transport policy since the Buchanan Report. In many senses, this unit will look at the practical implications for policy makers of the changing structures and responsibilities that we have looked at in Units 3, 4 and 5.

▲ Learning outcomes

Once you have worked your way through this unit, including the self assessment sections, you should be able to:

▲ summarise central government's transport-policy response in the period following the publication of the Buchanan Report until the late 1970s

▲ summarise the transport-policy approach of the Conservative governments of Margaret Thatcher and John Major between 1979 and 1997.

Living with the car

The first plans for a national motorway network appeared in 1946 as part of the Labour government's plan to rebuild Britain. In the event, nothing was done to implement it because resources were not available. Building new towns and rebuilding manufacturing took priority. However, as the economy improved and the country entered the Macmillan 'never had it so good' era of the mid 1950s, motorway building began with a vengeance. Indeed, such was the enthusiasm of the Conservative government during the late 1950s that they expanded the motorway programme to 1,000 miles and allocated increasing levels of funds. At this time, despite advice from the government's Chief Highway Engineer and the Road Research Laboratory there was no recognition that there might be a need to build roads in urban areas. Some towns such as Swansea and Plymouth, which had been extensively damaged during the war, took the opportunity to redesign their town-centre road networks. They provided dual carriageways and pedestrian underpasses following the example of many of the post-war new towns. However, to some extent the problem in the larger towns and cities was being hidden by improvements in traffic capacity following the scrapping of tram systems.

Towards the end of the 1950s and the beginning of the 1960s the embryonic traffic engineering profession was developing its skills in managing increasing traffic levels. There were significant successes. Between 1958 and 1962, in London, traffic management measures had led to an increased flow of traffic, at higher speeds and with a reduction in accidents. However, despite these apparent successes, the then Transport Minister – Ernest Marples – recognised that more radical action might be needed. He was, apparently, particularly influenced by a book by Colin Buchanan,[24] and in June 1961 set up a Working Party chaired by him to 'study the long term development of roads and traffic in urban areas and their influence on the urban environment'.

The Working Party's report was published in July 1963 and undoubtedly marked a watershed in attitudes to the car. It established firmly that:

- universal car ownership was a distinct possibility

- maintaining high levels of mobility, by car, in our urban areas would require very high levels of resources

- there was a trade off to be made between accessibility by car and the environment

- if full accessibility by car was not practical, investment in public transport and restraint on car use would be necessary.

It is perhaps not surprising, given that the engineer's normal response to problems is to design and build something, that the first reaction to the Buchanan Report was to opt for maximum accessibility and maximum resources. It is also understandable when one considers the climate of the time which was still focused on the reconstruction of the country following the war years.

The Steering Group[25] had made this link in their covering comments:

'Though the impelling force behind (total reconstruction) would be the pressing need to reorganise our cities for the coming volume of motor traffic, it should be possible in many cases to draw an extra dividend in the replacement of slums or unworthy housing. Indeed it is possible that a vigorous programme of modernising our cities, conceived as a whole and carried on in the public eye would touch a chord of pride in the British people and help to give them that economic and spiritual lift of which they stand in need.'

As I explained earlier in Unit 1, almost at the same time as the Buchanan team was reporting on future directions for roads, Dr Beeching was doing the same for the railways. In addition, soon after these reports were published the 13-year rule of the Conservative government ended. Responsibility for putting the recommendations into action fell to the newly elected government under Harold Wilson. The start of this new political era coincided with a

---

[24] Colin Buchanan (1958) *Mixed Blessings: The Motor in Britain* (Leonard Hill).

[25] Ministry of Transport *Traffic in Towns – A study of the long term problems of traffic in urban areas* (1963) (HMSO, London)

downturn in the economy and an inevitable reduction in public spending. In his book *The Motorway Age*, Starkie comments:[26]

'In the early 1960s it was, indeed, just possible. The vision of a city reshaped around a motor car was arguably a vision still in balance with the national ethos.

'It was soon to prove, however, a vision not in balance with national resources. Within twelve months of the publication of 'Traffic in Towns', the country entered one of the all too frequent stop phases of the stop-go economy cycle so characteristic of the British economy of the fifties and sixties. Most of Harold Wilson's 'White-Hot Technological revolution' remained on the drawing board and the government's response to calls for substantially increased levels of expenditure on urban roads, never more than lukewarm, cooled appreciably. Combined with policies favouring the status quo on the question of spreading the traffic load by deliberate dispersal of urban activities, circumstances were slowly but surely pushing the government into confronting an issue that had for some time been hovering in the background – the issue of deliberate planned restraint on the use of cars in cities. The Buchanan Report had shown that the issue would have to be faced eventually. Now, with public spending once more under pressure and with the better opportunities for squeezing the last drop out of London's roads increasingly spent, the moment had at last arrived.'

Yes, road pricing was firmly on the agenda. We will be looking in some detail at the whole issue of road pricing in Unit 12, but it is worth just understanding the historical context at this stage. The whole issue had been raised by economists in the late 1950s, who argued that congestion arose because of inappropriate and inadequate means of charging for the use of city streets. The first serious look by government was again instigated by Ernest Marples, who commissioned the Smeed Report,[27] which looked at the technical and economic aspects of road pricing. The incoming Labour government picked up the baton and commissioned another report.[28]

Where the Smeed Report had been generally optimistic about the possibilities for developing a practical scheme, the new report was more guarded about the technical practicalities. More importantly, perhaps, it also raised concerns about the implications for motor taxation policy. Starkie comments:[29]

'Most road-pricing advocates had argued that direct pricing beside rationalising the use of existing road space would also provide a policy for investment. This was an aspect that the Smeed Committee chose largely to ignore, but it had, nevertheless, commented that one of the advantages of road pricing was that it would provide guidance as to where the need for road improvement was greatest. Other economists went further and the case for road pricing had been linked with the case for a self-financing roads authority, with the implication that such road taxes should be earmarked (or hypothecated) for spending on roads.

---

[26] David Starkie (1982) *The Motorway Age – Road Traffic Policies in Post-war Britain* (Pergamon) (p41).

[27] R Smeed (Chairman) (1964) *Road Pricing: The Economic and Technical Possibilities* (HMSO).

[28] Ministry of Transport (1967) *Better Use of Town Roads* (HMSO).

[29] David Starkie (1982) *The Motorway Age – Road Traffic Policies in Post-war Britain* (Pergamon) (p.48).

'This, of course, was a controversial if not emotional issue that had ebbed and flowed for most of the century. The Treasury had been able to break the link between motor taxes and road spending prior to the war and was intent on the situation remaining that way. Thus when Lord Chesham wrote to *The Times* and said that if Mrs Castle (the Transport Minister) "wishes to make her proposals more acceptable then road pricing must be part of a general overhaul of road administration and finance with the income passed on to a national roads board to further road development", Whitehall must have reacted nervously.'

Indeed they did. Although there have been brief 'flirtations' with the subject (and a lot of research undertaken), until now, perhaps, no politician has been prepared to take the 'courageous' decision to implement road pricing.

In general terms, the Labour government's approach to transport was rooted in a belief that an integrated system could be achieved through public control and planning of all aspects of transport. This was compatible with their belief in the need for close public control and planning of the economy. An illustration of this approach was the establishment of a Department of Economic Affairs under George Brown, and from a transport viewpoint:

▲ the development of the land-use transportation study

▲ the 1968 Transport Act.

More on these shortly. With little money available for urban road schemes and the stark warnings of Buchanan fresh in people's minds, there were real fears that cities would just grind to a halt. Without road pricing and with traffic management 'solutions' already in place the only practical restraint measure available appeared to be draconian parking constraints. Strangely, though, by the start of the 1970s the worst had not happened. Instead, a combination of factors had allowed yet more capacity to be squeezed out of the networks. These included:

▲ further improvement and dissemination of traffic management skills

▲ transfer of heavy industry from town centres to the perimeter of towns

▲ the average size of cars was also decreasing with the introduction of the Mini.

As Starkie concluded:[30]

'Thus, by the beginning of the seventies the doom laden predictions of the mid-sixties had yet to materialise. Traffic had not been restrained to any appreciable degree by planned controls, and both flows *and* speeds were on the increase. With the prospects also of more spending on urban roads just around the corner, not surprisingly local authorities showed little sense of urgency in meeting the Ministry request for Traffic and Transport Plans. These short-term plans, illustrating the restraint methods councils were to adopt, were required originally by the end of 1969. But by early 1972 little more than a third of authorities had submitted completed proposals. Instead, at the turn of the decade, it was the plans for urban motorways and other large scale road schemes that were capturing both attention and headlines.'

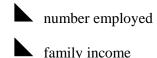## Land-use transportation studies

Prior to local government reorganisation in the early 1970s, new road schemes and road-improvement schemes were approved on an individual basis by central government. As we have seen, the general presumption during the later stages of the Conservative government's reign in the 1950s and 1960s was that the trunk routes (motorways) would be completed first before re-directing the funds to the urban areas. In the interim, local authorities in the metropolitan areas were encouraged to develop co-ordinated highway plans for their areas. The approach was simplistic. Origin and Destination Surveys were used to establish existing traffic flows, which were then factored up for a future date using projected increases in car ownership and changes in population for the area. Highway networks were then designed to meet the forecast flows. By the mid 1960s any self-respecting conurbation had its Highway Plan (and very ambitious it was too).

The resource implications were frightening (for the Minister of Transport anyway). Happily (for the Minister), however, Buchanan provided a let out. The report had established an understanding that traffic resulted from people's desire to get to work, shop, and so on. In other words, traffic was a function of land use. Therefore before predictions could be made of future traffic levels, a proper understanding of land-use activities was needed. So the Land-use Transportation Study was born. At the beginning of 1964, in a joint Ministry of Housing and Transport Circular, local authorities were asked to prepare land-use transportation studies. The first to get underway was for the West Midlands but other conurbations quickly followed. By the end of the decade most urban areas and most of the larger counties had completed a study, or had one underway.

The basic concept of the studies was to determine the relationship between activities and travel, and, by estimating the change in level and nature of the activities, to predict what changes would occur in travel patterns and levels. The key generating factor was the household. Consequently, the main starting point for all studies was the household interview survey, where trip-making patterns were established. Typically, households were categorised by:
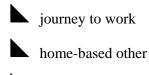
◤   size of family

---

[30] David Starkie (1982) *The Motorway Age – Road Traffic Policies in Post-war Britain* (Pergamon) (p.58).

- number employed

- family income

- car ownership.

Trip rates were then generated for each of the combinations of family category, for a range of different types of trip purpose. These included:

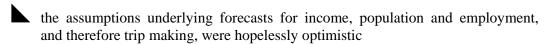- journey to work

- home-based other

- non-home based.

A similar exercise was carried out for the destination end of the journey and 'attraction' rates calculated for employment, recreational and business land uses.

The study area was divided into a series of zones and an estimate of the number of trips starting and finishing at each zone was made based on the current population, business activity and the trip rates. These origins and destinations were then distributed using a mathematical model to simulate the movements between all the zones in the study area. These trips were then assigned to the existing road network (using the shortest available route) and the resulting trip pattern calibrated against surveys of existing traffic levels.

Having calibrated the model to the current-day patterns, future trip making was predicted by estimating future numbers of households in each of the categories and future levels of business activity. These new forecast trip origins and destinations were then distributed between the zones and assigned to future road networks by the calibrated model.

Too often the studies appeared to be designed to justify the existing highway plan, perhaps with some minor modification. Indeed, a report by Glasgow Corporation following its Study commented:[31] 'The city's long term Highway Plan … has been fully vindicated by the Greater Glasgow Transportation Study.'

However, with the benefit of hindsight it is now clear that these early studies suffered from two main defects:

- the assumptions underlying forecasts for income, population and employment, and therefore trip making, were hopelessly optimistic

- the inability of the models to cope with the concept of capacity restraint and therefore modal shift.

---

[31] Corporation of Glasgow (1969) *Glasgow's Transport Plan – Dream or Reality?* (Corporation of Glasgow)

The oil crisis of 1973 also led to a major hike in the cost of fuel, which in turn had the added impact of slowing car ownership increases and therefore traffic growth. Although modelling techniques have improved over the years, subsequent events have undermined confidence in the approach.

Starkie reflects on this period of transport planning:[32]

'An analysis conducted at the end of the seventies suggested that the forecast error over ten years in thirty one early transportation studies was, on average, around 12% for population and employment, and over 29% for cars per head and household income. In fact the startling conclusion arrived at was that if the planner had assumed 'no change', frequently he would have been less inaccurate …

> **'… there was an expectation amongst the local authorities and politicians, and to some extent amongst the public, that certain highway schemes would be built.'**
> Extract from 2nd Report of House of Commons Expenditure Committee, Session 1972/3

'But one wonders, had it been possible to foretell with greater accuracy future population, employment, income and car ownership growth, whether the transportation study proposals would in any case have been much different … The die had already been cast.'

However, by the time we were reaching the end of the 1970s and the inadequacies of the land-use transportation study was becoming apparent, urban road building was already underway. With it had come the realisation that building roads in urban areas often brought with it heavy environmental costs. Too often, they cut a swathe through inner city areas and they dwarfed or overshadowed the remaining, adjacent buildings. Plans to build similar roads in other towns and cities began to meet resistance. Growing awareness of environmental issues and the increasing influence of bodies like the Civic Trust and the Victorian Society (established in the late 1950s) stimulated a more critical examination of road builders' proposals. It didn't just apply to road building either. Adverse reaction grew to the spate of concrete jungles of shopping precincts, office complexes, and modular skyscraper flats that passed for inner city redevelopment schemes. Glasgow is a prime example of a city changing its modernising approach when it belatedly realised that its Victorian architectural heritage was infinitely better than the modern replacements.

---

[32] David Starkie (1982) *The Motorway Age – Road Traffic Policies in Post-war Britain* (Pergamon) (p.68).

So in the late 1960s, as Starkie[33] observes:

'… urban policies began to change to accommodate this new mood. For example, the Civic Amenities Act (promoted as a Private Member's Bill by Duncan Sandys, President of the Civic Trust, and passed with government backing) gave statutory recognition to the concept of conservation areas. Now whole areas of towns, as distinct from individual buildings, could be protected if the buildings en masse provided a character worth preserving. Housing policies, too, were moving emphatically towards modernisation and rehabilitation.

'There was, however, little evidence at the beginning of the seventies that the full significance of these changes of public attitude had caught up with the Ministry road planners. For years they (and the transportation studies promoted by them) had proceeded on the basis that comprehensive redevelopment was inevitable. It appeared they continued to do so. Their basic response to the anti-road campaigns was to think in terms of "sugaring the pill" – to place faith in the possibility that opposition to road schemes might evaporate with better road design and more generous compensation. What was not evident at this stage was a change in the basic belief that the problem of traffic in towns in the long term could be solved only with the aid of a substantial programme of building new roads.'

A changing emphasis

By the start of the 1970s, therefore, a number of factors conspired to start a change in direction. The **1968 Transport Act** had recognised the need for an 'integrated' approach towards the planning and provision of public transport. The Act led to the setting up of seven Passenger Transport Authorities and Executives in:

- West Midlands

- Merseyside

- Greater Manchester

- South Yorkshire

- West Yorkshire

- Tyne and Wear

- Strathclyde.

In addition to the general duty to 'secure or promote the provision of a properly integrated and efficient system of public passenger transport' for their areas, they were given powers to:

- in general, operate public-transport services

---

[33] David Starkie (1982) *The Motorway Age – Road Traffic Policies in Post-war Britain* (Pergamon) (p.82).

◤ take control of bus operations in their areas

◤ agree the specification and paying of subsidies for rail service within and up to 25 miles beyond the boundary of their area

◤ fund the development of public passenger transport capital works.

The Act also led to a rationalisation of bus services across England and Wales with the setting up of the National Bus Company. In Scotland, the creation of the Scottish Transport Group brought under one grouping the bus operations of the Scottish Bus Group and the ferry operations of David MacBrayne and the Caledonian Steam Packet Company Limited (formerly part of British Rail). In addition to being given powers to operate services in their areas, they were charged with a duty to co-operate with PTEs, other operators and (subsequently) local authorities to achieve co-ordination of services.

As a consequence of the Beeching Report, which we discussed in Unit 1, the Act also put in place the concept of the Public Service Obligation (the PSO). Ultimately, British Rail's services fell into one of four categories:

◤ commercial services (primarily the InterCity Services)

◤ PSO services (subsidised services outwith the PTE areas)

◤ Section 20 (S20) services (services subsidised under an agreement with a PTE)

◤ freight services.

Freight services also were expected to operate on a commercial basis. However, cost allocation was carried out on a marginal cost basis with the 'pecking order' being that shown above. In other words, on lines where commercial services operated, these services were allocated the bulk of the fixed infrastructure costs. Any other services using the track, signalling, stations and so on. only paid the additional (or marginal) costs attributable to their use of the facilities. This lead to a certain degree of creativity in agreeing the package of services that PTEs would agree with British Rail. By, for instance, supporting all but one train on a line which had no commercial service on it. In this way, the first allocation of infrastructure costs remained with the PSO and the PTE was only charged the marginal costs.

The duty under the 1968 Act to 'integrate' was mirrored in the less comprehensive duty given to local authorities under the **1972 Local Government Act** (1973 in Scotland) to 'promote the provision of a co-ordinated and efficient system of public passenger transport'. The Act also created counties and regions which, with a few notable exceptions, united major cities and towns with their transport catchment areas. At the same time, the system of funding individual road schemes changed to one of the funding of transport programmes. Local authorities were also given the power to subsidise passenger transport services and to fund the development of public transport infrastructure.

▲ A case study – roads in London

The changing attitude to urban roads is well illustrated by the spectacular demise of the proposals for motorways in London. Peter Hall includes this in his book – *Great Planning Disasters*.[34] It is well worth reading to understand the full significance of the decision.
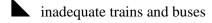
Road plans for London were formalised in the Greater London development plan which was submitted to the government in 1969. A Panel of Inquiry was set up, headed by Sir Frank Layfield, to consider the 28,000 objections which had been submitted; 75% of these related to the road proposals for a triple ringway system with linking radial routes.

The inquiry lasted for two years and concluded that there was an inconsistency between the capacity proposed for the motorway system and the ability of the central London street system to cope with the predicted volume of traffic. The panel recommended, therefore, a significant reduction in the level of road building. They did approve, however, the construction of the outer ring (the M25) and, controversially, the inner ring road. This would have involved the building of a ring road around the City of London and the West End.

Opposition continued and was led by the London Amenity and Transport Association (LATA), who were particularly critical of the inner ring road (Ringway 1) because of the extensive property acquisition required. In the end, the panel's view turned out to be largely academic because, in 1972, the London Labour Party took an anti-motorway stance which swept them into power in the 1973 GLC elections. With the exception of the M25 (which was largely outside the Greater London area) the plans were dropped.

The House of Commons Expenditure Committee Inquiry into urban transport

Whilst this debate was raging in London (and indeed in many other cities), the House of Commons Expenditure Committee decided to launch its own inquiry, because of increasing concerns with city transport. These concerns presented themselves as:

▲ inadequate trains and buses

▲ action groups demonstrating against urban motorways

▲ traffic congestion

▲ swamping of city streets by private cars and intrusive heavy lorries.

---

[34] Peter Hall (1980) *Great Planning Disasters* (Weidenfield and Nicolson).

Their investigations concentrated on the journey to work and aimed to determine whether the Department of the Environment's policies and financial measures were solving the problems. They recognised that much of the executive action lay with local authorities, but since most of the money came from central government, they had a duty to ensure that it was being spent wisely.

The inquiry lasted the best part of a year and heard evidence from a wide range of organisations and individuals. Its report,[35] when it came, was of considerable significance. Its key recommendations were:

> 'Firstly, there should be a major substantial effort to improve public transport … Secondly, the use of private cars for journeys to work should be severely discouraged in areas where it impedes public transport.'

The report went on to say:

> 'We form these conclusions because in city centres the benefits enjoyed by motorists in peak hours are more than offset by the costs and penalties that they impose upon the community as a whole. We do not believe that in the short term an extension of urban road building of itself represents a solution to any of the problems we have discussed … The arguments used to favour urban road building seems to us to be in error in presuming that the roads which we already have are being used in the most efficient manner … we believe that the first step should be to make the best use of the present road system before adding substantially to it.'

> The report commanded almost universal support and many of the policy statements that followed applied these principals. At the same time, as disillusion with urban road building had grown some of the more radical councils began to experiment with alternative approaches. Bus priority schemes were seen as a way of protecting buses from congestion and traffic restraint was increasingly used to discourage car travel. The 'Nottingham Zone and Collar' system was a prime example. Conceived following the rejection, at planning inquiry, of its road proposals, the system used traffic signals to ration the number of cars joining the main radial routes, into the city centre, from suburban areas. Rationing also took place at points on the radial routes around the edge of the city centre. These measures were complemented by extensive bus priority measures (also available to cyclists and emergency vehicles) and reductions in long-term parking spaces in the city centres.

> Throughout the 1970s and 1980s, for many cities this became the alternative approach to comprehensive redevelopment and inner city road building. Indeed, the reorganisation of local government and the changes to the approach to funding of transport meant that central government was in effect accepting the grass roots judgement on urban road building. Indeed, they became enthusiastic promoters of

---

[35] House of Commons, Paper 57, *Urban Transport Planning*, second report from the Expenditure Committee, Session 1972/73, July 1973 (HMSO).

this 'new way', encouraging local authority expenditure on parking controls, bus priority measures. Starkie[36] comments:

'In Britain in the early seventies about two dozen cities had populations greater than 200,000. Of these, around half a dozen had, by the early part of 1973, abandoned, or at least temporarily suspended, plans to build extensive highway systems. Although other cities, Glasgow, Liverpool and Leeds for example, pressed on with their own schemes with undiminished enthusiasm, the shock had registered. The received wisdom that had pushed so many cities down this road a decade before had at last witnessed a significant challenge.

'The challenge had come in fact from a distinctly different approach to roads and traffic. This had developed in parallel with an increasing realisation that there was a lower limit than Buchanan and his peers had assumed, to the amount of physical change to familiar surroundings that people would tolerate. As a consequence, it was an approach which stressed making better use of the existing road system and it had elements within it that could be traced back to both traffic engineering techniques first honed in Marple's days and to the economists' arguments for marketing urban road space …

'At the time, the full significance of these changes was not appreciated, lost as they were in the confusion of the oil crisis and its economic ramifications, and the gestation period of financial reform for local government. But these pronounced, but possibly least recognised, U-turns of the 1970–74 government of Edward Heath were significant indeed. Really they marked the end of a long struggle to maintain a semblance of the policy established before the war of operating urban bus services on strictly commercial lines. And they marked the end of the policy established a decade before, with the government's acceptance in principle of the Buchanan report, that when resources allowed, there should be substantial road building in British cities to maximise the degree of access for private cars. In fact with these shifts of policy, a distinctive chapter in the post-war history of traffic in towns was at last drawing to a close. Henceforth, after the autumn of 1973, the emphasis was to be quite different.'

At the same time, the completion of the motorway network (as conceived in the immediate post-war years) was still proceeding, and whilst progress was being delayed in some cases by amenity groups, their objections were primarily about the route rather than the principle. It was not until the early 1970s that a concerted challenge to the need for a motorway was made. At first, the government responded by trying to limit the scope of planning inquiries and this was supported by inspectors refusing to allow cross questioning of DoT witnesses on traffic forecasts. Despite growing opposition, the government held to the line that policy was a matter for Parliament and inquiries could not challenge policy. Eventually the level of disruption caused by objectors at inquiries was creating significant delays to the roads programme. In an effort to defuse the position, the government announced an independent review of scheme appraisal. This led to the setting up, in 1976, of an Advisory Committee on

---

[36] David Starkie (1982) *The Motorway Age – Road Traffic Policies in Post-war Britain* (Pergamon) (p.90).

Trunk Road Assessment, later to become the Standing Advisory Committee (SACTRA). We will look at the development of economic assessment methods in some detail in Unit 11. However, at this stage, we should recognise that this was a very significant development. Its review concluded that the traffic forecasting methods were flawed and that the economic appraisal of schemes was too narrow in focus. This resulted in a revised roads programme which concentrated more on local by-passes and less on a network of long-distance motorways. Equally importantly, they questioned the conventional view that roads could help promote regional economic development. In more recent times SACTRA's work has been responsible for establishing that roads can in themselves generate traffic, which has led to a move away from the 'predict and provide' approach.

Starkie wrote his book *The Motorway Age* in 1982, just after the start of the 'Thatcher Years'. At that time he concluded:[37]

'… [the] economic and social trends [of the years since Buchanan], which on the whole were of a fairly smooth nature, do not by themselves explain one important feature of post-war road and traffic policies, namely the tendency towards distinct, quite sudden but infrequent change. However, by combining the forces of circumstance with the role of pressure groups, we are able to explain more easily such marked changes in policy.

'Just as pressure groups promote their preferred policies so too do they resist change which either is not in their interest or with which they do not associate. Mandarins in particular act in this manner. The Whitehall style of government is to avoid conflict and seek consensus. The inclination of the civil servant is to advise in favour of change only when an assured position has been reached with most, if not all, interested parties (including here the perceived position of the electorate viewed as a whole). This, "political caution and administrative inertia"[38] in the Whitehall system, operate to deflect challenge to existing policies …

'In these circumstances, alteration of policies is unlikely to be brought about by gradual modification. On the contrary, the tendency is for firm change of policy to take place only when a sufficient head of steam has been produced by lobbyists capitalising upon favourable pressures from economic, social and intellectual forces. With sufficient push the old policies will give way, thus producing a distinctive break with the past.'

Enter stage left Margaret Thatcher (the Iron Lady) – with a handsome parliamentary majority – a conviction politician. She was less concerned with the niceties of consensus and was intent on rolling back the boundaries of the 'nanny state'.

◣ Recommended reading

---

[37] David Starkie (1982) *The Motorway Age – Road Traffic Policies in Post war Britain* (Pergamon) (p.152).

[38] William Plowden (1973) *The Motor Car and Politics in Britain* (Penguin, Harmondsworth).

For another (more recent) view on the influence of interest groups on transport policy, you should read Chapter 5 of *Transport Policy in Britain.*[39] As you read consider the lobbying case studies described and identify the mechanisms that made them successful.

▲ Self assessment question 6.1

Describe in your own words what mechanisms and lobby groups were involved in changing transport policy in the period since the Buchanan Report to the late 1970s. (Alternatively, describe the mechanisms that were involved in a transportation policy change from your own experience.)

Conservative free-market approach

I have already mentioned briefly the rediscovery of competition and the programme of privatisation that were a feature of the 1980s and 1990s, in Unit 1 (it is also covered in Chapter 2 of *Transport Policy in Britain*).[40] I also noted in Unit 4 that 'During the 1980s the Conservative government, under a succession of Secretaries of State for the Environment, pursued policies which essentially let the market have its head.'

When the Conservatives came to power in 1979, urban road building had all but ceased, the motorway building programme was facing increasing difficulties and public-transport use (particularly buses) was continuing to decline. Added to this, there was still a concern about the security of oil supplies following the difficulties of the 1970s. The free-market approach advocated by the new government was summed up in a speech[41] at a conference in 1980 by Norman Fowler, then the Minister for Transport:

'But there is one thing that I want to make clear. I reject as a policy aim the deliberate restriction of people's mobility. I want to retain, and indeed improve, choices that are open to people in their transport decisions. I realise that rising energy prices may well bring some hardship and may well bring some difficulties. At least a part of the answer to this is to improve the efficiency not only of vehicles but also of course the public-transport services that all of us at one time or another use; and I very much hope that the Transport Act that became law earlier this year has a contribution to make in encouraging greater competition among public-transport operators, and therefore also a contribution to efficiency … In the same way, more efficient use of private motor cars, for example by more car sharing by

[39] Glaister S, Burnham J, Stevens H and Travers T (1998) *Transport Policy in Britain* (Macmillan, Basingstoke).

[40] Glaister S, Burnham J, Stevens H and Travers T (1998) *Transport Policy in Britain* (Macmillan).

[41] Norman Fowler, keynote speech to Transport and Energy Conference, organised by the Institution of Civil Engineers, November 1980.

people driving to work, will I hope be a contribution not only to easing congestion but also to saving fuel as well.'

The argument for efficiency was the need for energy conservation in the face of growing concerns about the instability of oil supplies, not for any environmental concern. The escalating fuel prices, too, were market driven rather than government inspired. Throughout the 1980s the government implemented a general policy of privatisation, deregulation and containing public expenditure. In the area of public transport, deregulation had probably a more marked effect than privatisation. Meanwhile, on the land-use planning front, a series of Environment Secretaries were taking the opportunity to apply free-market dictats to planning control. Planning guidance, in a nut shell, was that developers knew best. Where councils tried to hold the line, developers could appeal with every chance that the Secretary of State would find in their favour. The result was the proliferation of out-of-town centre retail developments and business parks, highly accessible by car but no-go areas for public transport.

The economic boom of late 1980s accelerated this trend and fuelled record levels of traffic growth. These trends were particularly marked in the south-east of England, where the completion of the M25 was marked by a realisation that it was almost immediately under capacity. Land-use and transport-planning decisions were being seen to influence 'lifestyle' decisions. Lifestyle decisions that assumed the availability of a car.

In the early 1990s a number of interrelated developments started to change public attitudes again:

- There was a growing realisation that the free market would prefer to develop greenfield sites rather than use brown-field ones.

- Growing concerns about global warning caused by excess greenhouse gases.

- Growing concerns about the adverse health effects of pollutants discharged by the internal combustion engine, particularly in congested areas of towns.

- New roads such as the M25 quickly became as congested as the routes they were supposed to relieve. The hypothesis that new roads could generate new traffic began to gain ground.

- SACTRA confirmed the hypothesis that increasing road space could generate traffic and the reverse hypothesis, that decreasing road space would reduce traffic levels, began to gain credence.

- Protests against new road plans moved out of the Inquiry Room and on to the site. Direct action and civil disobedience became the order of the day. However, what was quite remarkable about this development was that the Swampys of this world (who might have been dismissed as 'professional' protesters) were joined by Middle England's 'Blue Rinse Brigade'. Suddenly, it became fashionable to be an 'eco-warrior'.

▲ New National Road Traffic Forecasts which suggested that traffic could increase by between 87% and 142% by 2025.

▲ The Royal Commission Reports on Transport and the Environment.

In Unit 2 we looked at the way in which the environmental pressure at a world-wide level and from its own advisers (SACTRA and the Royal Commission) began to influence government policy. You also examined the government's response as set out in *Sustainable Development – The UK Strategy*. However, perhaps the most significant change in policy came with the revision of Planning Policy Guidance note (PPG) 13 (SPP17 in Scotland).

▲ Recommended reading

You should now read the original or the Scottish version *SPP 17* (see www.scotland.gov.uk/Publications/2005/08/16154406). (A quick read will suffice for the moment because we will be looking at these documents in more detail in Unit 13.) In addition, have a look at an article[42] from Traffic Engineering and Control by Phil Goodwin and others.

National debate

So by 1995, a considerable head of steam had built up for a change in direction for transport policy. And in 1995 we got yet another Secretary of State for Transport – Dr Brian Mawhinney. He set about tackling his new brief by launching what he dubbed a 'national debate on transport policy'. He led the debate by presenting a series of speeches covering the main issues:

▲ a competitive economy

▲ environmental impacts

▲ freight transport

▲ urban transport

▲ freedom and personal choice.

The speeches were then issued as the consultation document.

---

[42] Goodwin, Hass-Klau and Cairns (June 1998) 'Evidence on the effects of road capacity reduction on traffic levels', *Traffic Engineering and Control.*

Transport – the way ahead

Following the consultation period (and with yet another Secretary for State for Transport) the central thrust of the Green Paper[43] which emerged, revolved around three tenets:

- balance of costs and benefits

- affordability

- judgement.

'It is economically efficient for the transport prices paid by an individual transport user to reflect all the economic costs, including the cost of road provision, environmental and other costs of that individual's travel decisions. This forces transport users to take account all of the costs and benefits of their travel decisions and adjust their behaviour accordingly.'

> *Transport – The Way Forward* Government Green Paper (1996) (HMSO) (Para.8.10).

Whilst there was a general recognition that a new balance needed to be struck this Green Paper still clung to the notion that 'the market' would sort it out. With rail privatisation under way and the worst excesses of bus deregulation passed, the Conservative government expected the private operators to offer services that would attract people away from their cars. (With an election looming this was not, perhaps, the time for 'courageous' anti-car policies.)

It accepted that prices needed to reflect the full costs of transport (as outlined in the UK Sustainable Development Strategy 1994). However, the application of this principle, it said, had to reflect what was practicable. For example, it argued:

- environmental costs were uncertain

- some congestion and road safety costs might be internal

- transport was best provided by a customer-responsive private sector

- markets needed to be liberalised

- markets needed to be controlled by economic instruments rather than regulation wherever possible

- private sector finance needed to be encouraged

---

[43] Department of Transport (1996) *Transport The Way Forward: The Government's Response to the Transport Debate* (HMSO, London)

▲   local government was best at taking strategic decisions for its area balancing restraint and access, and setting local targets

▲   central government was best at setting a legislative, financial and policy framework.

Specific proposals made within the Green Paper were:

▲   **Trunk roads and land-use planning to be integrated**
    Trunk roads programme and strategy would be included within the Regional Planning Guidance process.

▲   **Service levels for trunk roads**
    Highways Agency would consider introducing agreed service levels for key routes; and developing five- and ten-year route strategies which would identify future service level targets and measures necessary to achieve them.

▲   **New local-authority powers**
    New powers would be given to local authorities to:
    ▲   take measures to reduce pollution from vehicles
    ▲   undertake congestion pricing trials
    ▲   manage traffic demand.

▲   **Promotion initiatives**
    New initiatives would be developed to promote use of green modes such as:
    ▲   bus use, walking and cycling
    ▲   improved information for public-transport users
    ▲   travel impact awareness campaigns.

▲   **New standards**
    New Standards would be introduced for:
    ▲   vehicle emissions
    ▲   noise levels.
    Vehicle design would be improved to provide better protection and pedestrian safety features.

▲   **Enforcement**
    Stricter enforcement of freight operators licences was promised and local authorities would be given the role of enforcement for vehicle emissions.

▲   **On-going research**
    Further research would be undertaken on:
    ▲   the environmental costs of road use
    ▲   the link between traffic growth and economic growth
    ▲   parking controls and traffic restraint

�785 traveller response to price signals.

▲ **Consultations**
Consultation was promised on:
- ▲ a national strategy for cycling
- ▲ a national air quality strategy
- ▲ traffic targets for local authorities
- ▲ planning and trunk roads.

In effect this was the Conservative's swan song. Within a year a General Election was called. The rest, as they say, is history. There was, however, sufficient time for the Labour Party to put forward its response to the Green Paper, which was to become their manifesto on transport for the coming election, and there was time for a Private Member's Bill on the setting of traffic targets: The 1997 Road Traffic Reduction Act. This requires local authorities to review existing and forecast traffic levels and to prepare a report with targets for reducing traffic levels or the growth in traffic levels.

▲ **Self assessment question 6.2**

Identify the change in thinking and approach through a comparison of the 1987 and 1997 guidance on traffic and transport in urban areas.

It is interesting to reflect on the changes in attitude which took place in the second half of the Conservatives' 18 years in office. Whilst, in legislative terms, nothing changed – the privatisation and deregulation process continued – at a local level significant changes were taking place. Driven partly by government direction (PPG 13) and partly by individual local authorities' adoption of Local Agenda 21 policies, transport strategies were changing. Councils adopted stricter regimes for damping down car use with pro green mode traffic management schemes and promotional campaigns such as 'Travelwise'. It can, of course, be argued that many of the proposals in the Green Paper have their roots in local authority initiatives. Again this suggests that the policy shift was driven from the bottom rather than by government itself.

But judge for yourself the degree to which approaches changed despite an apparent inertia at central-government level. *Transport in the Urban Environment*[44] is the traffic engineer's bible. Produced by the Institution of Highways and Transportation (IHT) with support from the Department of Transport, it provides a guide to good practice. *Transport in the Urban Environment* was published in 1997, just after the Green Paper, and replaced an earlier document *Roads and Traffic in Urban Areas.*[45] Also produced by the IHT with government backing, this document reflected the collective wisdom of the profession a decade earlier.

---

[44] Institution of Highways and Transportation (1997) *Transport in the Urban Environment* (IHT).

[45] Institution of Highways and Transportation (1987) *Roads and Traffic in Urban Areas* (HMSO).

Chapter 11 in *Roads and Traffic in Urban Areas* looks at the 'Estimation of travel demand' and Chapter 8 in *Transport and the Urban Environment* discusses 'Estimating travellers' responses to changes in the transport system'. Read through these two chapters and then spend up to half an hour noting down the changes in approach and emphasis reflected in the two documents.

◣ Summary

In this unit we have looked at the way in which the nation's love affair with the car has challenged the very form of our towns and cities. We have seen that even the very early attempts to rebuild our cities to meet the needs of car travel were often frustrated by lack of finance. Where new roads were built it soon became apparent that they were not going to be good neighbours to the remaining parts of the urban environment. Resistance to further urban road building soon gathered momentum. As urban road building went on hold, the art and science of traffic engineering grew apace. The change of government in the mid 1960s led to attempts through the 1968 Transport Act, and subsequent Local Government Acts, to revitalise public transport. This certainly led to an increase in spending on public-transport infrastructure – particularly in the PTE areas. However, the large publicly controlled public-transport operators seem ill equipped to stem the decline in public-transport usage.

Consequently, when the Conservatives returned to government, the 1980s saw the unleashing of market forces. The debacle that was deregulation encouraged further car use and, particularly in the south of England, congested road networks led to a decentralisation of employment, retail and leisure activities which were only really accessible by car.

Throughout this process, whilst urban road building had been severely curtailed, the inter urban motorway was spreading across the countryside. Increasingly, though, environmental concerns were challenging the logic of predict and provide. By the end of the Conservative's term in office in 1997, a radical rethink was underway. It required a change of government to give this rethink some real impetus, but that's another story. Indeed, it's another unit – in fact the next unit – Unit 7.

Unit 7: A new deal for transport (the White Paper) and the Ten Year Plan

Introduction

In July 1998 the government published its long awaited Transport White Paper – the first in a generation. A White Paper is a statement of general policy intent as well as something that sets out proposals for new legislation. After almost a decade of debate about the futility of trying to build our way out of traffic congestion and the need for sustainable development – a statement of intent on an integrated transport policy. What was interesting was that rather than trying to unravel much of the privatisation implemented by the Conservatives, New Labour threw off its public ownership past and accepted that operation of transport services and indeed provision of infrastructure could be left to the private sector. Some might say that this pragmatism is due, at least in part, to the commitment to fiscal prudence made by the Chancellor, Gordon Brown; others, such as the former Mayor of London, Ken Livingstone, say that it is because aliens have taken control of the Treasury.

Where they differed from their predecessors was that they saw a need for much stronger regulatory powers and for a more comprehensive co-ordinating framework. In short they believe that integrated transport needs to be planned rather than by encouraging the free market to deliver it. In this unit we will review the proposals in the UK White Paper and those in the Scottish, Welsh and Northern Ireland supplementary documents.

◣ Learning outcomes

Once you have worked your way through this unit, including the self assessment sections, you should be able to:

◣ summarise the objectives of and the key issues covered by the White Papers of 1998 and 2004;

◣ list the main ways in which the White Papers have influenced the legislation that was passed subsequently;

understand how the Ten Year Plan and its equivalents developed from the 1998 White Paper, and how they differ; and

◣ be able to critically appraise the claimed benefits which were supposed to have resulted from the implementation of the projects in the Ten Year Plan, and the new (2004) 26 year plan.

◤ Recommended reading

Publication of the UK wide White Paper[46] followed the consultation exercise undertaken soon after the Labour government came to power in May 1997. The circumstances leading up to its issue have been discussed in detail in the previous units. It is complemented in Scotland, Northern Ireland and Wales by specific national documents. To a large extent it has now been superseded by the Ten Year Plan for Transport (published in 2001 in England); and the National Transport Delivery Plan in Scotland. These in turn have been or will be replaced by the 2004 White Papers in England, the National Transport Strategy in Scotland and the Wales Transport Strategy in, er, Wales.

It is notable that in the past 2-3 years in England (2005-2008), the transport policy making process has been driven as much by the Treasury (Finance Ministry) as by the DfT and DCLG. So two important studies, the Eddington Transport Study and the Barker Review of the Planning System, have both been driven by the Treasury. This marks a move back towards economic development as the primary objective of both transport and land use planning and can perhaps be viewed as part of a cycle that government in the UK feels that it has to go through every 20 years or so.

Read the summaries of the White Papers and Studies available at

http://www.dft.gov.uk/stellent/groups/dft_control/documents/contentservertemplate/dft_index.hcst?n=11489&l=2 (1998 White Paper)

http://www.dft.gov.uk/stellent/groups/dft_about/documents/divisionhomepage/030479.hcsp (2004 White Paper and 2001 Ten Year Plan)

http://www.dft.gov.uk/about/strategy/transportstrategy/eddingtonstudy/   or http://www.dft.gov.uk/162259/187604/206711/executivesummary (just skim this)

http://www.hm-treasury.gov.uk/independent_reviews/barker_review_land_use_planning/barkerreview_land_use_planning_index.cfm

◤ Self assessment question 7.1

Identify the objectives of transport policy as set out in the White Paper and the 10 Year Plan. How do they differ? What measures were/are proposed to achieve these objectives?

---

[46] DETR (July 1998) *A New Deal for Transport: Better for Everyone* (SO, London).

A quick check on your reading. Spend about 20 minutes listing the key objectives of UK transport policy, with some brief notes on the relevance and importance of each. Try in particular to assess how policy objectives have changed or developed since 1997.

A New Deal for Transport: Better for Everyone

In his foreword to the 1998 White Paper, John Prescott argued that there was a consensus for radical change in transport policy. He was also magnanimous enough to recognise the previous government's shift in thinking in their Green Paper[47] that had accepted the need to improve public transport and reduce dependence on the car. In June 1997, a month after gaining power, Prescott said – in words destined to haunt him, recorded in *The Guardian* newspaper – "I will have failed if in five years time there are not many more people using public transport and far few journeys by car." Here then was an explicit commitment to *cutting car use*. By 1998 and the White Paper, this commitment had been watered down somewhat and replaced by an emphasis on the somewhat woolly notion of *integrated transport*; and by 2001 and the Ten Year Plan, the idea of cutting car use had – under political pressure from those in the government who thought that such rhetoric would not wash with the electorate - almost entirely disappeared, as we will see.

In the following review of the White Paper, the order of the topics is the same as that in the document itself. Many of the topics discussed in the White Paper were enlarged upon in a series of 'Daughter Documents'. These are referenced in the text and some are the subject of individual units – still to come.

The text that follows provides a summary of the White Paper. If you wish, it is still available for download on the DfT website, so you can read it. It is now a useful historical benchmark in the development of transport policy in Britain over the past decade.

Scope
The scope of the White Paper was UK wide, but Scotland[48] Wales[49] and Northern Ireland[50] considered their own transport priorities in the light of this White Paper and produced their own equivalents.

---

[47]   Department of Transport *the Way Forward: The Government's Response to the Transport Debate* (1996) (TSO).

[48]   The Scottish Office Development Department (July 1998) *Travel Choices for Scotland* (Scottish Office)

[49]   Welsh Office (July 1998) *Transporting Wales into the Future – Welsh Transport Policy Statement* (Welsh Office)

[50]   Northern Ireland Environment Department (1998) *Moving Forward – Northern Ireland Transport Policy Statement* (Northern Ireland Office)

The problems

The introductory section (Chapter 1) gives an overview of how our lives are shaped and enriched by transport and cars in particular. It then, however, points out the price in terms of environmental and economic damage and damage to health:

▰ cost to economy of congestion – £15 billion (there is an implication that this is too much, although no discussion of what would be an acceptable amount)

▰ CO_2 emissions and global warming

▰ air pollution

▰ tranquillity of countryside eroded

▰ car numbers are increasing

▰ less choice.

It also identified that whilst motoring costs have fallen in real terms, public-transport costs have increased. Despite rapidly increasing car ownership, 30% of UK households have no car. Children's freedom to play in the street or walk to school has been constrained by the danger of fast traffic. Twenty years ago one-third of five- to ten-year olds went to school on their own, now only one-ninth of children do so.

Results of government consultation

The White Paper (Chapter 1) states that the government's consultation had showed that people want:

▰ choice over whether to use their cars

▰ reliable journeys

▰ a better public-transport system

▰ protection for the environment and health.

A new approach

The government described its new approach (Chapter 1) to developing a transport system that supported sustainable development, as one that encouraged public/private-sector partnerships which:

▰ provided companies with incentives to develop new services and raise standards

▰ used taxpayers' money to ensure that people have access to public transport

▰ regulated services in the public interest.

An **integrated transport policy** meant integrating with:

▰ different types of transport

▰ the environment

▰ land-use planning

▰ policies for education, health and wealth creation.

Achieving this would result in **better places to live** with:

▰ less congestion

▰ cleaner air

▰ thriving town centres by reducing the impact of traffic and better planning

▰ greater prosperity

▰ better, safer conditions for pedestrians and cyclists

▰ less rural isolation.

Sustainable transport and integrated transport

In Chapter 2, the government reviews the concept of achieving sustainability in transport, covering all the issues that we dealt with in Unit 2. Then in Chapter 3 it examines the components of an Integrated Transport System and how it relates to land use and economic and social activities.
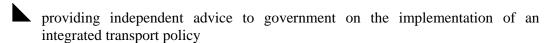

Making it happen

To achieve the objectives set out in Chapter 1 of the White Paper, the government proposed a range of measures. Some of these would require legislation but many were adopting good practice as policy.

Making it happen – UK level

Commission for Integrated Transport

The government indicated that it would create a new body called the Commission for Integrated Transport (CfIT) Its duties would be:

▰ providing independent advice to government on the implementation of an integrated transport policy

▰ monitoring developments in transport, health, education and other sectors

▰ assessing the extent to which transport policy is meeting its objectives

▰ advising ministers on target setting for traffic and public transport

▰ giving advice on expenditure priorities for public transport.

The Commission would publish an annual report each year showing progress with meeting targets.

(The Commission has since been quite an outspoken critic of much government transport policy. This may change with the advent of a new Chairperson, Peter Hendy of London Buses. To find out more about the Commission, attempt to understand what it is for, and to consult (but not copy) its many excellent research reports for your courseworks and revision, see www.cfit.gov.uk.)

Funding transport
Recognising that more needs to be spent on transport, the government proposed to achieve this by ensuring that:

▰ privately financed investment in transport would increase by at least a half over the next three years

▰ government capital expenditure would increase

▰ local authorities would be permitted to hypothecate revenues from road-user charges and non-residential parking levies back into transport

▰ the Highways Agency could 'pilot' charging schemes for motorways and trunk roads.

However, funding transport investment at a national level from dedicated streams of income raised from existing road-user taxation was ruled out.

Strategic Rail Authority (SRA)
A new body would be established by statute. The SRA would have responsibility for strategic development of the rail network, freight as well as passenger. It would take over many of the

responsibilities of OPRAF (the passenger services franchising body) and would set more demanding performance standards when franchises are renewed.

You will remember that we looked at this, and other changes to the railway industry, in more detail in Unit 5 when we looked at the content of the Transport Act 2000.

Rail Regulator
The Rail Regulator would work alongside the SRA with new duties including:

▶ the assessment of Railtrack's investment record and the extent to which it is complying with its network licence.

To help achieve this the Regulator would have tighter powers of enforcement to ensure that Railtrack's new licence provides for more accountable and effective regulation.

Rolling stock companies (Rosco's)
The government proposed to bring Rosco's under tighter scrutiny and control without subjecting them to formal regulation.

Rail investment
Greater government investment in rail would be provided through:

▶ **An infrastructure investment fund** — A new fund would be set up to fund investment proposals, such as relieving congestion at key 'pinch points' on the existing rail network, that have significantly wider benefits for the transport system.

▶ **A rail passenger partnership scheme** — This has been designed to encourage and support innovative proposals at the regional and local level that promote modal shift and develop rail use – both passenger and freight.

▶ **Freight grants** — A substantial increase in expenditure on these existing grants, which will be administered by the new SRA rather than (as now) the DETR (except in Scotland).

Roads
Maintenance of the trunk-road network – as opposed to building new roads, even widening existing ones - would be the first policy priority in future. The findings of the Roads Review were published as a separate document.[51] Charging schemes might also be developed on trunk roads and motorways, either on a self-standing basis or as joint schemes with local authorities. The government would consult on the option of retaining charging on the M25 Dartford

---

[51] DETR (July 1998). *A New Deal for Trunk Roads in England* (TSO)

crossings and using the revenues generated to finance integrated transport schemes related to the M25.

Making it happen – regional level

Regional Assemblies
In England, Regional Assemblies (RAs) now have direct responsibility for:

▲ developing statutory Regional Spatial Strategies (RSS)

▲ the development of long-term non-statutory regional transport strategies.

The RA works with the Government Office for the Regions and the Regional Development Agency (RDA) to prepare a draft RSS, including a regional transport strategy. This is carried out in close co-operation with regional chambers of commerce, the Highways Agency, SRA, transport operators and infrastructure providers. The guidance should reflect the RDA strategies for sustainable economic development and regeneration.

The draft RSS is examined in public and the final approval would be by the Secretary of State. The Secretary of State has powers to vet such regional strategies to ensure that they conform with national policies.

RSS would contain guidance for:

▲ Local development frameworks, in particular:
  ▸ public transport accessibility criteria for development which is significant at regional or sub-regional levels
  ▸ standards for provision of off-street parking – these standards to be related to the level of public transport available.

▲ local authorities on:
  ▸ road-use charging
  ▸ parking levies.

Airports and ports should get a 'strategic steer' from the RSS and regional transport investment and management priorities should be identified, including:

▲ the role of trunk and local roads

▲ regional/sub-regional traffic management issues.

Trunk-road planning should in theory dovetail with the RSS.

London

The new directly elected Mayor of London would be responsible for an integrated transport strategy and a land-use planning strategy for London. A new executive body – Transport for London (TfL) – would be created to implement the London-wide transport strategy.

Passenger Transport Authorities
PTAs (and their associated PTEs) would take the lead, in the conurbations where they operate, in delivering integrated transport. Pilot projects in the Greater Manchester and West Yorkshire PTA areas were set up to show what can be achieved through voluntary co-operation.

Making it happen – local level

Local Transport Plans
Five-year Local Transport Plans (three-year Local Transport Strategies in Scotland) would form the cornerstone of new policy. Drawn up by the local authority and set within Regional Planning Guidance, they were to explain how the council intends to implement the transport aspects of development plans. They should be based on views from all affected locally (including major trip generators such as hospitals and schools) and closely linked with Local Agenda 21 strategies. The scope of the plans (strategies) would include:

- all modes of transport

- improvements to and co-ordination of local transport

- promoting walking and cycling

- green transport plans for journeys to school, work, and other destinations

- social exclusion reduction

- proposals for implementation

- targets – eg air pollution, traffic reduction, road safety, green transport plans

- capital and revenue expenditure plans by LAs.

Plans would be used as basis for allocation of credit approvals and would allow for the relaxation of central control. In England, they should be consistent with the Regional Planning Guidance. Progress against the plan will be checked annually, but other than this, central government will not dictate how the local authority applies its resources.

Plans should reconcile overlaps with adjoining authorities and the first plans would be drawn up (prior to enactment of legislation) during 1999 to cover the financial years for 2000/1–2004/5 (2000/1–2002/3 in Scotland). Initially they would be non-statutory.

The whole process of producing Local Transport Plans, and their value, will be considered in more detail in Unit 17.

Funding bus services
By using 'Quality Partnerships' the government hoped that bus use will increase and generate more revenue to be used for investment by the industry. An additional two passengers per bus on average should generate up to £400 million in revenue for the industry, transforming its economics. A specific consultation document was to be issued for buses.[52] We will be looking at that document, in detail, along with the usefulness of the new legal powers for the bus industry, in Unit 14.

Reducing social exclusion
Access to transport for vulnerable and excluded groups would be ensured by:

▶ a national minimum standard for local authority concessionary fare schemes for elderly people with a maximum £5 a year charge for a pass

▶ much greater support for rural bus services

▶ tighter controls on the closure of schools in rural areas.

Funding major local transport schemes
The present funding instruments would remain largely unaltered. Local authorities would need to show that the scheme proposed was really necessary and that the funding sought was necessary to meet the objectives of the local transport plan. Wherever appropriate, public–private partnerships should be used to fund such schemes.

Funding local rail services
The Strategic Rail Authority would work closely with local authorities to promote the best schemes encouraging the use of travel by rail.

Making it happen – changing travel habits

The key to achieving a shift from car to public transport and from road to rail for freight will be changing the perception of travel costs. The White Paper represented a milestone in political thinking. Thinking the unthinkable? Road Pricing **and** Hypothecated Revenues. This whole issue is discussed in detail in Unit 12 and was the subject of another daughter document.[53]

---

[52] DETR (March 1999) *From Workhorse to Thoroughbred: A Better Role for Bus Travel* (TSO)

[53] DETR (December 1998) *Breaking the Logjam* (TSO) (or from the DfT web site).

Tackling congestion and pollution on local roads
Local authorities would be empowered to charge road users in order to reduce congestion. Revenues from such charging would flow back to local authorities to be used to improve transport and support the renewal of towns and cities. The government would work with local authorities and other interested organisations on a number of pilot schemes. Workplace parking legislation would be introduced to enable local authorities to impose a new parking charge on workplace parking (not residential parking). This would reduce the incentive to park and so increase use of other modes of transport (walking, cycling, public transport and so on). Revenues generated would have to be hypothecated to transport expenditure. Again, the government would work with local authorities to develop pilot schemes to test out these ideas in practice.

Non-workplace residential parking
Many observers had hoped that parking provision at retail and leisure developments would be treated in a similar way to workplace parking. However, the government contented itself with encouraging local authorities to work in partnerships with major retail/leisure operators in their area to introduce measures to lessen car-dependence. These measures could include:

▲ better access by public transport

▲ better facilities for public transport (bus shelters, timetable information, funding bus priority measures on the local road network)

▲ home delivery from retail outlets.

Taxes to be used to achieve environmental objectives
The government reaffirmed its commitment to the principle of using the tax system to achieve environmental objectives. The 1998 Finance Bill had a provision for lowering Vehicle Excise Duty (VED) for very low emission buses and lorries. We will be looking at the role of taxation in transport policy in Unit 9. The White Paper undertook to:

▲ consider varying the tax on vehicles to influence consumers to purchase more fuel efficient and less polluting vehicles

▲ continue to encourage the use of more environmentally friendly fuels by means of widening duty differentials on different types of fuel (eg low-sulphur diesel has a lower duty than normal diesel)

▲ consider a new system of VED, graduated according to size and emissions capability, for cars

▲ review the adequacy of the linkage between VED paid by lorries and their environmental impact

▲ increase the Fuel Duty Rebate for bus operators

▲   further reform the system of company-car taxation to discourage abuse.

Making it happen – setting standards

A key tactic in much of central government's approach to policy implementation over the latter parts of the 20th century has been the setting of targets and standards. In keeping with the commitments made by this government and its predecessors at Rio and Kyoto, the White Paper indicated a range of targets and standards that it would judge the performance of authorities and operators against.

Reduced pollution from vehicles
Based on a lead from Europe:

▲   new emissions standards for cars and light vans would apply from 2001

▲   European Auto-Oil programme would further tighten emission controls up to 2006

▲ CO_2 emissions levels for new cars would be reduced to 120g/km by 2010 – roughly a third of current average levels.

Air quality
Means of improving air quality would include:

▲   National Air Quality Strategy (NAQS) was under review with conclusions to be produced by the end of 1998. NAQS sets standards for eight pollutants to be met by 2005.

▲   Local Air Quality Management Areas would be declared by local authorities where national objectives were unlikely to be met, with air quality action plan produced in consultation with others to achieve targets.

▲   Local Transport Plans would include proposals to reduce emissions from traffic.

▲   Trans-national Pollution – agreement in EU obtained on levels of nitrogen dioxide, particulates and lead.

Ports and shipping
Measures to protect environmentally sensitive sites would include:

▲   emergency towing vessels – the government would consider a levy on ships for provision of better coverage by emergency towing vessels

▲

the provision of facilities in ports to enable discharge of ship waste. A Marine Operations Code covering port safety was also proposed.

Air transport
The government would press for tighter world standards on noise and emissions, so that standards reflect available technology. Fuel efficiency would be encouraged through the International Civil Aviation Authority by the government pressing for environmental levies and the removal of the tax exemption on aviation fuel.
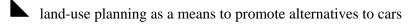
Making it happen – better planning

The integration of transport and land-use planning was a key element to the proposals. The government would ensure that Regional Planning Guidance was up to date, so that local authorities' planning decisions reflected integrated transport policy. Regional planning would provide the context for Local Transport Plans and development plans.

General planning policy would restrict the dispersal of development so that the need to travel was reduced, thus providing better access to leisure, shops, jobs and so on.

Planning guidance for transport
Guidance would be revised with greater emphasis on access by foot, cycle and public transport for major developments. Development along public transport corridors would be encouraged. Parking standards would reflect potential for access by alternatives to cars. The adoption of cycle parking standards would be encouraged. Sites and routes for developing alternative modes of transport should be protected in development plans.

The government would produce further guidance on:

- ◣ land-use planning as a means to promote alternatives to cars

- ◣ handling of traffic management within development plans

- ◣ reallocating road space to pedestrians, cyclists and buses

- ◣ needs of all members of society including disabled

- ◣ promoting rural services.

We will discuss the inter-relationship between land-use planning and transport further in Unit 13.

Guidance on housing

The Planning Policy Guidance on Housing would be revised to encourage new housing which is reasonably independent of car use. It would cover:

- the location of new housing in existing towns and cities

- the use of sites accessible by walking, cycling and public transport

- the creation of new travel patterns.

Guidance on Development Plans
The Planning Policy Guidance on Development Plans would be revised to facilitate:

- quicker production of plans

- integration of development plans with Local Transport Plans.

Implementation
The new policies would require the support of developers and local authorities. A training strategy to bring together key players and decision makers, to raise awareness and to promote greater understanding of integrated transport would be required. The initiative would be undertaken in partnership with the professions.

The Use Classes Order and the General Development Order would be reviewed. The use of planning conditions to provide facilities for alternatives to the car would be encouraged.

Design of the built environment could encourage alternatives to the car. Two documents would be published to stress its importance:

- 'Good Practice Guide on Design in the Planning System' – setting out key principles of urban design

- 'Places, Streets and Movement' – companion guide to DB32.

Making it happen – enforcement

Many of the proposals in the White Paper would need strict enforcement if they are to be effective. Measures to ensure this were proposed.

Road traffic
Better enforcement was particularly needed to cover:

- speeding

-

priority for public transport (possible increase of fines for bus-lane offences)

◣ pollution control.

Use of technology
Current technology, such as the use of cameras, would be extended and arrangements for funding them would be investigated. In the longer term, automatic speed control linked to Government Information Systems (GIS) could prevent vehicles going faster than the speed limit. Opportunities could also exist to link this to:

◣ congestion charging

◣ automatic headway controls

◣ the slowing of vehicles on approach to junctions or schools.

Enforcement Agencies
Road policing is not one of the Home Secretary's key objectives for the Police Service but he does expect traffic policing to play a full part in achieving overall objectives. The White Paper suggested that other agencies could undertake some of the roles of the police. For example:

◣ traffic wardens could stop traffic for checking by other agencies, eg air pollution

◣ police-placed signs could stop traffic to allow for vehicle inspections

◣ police civilian staff could have delegated powers over deciding on camera offences.
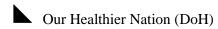
The need for a separate British Transport Police force would be reviewed, covering the need for accountability and jurisdiction. Wheel clamping on private land would be regulated.

Freight transport required better enforcement. To ensure this happens a Joint Enforcement Database would be created to co-ordinate information across enforcement and licensing agencies. New legislation would be introduced to enable the detention of illegally operated vehicles and weighbridges would be available at all freight terminals and ports. Best practice on safety and environment would be promoted in partnership with the industry. Freight-transport issues are discussed in Unit 8.

Making it happen – better appraisal

Transport Impact Assessment

Transport Impact Assessments would be an essential part of assessing general environment impact of government policies and important decisions over location of public-sector activities. Existing examples include:

▶ Our Healthier Nation (DoH)
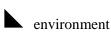
▶ The Schools' Environmental Assessment Method (DfEE).

A Checklist of Women's Transport Requirements was being developed and would be made available to LAs and Transport Providers.

New Approach to Appraisal (NATA)
The New Approach to Appraisal (NATA) was under development for use for all new transport projects including road schemes. This aimed to draw together information against the criteria set for the roads review:

▶ integration

▶ safety

▶ economy

▶ environment
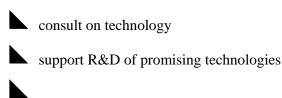
▶ accessibility.

Subsequently, two further DETR documents on appraisal were issued.[54] These are discussed in detail in module BE71007, Transport Economics and Appraisal.

Making it happen – technology, research and development

The government was committed to using the most appropriate and cost-effective technology. It would encourage a step-by-step approach with pilots used to demonstrate new technology.

The government's role would be to assess the environmental, social and financial implications of new technology. The private sector should progress the development of technology with government promoting progress where necessary. Government would:

▶ consult on technology

▶ support R&D of promising technologies

▶

---

[54] These are now subsumed in the latest version of transport appraisal guidance on www.webtag.org.uk

support trials and demonstration projects

▲ encourage dissemination of research

▲ promote good practice

▲ encourage private–public partnerships

▲ work objectives of White Paper into the Foresight 2000 initiative.

The government recognised that Intelligent Transport System (ITS) had great potential. However, there was a need for future interoperability of Telematic systems.

The Ten Year Plan for Transport

Towards the end of its first term of office, Labour was beginning to come under fire for failing to deliver on transport. A huge raft of studies had been set under way, but there was a perception that, on both road and rail, problems were continuing to worsen. The Government's answer was to produce the Ten Year Plan for Transport – essentially a package of investments with a notional total of £180 billion (2001 prices) to be delivered by national government and its agencies, and by local government, to achieve a number of objectives.

These objectives include:

- A reduction in congestion on all roads in England and Wales. The Plan was assumed to cut congestion by 5% over ten years compared to the situation in 2001.
- A reduction in road accidents – 50% in child casualties (KSI) by 2010 compared to the 1994-98 average, for example.
- A reduction in CO2 emissions – a cut of 0.9 Megatons of CO_2 (3%) emitted by transport sources in 2010 compared to the situation in 2001.

To achieve this, the Ten Year Plan proposes a raft of aims that are to be achieved from investment schemes and measures. These are listed below. You will note that this list, pasted from the Executive Summary, includes almost no reference to cycling and walking; in spite of their importance to local transport, these modes were considered only in two pages of the Local Transport chapter of the plan. This list does not mention measures to control car use directly (traffic restraint), although the Plan does make the assumption that 20 towns and cities around England will introduce congestion charges or workplace parking levies by 2010. Writing in 2003, with not a single English town (other than a tiny scheme in Durham, which is in operation) actively pursuing congestion charging and only one looking at workplace parking, this assumption seems rather optimistic. Similarly, the headline figure of £180 billion of investment also seems rather optimistic in the light of its assumption that the private sector would contribute some £56.3 billion. This was prior to the demise of Railtrack, which was assumed to be the source of much of these funds.

Rail

- 50% increase in use, measured by passenger kilometres
- 80% increase in rail freight
- improvements in service quality: more punctual and reliable trains, less overcrowding
- installation of new train safety systems
- modern trains and more attractive, secure stations
- modernisation and increased capacity on the West Coast and East Coast Main Lines
- the high speed Channel Tunnel Rail Link, also serving Kent and the Thames Gateway
- improved commuter services in London and other cities
- upgrading of freight routes to major ports
- better integration with cars, buses, taxis, bicycles and better links to airports.

Roads

- congestion reduced below current levels, particularly in large urban areas
- bottlenecks eased by targeted widening of 360 miles of the strategic road network
- 80 major trunk road schemes to improve safety and traffic flow at junctions
- 100 new bypasses on trunk and local roads to reduce congestion and pollution in communities
- 130 other major local road improvement schemes
- completion of the 40 road schemes in the Highways Agency Targeted Programme of Improvements
- 60% of the trunk road network given lower-noise surfaces
- elimination of the maintenance backlog for local roads, bridges and lighting as part of a £30 billion programme
- HGV lanes on congested strategic routes to provide priority for lorries and safer lanes for cars
- smarter management of the trunk road network, giving drivers better information on traffic conditions
- 40% reduction in the number of people killed or seriously injured in road accidents
- accelerated take-up of cleaner vehicles to reduce air pollution and CO_2 emissions.

London

- improved quality of service on the Underground, with more capacity and fewer

delays, through the Public-Private Partnership
- higher standards of bus service ('quality plus') on all major bus routes
- improved bus frequencies and enhanced off-peak and night bus services
- extension to City Airport of Docklands Light Railway
- new tram/guided bus systems
- new East Thames river crossings for road and rail
- a new east-west rail link, such as CrossRail
- Thameslink 2000, East London Line extensions, upgrading of major stations and commuter rail services.

Locally across England:

- up to 25 new rapid transit lines in major cities and conurbations, more than doubling light rail use
- 10% increase in bus passenger journeys
- extensive bus priority schemes, including guided bus systems and other infrastructure improvements, also benefiting coaches

- new Urban Bus Challenge Fund to improve links to deprived urban areas
- more cities and towns with park and ride schemes
- extension of Rural Bus Subsidy Grant to cover more journeys serving market towns
- extension of fuel duty rebate to more community transport services, and more support for flexible transport in rural communities
- half fare or better on the buses for elderly and disabled people
- modern and integrated transport information, booking and ticketing services
- safer cycling and walking routes, more 20mph areas and Home Zones for safer roads, particularly around schools.

You can see from this list that the Ten Year Plan, in comparison with the White Paper, is about building things – lots of things – and supplying new services. There is a new emphasis on delivering road, rail and LRT schemes. There is mention of reducing *congestion* in the Plan, but the solution to this is not necessarily seen as demand management – indeed, on the trunk road network, this is largely ruled out in the short term with the words "such choices [about charging for the use of trunk roads] do not have to be made now" (paragraph 9.9 in the Ten Year Plan). The list of trunk road widening schemes suggests that, if not forgotten, then the 1994 SACTRA report on Trunk Roads and the Generation of Traffic has at best been left on one of the higher shelves in the DfT's library, and that the government is now of the opinion that congestion can be reduced by building new roads, and not charging for them. It is somewhat ironic that the plan also states that the government wants to see the results of multi-modal studies before making any decisions on whether or how to take charging forward; now these studies are reporting with precisely the recommendation that the congestion reducing benefits of new road construction will be lost unless the new capacity is charged (see for example www.symms.org.uk). The lukewarm attitude towards charging at

the national level is in marked contrast to the Plan's assumption that 20 local charging schemes will be implemented during its lifetime.

In general, however, we can see the Plan as marking a shift away from the more sustainable transport approach of earlier documents, to one where lots of transport and mobility – by all modes – are seen as desirable ends in themselves, and hence a great deal of money is promised to enhance people's ability to travel, rather than to reduce their need to do so. Current trends in transport prices and links between transport and economic growth are accepted as givens (although alternative scenarios are tested).

Did the Ten Year Plan deliver?

In previous units we have considered the structure of the rail industry, and looked at how rail as well as trunk road schemes are supposed to be delivered. In Unit 14 you will look at the LTP process, which is intended to be the main means of local transport scheme delivery. In essence, the trunk road scheme delivery mechanism is more direct than the mechanisms for the other two. The Ten Year Plan makes clear that the government expects trunk road delivery to be much less dependent on private capital than either local transport or rail. In each country within the UK, there is only one agency charged with the delivery of trunk roads, and that is its only business. It is subject to the vagaries of our public consultation system for new transport schemes (see Module BE71008, Highway Planning and Design), but it has greater resources to deal with these than do most local authorities; and it is not as subject to the whims of local politicians. It also has the resources to recruit the staff that it needs and has not been subject to the de-skilling effects of local government re-organisation or rail privatization. One would expect, therefore, that – even if there had not been great upset in the rail industry – trunk road delivery would proceed more quickly than rail or local transport schemes. And this is (as of 2003) what has happened.

The Ten Year Plan First Progress report (available at www.dft.gov.uk) shows that, between 2001 and 2003, no major rail infrastructure schemes were completed, with the exception of the first phase of the Channel Tunnel high speed rail link, and capacity enhancements at Leeds City station. In comparison, 5 major road schemes were completed (with a further five to be finished by early 2004), and work started on another 18, plus almost 200 minor schemes. There has been considerable progress in replacing life expired rail rolling stock but in most cases this does little to enhance the capacity of the network, which is much more dependent on track and signaling.

Since the publication of the Ten Year Plan, Railtrack has been replaced by Network Rail as the infrastructure owner and operator for Britain's railways. The period of uncertainty following Railtrack's being forced into receivership, and the huge costs of track repairs following the Hatfield accident in autumn 2000, were not conducive to the achievement of the Ten Year Plan objectives. Indeed the SRA's Strategic Plan, and Network Rail's Network Management Statement (their key documents), seem to indicate that both organizations now wish to concentrate on maintaining and improving the state of the existing network rather than trying to expand capacity. This is operationally sensible but at odds with the Ten Year Plan objectives. In its recent statement on fares policy, the SRA (and now DfT) has also indicated

that it wishes to see fares rise to control demand and to fund investment. (As an aside, it would be an unusual supermarket chain that put up prices at its existing stores but tempted customers with the promise of new better stores in future, funded on the proceeds. However, this is the rail industry that we are talking about here; "normal" rules of the market do not apply.)

The Ten Year Plan progress report cites the following as examples of the steps that the Government is taking in order to create a rail industry that could perhaps meet the challenges of the Plan. It also emphasizes the need to keep costs under control and to improve performance, but puts forward no clear measures to achieve these, other than through the "strong and effective" leadership of the SRA (which, as we have seen, is now about to be abolished), and through better timetabling, and possible reductions in services to improve the reliability of the remainder. The specific measures cited in the Progress Report are:

- publication of the SRA's first Strategic Plan and subsequent consultation on new proposals for franchising policy, for fares and for capacity utilisation;
- the establishment of the Rail Skills Board;
- plans for legislation to establish a Rail Accident Investigation body and reform rail regulation;
- SRA's publication of its proposed strategy for the West Coast Main Line;
- SRA's franchising policy statement which places the emphasis on delivery for passengers; and
- the National Rail Performance Plan, a new industry-wide plan to improve train service performance.

Major rail infrastructure enhancements are intended to be taken forward by "Special Purpose Vehicles" (SPVs). These are supposed to be joint venture public-private sector companies set up specifically to deliver a given project. However, none of the capacity enhancement projects on the existing rail network that have been completed to date actually used SPVs – instead, contractors worked directly to Network Rail or Railtrack. In direct contrast to trunk roads, therefore, the government's stated preferred delivery mechanism for rail is one which has no delivery record and whose definition is still the source of some confusion.

Any radical re-structuring of the rail industry to meet Ten Year Plan targets does not appear to be on the agenda.

We will consider Local Transport's ability to meet Ten Year Plan targets in Unit 16.

Yet more changes…

As you found out in Unit 5, the UK Government published (yet) another major plan for transport in July 2004. This is *The Future of Transport* available at http://www.dft.gov.uk/strategy/futureoftransport/. This is intended to complement the Ten Year Plan and does not, on a quick first reading at least, amount to a major change in direction in relation to that earlier Plan, except on light rail, where the Government has announced a major reduction in funding, effectively "pulling the plug" on schemes at the

advanced planning stage in Hampshire and Leeds, but funding extensions in Greater Manchester. This is because of major cost increases due to the private sector consortia bidding to run such schemes being more circumspect about their revenue prospects. An excellent report on this, well worth a read, is at http://www.nao.org.uk/pn/03-04/0304518.htm.

The new plan also deals with the following issues.

- Capacity enhancements and easing bottlenecks on the existing road network, but also trying to use some demand management measures to "lock-in" the benefits of such enhancements, so they are not eroded by induced traffic.
- Ensuring that, over time, aviation meets its external costs.
- A ports policy and sustainable freight policy.
- Some further devolution of powers and activities to the local and regional level.
- Ensuring that transport targets for CO_2 reduction are met.
- Preparing the ground for nationwide road user charging – initially through trying to encourage more local authorities to implement it.
- A greater role for local government in bus regulation through Quality Contracts in certain circumstances.

The last two points are particularly notable. The White Paper talks of the introduction of nationwide road user charging in the next 10-15 years; and in the meantime more studies will be conducted about, and local authorities encouraged to implement, road user charging schemes. In one-way, such open-ness about road user charging is to be welcomed; on the other hand, today's politicians can be criticised for ensuring that they set a timescale at the national level that will see them well out of harm's way as regards this potentially highly controversial topic.
Up until now, as we have seen, the Government has been very lukewarm towards greater bus regulation. This new Plan is more positive about Quality Contracts in areas where road user charging is proposed; and also where PTEs are reviewing the value for money of their local rail services, with a view to possible substitution of bus for rail services.

In general, however, the 2004 Plan represents a continuation of *Transport 2010* – it is a means to continue to try to deliver major and minor schemes that enhance mobility, rather than necessarily accessibility, and there is little hint in the document of the need to reduce the growth in car use, let alone car use in absolute terms. As the Executive Summary says, "We have to recognise that demand for travel will increase in the future." On the other hand, recent (2004-2006) Ministers of Transport in England – both of whom are Scots – have made favourable noises about the introduction of national congestion charging scheme, although not in their political lifetime in the post. See for example a speech by the Minister at http://www.dft.gov.uk/stellent/groups/dft_roads/documents/divisionhomepage/032120.hcsp

The latest development in the saga of English transport policy is something called the Transport Innovation Fund (TIF). Essentially, this appears to the cynical outsider to be a bribe from national government to local authorities that say that they are interested in developing local congestion charging schemes – they receive more money to fund other transport schemes that they want to deliver at the local level. There is more on TIF in the

final unit of this module.

◣ Recommended reading

Your turn now. I've given you a potted summary of the first White Paper on Transport in a generation, but there is no substitute for the real thing. The document is available from HMSO or you can download it from the DETR web site www.detr.gov.uk. From the Home Page select 'Integrated Transport' and then click on *A New Deal for Transport – Better for Everyone.*

You should also read Chapters 1 and 5 of *A New Deal for Transport?* This gives a very good summary of what has, or has not, been achieved to date by the system in place.

You should also read the House of Commons Transport Select Committee's report on the 10 Year Plan available at http://www.parliament.the-stationery-office.co.uk/pa/cm200405/cmselect/cmtran/409/40902.htm and reviews of progress are also available at www.cfit.gov.uk

Note: Before you start reading, have a quick look at the Self Assessment Question that is coming next.

◣ Self assessment question 7.2

Assess the effectiveness of the proposals in the Integrated Transport White Paper taking into account the key issues identified in Exercise 7.1. Do the same for the Ten Year Plan.

The first piece of recommended reading in this unit put forward a set of key issues that transport policy needs to address. Using these, assess the effectiveness of the proposals in the Integrated Transport White Paper. Assuming you have been making extensive notes as you read through the White Paper, and the Ten Year Plan, spend about an hour setting down your analysis.

◣ Summary

The first transport White Paper (1998) in a generation marked another major shift in transport policy in the UK. That it includes measures which have already been successfully implemented by local authorities does not detract from its importance. As we saw in Unit 6,

policy changes in Britain very often involve a gradual build up of pressure for change. Equally, legislative change is also often foreshadowed by change in guidance.

On the other hand, since then, we have seen national transport policy sending out very mixed messages: catering for and even promoting general mobility on the one hand, whilst trying to reduce the need to travel, and encourage the take up of local congestion charging schemes, on the other. It might almost be described as a slightly schizoid approach to policy.

A more detailed look at some of the key elements of the White Paper are covered in subsequent units. In particular:

◢

Answers to self assessment questions and research exercises

Unit 4

4.1 Did the changes to the structure of local government (in 1996) make the achievement of a co-ordinated transport policy for the main centres of population in Scotland easier or more difficult? And why?

Outline answer
The fact that informal, voluntary partnerships were formed in the west of Scotland and the east of Scotland before the publication of the Scottish consultation paper in January 1999 is significant. It reflects a recognition that transport planning had been fragmented (and made more difficult) by the creation of the small unitary authorities in Scotland. Whilst the creation of unitary authorities brought together local planning and transportation functions, the tightly drawn boundaries cut across major transport corridors. Major cities like Glasgow, Edinburgh, Aberdeen and Dundee attract trips from way beyond their boundaries. Attempting to influence mode choice for these journeys cannot be done by the city councils alone. For example, if the introduction of traffic-restraint policies within a city is not to result in a reduction in the overall number of journeys being made to the city then public transport alternatives such as park-and-ride schemes need to be sponsored. Very often the best places to create the parking facilities will be in the neighbouring authorities. Co-operation on planning and (importantly) funding is essential. It is also the case that in the rest of Western Europe, the achievement of transport policy objectives and of scheme delivery is normally associated with the existence of some sort of regional body with responsibility for transport – which is not to say that, on its own, this would guarantee delivery – there are other more important factors that need to be in place.

4.2 What are your views on the need for Regional Transport Partnerships? If they are needed what form should they take? [If you are reading this in 2004 and there are such partnerships in place, do you think that their structure and responsibilities are the right ones?]

It is likely that in your answer to 4.1 you concluded that there is a need for some sort of Regional Transport body; current political correctness dictates that the word partnership also has to be included in the title.   In a marked U-turn from its 1999 consultation paper on the same subject, the Scottish Executive's 2003 consultation on proposals for a new structure for delivery of transport in Scotland implies strongly that voluntary regional transport partnerships are not enough, and that they need to be set on a firmer legal and financial footing. It outlines models such as additional PTA/Es; Joint Committees (legal contracts between authorities to cede powers to a joint body); Joint Boards (set up by legislation and formally constituted); or SPVs such as Transport Initiatives Edinburgh, the "arms length" company owned by City of Edinburgh Council, set up to project manage the delivery of tram and congestion charging schemes (see www.tiedinburgh.co.uk). One could add to this list a similar system to the Mayor in London as a further option.

We can only look to the past, when regional bodies existed in Scotland; or elsewhere in Europe, to understand whether such changes will enhance delivery. The former Lothian Region Council was much more successful at delivering rail projects than its successor unitaries have been – it was responsible for re-opening the highly successful Bathgate line to passenger traffic, electrifying the also highly successful North Berwick line, and opening several new stations. However, it was able to achieve this, not only because it was a larger authority, but also because it had more money, had not given all its skilled project managers early retirement and, critically, was working with a single rail industry body, British Rail, and was not required to involve private sector finance in the delivery of the scheme. Not only, therefore, did LRC have the institutional capacity to deliver; it was also working in a much simpler "delivery climate". It is also interesting to note that Strathclyde PTE delivered massive improvements to the West of Scotland rail network (major electrification and re-opening schemes as well as dozens of new stations) prior to rail privatization but, since then, has been able to deliver very little. Those Western European regions that have delivered transport improvements have done so in the context of much greater funding, a nationalized rail industry (or at least infrastructure body), public sector procurement (i.e. no PFI), and a regulated bus network; the regional body was not the only reason for delivery.

4.3 What are the disadvantages of re-structuring, at least in the short term?

Put simply, any restructuring of organizations takes people's minds off project and service delivery and focuses their attention on the restructuring of the organization which is, at the end of the day, only a means to an end. It can also lead to a loss or break in organizational knowledge/history, which can be vital to the effective implementation of schemes. Where the restructuring includes considerable loss of skilled staff, or their re-allocation to duties for which they are not trained, the "discontinuity" effects of the restructuring can be felt for years afterwards, as is certainly the case in Scotland following local government disorganization in 1996.

Unit 5

Research exercise 5.1
Assess the successes and failures, to date, of rail privatisation.

Outline answer

There is, of course, no right answer to this. Indeed, the answer you give will also be influenced by when you give it. A year further on from when I wrote this unit could have seen significant developments. However, let's look at the issues you should have considered.

What were the objectives (stripping away the political trappings)?

► to increase investment

▶   to increase business (passengers and freight).

These would lead to:

▶   a more reliable railway

▶   better fares (through competition)

▶   reduced subsidy.

What structures were put in place to control the industry?

▶   the Rail Regulator

▶   OPRAF (later the Strategic Rail Authority).

These bodies, between, them assumed responsibility for:

▶   ensuring competition

▶   value for money

▶   reliability

▶   the network of services to meet need

▶   safety.

So what evidence did you find that objectives were being met? That the organisational structure is ensuring that the privatised industry is delivering?

My own view is similar to that of Shaw and Farrington (Chapter 5 in *A New Deal for Transport?*). The privatized structure:

- Means that no one body does or can take responsibility for safety and for enhancements. This compromises the industry on both counts.
- There is a "pass the buck" culture of blame based resulting from the contractual nature of the industry. This means that the various parties do not work together as well as they could to improve the overall service; they are too busy trying to blame, and charge, each other.
- The perverse incentive regimes built into the industry at privatisation, and the fragmentation of companies all charging each other for their services, has driven up costs, in some cases massively.
- Although franchises were initially on a decreasing subsidy basis over time, some franchisees have not met their revenue forecasts. Faced with the choice of throwing a franchisee off a contract and finding another, or paying more subsidy, the Government through the SRA has generally opted for the latter course, unless the franchisee is

French (Connex have lost two franchises). Thus the railway is becoming more expensive in capital and revenue terms.

- It appears that regulated and walk-on fares will rise above the rate of inflation, whilst service remains mediocre. Advanced purchase fares on off-peak services on certain routes will offer very good value for money.

- The industry appears largely incapable of delivering large scale enhancements to infrastructure on time and to budget, an indeed of being able to estimate what such improvements will cost. The preference for the un-tested model of SPVs to deliver such enhancements further confuses the situation; it is unclear which of the industry bodies is supposed to take the lead in so doing.

Hopefully this pessimistic view will be proven wrong.

5.2
Reflect on the success or otherwise of bus deregulation.

Outline answer
Objectives of deregulation were to:

- encourage and sustain competition

- reduce costs and improve efficiency

- reduce fares and increase service provision

- increase patronage

- reduce financial support.

Experience since 1986 suggests (my figures are for the first ten years, but the general trends will not have changed much):

- Competition has been encouraged and is being sustained in most areas.

- Operating costs have dramatically reduced, although this has leveled out.
  - It has been achieved in part by a reduction, in real terms, of wages.
- Efficiency – in terms of:
  - staff / vehicle   – decrease of between 8%–21%
  - km / staff   – increase of between 17%–41%
  - km / vehicle   – increase of between 7.5%–10.5%
  - passenger / vehicle   – decrease of between 3%–17%
  - passenger / employee – increase of between 5.5%
  - cost / passenger   – slight decrease to 1989 slight increase thereafter

- Services and fares

- ▲ vehicle miles – increased on average 16.3% in met areas (1.7%–27.6%)
- ▲ % subsidised mileage now average of 14.4%
- ▲ registrations still running at very high level
- ▲ large fares increase in first year – now levelled off

▲ Patronage
- ▲ continuing to decline
- ▲ model for Mets. suggests higher than expected (due to instability / lack of confidence)

▲ External support – 15% reduction – but subsidy appears to be leaking into industry profits and to buy less improvement in deregulated areas than in London.

Comparison with other areas:

| | Percentage change | |
	London	Mets.
Patronage	3.90	−26.10
Vehicle kilometres	11.40	12.90
Pass / veh km	−6.70	−34.60
Operating cost / veh km	−20.00	−40.00
Operating cost / pass	−16.00	−8.00
Fares	49.90	78.70
Real fares	12.00	31.80

▲ Generally, deregulated areas have lost passengers at a much higher rate than London and Northern Ireland which have not had deregulation.

Whilst deregulation brought costs down and put more buses on the street this did not improve services for passengers:

▲ Additional buses did not improve frequency (the extra buses just competed at a similar time).

▲ Timetables changed rapidly as each operator tried to run in front of the competition.

▲ Timetable information became unreliable.

▲ Passengers found other ways of making the journey.

In London, where a planned network did continue, passengers have increased.

How to improve matters
Most commentators have favoured an element of re-regulation. Quality Partnerships have become the buzzword. Franchising along the London model is another option. There certainly needs to be more co-ordination of timetables on routes that have more than one operator. Two 15-minute frequency services on a route can provide a bus every 7.5 minutes if timetables are co-ordinated. If the operators compete – which they are currently required to do under competition legislation (they could be fined up to 10% of their group turnover for agreeing to run the service in a co-ordinated way), you end up with two buses every 15 minutes. I know which I think provides the best service.
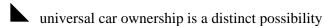
Unit 6

6.1
Describe in your own words what mechanisms and lobby groups were involved in changing transport policy in the period since the Buchanan Report to the late 1970s.

Outline answer
The Buchanan Report identified four key points:

- ◣ universal car ownership is a distinct possibility

- ◣ maintaining high levels of car mobility requires high levels of resources

- ◣ there is a trade off to be made between accessibility by car and the environment

- ◣ if full access is not practical then investment in public transport and restraint on car use is necessary.

In many ways not much has changed in the years since the Buchanan Report. These four points still hold true today. However, our understanding of the implications of them is somewhat different. We have a much better understanding of the environmental impact of traffic. We also realise that even where there is 'universal' car ownership, there are still people who do not have access to a car at all times and those who, for whatever reason, cannot or do not wish to drive a car. So, crucially, what did happen in the period after the Report up to the end of the 1970s was a shift in the balance of the trade off between access for the car and the environment.

The starting position was one in which an improving economy and an enthusiasm among local councillors and city engineers to rebuild their cities after the war led to an expectation that city-centre redevelopment meant accommodating the car. The downturn in the economy in the late 1960s led central government to hold back on funding urban schemes. Tactics adopted at that time included requiring the production of Land Use Transportation Studies (LUTS). Increasing the practical design capacities of existing roads (there was some justification for this, as traffic engineering as a discipline began to develop). Despite these delays in funding, local authorities were pressing ahead with their Highway Plans and their

LUTS (often seemingly designed to justify the highway plan). Gradually the first wave of urban motorways began to be built despite fairly weak opposition.

At the same time, the general redevelopment of cities following the war had started to raise concerns about the quality of redevelopment. The Civic Amenities Act and the formation of bodies such as Civic Trusts and the Victorian Society provided a focus for growing concern and opposition. The scars left by the first major road schemes provided evidence of the reality of the 'environmental trade off' of accommodating the car. Gradually the level of opposition to these plans grew to such proportions that road plans became the key issue at local elections. Politicians swept to power in a range of authorities on the back of anti-roads plan campaigns. GLC and Nottingham were prime examples. In 1973 a House of Commons Select Committee investigated the issue and recommended that much greater restraint was necessary. Subsequent legislation for local government provided powers to co-ordinate and subsidise public transport. Gradually, much of the planned urban motorway networks were quietly shelved.

This challenge to the *need* for urban road building then moved on to the inter-urban motorway network. Up until the early 1970s such opposition as there had been was confined to objections to the details of the route. More and more the challenge became one of principle – what was the need for the road? Initially this was resisted by government, who claimed that this was a matter of policy and the planning inspectors who ran the public inquiries could not deal with the traffic forecasts. The amenity groups that were formed to fight these proposals adopted direct-action tactics to disrupt the inquiries and later the actual building works.

Eventually the government set up the Standing Advisory Committee on Trunk Road Assessment (SACTRA) and asked it to review the forecasting methodology. It found that it was flawed. This led to a considerable revision to the trunk-roads programme and a far greater emphasis on local by-passes.

Although beyond the scope of this particular question, it is interesting to note that although much of the direct action was orchestrated by 'professional' protesters, subsequent protests of this nature have been far more broadly based. In the 1990s, although characters like Swampy gained a degree of celebrity status, his support came from a very broadly based coalition.
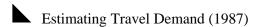
Note: If you chose to look at an alternative policy change, discuss your answer with a colleague or friend.

6.2
Identify the change in thinking and approach through a comparison of the 1987 and 1997 IHT guidance on traffic and transport in urban areas.

Outline answer
The titles of the two chapters sum up the changing emphasis quite well:

► Estimating Travel Demand (1987)

► Estimating Travellers' Responses to Changes in the Transport System (1997).

The first is stuck very much in the 'predict and provide' mentality whereas the second recognises that the way we provide the transport system will influence users.

The whole thrust of the 1987 version is based on the traditional four-stage transportation model and its various elements. The introduction recognises that early modelling had suffered bad press and had had to contend with a number of problems. It also recognised that policy decisions could limit ultimate urban highway network capacity. However it still sticks with the traditional approach and advocates the use of more sophisticated models to simulate modal split.

On the other hand, the 1997 version recognises that long-term forecasting/modelling is a hazardous occupation. It advocates a far more flexible approach to modelling and identifies approaches beyond the traditional four-stage model. It suggests a 'horses for courses' approach. It identifies:

► transport demand models

► four-stage models

► strategic transport models

► policy appraisal models

► land-use/transport interaction models

► simplified demand modelling

► road traffic assignment models

► public transport passenger assignment models.

Most importantly, perhaps, while advocating a more flexible approach to modelling it also recognises that there is a need to understand how behavioural traits will influence transport and why. For example it recommends use of methods such as stated preference techniques to help to understand behavioural responses to transport/land-use changes.

NOTE: Bear in mind, though, that this latest guidance was produced in 1997. Time marches on. In the next unit we will be looking at the Transport White Paper, which introduces the use of accessibility as an evaluation criterion. Accessibility analysis offers another method of policy analysis which I think may develop significantly in the coming years.

Unit 7

7.1
Identify the objectives of transport policy as set out in the White Paper and the 10 Year Plan. How do they differ? What measures were/are proposed to achieve these objectives?

Outline answer
The key problems for transport policy that we can identify are:

▰ **Rising demand**: even the more modest low forecast for traffic growth (NRTF 1996) suggests an increase of more than 50% by 2025. The link between economic growth and transport is strong, and managing that rising demand will require positive action. It will require lifestyle changes and an acceptance of some limitation on car use. Rising demand leads to increased congestion although, it appears, that does not mean that we spend more time traveling, on average..

▰ **Safety**: the general public has a right to safe transport – even if they do tend to adopt dual standards by being prepared to take risks crossing streets and driving too fast in fog, but demanding absolute safety on railways (particularly after major accidents like Paddington). One thing is certain, achieving safety in transport costs money. Absolute safety costs enormous sums of money, which may be difficult to justify.

▰ **Environment**: concern for the environmental impact of transport also has cost implications. Existing regulations to reduce air pollution, noise pollution and global warming have already increased the cost of transport and are likely to continue to do so. Having said that, the benefits that accrue from tighter regulation will tend to justify the costs incurred. On the other hand development of greenfield sites will invariably be cheaper than brownfield ones. Consequently, there is little to recommend the redevelopment of brownfield sites, to the developer, which will be more easily served by non-car modes.

The assumed link between transport and economic development. Our politicians are led to believe that a high quality high capacity transport system is required if we are to complete globally – although the evidence for such a link is scant and inconclusive (see BE71007 Transport Economics and Appraisal).

There is quite a marked difference between the White Paper and the Ten Year Plan in their proposals for solving these problems. This can best be summed up as saying that the Ten Year Plan assumes that we can build ourselves out of these problems – for both public and

private transport. In the White Paper, a series of changes is proposed – most of which have been enacted – which imply some restraint of car use at the same time as the alternatives are improved. However, the proposals for improving alternatives are mostly discretionary and left up to local authorities, and funding for them is uncertain. With regard to the rail industry, neither document has a credible answer to its problems.

7.2
Assess the effectiveness of the proposals in the Integrated Transport White Paper taking into account the key issues identified in Exercise 7.1. Do the same for the Ten Year Plan.

Outline answer

The key failing of the White Paper is that the majority of its proposals did not have to be implemented – they were optional. Local authorities have not been keen on implementing individually measures which, if implemented nationwide, could have made a considerable impact on the issues identified in 7.1; and there was little effective lead from national government to do so. The White Paper and subsequent Transport Act missed the opportunity to radically reform the structure of the rail industry.

The Ten Year plan has not yet been implemented. It takes rising demand as a given and does not treat it as a "bad"; only the congestion arising from increasing demand is seen as something that needs tackling. It appears that the road proposals in the plan stand more chance of delivery than the rail and local transport proposals, and so this may lead to "lop-sided" achievement of some of the objectives.

Study Guide 3: Policy Tools – Economic and Fiscal

Introduction

This is the third study guide of the Transport Policy Module and covers:

Policy tools – economic and fiscal

In the first of the four units (Unit 9) we will look at the way in which national fiscal policies apply to transport and the way in which the various taxes influence travel behaviour. In the second unit (Unit 10) we will examine the way in which transport services and infrastructure are funded and the way in which the funding mechanisms are used to implement transport policy. In the third unit (Unit 11) we look at parking (charging) as a means of controlling travel demand. Finally, in the fourth unit (Unit 12) we look at the controversial ideas to allow local authorities to charge for the use of roads in urban areas.

How to use this study guide

This study guide is exactly what the name implies – it is to guide you through the study of this module. For this particular module – Transport Policy – there are four study guides in all, covering 15 separate units. It should take you about 130 hours to work through this module. But that is not the time taken just to read it, it also includes the time taken to read the recommended supporting texts like *A New Deal for Transport?* It also assumes that you will want to make your own notes as you go through and allows time for you to complete all the activities included within the text.

Signposts and activities

As you work your way through this study guide you will come across a variety of 'signposts'. These are used to flag particular activities that you will need to do.

◣ Activity

This is where I will ask you to undertake a specific activity, usually at several points during a unit. Activities may include retrieving information or finding out facts yourself. This is something only you can do and so there are no set answers to activities in the study material, although your course tutors will be able to give some suggestions to you.

◣ Assignment

As part of the assessment for this module, an assignment is included. This will enable you to add breadth or depth to the knowledge acquired during your study of the module.

◣ Case Study

I have included case studies at appropriate points throughout the module to illustrate the application of some of the policy tools discussed.

◣ Learning outcome

Learning Outcomes list the expected results which you should be able to achieve after studying the module and each specific unit.

◣ Recommended reading

Whilst the study guides cover all aspects of this module, your understanding of transport policy issues will be considerably enhanced by reading widely from the reading list. However, the recommended reading items are musts.

◣ Self assessment question

These are particularly useful activities, providing you with an opportunity to apply your new knowledge and compare your answer with those provided in the study material (at the back of each study guide). Don't be tempted to skip these or look up the answers without first attempting the question. They have been designed to help you progress through the course and you may find it more difficult in the long run if you have not given yourself the opportunity to apply your knowledge and test your understanding. You will find the answer – usually at the back of each study guide – will often provide an explanation which will help you to understand where your response may be wrong. Space has been left in the text for you to insert your answer. This can be a very useful aid to revision in the future.

◣ Summary

A summary will be provided at the end of each unit. This will cover the main points and allow you to check whether you are conversant with all the topics covered.

◣ WWW search

At particular points during the text, reference will be made to information which can be accessed through the World Wide Web (WWW). Please bear in mind that material can become out of date quite quickly, especially in a rapidly changing policy environment, so always check it against reliable sources and try and verify it. It is, however, a useful way to access publications and information from government and other transport specialists. Some websites will make documents available in portable document format (pdf). To read these documents you need to install Adobe Acrobat Reader which is available free from most of the websites that offer this option.

Unit 8: Taxation

Introduction

In this unit we are going to look at the way in which transport use is taxed and the influence that this has on demand for different modes and therefore mode choice. The information included in this unit will provide a lead into the unit on road pricing (Unit 12).

◣ Learning outcomes

Once you have worked your way through this unit, including the self assessment questions, you should be able to:
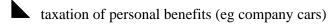
◣ list the various taxation measures which apply to transport provision and use

◣ summarise the effectiveness of each as a policy tool.

Taxation methods

You will recall that in Unit 3, in looking at 'Central Government Structures' we noted that 'the Paymaster General is the minister with overall responsibility for raising taxes and oversees the Inland Revenue and Customs and Excise. He or she is responsible for taxation policy and the Finance Bill. Of particular significance for transport policy are taxation in the following areas:

◣ taxation of personal benefits (eg company cars)

◣ fuel tax

◣ VAT on fuel and cars

◣ fuel tax rebates for public-service vehicles

◣ road vehicle tax.'

The Exchequer also collects employers' National Insurance Contributions from public-transport operators, which is part of the operating cost that has to be covered by fares.

The costs of motoring

The introduction of the fuel tax escalator by Kenneth Clarke in 1993, was said to be evidence of the then Conservative government's 'green credentials'. The Chancellor is quoted as saying at the time: 'Any critic of the government's tax plans who claims to also support the international agreement to curb carbon-dioxide emissions will be sailing dangerously close to hypocrisy.' However, you will also have read that the move had little to do with co-ordinated policy making and everything to do with the motorist being a 'soft target'. The current Chancellor initially took a similar view, but lack of evidence of investment in alternative forms of transport caused "rank and file" motorists to challenge the rationale through fuel protests in 2000. Blockades of refineries by truckers led to fuel shortages at petrol stations, and ultimately the Chancellor reduced the rate of fuel duty on petrol, at a loss estimated to be around £1.8 billion in the first year after the fuel duty escalator ended.   In Scotland, the issue has been particularly focused on the problems of rural areas (which have higher petrol prices anyway – due to reduced economies of scale). Subsequent events suggest that motorists are not such an easy target.

So what are the costs of motoring and how have they varied over the years. The Automobile Association (AA) has for many years produced a breakdown of the costs of motoring, and the following information is taken from their leaflet[55] on the subject.

The AA classifies the costs of running a car under two headings:

▰ running costs

▰ standing charges.

Running costs
The AA defines these as the actual costs of using a car, including petrol, oil, tyres, routine servicing, repairs and replacements. They also take account of the fact that most new cars are protected by manufacturers' warranties, which cover the cost of repairs and replacements in the first year.

They also have considered the impact of extended warranties, which are increasingly popular among new car buyers and will further affect running costs. They also point out that individual driving styles affect the costs of using the car. Consequently the figures quoted are, necessarily, averages.

Standing charges
These are the basic costs of owning a car for use on the public roads. Charges have to be paid whether the car is used or not. As such they include road tax, insurance and AA membership. (This is a little strange since most manufacturers' warranty and extended warranties include a motoring organisation call out service.) A figure is also included for depreciation, the gradual

---

[55] *Motoring Costs* (1999) The Automobile Association, Norfolk House, Priestley Road, Basingstoke,   RG24 9NY

loss in value of the car. This figure is affected by the mileage of the vehicle and the effect of this is included within the calculations.

The costs

I have reproduced the table of 1999 motoring costs for petrol cars in Table 8.1. Diesel cars have similar costs but in general terms are more expensive to run at annual mileages of less than 18,000 and less expensive thereafter. You can find up-to-date costs by looking at http://www.theaa.com/allaboutcars/advice/advice_rcosts_petrol_table.jsp.

	Engine Capacity (cc)				
	Up to 1100	**1101 to 1400**	**1401 to 2000**	**2001 to 3000**	**3001 to 4500**
Standing charges per annum (£)					
Road tax	100.00	155.00	155.00	155.00	155.00
Insurance	281.37	376.36	452.10	698.27	721.35
Depreciation	1064.73	1568.31	2217.55	4008.10	5501.47
AA subscription	74.00	74.00	74.00	74.00	74.00
Total £s	**1520.10**	**2173.67**	**2898.65**	**4935.37**	**6451.82**
Standing charges per mile (pence)					
5,000 miles	30.40	43.47	57.97	98.71	129.04
10,000 miles	15.20	21.74	28.99	49.35	64.52
15,000 miles	11.55	16.58	22.28	38.25	50.35
20,000 miles	10.79	15.57	21.15	36.70	48.76
25,000 miles	10.34	14.97	20.46	35.77	47.81
30,000 miles	8.62	12.47	17.05	29.81	39.84
Running costs per mile (pence)					
Petrol (70.9p per litre)	8.05	9.21	10.74	14.66	16.12
Oil	0.34	0.35	0.36	0.44	0.70
Tyres	0.74	0.96	1.17	2.25	2.92
Servicing	0.94	0.94	0.94	1.47	2.07
Repairs and replacements	3.08	3.51	3.57	5.47	5.63
Total pence	**13.15**	**14.97**	**16.78**	**24.29**	**27.44**

	Engine Capacity				
Total cost per mile (pence)	**Up to 1100**	**1101 to 1400**	**1401 to 2000**	**2001 to 3000**	**3001 to 4500**
based on annual mileages					
5,000 miles	43.55	58.44	74.75	123.00	156.48
10,000 miles	28.35	36.71	45.77	73.64	91.96
15,000 miles	24.70	31.55	39.06	62.54	77.79
20,000 miles	23.94	30.54	37.93	60.99	76.20
25,000 miles	23.49	29.94	37.24	60.06	75.25
30,000 miles	21.77	27.44	33.83	54.10	67.28

Table 8.1 Motoring costs for petrol cars, October 1999 (source: AA)
Of course, whilst the cost of motoring will influence the likelihood of individuals choosing to use their cars in preference to some other mode, the cost of the alternatives is also relevant. Walking and cycling cost nothing, in monetary terms (certainly once you have a bike available), but will often take longer than using a car. In terms of journey times, the same will often be the case of public transport. But what about the cost of public transport? With a declining or static market for bus and heavy government regulation in the rail industry, both bus and rail fares have increased ahead of inflation. In the 20-year period from 1974, bus fares rose by 55% and rail fares by 71% in real terms (that is after inflation), both higher than the increase in disposable income (51% in real terms). Meanwhile the cost of motoring (all costs including insurance, servicing, repairs and road tax as well as fuel and oil) fell by 2% in real terms.[56] Over the same period, the cost of fuel and oil, the 'perceived' cost of motoring, fell by 8%. Whilst the fuel tax escalator will have changed the balance a little, with UK petrol prices increasing by 14.6% above inflation in the period from 1994 to 1998, local bus fares also rose by 9% above inflation.[57] Compared to its competitor, the car has got considerably cheaper over the past thirty years.

Decision making by motorists

So, how do these actual costs of motoring discussed above get taken into consideration by motorists when considering their options? To keep the illustration simple, consider the average motorist (Mondeo man?) who in 1999 had a 1600 cc engine, two-year-old car and drives 15,000 miles a year. From Table 8.1 above it is apparent that the cost for this driver is 39.06 pence per mile. This is made up of two elements:

➤   standing charges of 22.28 pence per mile

➤   running costs of 16.78 pence per mile.

(You can check the 2006 table on the AA website (address given on the previous page) to update these figures; but the argument remains the same. In deciding how to make a journey, for anyone who has access to a car for that journey, the standing charge costs have already been incurred. It is, therefore, most unlikely that they would include them in any calculation of the cost of making the journey by car. Now, although the running costs would at first sight seem to be the appropriate figure to use for calculating the cost of the journey, in practice it is not. At best, motorists' perception of the operating costs, for a journey, is that they equate to the fuel costs. Indeed, for short journeys (of a few miles) it is doubtful whether many motorists perceive that there is a marginal cost at all. However, trips which involve payments of tolls and parking charges do involve direct payment at the time of making the trip.

---

[56] Department of the Environment (1996) *Indicators of Sustainable Development for the UK* (DOE)

[57] The Scottish Office (1999) *Scottish Transport Statistics* (The Scottish Office)

Conversely, payments for trips made on public transport are usually made at the time of undertaking the trip (unless a season ticket is bought) and are charged at a rate that is related to the average operating cost. These costs of operation have to cover labour costs, which can account for up to 70% of the costs, as well as fuel, vehicle and depot costs. However, public-transport fares are exempted from VAT and operators do get a fuel tax rebate.

In general, the cost of car trips is calculated using the marginal costs and the cost of public transport is calculated using the average cost. Because of this, we find that, increasingly, public transport operators attempt to capture customers through daily, weekly or monthly multi-ride tickets, where the perceived marginal cost of the nth ride approaches zero – all the more so when tickets are paid for via direct debit.

The impact of taxation on trip-making decisions

Both elements of motoring costs (identified by the AA) together with tolls and parking charges contribute to the total cost of making journeys by car and all contain greater or lesser elements of taxation. An internal study[58] by Strathclyde Roads Department identified four categories of the cost of making a trip. These four categories (which include costs such as road pricing, which are not currently charged, but will be discussed in Unit 12) are as follows:

▲ Acquisition costs – costs and taxes which are incurred when a vehicle is purchased. Typically, the private motorist will totally ignore these costs when making individual trips.

▲ Periodic costs – these are costs which are incurred by the motorist infrequently and include costs which are incurred by virtue of owning the vehicle – such as vehicle excise duty, insurance, garaging and benefit taxation costs – and costs which are related to the amount of use, such as maintenance and parking season tickets. Again, typically the private motorist does not include these costs in the calculation of the cost of individual trips.

▲ Fixed costs per trip – these are costs, which can be incurred each time a trip is made, can vary according to the destination of the trip, but do not incorporate the flexibility to vary those costs according to trip length and traffic conditions. The incidence of these costs are usually considered by the private motorist when making individual trips. (These costs can only be calculated on a per trip basis. They include items such as parking costs and bridge tolls.)

▲ Variable costs per trip – these are costs that are incurred on each trip, and which vary in accordance with one or more of the characteristics of the trip. For example, trip length, trip destination, timing of the trip and traffic conditions. (The major element of this cost is fuel costs.)

---

[58] Strathclyde Roads Department (February 1994) *For Whom the Road Tolls?* (Strathclyde Regional Council)
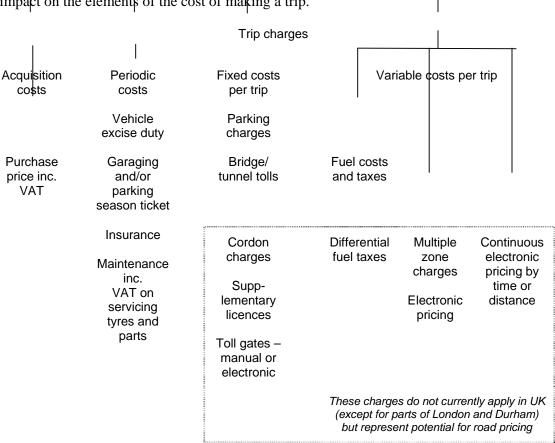
Figure 8.1 illustrates the way in which different costs, and, in particular, different taxes impact on the elements of the cost of making a trip.

Figure 8.1 Incidence of costs and methods of applying charges for car trip making

The potential for taxation influencing trip-making decisions lies in the way fixed costs and/or variable costs per trip can be adjusted through taxation. Bear in mind that it is most unlikely that acquisition costs and periodic costs will be considered when making a decision to use a car for a particular journey. Fixed costs per trip will be considered, provided they are made at the time of the journey, and variable costs per trip (particularly fuel costs) will be considered for longer journeys. Table 9.2 below takes the cost identified in the AA analysis and breaks the cost elements into the four Strathclyde study categories. It also identifies the amount of taxation within each cost category.

Cost element	Taxation type	Total cost/mile (pence)	Taxation cost/mile (pence)
Acquisition costs			
Purchase price	VAT	18.70	2.80
Periodic costs			
Vehicle excise duty	Specific taxation	1.00	1.00
Insurance	Insurance premium tax	3.00	0.15
Maintenance (inc. AA)	VAT	7.04	1.05
Fixed cost per trip			
Parking charges			
Tolls			
Variable costs per trip			
Fuel costs	Fuel duty and VAT	11.73	5.87
Totals		41.47	10.87

Table 8.2 Motoring cost breakdown (total and taxable element)

From the above breakdown it is apparent that taxation is applied to motoring in three different ways, through:

▰ general application of VAT and tax on insurance

▰ a specific tax on car ownership – vehicle excise duty (VED)

▰ a specific tax on fuel – fuel duty.

Let's consider the possibilities for changing the application of taxation. The Chancellor is limited in his ability to alter the application of VAT; European Regulations require that VAT rates are within a band from 12.5 – 20%. Consequently we are left with, under current legislation, two options – VED and fuel tax.

Vehicle excise duty (VED)
It will be apparent from Table 8.2 that changes in VED will not affect trip-making decisions because they are part of the periodic costs of car ownership (part of the average cost of motoring but not the marginal cost). However, you will note from Table 8.1 that VED does vary according to engine size. This is a recent development, and again is claimed to be a 'green' policy that will encourage the acquisition of smaller engined cars producing lower levels of greenhouse gases and other pollutants. Take a few minutes to examine the figures in the top part of Table 8.1 (and up to date web equivalent) and decide for yourselves whether the differential is significant enough to influence large-scale transfer to small-engined cars. Conversely, would we have a greater influence on trip-making decisions (and indeed engine-

size choice) if VED was abolished and the same level of income raised through additional fuel duty; or if the differentials VED rates for different sizes of car were made larger, as in Italy?

We also need to consider whether other taxes on car ownership might ultimately be effective in reducing car use. It is certainly a fact that the biggest single factor behind the growth in car traffic, in the years since the Second World War, has been increasing car ownership. The Royal Commission on Environmental Pollution, in its 18th Report,[59] considered the economic aspects of transport (see Chapter 7). I will be asking you to read this shortly, but it discusses the opportunities for using fiscal instruments to influence car ownership.

In the UK, there was at one time an additional car tax levied on new cars, but this was never seen as a method of restricting car ownership growth. Again, the cynic might suggest that it was a relatively easy target for a Chancellor looking for ways of raising revenue. However, in other countries, where space is more of an issue, much higher levels of annual car tax have been used. In Hong Kong and Singapore this has been done, and in Singapore an annual auction is held for a restricted number of ownership permits. In Hong Kong, despite the high levels of annual tax, growth in car ownership has still increased by 10%. In Singapore, the very high ownership taxes which it is possible to levy in a state that is not democratically governed in the sense that Western Europeans might understand have undoubtedly suppressed car ownership and hence use.

In Tokyo an alternative approach has been tried, where registration of a car is only permitted when the applicant can prove that there is an off-street parking space to park it in. This has had the effect of increasing the cost of an off-street parking pace to between £2,500 and £5,000 per annum.

In Italy, car sharing clubs (see www.eltis.org and www.smartmoves.co.uk for more details of how these schemes work) have recently enjoyed considerable success. This may be because of the high ownership taxes in that country, which make the membership costs of the car club appear much better value than they do in the UK. Consequently people are using the car club instead of a second car; but studies of car clubs have shown that this can reduce levels of car use.

The Commission for Integrated Transport have studied taxation and car use in Britain and compared it to other European countries. Levels of fuel taxation in Britain are higher than elsewhere, but levels of tax on ownership are lower, such that the overall level of tax on motoring in this country is close to the European average. One might expect that, in this case, car use per capita would be lower here than elsewhere and ownership higher, but in fact, the converse is true, indicating that there are other more significant influences on car use. See http://www.cfit.gov.uk/research/scot0122/index.htm for full details of the research report.

It appears that the evidence would suggest that the opportunities for restraining car-ownership levels through fiscal means is quite limited. It does provide, however, a possible way of

---

[59] Royal Commission on Environmental Pollution (October 1994) *18th Report: transport and environment* (HMSO, London)

influencing the choice of car. In Britain, a very large number of cars are provided as company cars by employers. The Royal Commission highlighted some of the inappropriate ways in which the personal tax system actually encouraged additional use of cars by individuals. In its recommendations it suggested that the rules should be changed. Six years later, there are signs that the current Chancellor is at last responding. It may well be that taxation of car ownership can best be used to influence the types of cars that are purchased and the level of use that is made of them thereafter, rather than influencing the number of cars per se.

Some discussion of the impacts of changes in company car taxation and vehicle excise duty, relating them both to CO2 emissions, was presented in Unit 2; it may be worth recapping it here.

Fuel duty

It is clear that fuel duty does have some impact on car owners' behaviour. Fuel costs are a significant part of the average cost of motoring (some 27.5% of the example chosen for Table 9.2). However, if you again refer back to Table 8.1, and calculate the fuel cost as a percentage of total costs for each engine-size group (for 15,000 miles per annum), you will find that fuel costs are a less significant part of total costs the larger the engine. However, the bigger the engine, the bigger the variable cost per trip. Current up-to-date fuel duty levels are at http://customs.hmrc.gov.uk/channelsPortalWebApp/channelsPortalWebApp.portal?_nfpb=true&_pageLabel=pageExcise_RatesCodesTools&propertyType=document&id=HMCE_PROD1_024961#downloadopt. If you use this and the current AA website, you will see that the proportion of total fuel costs that is down to fuel duty has fallen markedly since 1999.

Fuel prices

In mid 2008, oil is 70-100% more costly per barrel than it was 12 months ago. In spite of very recent (early August 2008) slight price falls, most forecasts see the trend in price continuing upwards. Most previous studies of the influence of fuel price on road traffic demand have considered only modest price rises and show that, in the short term at least, traffic levels are relatively insensitive to fuel price; it remains to be seen whether the very significant and quick rises experienced recently will have a different influence on consumer behaviour. US newspapers report significant drops in road deaths in the first months of 2008 compared with 2007, putting this down to lower traffic levels and remaining motorists driving more slowly to conserve fuel. In the longer term, as occurred after a sharp fuel price rise in the late 1970s, motorists will switch to more fuel economical cars and reinvest the savings in traveling further; so the impact of sharply rising fuel prices is difficult to predict.

◣ **Self assessment question 8.1**

Take half an hour to review what you have just read. Then read Chapter 16 of *Integrated Futures and Transport Choices*, by Potter, Enoch and Rye – to be found in "Hine book.pdf"

and Potter (2008) in "Chapter 7 Fuel Taxation.pdf", both on the student webserver. Then set down, in note form, your answers to the following questions:

▲ What taxes are levied on public and private passenger transport?

▲ What recent changes have been made to the personal taxation system to give people incentives to use their car less and other modes more?

▲ How could the application of taxation to transport be better targeted to influence trip making?

Taxation and the environment

In Unit 2 we looked at the influence that world-wide concerns for our environment had had on transport-policy thinking in this country. In particular we looked at the work of the Royal Commission on Environmental Pollution and the recommendations of its report on transport and the environment.[60] I have already suggested to you that some of the motor-taxation changes that have been made over the past decade have been dressed up as 'green' but have certainly not been part of any joined-up thinking on the part of the Treasury and the DfT. This perceived cynicism on the part of government has had the effect of stirring up the car lobby, who are again claiming that they are 'paying too much for the service they get'. Certainly, the total tax take from motorists is far greater than the total public expenditure on roads. The Royal Commission put the ratio at almost 3:1. Of course, the issue is that the costs that motorists impose on society at large are not only those related to providing and maintaining the road network. It is now generally accepted that, in particular, congestion and environmental pollution are costs that need to be considered as part of the cost of motoring and that those costs should be recovered from the beneficiaries (the motorists).

Chapter 7 of the Report looks at the economic aspects of transport. Its analysis in earlier chapters had recognised that it was not entirely possible to evaluate the environmental costs in monetary terms. However, it examined the way in which the economic measures – taxation and pricing – could provide a framework within which trip-making decisions would start to reflect the wider costs to society.

◤ Recommended reading

I would now like you to read and make your own notes on the Victoria Transport Policy Institute's web pages on taxation and mileage related insurance as means of limiting travel demand.   Consult   http://www.vtpi.org/0_tdm.htm   and   also http://www.climatesolutions.org/pubs/pdfs/roadrelief.pdf . In doing this you should consider the effectiveness of the measures examined in influencing:

◤ individual trip making and mode choice

◤ vehicle ownership choice

◤ revenue raising.

---

[60] Royal Commission on Environmental Pollution (October 1994) *18th Report: transport and environment* (HMSO)

▰ Self assessment question 8.2

From your reading of this unit and the VTPI site, set down in note form:

▰ the various taxation measures which apply or could apply to transport provision and use

▰ summarise the effectiveness of each as a policy tool.

▰ Summary

In this unit we have looked at the way in which taxation and fiscal policy impacts on car ownership and car usage. We have identified the way in which the costs of operating a car are built up, and the extent to which the individual car driver will 'include' these costs in any trip-making decision.

Taxing the owning of a car has limited impact on car-ownership levels, but properly targeted it could influence the type of car that individuals buy and how they then use it. There is scope therefore to achieve reductions in pollution through this form of taxation.

Taxing the use of cars is more likely to influence the level of car usage, but using fuel tax to do this is a relatively blunt tool, in that it does not discriminate between congested and uncongested areas. It can, however, influence the type of car that is bought.

In Unit 12 and Unit 15 we will look in more detail at the other charges that can be used to influence car use: road pricing and parking charges.

Unit 9: Funding mechanisms

Introduction

We looked, in Units 3, 4 and 5, at the way in which responsibility for transport was divided between the public and private sector and, within the public sector, between Europe, central government and local government. We have also looked (Unit 9) at the way in which taxation and charges can influence the costs of transport and, therefore, travel choices. In this unit we will look at the way in which transport facilities are funded and how public funding can influence costs and, therefore, travel choice.

◣ Learning outcomes

Once you have worked your way through this unit, including the self assessment questions, you should be able to:

◣ list and evaluate the various funding mechanisms which apply to transport provision and use

◣ summarise the effectiveness of each as a policy tool.

Background

In general terms, public-transport operations in the UK run on a commercial basis. Certainly, central and local government subsidise some elements of the networks, but operators need to cover all the costs of their operation from their income (whether farebox or subsidy). Consequently, any operator initiatives to influence market share (modal split) will be commercially driven and the costs will need to be covered by additional income. In the main then, it is funding from the public sector which offers policy makers the main scope for influencing mode choice.

You will have seen, from earlier units, that many of the responsibilities for transport lie with local authorities. In addition, the European Union – through its Structural Funds – supports significant development of transport infrastructure, particularly in the less economically developed areas. Nevertheless, there is a very high degree of centralised direction of the funding mechanisms for transport in the UK. Central government funds the national passenger railway service through the franchising arrangements and the trunk-road network through the Highways Agency. This was described in Unit 5.

As far as local government expenditure is concerned, all expenditure has to be within government guidelines and since a very high proportion of local-government funding is from central government the Treasury dictates overall spending levels.

Equally, although European Union Structural Funds Grants are required to be additional to existing funds of the member states, many government critics believed that the existence of European Regional Development Funds (ERDF) led to a declining budget for transport during the 1980s and 1990s.

If you look at http://www.cfit.gov.uk/docs/2001/ebp/ebp/key/02.htm (the Commission for Integrated Transport's report on European Best Practice in transport) you will see that there are marked differences in the level of both capital and revenue funding for transport, and the continuity of that funding, in the UK compared with its continental European counterparts. In addition, local authorities in the UK are almost completely dependent on national government for transport funding, in marked contrast with many parts of France, Germany, Switzerland and Sweden, for example, where resources can be raised regionally and/or locally.

Funding local authorities

Since a significant proportion of transport expenditure is channeled through local authorities, it is important that you understand the way in which local authorities raise their income. Each year, councils have to fund the costs of running their services (revenue costs) which for transport will include roads maintenance, public transport subsidies and other on-going costs. They will also undertake work to improve or extend the transport network which may involve significant sums of money. These large 'one-off' projects are classified as capital expenditure and (just like you or I might take out a loan to fund the purchase of a car or a house) the local authority will take out a loan to finance the scheme. The repayment of that loan (typically over a period of 30 years for civil engineering works) then becomes part of the council's revenue (annual) expenditure. It should be noted that in the first few years of the new millennium there has been an increasing tendency for central government capital to be paid as grants to local authorities rather than credit approvals; there is no debt servicing required for a grant.

The difference between capital and revenue expenditure sometimes gets a bit blurred but, as a general rule, anything that adds to or improves the transport network, costs more than £5,000 to £10,000 and has a working life of five or more years is likely to be capital expenditure. Consultants can also be paid from capital monies. The rest will be revenue.

Central-government control

Local-authority expenditure is reviewed annually by central government and all local-authority spending plans have to be approved by central government. Each year central government assesses the spending needs of each local authority. This is a well-established process based on formulae using a variety of statistics which describe the demography of the

area. The government then provides each authority with a spending guideline (the government's view of what total expenditure should be).

This is done in two ways:

▰ by specifying the level of revenue expenditure that the council can incur (including the repayment of loan charges)
▰ by allowing local authorities to borrow money to fund capital expenditure (loan consent).

Loan consent is an absolute limit which authorities may not exceed; where projects are eligible for grant funding the loan consent will cover the net cost of the project. With revenue expenditure, although local authorities have some discretion to spend above or below the spending guidelines, the method of funding of local government makes this a very marginal power. Figure 10.1 below shows a simplified breakdown of the sources of local-authority income. It also indicates (on the right) who controls the level of funds that flow from these sources.

Typically, therefore, local authorities only control about 20% of their income. Consequently, any increase in spending above the guidelines and funding set by central government has to be paid for from council tax or charges (the 20%). If you think about it, this creates a huge problem for local authorities. If the council wanted to increase spending by just 1%, the total increase has to come from an increase in council tax and charges. If these amount to 20% of the total budget then council tax and charges need to increase by 5% to raise the income needed.

This, in part, explains many of the clashes there have been between central and local government in recent years over spending levels. As central government has been seeking to reduce local-authority expenditure (to encourage efficiency) some authorities have sought to maintain expenditure levels through significant rises in Council Tax. In most cases, the middle course has been followed. With reductions in service levels, efficiencies being made and above inflation increases in Council Tax.

The important point is that central government has until recently exerted very tight control over local authority spending.
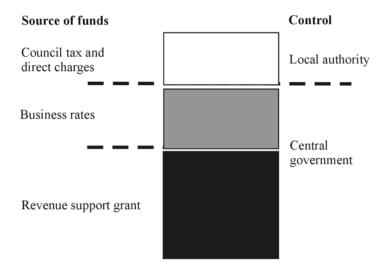
Figure 10.1 Sources and control of funds for local authorities

You will have noted that I referred to Council Tax (which is the levy which most householders have to contribute towards local services in their area) and also charges. These are the charges that councils can make for use of specific services. The main charges raised by councils for their transport services are parking charges and, for those councils that still own bus companies, the profits from these companies. Parking charges can also be a very important source of revenue and, under the terms of the Road Traffic Regulation Act, this revenue can only be invested in transport-related expenditure. The City of Edinburgh Council makes about £12 million per year from its parking operation.

Under the terms of the Transport Acts 2000 and 2001, local authorities are of course permitted to implement congestion charging and (in England) workplace parking levy schemes (though each scheme must be approved by national government). Although they are supposed to demonstrate how such schemes will reduce congestion, the main attraction may be the cash that they could generate. This must be spent on transport-related schemes (limiting the spending in this way is called **hypothecation**) for at least 10 years, in England; and indefinitely, in Scotland. The money raised must be additional to existing transport spending. Two schemes have so far (2003) been implemented, one in Durham and one in London. In both, the revenue generated has been less than expected, due to a higher than expected proportion of travellers either diverting away from the destination, or changing mode or (in London) departure time to avoid the payment. This obviously has implications for the revenue streams anticipated from other charging schemes.

Changes in local government capital finance

Since April 2004 local authorities have been free to set their own limits on borrowing to finance new capital expenditure. The new system is not a free for all but it does potentially represent a source of additional funds for transport spending. Essentially, if a local authority can finance the interest payments on borrowing, it is free to do so, as long as this can be seen as "prudent" (careful). Central government will not make additional revenue money available

to finance the borrowing but if the council can find other ways to pay the interest then it can go ahead. A useful summary of the new system and its implications for transport can be found at http://www.cfit.gov.uk/research/pwctechnical/a3.htm. It is interesting to note that the authors found that most transport professionals are unaware of the changes and therefore of their implications for transport funding. It should be noted that there is in any case not perceived to be a shortage of capital money in local transport at the moment, but revenue for subsidy and maintenance is in short supply. Recently, Local Authorities have been granted the ability to increase the business rate (local tax on businesses) by up to 2% to raise money for economic development projects, which could include transport; as yet, none have done so.

Local Transport Plans

As well as controlling the level of expenditure, central government also influences the form of transport expenditure undertaken by local authorities. In the 1970s, following local-government reorganisation, central government moved away from controlling expenditure on a project by project basis to the idea of approving programmes of expenditure (The Transport Policies and Programmes (TPP)). The TPP system has been through a number of changes since that time and has evolved into the Local Transport Plan. The 1998 White Paper (Unit 7) introduced the idea of the Local Transport Plan (or Local Transport Strategy in Scotland). A significant difference from the TPP is the introduction of a five-year (three years in Scotland) time frame for the plan. In addition, in England and Wales only, the funding granted to the authority for transport is dependent on the quality of the LTP as a package (as perceived by the local Government Office or by the Welsh Executive) and the degree to which it has delivered on the previous 2-3 years' spending promises, as measured by its annual progress report (APR) which it is required to submit to the Government Office. In this sense the LTP is a bidding document which the LTS, in Scotland, is not. Scotland also lacks an APR requirement. However, it appears that those authorities in England that are judged to be doing "excellently" by the Audit Commission will no longer be required to submit LTPs or APRs – it may be that this is the first nail in the coffin of the (short-lived? And) by most accounts quite useful LTP regime. This is part of a wider central government move to reduce the reporting burden on local government and to give local councils more autonomy.

It is clear that both in Scotland and England and Wales, the amount of money available for local transport capital schemes has increased significantly, which is great for transport, and for you, because it has generated a labour shortage in the transport planning industry – there are simply not enough people around to help to spend the money! The Transport Planning Skills Initiative (TPSI – see www.tps.org.uk for more details) is one response to this labour shortage. Capital allocation from central government to local government in England outside London rose from under £0.5 billion in 1997/8 to around £1.65 billion in 2003/04, and was then due to rise further to £1.95 billion by 2005/06 – although it appears from the latest (2006) statistics that government spending on this aspect of transport is slowing. An excellent briefing note on differences in transport spending around England is available at http://www.pteg.net/NR/rdonlyres/605D603E-C480-4E9B-944E-044DC80FBAA6/0/funding_gap_20060629.doc – this shows that transport in London is far better resourced than elsewhere. Nonetheless, spending the money is certainly a challenge; and the lack of revenue funding to match it is leading to problems in paying for the maintenance of new schemes, or subsidies for the buses to run in the new bus lanes. (The

next paragraph explains why not all of this money will now necessarily make its way to transport.)

Between 1998 and 2001, English local authorities were awarded capital spending by central Government based on the quality of their LTPs. This money could only be spent on transport – it was what is called ring-fenced. In Scotland, such ring-fencing has not existed since 1996; the transport capital allocation (except that for schemes over £5 million) is lumped together with the allocation for other parts of the Council's services (except housing). The Council does not have to spend the money notionally allocated to transport on transport. This is also now the case in England; it is called the single capital pot. Although I have not read any definitive studies on the issue, it is my belief that because transport is, in most authorities, seen as less politically important than other policy areas, the single capital pot leads to less money being spent on transport than is allocated by central government; and it is why spending on transport by English local authorities has been ahead of that by their Scottish counterparts. In Scotland, up until 2002/03, authorities were able to bid for ring-fenced capital called Public Transport Fund (PTF), for the spending of which quite strict rules applied. About £160 million was allocated over 5 years under this system. Additionally, periodic smaller disbursements of ring-fenced money for cycling, walking and safer routes to school were also given to local authorities, the most recent in autumn 2003 after a 2 year gap. The PTF has now been replaced by the Integrated Transport Fund (ITF); with this, Scottish Executive bureaucrats decide to allocate money to authorities based on what they know of the projects to which each authority aspires; there is no bidding involved.

◣ Recommended reading

Again, because this is an area where rapid change is taking place, it will be sensible for you to check out the DfT web page. On the DfT Home Page select 'Local Transport' and then choose the latest annual report. It will give you a good summary of the current spending plans and the means of allocating funds.

Funding public transport

You will recall from Unit 5 that rail infrastructure is provided by Network Rail who then charge train operators the commercial rate for use of that infrastructure. Passenger services are franchised to private-sector operators, usually with some revenue support, by the Strategic Rail Authority (a government agency). On the freight side, Freight Facility and Track Access grants aimed until recently to encourage increased use of the rail system by contributing to the cost of terminal facilities or by providing a subsidy to meet some or all of the track access charges. Due to SRA budget restrictions, they have been temporarily withdrawn in England. Bus priority and other bus infrastructure can be funded from normal local transport capital allocation. Funding for trams (large schemes) needs special permission.

Grants and borrowing approval for large (> £5 million) public transport schemes

Section 56 of the Transport Act, 1968 allows the Secretary of State to 'make grants … to any person towards expenditure … of a capital nature … for the provision, improvement or development of facilities for public passenger transport in Great Britain'. Subsequently, the Department of Transport produced guidelines for applicants in its Circular 3/89 and now at http://www.webtag.org.uk/webdocuments/1_Overview/4_Major_Scheme_in_LTPs/index.htm . The guidelines require applications for grants to be accompanied by a clear statement of the objectives of the scheme and by full economic and financial appraisals.

Applicants need to show that their proposed scheme is consistent with the deregulated bus market introduced by the Transport Act 1985. In particular, estimates of demand upon which the planning of the scheme is based will need to take into account the implications of competing bus services including possible competitive and/or complementary responses of bus operators to the proposed transport service or facility.

It is also clear from Circular 3/89 and the Webtag guidance that applications should be demonstrably in line with national and local transport policy guidelines.

The types of schemes that get this money include tram and rail schemes, such as Manchester Metrolink Phase 3.

Freight Facilities Grants

The Secretary of State, under Section 8 of the Railways Act 1974, and as amended by Sections 139 and 140 of the Railways Act 1993, has a discretionary power to pay grants towards the capital costs of providing facilities for the carriage of freight by rail, or the loading/unloading of freight carried by rail, where this would be in the interest of the locality or some or all of its inhabitants.

The grant is intended to 'tip the financial balance' in favour of rail over road transport in recognition of the environmental benefits the project will provide. Grant is normally only paid when a grant-aided project will provide sufficient environmental benefit by removing specific

flows of traffic from identifiable road routes (or by avoiding new flows of lorry traffic) and when the facilities could not be provided commercially without it.

Applicants will normally be expected to satisfy the following criteria:

▰ When compared with the road transport alternative the proposed facilities would not be commercially and financially viable without grant.

▰ Providing the facilities will secure traffic on rail where the alternative is road transport.

▰ Network Rail have approved the provision of the facilities and that in the case of rail the operator is prepared to carry the traffic.

▰ The proposed expenditure is of a capital nature, which has been recently extended to include locomotives and freight-specific track and infrastructure.

▰ The project will be of significant environmental benefit to localities. This again has been extended to include in the grant assessment lorry miles saved on not just rural and urban roads but also inter-urban dual carriageways and motorways. (Standard values per lorry mile are used for different types of road.)

▰ The traffic in question will be retained on rail for the minimum period specified.

Facilities eligible for grant aid are generally those required to handle or carry freight and, under the Railways Act 1993, have been extended to cover all relevant forms of capital expenditure and equipment, including:

▰ rail sidings; track and associated infrastructure

▰ rail loading and unloading equipment such as cranes, conveyor belts and lift trucks

▰ associated land and buildings

▰ rail haulage equipment, including locomotives and rolling stock.

Bi-modal systems are, in principle, also eligible for grant.

Rail Environmental Benefit Procurement scheme (formerly Track Access Grants)
The Secretary of State, under the provisions of Section 137 of the Railways Act 1993 (and in line with EC Regulations 1893/91), has a discretionary power to pay grant towards meeting track access charges levied by Network Rail for freight flows which would otherwise transfer to road or could not be attracted to rail.
The grant is designed to assist freight service operators in helping to defray track access charges levied by Network Rail and is not an operating subsidy. The objective is to secure

environmental and wider benefits arising from the avoidance of heavy lorry movements on the roads. Grant can be awarded up to the amount required to tip the financial balance in favour of rail, up to the total track charge payable to Network Rail, or up to the total value of the environmental benefits which the grant would secure, whichever is the least. The amount of grant paid is that judged necessary to leave the customer no worse off than if road haulage had been used. In cases offering exceptional environmental and wider benefits, grant could cover all of Network Rail's charges, making access free at the point of use.

Grant is only payable to freight train operators, although the applicant may be an operator or a customer/consignor who sub-contracts for the provision of train services.

Grants are assessed on the same basis as Freight Facilities Grants.

Currently (2008) FFG is only available in Scotland.

Bus grants
Soon after coming to power the government announced additional funding for rural public transport. This is now established as a specific pot of money and is a special grant for new or improved rural bus services. The money available in 1999/2000 was expected to be £32.5 million. In addition the government made available a further £11.4 million for the successful bids in a rural bus challenge competition. Forty-six projects will share the fund. There is also now a similar Urban Bus Challenge Fund. In addition, there is "Kick-start" funding available in Scotland to subsidise routes (or improvements) to routes for up to 3 years, with a view to them becoming commercially self-sustaining thereafter.

Roads

Local-authority roads are funded through the Local Transport Plan system and trunk roads through the departmental allocation to DfT. We have already looked (in Unit 5) at the increasing use of the Private Finance Initiative for transport capital projects. The next section will assess the issues involved in this form of funding.

◣ **Recommended reading**

Before we look in more detail at the Private Finance Initiative, I would like you to read Chapter 2 of *A New Deal for Transport?*

Before moving on just check that you have all these funding mechanisms clear in your mind. Spend 20 minutes noting down answers to the following questions.

◤ **Self assessment question 9.1**

How is local transport funded in Great Britain?

◤ **Self assessment question 9.2**

What grants are available to encourage the transfer of freight traffic from road to rail and what are the key criteria for a successful bid?

The Private Finance Initiative (PFI)

The introduction of the Private Finance Initiative (PFI) marked a significant shift in procurement practice for public infrastructure projects, particularly in the areas of transport, health and prisons. Its essential purpose is the substitution of private management expertise and funds for those of the public sector. It is different to the wholesale privatisation of services which involves the complete transfer of the asset to the private sector.

Introduced in 1992, there were considerable difficulties in implementing PFI schemes for several years. This was due, in part, to significantly different cultures in the public and private sectors and problems in establishing a common understanding of the working of the Initiative. Whilst some progress was made prior to the General Election in 1997, intriguingly, it took a Labour government to inject some life into the Initiative. In conjunction with a public–private partnership programme and the establishment of a new Treasury Taskforce a range of improvements to the processes have been proposed. These include:

◤ prioritisation of projects

◤ greater standardisation of contracts

◤ a joint venture – Partnerships UK – to help the public sector to get better deals using private finance

◤ the creation of the Office of government Commerce to improve the efficiency and effectiveness of government's procurement programmes.

Local Authority Associations have established a Public–Private Partnerships programme (the 4Ps) which aims to help local authorities develop PFI projects and the current government has tried to remove some of the obstacles discouraging local authorities from involvement with the PFI. In particular, government has promised to allocate some additional revenue support to help fund PFI projects.

A typical PFI project will involve a private-sector company, or group of companies, constructing, maintaining and operating an asset for a set period of time. In return they will receive a revenue stream generated by the facility. In some cases, such as a tram system or a toll bridge the revenue will be paid directly by the users. In the case of untolled roads (all the DBFO trunk roads referred to in Unit 5) payment is based on 'shadow' tolls based on actual traffic flows. Often, some public sector capital will have to be invested to keep the private sector costs to a level where it is anticipated they can be repaid through the revenue stream. For example, the public sector paid the costs of moving public utilities in the streets of Croydon to facilitate the construction of the tram there.

The four principles which are at the heart of the PFI are:

▰ **risk transfer**: risks are allocated to the parties best able to manage them.

▰ **output specification**: the client specifies its requirements as a stream of services rather than the physical assets through which they should be provided. (This, then, should form the basis of the payment by the public sector)

▰ **whole life asset performance**: the private sector is responsible for the asset it provides throughout its life cycle

▰ **performance related rewards**: the private-sector partner is incentivised in the contract to achieve agreed desirable levels of performance.

One clear benefit from PFI is that it encourages a long-term (whole-life) approach to the projects. Where public-sector bodies have been severely constrained on capital spending there has always been a temptation to go for 'the cheap fix' and let the future look after itself. By giving an organisation responsibility for the long term and by requiring it to perform to agreed standards throughout that period, the encouragement is there to provide long-term, cost-effective solutions.

It is also, generally, a good idea to try and structure the rewards package for the contractor on 'results' basis. By this I mean that payment should be related to the achievement of targets which indicate that the community is getting good value for the money paid. In the case of hospitals and schools this may be based on measures such as bed-nights (the sum of the number of beds available each night over a period) or pupil spaces provided, day by day. For a tram system it can be numbers of passengers carried (or passenger-miles run). As I have mentioned earlier, traditionally the output measure used for road schemes tends to be based on traffic flows.

This is where there is a potential conflict with PFI and transport policy. The concept of the PFI deal is that the more customers you cater for, the better the scheme. But how does this square with the Traffic Reduction Act?

Whether PFI provides better value for money than conventionally publicly-funded schemes is a moot point. Government can borrow at lower cost than can the private sector, and government does not have to make a profit. Thus the efficiency saving of the private sector

compared with the public must at least equal its profit margin plus the additional cost of borrowing if it is to realise any savings for the public sector. Planning the project can take much longer, since the bidding process is highly complex and financial evaluations must be carried out in much greater depth than would be required for a publicly funded scheme, since the private consortium's revenue stream (and hence profit) depends on the accuracy of the predictions. As we have seen on the railways, large contracts between public and private sector are also not set in stone; the cost at the outset of the project may well be very different from that at the end. It is instructive that other European countries have used the PFI method rather less for funding public transport schemes. Some people argue that the only reason that the PFI is used in Britain is because the Treasury is very powerful and sees PFI as an important way of keeping our public sector borrowing (for international finance analysts, a key measure of a country's economic health) at "acceptable" levels. However, this is now less the case since, if a risk is not truly transferred to the private sector through a PFI, then this risk counts against the public sector balance sheet, even where the money has been borrowed by the private sector. Metronet's bankruptcy, discussed in an earlier unit, is a classic example of this.

◣ Reading

Evaluations of PFI for particular transport projects can be found at the following websites. Those from the National Audit Office (NAO), the Government's public spending "watchdog" are particularly authoritative. You should skim read at least one of the following.

http://www.vsl.tu-harburg.de/vsl_2/1forschung/projekt_PPPenglish?welche_nummer=17

http://www.nao.org.uk/publications/nao_reports/03-04/0304645.pdf

http://www.publications.parliament.uk/pa/cm199798/cmselect/cmpubacc/580/58002.htm

http://www.publicprivatefinance.com/uploaded/The%20Anatomy%20Of%20Construction%20Risk.pdf

◣ Self assessment question 9.3

Explain the pros and cons (as you see them) of the PFI.

◣ Self assessment question 9.4

Suggest how the measurement of performance (the outputs) of PFI transport projects could be better aligned with transport policy.

� Summary

Central government exerts very tight control over the funding of transport in this country. It funds national passenger rail services through the franchising process and the operation of the trunk-road network through the Highways Agency. Although expenditure on local transport is managed by local authorities, funding levels are strictly controlled through the local-government finance system and the Local Transport Plan System. As we will see in Unit 16, the requirements of the Local Transport Plan system ensure that expenditure incurred by local authorities is in line with national transport policy guidelines.

The government also encourages public- and private-sector spending on specific transport schemes which support national policy through a system of specific grants such as:

- ▲ Freight Facilities Grants

- ▲ Rail Environmental Benefit Procurement Scheme

- ▲ Section 56 Grants.

The pressure from the Treasury to keep public spending within tightly defined limits has led to the development of the Private Finance Initiative (PFI). This aims to encourage:

- ▲ the transfer risk from the public sector to the private sector

- ▲ the measurement of the performance of the scheme in terms of outputs rather than inputs

- ▲ management of the asset whole life-cycle basis

- ▲ the use of performance-related payment systems.

To date the use of PFI for transport schemes has been limited. There is also a potential conflict between payment regimes and transport policy performance measures. In Research Exercise 9.5 you looked at the issues involved here in trying to identify performance measures which did not encourage growth in traffic, which could conflict with transport policy.

The use of road pricing/congestion charging presents some opportunities for developing Urban Transport PFIs. Unit 11 will look in more detail at the possible application of road pricing and Unit 10, which follows, will look at parking .

Unit 10: Parking payment and management

Introduction

The following material was developed for an EU Energy Project (COMPETENCE) training day. Please bear that in mind when you are reading it.

Introduction

This Unit in COMPETENCE is about parking pricing and management. It draws on a number of key sources: the 2005 final report of the European COST 342 project on parking; LEDA (http://www.leda.ils.nrw.de/); CIVITAS (http://www.civitas-initiative.org/main.phtml?lan=en); the limited academic literature on the topic; and policy and policy evaluation from www.vtpi.org, http://www.socscinet.com/transport/konsult/public/level0/l0_hom.htm , and from the UK generally. The author of this Unit is UK based and so this goes some way to explaining why quite a few of the examples and cases are from the UK. However, the COST 342 material includes many examples from other European countries. A link to it is provided on the COMPETENCE website, and it is commended to you.

The availability and cost of a parking space is an important determinant of whether or not people choose to drive to a particular destination, and also whether they choose to own a car at all – it is likely that the relatively lower levels of car ownership in many inner cities (in spite of their greater wealth relative to other areas) are partly a result of the lack of on-street parking (so nowhere to put a car), as well as the above average levels of public transport accessibility.

Local authorities have direct control over the use of kerbspace (other than on trunk roads) in their areas, and therefore of the supply and price of on-street parking. Many authorities own public off-street car parks, over whose use and price they also have control (although the extent to which they are the provider of public off-street parking varies from locality to locality). Through the development control process, they also have some control over the level of parking that is provided in new developments.

Whilst parking controls and prices are rarely popular with the public, they are a policy option that is relatively well-known and, certainly in larger towns and cities, accepted – if there is an obvious shortage of parking spaces then many people may accept that there is a need for parking controls. Parking controls and pricing are the transport demand management measure that is most frequently implemented by local authorities, yet little of the academic literature deals with experience of this policy, preferring instead to concentrate on the "sexier" topic of congestion charging. This Unit attempts to redress that balance a little.

Learning outcomes

Once you have worked your way through this unit, including the self assessment questions, you should be able to:

- understand the relationship between parking, revenue raising and economic development
- understand how and why local parking policies are developed, and be able to critically apply your understanding to a case study
- understand the circumstances in which it may be appropriate to use parking policy as a demand management tool.

Car parking is an issue of significance both at the local and at the strategic level of planning. Parking policy and supply play a major role in the management of transportation systems in dense urban areas. In order for parking policy decisions to be well founded, the analysis of parking behaviour and the effect of parking policies should be fully integrated with the other elements of the transport planning process (Young et al, 1991).

Parking policy has traditionally been viewed as a subset of transport policy. It is now recognised that parking policy has a key role to play in integrated transport strategies, which seek to exploit the importance of parking in influencing the overall pattern of travel. An increasing recognition of the importance of the links between parking policy and other urban policies has evolved, to the extent that parking policy is now being used to meet a wide range of urban goals.

Parking: some basic concepts
This chapter introduces some basic concepts and definitions in parking before we move on to consider different types of policy that can be pursued by local authorities to manage parking.

Parking Demand
Users of parking facilities constitute more than half the population and this proportion is growing: the EUROSTAT online transport statistics database shows that the number of cars per 1000 population in the EU25 rose from 394 in 1995 to 463 in 2002 (a rise of 16%). The car is the dominant mode of transport accounting for nearly 75% of all passenger kilometres in the EU25.

There are currently (2003) more than 212 million cars in the EU25, up from over 64 million in 1970 (EUSTAT, 2005). There are only two places where these vehicles can be found: they are either on-street or off-street. If they are on-street, they can be considered to be parked, searching for parking or in transit. Almost all cars that are off-street will be parked. Estimates show that cars spend more than 95% of their lives parked (Collins 1991).

In transport terms, demand is usually measured by observing activity: for example, traffic flows along a route, or parking acts at a site. In "uncontested" conditions, where the space available equals or exceeds the demand, then demand is equal to the observed consumption. In "contested" conditions, where there is competition for space, the observed activity or consumption is constrained; it does not measure the potential demand because some drivers have either been priced out of the market or physically excluded by a shortage of space. It is in this second contested context that controls must often be introduced.

Types of parking

There are four main types of parking – places that you can park a car. These are:

- On-street. As its name suggests, a parking space on the public road.
- Public off-street. A car park not on the public road, in which any member of the public can park their car, subject to complying with any regulations (e.g. maximum stay (in hours), or paying a fee). This kind of car park may be owned and/or operated by the public and/or private sector.
- Private non-residential off-street. This is car parking that is associated with a particular building or land-use – parking for a shopping centre, or an office-building. Only people who are connected with that building or land-use should, in theory, be able to use the parking, and the land-owner has control over this use (within legal constraints in the member state concerned).
- Private residential parking – off-street parking associated with houses or flats. In theory, only the residents of these houses or flats should be able to use the parking.

The pattern of parking supply in our towns and cities in recent years has been in a state of continuous evolution as parking demand has increased. From the outset, this has been influenced by the public and private organisations involved in providing parking infrastructure. It is worth remembering the basic types of parking and the degree to which local authorities have control over them. The major distinction when considering parking supply is that between parking provided on-street and that provided off-street as shown in Table 10.1.

Location	On-Street				Off-Street				
Use	Public				Private	Public			
Owned	Public				Private	Private	Public		
Operated	Public or private				Private	Private	Private	Public	
Type	Free	Priced	Permit	Duration Control	Free	Priced	Priced	Free	Priced

Table 10.1 - Parking Type and the sector controlling and/or supplying it

On-street Parking

On-street parking is all publicly owned and is provided by local authorities in Europe under the general guidance of central government. Local authorities determine which restrictions should apply in specified streets, within central government guidelines, taking into account the national and local pressures for road safety, traffic flow, public transport provision and movement, the functioning of the local economy, the needs of residents and access for emergency services. In the many countries, they must involve the local community in the process of introducing parking restrictions, and communicate the changes effectively to local road users; we return to this topic later in the unit when we consider how to build acceptance for parking policy changes.

The extent to which unregulated kerb space is used for parking is determined by the demand of the area and the availability of off-street alternatives. Local authority restrictions will generally only apply when supply is exceeded by demand in a particular area (Balcombe and

York, 1993), or where safety problems are caused by parking (e.g. sightlines at junctions are restricted).

Regulating on-street parking

In almost all Western European countries, the local authority decides on the parking regulations that go on street. There is a general tendency for on-street parking regulations to become more stringent (restrictive), the closer that one goes to the centres of towns and cities – because these are the areas of greatest demand. The vast majority of on-street spaces in a given member-state remain un-regulated in any way, because there is little or no demand for them. But, as demand increases, some typical restrictions that might be found include:

- No parking at any time around the mouths of junctions in order to ensure sightlines for vehicles, and safety and access for pedestrians crossing.
- Parking restrictions on main roads at peak hours to facilitate traffic flow.
- Parking restrictions on one side of a narrow road to permit two-way traffic flow.
- Time limited on-street parking in order to facilitate the turnover of parking spaces – usually to ensure that short term parkers (e.g. shoppers) can get a space.
- Parking restrictions in certain areas to provide kerb space so that commercial vehicles can load and unload to service shops and offices alongside the road.
- Time limits around stations (e.g. no parking 1300-1400 weekdays) to stop informal park and ride.

Where parking problems become more severe, a typical response is to introduce some form of parking restriction to give residents sole or preferential access to limited on-street parking around their homes. COST 342 (pp 336-38) cites the implementation of "blue-zones" or "disc parking zones" as a means to do this. They have been introduced in Switzerland, the Netherlands, the UK and Spain, amongst other locations. In Madrid, the local interpretation of a blue-zone is to mark out a high proportion of on-street parking spaces in the central area in blue. These spaces may then be used (time-unlimited) by residents who have a permit; or by other drivers, on payment of a charge, but only for a few hours at a time.

Enforcement
If parking regulations are to be effective, they must be enforced – otherwise, they will fall into disrepute. In many cases, however, as noted in COST 342 p 30, and by the LEDA project, local authorities are, at least partially, dependent on the police for enforcing these regulations. But in Austria, Czech Republic, Finland, France, Netherlands, Norway, Portugal and Spain, local authorities have powers to take over some enforcement from the police if they can (although only in the Netherlands and the UK is there complete local authority independence in parking enforcement; in all other countries, the involvement of at least one other agency is required (which can make enforcement less efficient). Here, parking regulations can be enforced under law that is not criminal and that can, therefore, be enforced by bodies other than the police, including private sector operators working under contract to the local authority (except in Finland, where such contracting out is illegal). In all cases, this has significantly enhanced the quality of enforcement, and in the UK it has also generated considerable income for some local authorities. Further details of the UK situation – which is cited as a good practice case study in COST 342 - are provided in the following paragraphs.

Under the 1991 Road Traffic Act, local authorities are able to take over responsibility for on-street parking enforcement in their areas from the police, but such Special Parking Areas (SPAs) must be self-funding, with operating costs paid for from fines. Thus, CPZs are normally limited to those areas where it is anticipated that they will run at a profit – mostly areas where demand is significantly greater than supply. The introduction of area wide controls - a CPZ - usually involves some non-essential users such as commuters being displaced to create additional space for essential users such as residents, shoppers and short term business users. Problems may arise if the displaced users continue to park, but just outside the controlled area; this may result in parking pressure near the boundary of the zone. A CPZ will normally include:

- Parking spaces for residents only. To park in these, residents' must buy an annual permit, which cost between €15 and €400 per year, depending on the town or city.
- Pay and display public parking. Parkers must estimate the length of time that they will stay in the space, and buy a ticket for that length of time, as soon as they park, and display it in their car. Hourly rates vary from €0.50 to €7.00.
- Space for loading, but not parking.
- Space where no parking or loading is allowed (e.g. around junctions, at bus stops).

If a parker contravenes any of the regulations, the local authority (or its contractor) can levy a fine. This varies greatly from place to place – in Edinburgh, UK, it is currently €90, dropping to €45 if the fine is paid within two weeks. The fine is the same, whatever the contravention (e.g. staying 35 minutes when you have paid for 30 minutes gets the same fine as parking your car illegally in a bus lane and blocking all the buses). Typically, when a local authority takes over enforcement from the police, the chance of an illegal parker being fined increases by four to six times.

Enforcement is generally funded from central government taxation revenue, with the exception of those UK authorities that have taken on enforcement (where it is funded from parking income); and in Norway, and Finland. In Portugal, Sweden and Switzerland, parking charges are used to part cover the cost of enforcement.

How much does it cost to park on-street in different countries in the EU?
First of all, it is worth noting that residents who live in controlled parking zones are usually provided with a permit at a preferential (cheap) rate. For example, in the centre of the City of Edinburgh in the UK, for someone to park all day for the whole year in a public parking bay on street would cost around about €6,000. A resident living in that area gets a permit providing the same service but for €280 per year. In many other areas, residents parking is cheaper still. In those countries where municipalities have been active in building and operating off-street car parks, they may offer their residents preferential rates in these - €120 per month for a space in central Lyon, for example.

With regard to public on-street parking rates, which are normally set by local authorities, some examples are shown below:

City	Fee per hour (€) (2002)
Vienna	0.87
Brussels	0.50
Paris	1.00 – 3.00
Lyon	1.50 – 5.00
Bremen	0.60 – 1.50
Cologne	1.00 – 2.00
Stuttgart	0.20 – 2.00
Munich	2.00 – 2.50
Dublin	1.00 – 1.90
Amsterdam	1.60 - 2.50
Maastricht	1.40
Lisbon	0.50
Madrid	0.60 – 1.20
Barcelona	0.90 – 1.20
Edinburgh	1.20 – 3.00
City of Westminster, London	7.00

Table 10.2 – on street parking tariffs (source: COST 342)

On-street parking charges should if possible be lower than off-street charges as this will act as an incentive to people to park off-street, rather than drive round and round looking for a cheaper (as well as more convenient) on-street space. In any case, it is also clear from other analyses that the price of parking per hour increases with city size.

ACTIVITY
Collect a little data about your town or city:
How much does it cost to park on street for an hour, in different parts of the city (if relevant).
Is there a residents' parking scheme in any part of the city – and, if so, how much do they have to pay for a permit?
How much does it cost to park off-street?
For on-street parking, what is the fine if you park in the wrong place or do not pay – and what are the chances of getting a fine?
Who sets the parking charges; and who is responsible for enforcing parking regulations?

Off-street parking

Off-street parking will, in the average European medium to large-sized city, provide the majority of the parking space available in and around the city centre. Most local authorities will require a certain amount of off-street parking to be built for the users of all new developments in their area – this topic is discussed further in section 4.4. In addition, all are likely to try to provide some public off-street parking, open to all users, sometimes at a charge. However, the construction of new off-street parking can be extremely expensive. Excluding land costs, the following figures are typical:

- Surface space, asphalted, with drainage and lighting - €3000.
- Space in a parking structure (multi-storey car park) - €15000 - €20000.
- Underground space - €40000.

In addition, there is a maintenance and security charge for each space, which can easily be €150 - €450 per year.

The main concern of a private operator of an off-street car park will be to maximise profits, but a local authority may have a range of other objectives. They may wish to provide public off-street parking, simply to make sure that visitors to their town or city have somewhere to park. They may also wish to control the price of such parking – perhaps to make it relatively more expensive for long-stay commuters (to reduce peak hour traffic) but cheaper for shoppers, who tend to travel in the off-peak. But the degree to which they have control over public off-street parking depends very much on how much of it they own. In the UK, this varies considerably: in one city (e.g. Edinburgh) the local authority may own virtually none of this kind of parking; in another (e.g. Nottingham) it may own the majority of spaces. Where local authority transport spending is limited, they may be unable to afford to build new car parks. In southern Europe, it is understood that municipalities play a much bigger role in the provision of public off-street parking, and so are better able to influence how it is priced, and thus how it is used, and by whom.

As we know, local authorities can control on-street parking. They can also control new private non-residential (PNR) off-street parking by regulating how much is allowed to be built as part of the building permit process. However, once PNR parking is built, local authorities have no control over it. This is important because they may wish to control PNR as a way of controlling peak hour traffic.

Unfortunately, most local authorities do not know how much PNR parking is available in their areas, still less do they have a means of controlling it. COST 342 cites the example of the Netherlands, where it is estimated that around 40% of parking in larger cities falls into the PNR category. COST 342 does not mention any figures for any other European countries, other than to say that PNR stock is thought to be equal to the number of controlled on-street spaces. If the UK is anything to go by, this is probably a massive underestimate. In summary, in 16 UK cities, the average proportion of public off-street provision is 45%, private non-residential (PNR) falls between 26% and 57% of the total with on-street controlled parking representing the smallest proportion of parking in these cities, constituting between 7% and 20% of the total parking stock. It was also found that there had been an overall increase of 8% in the total amount of parking supply between 1987 and 1992. (Balcombe and York, 1998.)

Experiences of parking price changes and zoning in town centres
Still and Simmonds (n.d.) confirm that there is an increasing trend amongst local authorities that have control of a reasonable proportion of the off-street public parking in their areas to change the pricing structure to deter all-day parkers in order to free up parking spaces for shorter stay shopping and business parkers. Such policies have been adopted by many cities, such as Munich, Vienna, Freiburg and Lyon, amongst many others. In the UK, Healey and Baker (1998) surveyed 123 local authorities and found that, at that time, 25% were planning to cut the number of parking spaces in their urban centres, with more than 50% increasing parking charges in real terms.

However, there has been little evaluation of the effects of such policies, with the exception of

Canterbury's (UK) policy of reducing city centre parking and replacing it with park and ride. This has been successful in reducing city centre traffic levels without negatively impacting on city centre trade (Valleley, 1997). However, COST 342 reveals no examples of any reversals in such pricing policies indicating that their effect is, at worst, neutral. Importantly, such changes are likely to enjoy the support of retailers, both in terms of on-street parking as well as the off-street "offer".

Relationship between parking and public transport use policies to encourage public transport
It has generally been found that parking policy measures are likely to be relatively more important than many other traffic management measures in influencing mode choice. More specifically, in the limited studies undertaken, the decision to use a car for the journey to work is greatly influenced by the availability and cost of parking. (See for example Feeney 1988, NEDO 1991, and Shoup and Willson, 1982, COST 342, Litman, 2006.) For example, the 1994 Swiss National Census shows that, of those employees who are provided with a reserved parking space at work, 81% use their car to get there. The corresponding figure for those without a parking space is 35%. Chapter 7 of COST 342 provides numerous further examples of ways in which car-based mobility is affected by the provision of a parking space.

Supportive vehicle parking policies will be essential to complement other transport initiatives in achieving objectives relating to accessibility and the environment. If there is an excess of city centre parking over demand for it, improvements in public transport alone cannot be expected to result in a change in modal split (Scottish Executive, 2003). Many of the most significant initiatives and policies towards city centre transport depend for their success on restricting road traffic, and parking policy is one of the most potent yet publicly acceptable means of restriction. From the North American context, Pratt (2003) also cites research from Canada by Morrall and Bolger (1996), as presented in the following table.

City	CBD Share of Area Employment	CBD Office Space (1,000 ft²)	Parking Spaces per 1,000 ft²	Parking Spaces per CBD Employee	Park and Ride Spaces per CBD Employee	AM Peak Hour CBD Transit Share
Saskatoon	20.7%	3,600	3.5	0.79	—	14.6%
Edmonton	20.2%	15,133	2.1	0.51	0.029	32.0%
Calgary	23.4%	31,493	1.3	0.46	0.084	38.8%
Montreal	14.9%	87,996	1.0	0.38	0.270	48.7%
Winnipeg	26.1%	17,478	1.4	0.36	—	39.7%
Vancouver	16.3%	n/a	n/a	0.29	0.034	46.0%
Toronto	25.3%	61,570	1.5	0.29	0.122	64.1%
Ottawa	31.7%	21,024	1.1	0.28	0.008	48.8%

Note: Listed in order of decreasing ratios of long-term parking spaces per CBD employee. **Source:** Morrall and Bolger (1996).

Table 10.3 - Relationship between Downtown Parking Supply and Transit Use in Canadian Cities

Empirical experience and theoretical work reported in the literature therefore supports intuition: there is a clear link between parking availability and car use. The difficulty is not in demonstrating this link, but rather in being able to implement policies that use the link to reduce car use.

Park and Ride
Towns and cities often adopt park and ride as part of their strategy to tackle traffic congestion, in the main on routes into town and city centres (although there are examples of park and ride sites that serve major workplaces outside city centres). COST342 estimates that, between 1970 and 1990, the number of cities in Europe with park and ride sites increased by a factor of three, to around 76, and the number of parking spaces available by 337%.

Park and ride works by diverting city centre bound trips into a car park *en route* and taking the drivers onwards from there by public transport. For park and ride to be successful, it is vital that:
- The public transport route is fast, frequent and reliable. If it is faster, including interchange and wait time, than the corresponding car journey, its market will not be limited only to those who have no (free) parking available in the city centre.
- The frequency of an urban park and ride service should be every 10 minutes or, if possible, less. For services where the last stop is the park and ride, it is preferable if the service frequency is high enough so that a vehicle is always waiting at the stop. Where it is not the last stop, real time information is helpful to show the actual service frequency.
- The (perceived) cost of using the site should be lower than the fuel and parking cost of driving into the city centre. Depending on the target market for the park and ride, it may be desirable to price the park and ride ticket for a car full of people (i.e. one person pays the same as a family travelling together), as this is the price comparison that people will make when deciding whether or not to use park and ride.
- Over time, the amount of parking – both PNR and public parking – in the town centre should be reduced, and it should be more expensive than the park and ride.
- There should be easy access from the main road network to the park and ride and, preferably, segregated exits from the park and ride for public transport vehicles (if they run on the road).
- Capacity should be great enough to cater for demand; but not so great that walking distances from the furthest parts of the car park are excessive. This may entail a parking structure (multi-storey) if demand increases beyond a certain point.
- Security for passengers and their cars at the site should be very high – CCTV and, preferably, a staff presence, will increase users' confidence in the service.

COST342 cites Madrid, Spain, Bern Switzerland and Oxford UK as places with highly effective park and ride services. Madrid's are based primarily on suburban rail and metro. Bern has a combination of rail and tram to serve its park and rides. Oxford's five sites are all served by bus only (24 hours per day). The effects of such park and rides can be significant, but this depends on the factors listed above being in place. A few examples of the effects of park and ride on traffic are listed below (from COST 342)
- In Vienna – park and ride captures 12% of city centre-bound car traffic.
- In Chester, UK the corresponding figure is 20%
- Madrid's park and ride sites have 20,000 users per day, while there are 12,000 in Barcelona and 10,000 in Hanover.
- In Strasbourg park and ride has been a key element in the success of its two tram lines. Some 43% of motorised trips now made by public transport.

- In Oxford, UK, park and ride sites are estimated to have led to a 3-9% reduction in city-centre bound car traffic.

It should be noted, however, that there are some park and ride sites whose costs far outweigh their benefits (including even environmental factors), and that even the best planned park and ride is likely – where new public transport services are implemented to serve it – to attract users who previously made their entire trip by public transport, but who switch to park and ride because it is quicker and/or cheaper. COST342 estimates that these can account for up to one third of users of a new park and ride. Another perverse effect can occur where a park and ride site is built in one location but users drive to another (and make use of informal parking opportunities, for example, on-street around a station) because the public transport service level at the second location is much better.

Costs
The cost of park and ride depends primarily on whether or not dedicated public transport infrastructure (e.g. a new tram or railway line) has to be built to serve it; and whether or not the public transport service is existing, entirely new, or an adaptation of an existing service. If not existing, then additional subsidy is likely to be required, at least initially. To these costs must be added the cost of building and maintaining the car park (see earlier section for figures on this), and any staffing costs. Most park and rides are publicly owned and subsidised. Where the initial investment is public but the service becomes so popular that it is profitable, and where public transport is run by private companies, the public authority may let the operation of the park and ride as a contract and share the profit with the operator. This happens in York and Oxford in the UK, for example.

Company parking space management
Large employers with an accessibility, congestion or staff mobility-related problem will sometimes choose to implement mobility management at their site(s). Sometimes, this will include management of the employer's parking spaces – especially where these are limited in relation to the number of staff and/or visitors. There is a clear link between the availability of a parking space at work and the way that people travel to work: the 1994 Swiss census, for example, showed that 81% of staff with a free parking space drive to work, compared to 34% of those without.

The rationing of or charging for parking spaces at work is not an enormously popular policy with staff, however – especially in the planning stages. To make it more acceptable, the following steps and conditions should be satisfied:
- A problem is identified and parking management is a solution to that problem. For example, some hospitals in the UK have suffered from parked cars blocking routes for ambulances. Clearly, here, parking management is required.
- There are alternatives available to driving to work for those staff who do not qualify for a permit and/or do not wish to pay a charge.
- Widespread consultation is carried out with staff. This should cover a number of important issues, including:
  > How should permits and (if appropriate) actual parking spaces should be allocated – what criteria should be used, and how many different types of parking space should be defined?

> > What should the charge be (if a charge is planned), and should it be income-related?
> >
> > How should a charge be paid? Daily, monthly, annually – and in a ticket machine, or through salary, for example?
> >
> > How senior staff should be treated – acceptance increases if these staff are perceived to be treated as fairly as everyone else.

- Legal requirements, with regard to employment contracts, are properly dealt with. These vary from country to country.
- It is clear how the money raised will be used. Acceptance is likely to be increased if at least some of the income is used to fund improvements in car parking, car park security etc; and some used to improve or reduce the price of alternatives to driving.

For examples of companies that have implemented parking management, and the effects of this, see Rye and Ison (2004). The Department for Transport (DfT) published a series of case studies of employers with travel plans (site mobility management plans) in place in 2002. This showed clearly that the most effective travel plans are those that include some form of effective parking management – either rationing or pricing of spaces (DfT, 2002). Experience from the US, cited in Pratt (2003) supports this conclusion.

Relationship between parking and economic development
There is an inherent tension in parking policy between three key objectives for local authorities: local economic development (preserving economic vitality); raising revenue from parking charges; and travel demand management. The latter two objectives imply a need to reduce the number of parking spaces and/or charge for their use; the former is often seen to imply that as much parking space as possible should be provided, in order to ensure that no car borne trade or inward investment is deterred from the area in question.

COST 342 (pp 47 and 48) report some interesting experiences about attempts to use parking policy to stimulate local economic development. Because of political pressures from retailers in particular, several cities have tried relaxations to their parking restrictions to stimulate greater trade. These include:

Oslo. Here, weekend parking was made free. Instead of this attracting lots of additional shoppers, fewer people parked for longer (and some of those were shopkeepers!). Occupancy rose to almost 100%, parking duration by 30% and so there was less turnover and it became more difficult for people to park. Most retailers were negative about the experiment and it was abandoned in 2000.

In **Herford**, Germany, the first half hour of parking was made free. This increase occupancies, did draw some more short term visitors into town, but also led to a deterioration in the traffic environment.

In **Appeldoorn**, Netherlands, parking fees were increased at the same time as a cheap public transport ticket was introduced. The latter brought an increase in people coming into town, whilst parking occupancy remained as it was before. However, the view of most retailers was that people were choosing where to shop mainly on grounds of the quality of the shops, not the parking opportunities.

In **Madrid**, expensive parking fees have not affected the buoyancy of the retail economy.

On the other hand, a Dutch study, also cited by COST 342 (p 48), on regional parking policy, argued that:

- On the one hand, cities and towns with a unique quality/features can implement restrictive parking policies with little effect on their retail sector.
- On the other, where there are a number of quite similar competing towns and cities, with little to choose between them, then parking policy can be a deciding factor for people in deciding where to go and shop.
- Therefore, a regional parking policy can be helpful in that it can help to maintain the relative positions of existing centres within the region, and also (in theory) help to prevent the development of new, competing centres (but this depends on the planning system at a regional level).

In spite of the significance of the issue of parking and economic development, very few studies have in fact been carried out to better understand the links between parking availability, economic vitality and inward inwestment. Still and Simmonds (n.d.) provide a comprehensive review of the work that has been carried out to date; they argue that the lack of empirical evaluation of the effects on economic vitality of parking policy is due to a lack of consistent policy implementation, coupled with the difficulties of disentangling the effects of parking policies from those of other influences – particularly general economic conditions.

They also point out that those companies that have been negatively affected by parking policies will not be present in an "after" study, perhaps biasing the results towards those companies that have benefited. Finally, they note that studies of the influences on locational decisions of retail and other firms have tended to assume that parking will be freely available; as maximum parking standards are increasingly adopted across the country, this assumption may be called into question and it may be expected that more studies will consider this issue.

The most comprehensive study of the effect of parking policy on retailing in the UK was carried out by Potter (1996) and Kamali and Potter (1997). They compared various cities according to the level of parking restraint applied, and their level of economic vitality (in the retail sector, measured by vacancy and rental rates). They concluded (p420) that there is "no evidence that a relaxed attitude to parking improves economic performance". A similar type of study, comparing shopping centres in London, concluded that:

"although there is some relationship between indicators of economic prosperity and parking provision, this relationship is extremely weak. Other, much more important variables than parking provision are likely to be responsible for the differences in economic variability between London's centres" (Sanderson, 1997).

Still and Simmonds (*op cit*) point out that the conclusions of these studies do not mean that there may be no relationship between parking provision and levels of retail vitality. In terms of inward investment by employment uses, there is anecdotal evidence that parking availability has an impact on choice of location, but this has not been backed up by more rigorous empirical studies. Faber Maunsell (2002) note from interviews with the development industry that parking availability is unlikely to play a role in the inward

investment process until the decision is at the level of choices between competing locations at the local level; thus it could influence a firm's decision as to whether to locate in Vienna or in nearby Wiener Neustadt, for example.

Modelling exercises (e.g. Coombe *et al*, 1997) have demonstrated that parking restraint can have land use implications, depending on the assumptions made. Using the START model applied to Bristol, Coombe *et al* predicted that reductions in PNR availability of up to 80%, a larger CPZ, and increases in on- and off-street parking charges would lead to an increase in city centre population but a slight decentralisation of employment. The model run did not assume any improvements in public transport services and so its predictions are unsurprising: parking supply reductions were in effect a reduction in the relative accessibility of the city centre, which was predicted to cause a land use response. It is however feasible that, coupled with environmental improvements and better public transport (both in part arising from a reduction in city centre parking) then the relative accessibility of the centre could be *increased*, making it a more attractive location. This simple case is one example of the many interactions that must be considered when trying to predict or measure the economic development impacts of changes in parking policy.

Relationship between parking and planning and transport objectives

Introduction
COST 342 notes that national transport policies have remarkably similar objectives across many countries in Europe. The following are typical:
- The need to reduce car use to reduce congestion.
- Encourage the use of alternatives to the car.
- Improve public transport, including park and ride, especially in larger towns and cities.
- Reduce the environmental impacts of car use.
- Making sure that transport is fully accessible.
However, the links between these and parking policy as a means to achieve some of these objectives are not made particularly clear in many European countries, according to COST 342.

Development of a typical parking policy
COST 342 (pp 20-21) sets out a useful chronology of the development of a typical parking policy (referring particularly to on-street parking). It is useful to remember that, generally, parking policies will only start to develop formally when parking demand starts to exceed supply, because that is when problems start to occur. COST's typology starts before then:

- Stage 1 – no problems, available space gradually used up.

- Stage 2 – as demand starts to exceed supply in certain streets, so regulations are introduced in those streets. Parking may be prohibited in some locations, more clearly marked in others.

- Stage 3 - in towns and city centres, as demand further increases, some form of time limit is introduced, in order to increase the turnover of spaces so that they are more likely to be used by shoppers and visitors, and less by commuters. Disc parking or signed zones may be the initial method used to stimulate turnover, but pricing may then be introduced to further manage the parking stock.

- Stage 4 – commuters are pushed into surrounding areas and so there is competition with residents for parking space. Residents' zones are introduced to deal with this.

- Stage 5 – more and more differentiation of parking tariffs to target different groups, and to encourage use by one group more than another.

- Stage 6 – development of park and ride sites on edge of town.

- Stage 7 – the inclusion of parking in mobility management, where it plays its part in a seamless mobility chain.

This development of course does not (with the exception of Park and Ride) consider off-street parking. Nor does it really consider the active use of parking as a means of traffic restraint. However, both of these factors can form an important part of a local or regional parking policy, as we shall see.

The table on the next page shows some typical policy responses that authorities follow when trying to manage parking.

Table 10.4 Typical parking policy choices in different urban areas
(from Litman, 2003 found at www.vtpi.org)

	Large City	Small City	Town/Suburb
Commercial Centre, On-Street	Priced: high hourly rates (e.g. 25¢ per 10 minutes). Regulation: Some loading spaces with short time limits.	Priced: medium rates (e.g. 25¢ per 30 minutes). Regulation: 1-2 hour time limit.	Regulation: 1-3 hour time limit.
Commercial Centre, Public Off-Street	Priced: high hourly, daily and monthly rates. (e.g., $5-10 per day)	Priced: medium hourly, daily and monthly rates. (e.g., $2-5 per day). Regulation: sometimes 1 hour free to customers.	Priced: low monthly rate ($15-$30 per month) Regulation: 2-3 hour time limit.
Commercial Centre, Private Off-Street	Priced: high daily and monthly rates. (e.g., $5-10 per day)	Priced: medium daily and monthly rates. (e.g., $2-5 per day). Regulation: free to qualifying customers and employees.	Priced: low monthly rate ($15-$30 per month). Regulation: free to customers and employees.
Near Commercial Centre, On-Street	Regulation: 1-3 hour	Regulation: 1-4 hour	Unregulated.
Residential Neighbourhood, On-Street	Regulation: "Residents Only", which may involve permits.	Unregulated.	Unregulated.
Near Special Attractors (schools, parks, theatres, etc.)	Regulation: "Residents Only". Special management and enforcement during busy time periods.	Regulation: "Residents Only". Special management and enforcement during busy time periods.	Regulation: "Residents Only". Special management and enforcement during busy time periods.

An example from Europe of a city that has introduced parking policies similar to those listed above is Madrid. In 1980 its first municipal parking system was introduced, based mainly on parking discs that restricted parking times in certain areas. However, it has now transformed into a much larger scheme of paid on-street parking. 75% of the 40,000 available on-street

spaces are for residents, but non-residents are able to park in these spaces for a limited period and at a higher price. Residents' bays are used by an average of 1.5 cars per day at a duration of 53 minutes for non-resident users; and non-resident bays by an average of 4 cars per day, with an average stay per vehicle of 90 minutes. Monies raised are used, amongst other things, to finance the construction of off-street car parking for residents in the historic central area.

One important addition to the list of policy responses in Table 10.4 is the parking levy. Currently, the only two cities in the world to apply such a levy are Perth (Australia) and Sydney, although the City of Nottingham is still planning to introduce a much higher workplace parking levy at some point in the next 2-30 years. Enoch (2001) provides details of the schemes in the two Australian cities: these apply to **all** private parking non-residential spaces in the CBD in Sydney and Perth, plus in several district centres in metropolitan Sydney. Companies with fewer than six employees are exempt from paying the levy in Perth, although they must register their parking spaces. The levy is about £50 per space per year in Perth, but a much more significant £280 per year in Sydney's CBD (half that in other district centres), but it applies only to parking for commuters. The tax has been in operation since 1992 in Sydney, compared to only 1998 in Perth. In both cities, the revenue is hypothecated to public transport, although to revenue support only in the Western Australian city. Enoch postulates that the much higher tax in Sydney has become accepted as a "fact of life" by the city's businesses, whilst there is a much broader level of support for the levy in Perth, due its lower level. In either case, the examples from Australia show that a PNR levy can be introduced, causing neither catastrophic negative public reaction nor economic disaster. However, in Scotland, its use by local authorities is currently precluded, due to its deletion from the Transport (Scotland) Bill before its passage into law in 2001.

Other examples of parking policies in action

There are good web databases that have plenty of examples of parking policies in action, from all around Europe. A few are listed below:
http://www.leda.ils.nrw.de/ (LEDA) – this site appears now to be only available in German. Go to the home page, then click on "Ergebnisse" on the lefthand side. Then you will see a number of drop-down menus. On the menu entitled "Measure category", there are several parking related options (in English). Choose one, then click "Suchen!" and a large number of examples will appear, with links.
http://www.civitas-initiative.org/measure_fields.phtml?lan=en - here you will find a list of the measures (being) implemented in the cities that are part of the CIVITAS project. If you search on "Access restrictions" on the first menu, "Parking management" will appear in the second. Then click "Start" for a list of measures.
http://www.eltis.org/cs_search.phtml on the European Local Transport Information Service website, ELTIS, does not have a category "parking", but if you search its case studies with a full text search using the word "parking", it yields a number of relevant case studies. During 2006-07 this website will be updated.

The politics of introducing parking policies: gaining acceptance
Parking is always a controversial matter. Incremental (step by step) change is likely to be more accepted than a large sudden change. But the public must be "carried along" with the changes, and whether they are or not will depend to a large degree on the *communication* that

has been carried out. Effective communication involves broad participation of those with an interest in parking in the change process; a monitoring process, so that people know what the effects of parking changes are, as those changes are introduced; management of complaints, as part of communication; and the use of new forms of communication (e.g. special meetings between politicians and "key stakeholders").

The public's acceptance of parking policy changes will also depend on whether a number of factors are in place, as follows (after COST 342 pp 68-70):
- That they know and understand the measures.
- That they perceive that there will be a benefit, in terms of the solution of a problem – and that parking fees and other regulations are related to the scale of this problem.
- That there are alternatives to parking (in the controlled area), such as park and ride, or better public transport services.
- That the revenue will be allocated fairly and transparently (people know where it has gone).
- That the parking regulations will be enforced consistently and fairly, and that fines will not be excessive (and, ideally, that the fines are related to the seriousness of the offence – for example, overstaying on a parking meter would be a lesser offence than parking illegally in a bus lane).

These are many things to take into account when changing parking policy. However, if they are not taken into account then the parking planner risks a situation where measures may have to be removed and regulations rescinded when a change is made, without sufficient communication, and therefore without user acceptance.

Parking and land use planning
One area in which it might be imagined that these links might be made more explicit is land-use, and in particular, the amount of parking that is permitted in new developments. However, and once again according to COST 342, although there is guidance in most countries on this issue, its strength/force varies from country to country. In addition, and importantly, such guidance will only act to restrain car use where it stipulates a *maximum* number of parking spaces that should be permitted in different types of development. There is some move away from minimum standards, towards maxima, but the degree to which this has occurred in different countries is by no means clear – the LEDA project implies that in most EU countries, there is still considerable emphasis on providing a *minimum* number of parking spaces with new development, or not regulating this issue at all. But, as COST 342 says (p 52):
- Parking standards should be set as maximums.
- In more attractive, densely developed areas, parking standards should be lower, in combination with park and ride.
- It is important to allow the combined use of parking spaces, to avoid too much parking being provided.

Some examples of parking standards for new developments in different European countries are shown below (after Healey and Baker, 1994). The right hand column indicates how many square metres of floor area are required per parking space. For example, in Madrid, a building of 3000 sq metres would be permitted (or would be required?) to build 30 car parking spaces. It is not clear whether these are maxima or minima. In certain cases, a range is shown. In Antwerp, more parking is permitted in areas with worse public transport

accessibility. This could of course lead to the unintended effect that developers prefer more parking, so try to locate in areas with poor public transport accessibility, thus undermining the intention of the policy, which is to get development located in areas of high public transport accessibility with little parking space so that people travel to it by public transport. The chances of this policy succeeding may be increased by allowing developers to develop at higher densities in the areas of high public transport accessibility.

City/town	m^2 of floorspace per parking space
Paris	250-166
Lyon	100-43
Madrid	100
Barcelona	100
Hamburg	40-65
Frankfurt	30-50
Antwerp (high public transport accessibility)	300-600
Antwerp (low public transport accessibility)	60-120
Brussels	No standard

Table 10.4 – Parking Standards for New Developments

It seems from COST that policy on restraining parking in new developments is highly developed in the UK in comparison with other European countries, so it is looked at in more detail in the following section.

Current UK central government policy advice is clear that there is a need for local authorities to adopt more restraint-based parking standards, both in order to reduce reliance on the private car, and to produce a built environment that is more conducive to walking, cycling and public transport use. At the same time, guidance also emphasises the need to ensure that the economic viability of shopping centres in particular is not compromised. English PPG3 (http://www.odpm.gov.uk/index.asp?id=1143940), on Housing, for example, recommends (Paragraphs 60 and 61) that residential parking standards should be set as maxima, with flexibility in their application, particularly in areas of high public transport accessibility, or for certain types of housing, or housing for different likely groups of occupants. It also emphasises the need to build at higher densities and with a mix of uses, both of which imply lower parking standards (since there will be scope for joint use of parking, and because there will be less space to provide parking).

Evidence that such advice can be implemented is available. For example, the London Borough of Camden adopted a car-free housing policy in 1998 and, to 2002, had given planning permission for over 1,000 new housing units without on-site parking, in 144 developments (see www.eltis.org). However, it can be argued that the particular circumstances of this inner London Borough make it a highly specific case that cannot be generalised to other areas. The City of Edinburgh has now granted planning permission for three car-free residential developments in inner suburban locations. All of these have lower income rented elements and are in areas of high public transport accessibility. Nonetheless, residents of these developments are still able to own a car and park it on street in uncontrolled areas. This is in contrast to the examples in Camden, where residents in such developments are not allowed to purchase a resident's parking permit, so can only park a car if they have access to private off-street parking.

In general, it would appear that those areas that have had most success in linking parking controls and standards with their planning objectives are historic (university) cities such as York, Chester, Oxford and Cambridge. Oxford's "Balanced Transport Policy" has been in place since 1973 and has combined a reduction in city centre on- and off-street parking (both

public and privately controlled) with the provision of improved cycle and pedestrian facilities, bus priority and the UK's most successful park and ride system. This policy can be seen to have achieved its objectives in that the number of vehicles entering the city centre every year over the past 25 years has been kept constant, it is crucial to note that this success has been achieved by the consistent application of a policy over a long period of time. Some evaluation of the impacts of Oxford's policy is available at http://portal.oxfordshire.gov.uk/content/publicnet/council_services/roads_transport/plans_policies/local_transport_plan/apr5.pdf

Maximum parking standards – as opposed to minima, over and above which developers are free to build as much as they think is required for their development – were first advocated in UK central government guidance in the 1994 version of PPG13. There is a sound theoretical basis for applying maximum standards, as it should, in the long term, limit parking supply and therefore influence travel demand. It will also lead to higher density development that is conducive to walking and cycling. Further, it reduces the opportunity cost of the land that is used for parking. And, finally, there is considerable evidence from the US – where parking minima are very much the norm – that an excess of parking will be provided, over and above actual demand (Pratt, 2003).

However, local authorities in the UK had been relatively slow to adopt maximum standards, perhaps because central government has not until very recently set recommended national maxima, finally providing for local authorities a national benchmark beyond which other authorities may find it difficult to go. (These maxima are available in the 2001 edition of PPG13 in England http://www.odpm.gov.uk/index.asp?id=1144015, and in an Annex to NPPG17 in Scotland http://www.scotland.gov.uk/library5/planning/spp17-00.asp.) The English standards are shown in summary below:
- Food retail 1 space per 14m^2
- Non food retail 1 space per 20m^2
- Cinemas and conference facilities 1 space per 5 seats
- B1 including offices 1 space per 30m^2 = 1 space per 2-3 staff
- Higher and further education - 1 space per 2 staff + 1 space per 15 students
- Stadia 1 space per 15 seats
- Residential (PPG3) max (average) 1.5 spaces/house or flat

Until this national benchmark was set, authorities may have been fearful that, in setting their own maxima, they would simply encourage development to relocate to areas with less stringent standards – a constantly recurring theme in parking policy.

Faber Maunsell (2002) reviewed the parking standards in use by Scottish local authorities and found that the majority retain minimum standards although, as Structure and Local Plans are revised, many are moving towards parking maxima instead. The exceptions, which currently have maxima in place, are City of Edinburgh, and Aberdeen. Glasgow is about to adopt maxima and, in common with Edinburgh, these are related to public transport accessibility standards – the idea being that parking standards are more restrictive in locations of higher public transport accessibility.

In England, and particularly in London, authorities have had such parking policies in place for

a longer period but, nonetheless, this literature review was unable to find any evaluations of the effects of these policies on locational choices by firms, or modal share. Current Greater London Authority (GLA) advice to Boroughs on parking standards sets maxima that are linked to public transport accessibility; but it goes further, and states a presumption against permitting certain types of development (e.g. leisure and bulk shopping) in areas of low public transport accessibility.

The author is aware that in the London Borough of Hammersmith and Fulham, the pioneer in linking public transport accessibility to parking standards, some success was achieved in avoiding the perverse effect of companies locating in areas of poor public transport accessibility by allowing them to develop at much higher densities at public transport nodes. In Edinburgh, anecdotally at least, the parking standards regime has not deterred city centre investment – indeed, the Royal Bank of Scotland's initial choice for a world HQ was not Gogarburn, near the airport, but New St Andrew's House, in the city centre. It was the cost of redeveloping this location, rather than restrictive parking standards, that moved its focus to a suburban location.

In Montgomery County, Maryland, (close to Washington D.C.), developers are encouraged to build close to MetroRail (suburban rail) stations because such sites may be developed at higher densities and with lower numbers of parking spaces than elsewhere in the County. Further, there is a "level of service ordinance" in the County that requires new developments to limit the effects of the traffic that they generate on nearby junctions. This dual effect has encouraged development at the MetroRail stations, with lower levels of car trip generation than in other locations in the County. It should be noted that Montgomery County is economically buoyant due to its proximity to the Federal capital. (Pratt, 2003.)

Perhaps the most well-known example of an attempt to link parking standards and public transport accessibility is the Netherlands' ABC policy. Set at national and provincial level, this designated development sites in structure plans according to their accessibility profile. A locations were the most accessible: an example is Utrecht Centraal station, or Hoofddoorp to the west of Schiphol airport, or Amsterdam Sloterdijk to the east. B locations were subsidiary public transport nodes; and C locations were other areas – especially industrial areas close to motorway junctions. Employment land uses were to be allocated to different locations according to their mobility profile. Offices generate many trips, therefore had a high mobility profile and were therefore supposed to locate at A locations. Warehousing has a low mobility profile for staff, but high for freight, requiring a C location. A locations were supposed to have limited parking since most employees would be able to reach them by public transport or bicycle.

In practice a number of difficulties arose. Firstly, there were not enough A locations; this was addressed by creating more nodes, through large scale central Government investment in public transport (Amsterdam Sloterdijk station is a good example); and also by creating a slightly less accessible version of A, the A1 location. But the bigger problem was that the decision on development control and parking standards rests, not with the Province, but with the often quite small municipalities who are competing with other municipalities for inward investment and the local taxation that it generates. Further, as far as the author can ascertain, central Government in the Netherlands does not have the same power to "call-in" non-

conforming planning applications and decisions as it does in Britain. Consequently, Dutch municipalities were tending to permit high trip generating land uses to locate in C locations (see for example the office development along the motorway ring in the south of Amsterdam), and/or to have much higher parking standards when they did locate at A locations. In the UK, if this occurred, the local authority's decision could be over-ruled by central government – but not in the Netherlands. Consequently, the policy fell into some disrepute and was abandoned in 2002.

Perhaps anticipating the problems that befell the ABC policy, others in the UK who have tried to pursue similar policies have introduced modifications to make them more pragmatic. One example comes from Nottinghamshire. This is not a parking policy per se, but rather a policy on developer contributions to transport. Nottinghamshire has introduced a formula to provide some certainty to both sides as to the level of contribution that will be required. Contributions are higher in areas of lower public transport accessibility. However, in the formula, all contributions are halved in the former coalfield areas of north Nottinghamshire, compared to those in economically buoyant Greater Nottingham. (See www.optimum-interreg.net Pilot 3 for full details.) In Hampshire, parking standards across the County are set according to public transport accessibility levels (and, when considering how much parking is required for a new development, existing car parking in the area must be taken into account), but the standards specify a number of "local factors" that can be used to adjust the Hampshire-wide standards either up or down (see www.hampshire.gov.uk/ carparking/appParking.html). Such local factors include:

- the level of economic activity in the area (regeneration areas "may warrant less reduction in parking");
- the type of area – e.g. historic town centres or environmentally sensitive areas may justify lower parking standards;
- self-containment – reductions may be inappropriate where a location is competing with other areas; or
- cycle accessibility – high levels may justify reduced car parking standards.

Conclusions and Recommendations

Recommendations
COST 342 makes a number of recommendations which are likely to be of relevance to many towns and cities that are implementing changes to their parking policies, but which are also of relevance to national government. These are as follows:

- That the role for parking as a means of restraining car use should be recognised in transport policy documents and actions.
- That there is a need for national maximum parking standards (expressed as guidance) for new development.
- These national guidelines should be translated to regional maximum standards.
- National level legislation is need to set a framework for parking charges and fines, and to put liability for any fine with the owner of the car.
- National legislation should provide local authorities with the powers to enforce parking regulations if they wish, and to keep the revenue so generated, and to follow up those who do not pay fines, and to contract out the parking enforcement operation.

- National legislation will be needed to provide local authority control over PNR parking (as exists, in part, in England and Wales).
- Many areas will need residents' parking zones.
- As demand for parking increases there will be an increasing need to introduce paid parking, as opposed to just disc parking (limited waiting in certain streets but without payment).
- Parking spaces for disabled drivers should be provided at around 1 per 50 standard spaces.
- There is a need for secure parking for trucks.
- Parking tariffs should be higher for on-street than off-street, to encourage people to use the latter.
- There may be a case for combining the function of parking warden with "visitor host" to improve the image of the town/city.
- Park and ride has a role to play in maintaining the accessibility of central areas of larger towns and cities, but it will work best where there is a shortage of central area parking.
- All changes to parking must be communicated well in advance, and skilfully. If this is not done, there may be a lack of acceptance and the image of the city can be damaged for many years.
- A positive approach towards working with the public may increase compliance with parking regulations.
- There is a need to monitor periodically the parking situation in a town or city, and its effects on how people travel, and on economic activity.

Activity

Consider the COST 342 recommendations, above. How applicable are they to a medium-sized or large town or city (at least 50,000 population) with which you are familiar? How easily could they be applied? What barriers would there be to their implementation? Do you think that there are further recommendations that have not been made, but should have been made?

Final conclusions

This material for COMPETENCE has aimed to show that parking policy and parking management are key to urban mobility and to managing its negative effects. As car ownership grows, so demand for parking will grow, and most towns and cities will have to deal with many of the issues that have been outlined in this material. It is possible to develop a car parking policy that will manage the negative impacts of urban car use whilst also supporting business and the economy; but this is a careful balancing act, which is why it is important to learn from the experience of other places, as we have shown in this training session. Good luck with developing your own parking policy!

Activity

Imagine that you are (further) developing the parking policy for a town or city that you know well, with a population of at least 25,000 people. You are trying to balance the 3 aims of demand management, revenue raising and maintaining the perception that parking is not limiting economic vitality. What do you do?

References

City of Edinburgh Local Transport Strategy 2000. City of Edinburgh Council, Edinburgh, Scotland, 2000.

Dasgupta, M., Oldfield, R., Sharman, K., Webster V., (1994) *The Impact of Transport Policies in Five Cities* TRL Project Report, Transport Research Laboratory, Crowthorne, England.

Feeney, B.P. (1989) A Review of the Impact of Parking Policy Measures on Travel Demand, *Transportation Planning and Technology*, Vol.13, April, pp. 229-244.

Healey and Baker (Chartered Surveyors) (1998) *Town Centre Accessibility.* Healey and Baker, London.

Kuzmyak, J.R., Weinberger, R., Pratt, R., and Levinson, H (2003) Chapter 18, Parking Management and Supply in Traveler Response to Transportation System Changes. Transit Cooperative Research Program, TRB, National Research Council.

Litman, T. Victoria Transport Policy Online TDM Encyclopaedia. www.vtpi.org. Accessed on 20th January 2005.

Litman, T. (2006) Parking Management Best Practice. American Planning Association, Washington D.C.

National Economic Development Office, (1991) *Company Car Parking*. NEDO, London.

Potter, S. (1997) *Vital Travel Statistics*. Landor Publishing, London.

Pratt, R. (2003) Traveler Response to Transportation System Changes Chapter 17 Parking Management And Supply. Prepared For Transit Cooperative Research Program Transportation Research Board National Research Council, Washington DC. See http://trb.org/news/blurb_detail.asp?ID=4727

Scottish Executive (2003) *Ability of the Public Transport System to Cope with Targets for Increase in Passenger Numbers*. Report to Scottish Executive, Transport Division 1, Victoria Quay, Edinburgh, Scotland.

Scottish Household Survey Results 2001, 2002 and 2003. Scottish Executive Statistical Branch, Victoria Quay, Edinburgh. Also at www.scotland.gov.uk/shs, accessed 27th January 2005.

Still B. and Simmonds D., (2000) Parking Restraint policy and urban vitality. *Transport Reviews*, 20 (3), pp. 291-316.

Topp, Hartmutt H., (1993) 'Parking policies to reduce car traffic in German cities', Transport Reviews 13 (1), pp. 83-85.

Valleley, M., (1997) *Parking Perspectives*. Landor Publishing, London.

White, P., (2001) *Public Transport: Its Planning, Operations and Management*. Hutchinson, Guildford.

Young, W., Thompson, R.G., and Taylor, M.A., (1991) A Review of Urban Car Parking Models. *Transport Reviews* 11(1), pp. 63-84.

DETR (1997) National Travel Survey

◣ Self assessment question 10.1

Imagine that you are (further) developing the parking policy for a town or city that you know well, with a population of at least 25,000 people. You are trying to balance the 3 aims of demand management, revenue raising and maintaining the perception that parking is not limiting economic vitality. What do you do?

Unit 11: Road pricing/congestion charging

Introduction

The following material was also developed for an EU Energy Project (COMPETENCE) training day. Please bear that in mind when you are reading it.

The issue of charging more directly for the use of roads has become the subject of heated debate in recent years. But, as we shall see, the concept of charging directly for use of congested road space has been under consideration for many years. The early discussions were very much led by economic theory – applying market pricing to the allocation of a scarce resource. In recent years, in some countries, the issue has also been tied into the discussion on how the improvement of our transport networks can be funded outside the inadequate budgets allocated from general taxation.

This part of COMPETENCE uses experience from European research projects and actual schemes that have been implemented to consider the following issues:
- The core economic principles of road pricing/congestion charging.
- Basic definitions of different types of scheme.
- The technological aspects of congestion charging/pricing schemes.
- The policy context for pricing.
- Why schemes are implemented and what they are supposed to achieve.
- How to maximise the chances of a scheme being implemented, with particular reference to public acceptability.
- Some case studies of schemes that have been implemented, and some that have been planned but not implemented, together with an analysis of the reasons for their (non-) implementation.

Because the author is from the UK there is considerable detail provided on certain UK schemes. This is also because they are excellent and instructive examples of congestion charging in practice, and in the design stage. However, considerable experience from other parts of Europe and the rest of the world is reviewed as well. The material draws heavily on recent European Commission research projects in the area, including IMPRINT, CUPID, PROGRESS and EUROPRICE.

Learning outcomes

Once you have worked your way through this material, including the activities, you should be able to:

- explain the economic principles behind the theory of road pricing;
- summarise the various methods of road pricing and the technology associated with these;
- identify the advantages and disadvantages of each method;
- summarise the key elements of existing and proposed congestion charging schemes in Europe and elsewhere; and

- Understand the key barriers to the implementation of charging schemes, and steps that can be taken to reduce/eliminate these barriers.

Background

Paying for the use of roads is not a new concept. Indeed, it could be argued that the development of the first national road network in Britain (since Roman times) was achieved through the introduction of the turnpike system in the second half of the 18th century. It is worth noting, however, that the administration of the system had become so corrupt by the middle of the 19th century that in parts of the country the 'Daughters of Rebecca'[61] attacked and destroyed a number of the toll gates, in some cases killing or injuring the gate keepers – this illustrates some of the problems of the acceptability of pricing, which we will return to later (although the author is not aware of any 20th or 21st century examples of revenge killings of advocates and planners of pricing schemes, so you should not be overly afraid if you are planning one!) . More recently, in France and Italy, the motorway networks of those countries have been developed as toll-road systems. It has also been common practice to levy tolls on estuarial crossings (bridges and tunnels).

It is important here to note a first key definition. Congestion charging/road pricing normally refers to the application of a charge to use an *existing* road. If a road is built and, as soon as it opens, a charge is made for its use to recoup all or part of the construction costs, then this is tolling, but not really road pricing/congestion charging in the sense of applying a charge to *manage demand* for that road. Also, applying charges only to newly-built roads, but as soon as they open, is much more publicly acceptable than applying it to existing roads since, in the former case, people will not feel that they are having to pay a charge for something that they previously got for nothing.

A second key definition involves types of charging. There are basically three types of charge:
- A cordon or point-based charge – traffic entering a defined area or passing a point has to pay at the point of passing/entry.
- An area licence – traffic entering an area, but also driving within it, must pay a charge.
- Distance/speed based charging – vehicles pay according to how far they travel within a defined area and this may be refined by relating the charge also to the speed of travel, on the assumption that slower speeds indicate more congested areas, which would be more costly, because external costs of congestion (see below for a definition) are higher in congested areas.

Since the Second World War – with the exception of estuarial crossings – the assumption in most northern European countries (with the notable exception of France's *autoroutes*) has been that funding of the road network is the responsibility of central and local government through general taxation, and there has been little political discussion of charging for the use

---

[61] The 'Daughters of Rebecca' were a direct action group of farmers and others who dressed as women to avoid recognition! Nothing changes!

of existing roads (as opposed to charging a toll on a new road or bridge to repay its construction costs). However, the concept of charging road users more directly has been discussed by transport economists since the late 1950s. In the period between 1954 and 1963 academics such as Roth,[62] Walters,[63] Beesley[64] and Thompson[65] exchanged papers on the economic theory of charging for roads – to move the price charged closer to the full cost of road use, including externalities (see below for a fuller discussion of the economics of charging).   In spite of this academic interest, which has not ceased since these first exchanges, the number of schemes actually implemented has been very limited. Very briefly, these include (more details are provided in the final section of this unit):

- Supplementary licensing – Singapore introduced a system of supplementary licensing in 1975 for its Central Business District (CBD) and then, later, on a number of key traffic routes. Those who wished to drive on the priced roads at times when the prices applied had to buy and display a paper licence.
- Manual cordon charging – a point pricing system which can be applied to a single zone with charging via toll booths and reserved lanes. The City of Bergen in Norway introduced a toll ring in 1986 with the main objective of funding by-pass roads for this historic city.
- Cordon charging with automatic scanning and automatic vehicle identification – this system requires all vehicles to carry an electronic identity tag, which is "read" by roadside equipment. Stockholm has very recently implemented such a scheme – it began on an experimental basis on 3rd January 2006 (and its continuation is subject to a referendum). Details (in English) are available at http://www.stockholmsforsoket.se/templates/page.aspx?id=2453
- Cordon or point-based charging with automatic scanning and manual payment as well– Oslo and Trondheim have introduced mixed control systems to avoid the difficulty of catering for non-local traffic.
- Area licence enforced by Automatic Number Plate Recognition (APNR) technology – this scheme was introduced with a £5 (€7.50) weekday charge in central London in February 2003, and was due to be extended in late 2006. It has been more successful in reducing traffic than was predicted, and has consequently also raised less money

---

[62] See G J Roth (1959) 'Economic benefits to be obtained from road improvements with special reference to vehicle operating costs' RRL Report No. RN 3426, unpublished; G J Roth (1962) 'Pricing the use of roads: potential gains available in Cambridge' *Aspect* Vol.1, No.3

[63] A A Walters (April 1954) 'Track costs and motor taxation' *Journal of Industrial Economics*; A A Walters (1961) 'The theory and measurement of private and social cost of highway congestion' *Econometrica* Vol.29, No.4

[64] M E Beesley and G J Roth (1962) 'Restraint of traffic in congested areas' *Town Planning Review*

[65] J M Thomson (1963) 'Economic effects of road pricing upon the Central London bus fleet' RRL Paper PRP 33, unpublished

than was predicted.

- Traffic limited zones in Italy. Several Italian cities, including Milan, Bologna and Rome have declared part of the centres of their cities as traffic limited zones. Originally, at certain times of day/days of the week, most traffic was barred from entering the zones. Residents and businesses received an entry permit. There is now an increasing trend to refine the operation of these zones by selling further permits. Hence schemes that were originally traffic management measures have evolved into something resembling a congestion charging scheme.

It can be seen from these examples that there are cases where cities charge for the use of existing roads. However, these examples are few and far between. In this Unit, as well as looking at the methods by which people can be charged for road use, we will also examine the barriers to implementing such schemes and how these can be overcome.

The economic theory
Congestion may be said to occur when one road user impedes the movement of another. On highly congested roads one driver may cause inconvenience and delay to many others. For example, cars slow each other down, pedestrians slow down cars and fast-moving vehicles delay pedestrians or impose diversions on them. Over the years, a variety of traffic-management measures and capital project schemes have been implemented to regulate these conflicts, such as traffic lights, pedestrian crossings, underpasses, cycle lanes, bus lanes, double yellow lines and red routes as well as major road-building schemes. However, experience has shown that improved traffic capacity is quickly filled up by increased demand. The classic state is one where traffic volumes adjust to an acceptable level of congestion (or inefficiency).

The economic concepts of road pricing were set out in the Smeed Report[66] and were explained in this way.

Marginal cost
Considering a particular road which permits vehicles to undertake a specific journey from a point X to another point Y. The service which the road supplies (including such lighting, traffic control, cleaning maintenance, and so on as are provided) is the facility for the vehicles, together with their passengers and other contents, to make the journey from X to Y. We make the following simplifying assumptions:

- all vehicles make the same journey
- all vehicles using the road are identical and are driven in an identical manner so that in any given set of conditions the costs associated with their use are identical
- the influence upon traffic speed of all factors other than the number of vehicles, such as pedestrians or weather conditions, or spacing of vehicles, is constant and may be regarded as one of the permanent characteristics of the road determining its speed/flow relationships.

---

[66] Ministry of Transport (1964) *Road Pricing: the economic and technical possibilities* (The Smeed Report) (HMSO)

If there is no tax of any sort, and if n vehicles per hour make the journey in t minutes each, the costs incurred are:

$$nf(t) = r(n) = s(n)$$

where f(t) represents the operating costs of each vehicle, as a function of time, and r(n) represents the road maintenance costs and s(n) represents other social costs such as the effects of noise, dirt and fumes. It may be noted that these costs do not include the original costs of building the road or any other costs which are not affected by the volume of traffic which now uses the road.

If the flow of vehicles increases to n+1 per hour and the journey time for each vehicle consequently rises from t to t^1 the total costs increase to $(n+1)f(t^1) + r(n+1) + s(n+1)$. Thus the increase in total costs is:

$$(n+1)f(t^1) - nf(t) + r(n+1) - r(n) + s(n+1) - s(n)$$

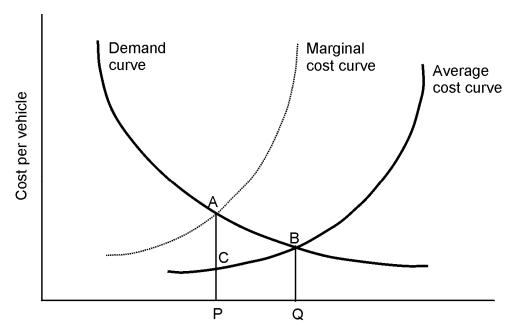This is the marginal cost at (n+1) vehicles per hour.

Private and public cost
Now for the sake of simplicity, let us assume that the differences $r(n+1) - r(n)$ and $s(n+1) - s(n)$ are both negligible when n is large, although this may not always be valid. Then marginal cost equals $(n+1)f(t^1) - nf(t)$. This is the cost that could be avoided if any one vehicle refrained from making the journey. But the cost actually borne by each vehicle, if there is no tax, is only $f(t^1)$ which is less than the costs it causes by an amount $n[f(t^1) - f(t)]$. This is sometimes called the difference between private and public cost. According to the theory, unless some added constraint is exercised journeys will be made which are valued at more than the private cost but less than the public cost. A tax may provide the added restraint.

Diagrammatic demonstration
The theory may be demonstrated by means of a diagram, Figure 11.1, as in Beesley and Roth.[67] Three variables are represented. First, the average cost curve shows the sum of the avoidable vehicle operating and road costs, for a journey, at different volumes of traffic, ie vehicle flows. As the flow increases, after a certain point speed declines and costs rise. (At some extreme point there is a maximum possible flow and it is believed that, if the number of vehicles trying to use the road exceeds this maximum, it can lead to an actual flow less than the maximum. Hence the cost curve will turn back at this point. But this is irrelevant to the argument.)

---

[67] M E Beesley and G J Roth (October 1962) 'Restraint of traffic in congested areas' *Town Planning Review*

Figure 11.1 Cost/flow curves

Road users pay their own operating costs, which for the sake of simplicity are assumed to be equal for all vehicles, and we shall now also assume that they pay their part of road costs through fuel tax. Then, if no additional charge is made, the price of a journey which each vehicle has to pay is the sum of its own operating costs and its contribution to road costs, ie the average cost. As the price rises, the number of vehicles that will make the journey declines, and this is represented by the demand curve. The position of equilibrium is indicated at the point of intersection B, between the demand curve and the average cost curve, where the flow is Q.

The third curve, the marginal cost curve, shows the marginal cost at different levels of flow, ie the increase in total costs caused by the addition of each extra vehicle. It is evident that, as the flow increases, each extra vehicle adds more to the total cost than it pays and, when the flow exceeds P, there are some vehicles which are not willing to pay the costs they cause. If a charge CA reduces the flow of traffic from Q to P, where the demand curve intersects the marginal cost curve, journeys will not be made unless they are valued at more than the cost they cause.

Variations between vehicles
In the above argument it was assumed that all vehicles were identical and that their costs in any given set of conditions were also identical. If that assumption is withdrawn it is clear that the cost per mile caused by one vehicle can vary considerably from that of other vehicles. If the same price per mile is charged to all vehicles, some will pay more than the costs they cause and others less. (It is sometimes useful to measure costs and prices in units of time rather than of distance since a price per minute will usually give a closer approximation to cost than will a price per mile.)

The inefficiency of charging all vehicles the same price clearly varies with the extent to which individual vehicle costs vary. One way of reducing this inefficiency is to classify the vehicle population (into, say, cars, motorcycles, taxis, lorries of various sizes, etc.) and to charge each vehicle according to its class. There may be other reasons too for wanting to charge one class of vehicles more than another.

Variability of other factors
The assumptions have excluded the effect on journey costs of fluctuations in external factors, such as pedestrians and weather, and also of fluctuations in the timing of journeys themselves. The occurrence of these factors can at any time cause journey costs to be higher or lower than normal. Many fluctuations are unpredictable and unavoidable. But many others are predictable and can, in theory, be allowed for in the setting of prices. For instance, hourly, daily and seasonal fluctuations are largely predictable both as regards the volume and composition of traffic demand and the degree of interruption to be expected from pedestrians and other factors. Nevertheless, insofar as such fluctuations occur and are not allowed for, further inefficiencies may occur.

Recovery of total costs
In some circumstances it may be perceived to be necessary to recover total costs, including original building costs, or to contribute towards general taxation. If prices are made equal to marginal cost, the total revenue obtained may fall short of the required amount. It may be necessary to avoid either a surplus or a deficit and this probably cannot be done without causing a divergence between price and marginal cost and hence some shift in the use of resources. There are, however, several different methods of increasing revenue, and some methods cause a smaller shift than others in the use of resources. A deficit may sometimes be recovered simply by raising prices, or by price discrimination, or by various kinds of indirect prices or taxes, the choice of the method depending upon the circumstances and, in particular, upon the complex of demand elasticities.

Economic theory: conclusions
The foregoing has tried to distinguish between road costs and vehicle-operating costs, although both groups of costs are equally essential to the production of journeys. The reason for the distinction is simply that the first group, road costs, are usually paid by agencies which manage the road infrastructure while the second group, the vehicle-operating costs, are usually paid direct by the consumer. This unusual division of responsibility for the costs causes much confusion about road pricing. It is helpful to think of a situation similar to that on the railways in which the management of the road also owns all the vehicles and pays all the drivers. They, the management, are then required to take account of the marginal cost of journeys, ie the effect of each additional journey on the costs of the whole enterprise, and will try to prevent journeys taking place which do not yield a return at least equal to their marginal cost, unless there are special circumstances.

The most efficient price system might appear to be one in which price varies with cost on every road at every moment of the day. But this presupposes that road users are able and willing to take account of such a highly complicated system. In practice, of course, they are not. If the price system is complicated road users will probably find simple 'rule of thumb' methods to tell them approximately what the average prices are and roughly what the prices of

particular journeys are likely to be, and they will act accordingly. If this is the case the complicated system will be no more efficient than a simpler one.

Post script
That was how the economic argument was put in the 1960s. Since that time whilst the economic principles have not changed, many other things have. Back in the 1960s the concept was one of adjusting the taxation system to ensure that the public costs imposed by congestion were understood by individuals and behaviour modified accordingly. In this way, use of roads would be adjusted to an optimal (non-congested) level. In recent years however, some practical applications of road pricing have adopted a sub-optimal pricing level (ie one that does not eliminate congestion). In these applications the scheme objective has primarily been revenue generation to fund general transport expenditure.

Types of scheme and technologies used

Introduction
As you will see in the next chapter, there are often different objectives for a scheme and these will influence the type of scheme chosen, and the technology used to operate and enforce it. In addition, there is an interrelationship between how a scheme works, and its acceptability to the public. For example, a pilot scheme in Hong Kong encountered acceptability problems because it was perceived to be too much of an invasion of privacy (since it tracked individual road users) (Ison and Rye, 2005). In turn, it is also worth noting that technology acts as a constraint on the type of scheme that can be implemented. For example, an economically optimal pricing scheme that charges users a different rate per km depending on how congested are the roads on which they are driving at that time is, at present, not possible because the technology – although it exists - is not reliable enough.
In this section we review briefly types of scheme and the way they are operated and enforced, concentrating in the main on schemes that are actually in operation.

Basic definitions
Charging schemes fall into four main categories:

- An area licence – a charge is levied for driving within a defined area (e.g. London).

- A point charge – a charge is levied when a driver passes a point or crosses a cordon or screenline(s) (e.g. Trondheim, Singapore CBD).

- Distance based charge – the user pays according to how far they travel within a charged area, with a possible variation in charge depending on levels of congestion. (There are currently no such schemes available although one is planned for trucks in Germany; however, the rate paid there would not vary in real time with congestion levels. The UK transport minister has expressed a desire to see such a scheme in the UK in the next 10-15 years.)

- Traffic limited zone with the sale of licences for certain users.

Charges can be levied and collected in a number of ways – and different means of charging can be used with schemes in the different categories listed above. These methods (which are not mutually exclusive – they may in some cases be combined) include:

- Manual collection of the point charge at the entry point into (or out of) the area, or use of a coin-operated barrier (e.g. Durham, UK; Trondheim, Norway (in part)).

- Decrementing smart-card – this communicates with roadside equipment and a charge is deducted from the smart-card when the vehicle passes a charging point, enters a charged area, or when its speed falls below a certain level (e.g. Singapore (charging point); as proposed in Cambridge (speed-related)).

- Once payment has been received, registration of the vehicle details on a database. When enforcement equipment recognises the vehicle, it is registered on the system as having paid, and no further action is taken (e.g. London).

- Electronic tagging of the vehicle and the dispatch of a monthly bill to the owner depending on the number of times the vehicle has passed a charging point/entered a charged zone that month (e.g. Stavanger, Norway).

- Paper licences similar to a parking permit (formerly, in Singapore), sold at various outlets.

Enforcement is usually carried out by means of a camera with APNR technology to record violators. However, manual enforcement must be employed for paper licences; and it is also used in London, to detect parked vehicles (in particular), that must be paid for even when they are parked on the public road. Enforcement of moving vehicles through numberplate recognition requires access to the national numberplate database so that the owner of the car can be identified and any necessary enforcement action taken against him or her.

There are a number of "back-office" functions such as maintenance of communication links, processing of payments and so on that are also required but are less critical to the design of the scheme than the previous points.

Means of payment
Certain means of payment have been listed above. Some schemes employ more means than those listed, however. For example, in London, it is possible to pay by direct debit, on the internet, by mobile phone, and at paypoints around the capital (which accept cash and credit cards). In general, the more forms of payment that are available, the more acceptable the scheme. It is notable that in London 50% of transactions are made at paypoints, meaning that it is impossible to trace the person paying (with other methods, they must register their details before using the scheme). Many users obviously prefer the anonymity as well as the convenience of the paypoints.

Conclusion
This section has very briefly considered some of the techological options available for congestion charging and pricing schemes. It is a fundamental point that the technology and enforcement of a congestion charging scheme will absorb a proportion of the revenue generated by the scheme. The more complex the technology and enforcement, then the larger the proportion of the scheme revenue that will be absorbed by its operating costs. When the London scheme charged £5/€7.50 (the charge has now increased to £8/€12), around half this charge was absorbed by operating costs (scheme start-up costs were paid separately, but were estimated at £200/€300 million (Ison and Rye, 2005). Thus, while a scheme with a wide variety of payment methods may be more acceptable from that point of view, it may be more costly to set up, a factor that might make it *less* acceptable than a scheme with a lower set-up cost but a smaller range of payment methods.
The Unit now continues to look at the policy context for schemes.

Task

Look once again at the University of Westminster Road User Charging Option Generator available at www.wmin.ac.uk/ruc. Use it to familiarise yourself with the different technologies available for charging.

Principles, policy context and objectives of road pricing schemes

Introduction

Vehicle users in many countries already pay significant sums for the use of their vehicles either directly or indirectly. The main direct charges are for fuel, parking and tolls for bridges. The indirect charges include vehicle excise duty, garaging and maintenance costs. Included within these are VAT and other government taxes on services. However, the current taxation system in many countries imposes charges on motorists in a way which bears little relation to the way in which they use their cars.

The Smeed Panel in the 1960s UK was specifically set up, by the government, to examine and report on alternative methods of levying taxation on road users so that any system employed could more accurately reflect the costs, to society at large, of individuals' trips. The existing taxes applied generally to the whole road network, and the Panel's work concentrated on the urban context. However, the principle of adjusting the taxation system so that it more accurately reflects the costs of providing infrastructure and the costs imposed by individual road users on the community at large, applies equally to inter-urban roads. The Smeed Report set out eight important requirements of a system of road pricing:

- Charges should be closely related to the amount of use made of roads.
- It should be possible to vary prices to some extent for different roads (or areas), at different times of day, week or year, and for different classes of vehicles.
- Prices should be stable and readily ascertainable by road users before they embark upon a journey.
- Payment in advance should be possible, although credit facilities may also be permissible under certain conditions.
- The incidence of the system upon individual road users should be accepted as fair.
- The method should be simple for road users to understand.
- Any equipment should have a high degree of reliability.
- It should be reasonably free from the possibility of fraud and evasion, both deliberate and unintentional.

Task

Read the document *PROGESS Project Deliverable D7.2 – Recommendations and Exploitation Practical Implementation Guide for Cities* from the EU Framework 5 Transport Research Programme.

Compare its recommendations with the principles of the Smeed report. Are there any that are different? Has the European research built significantly on the work of its predecessor 40 years before and, if so, in what ways?

Scheme objectives

As you will have seen from a number of the case studies in the final section of these notes, the objectives of road pricing schemes vary. Whilst the debate of the 1950s and 1960s may have been about the application of market pricing to achieve the optimum usage of city streets, much of the more recent discussion has centred on ways of funding transport facilities – in particular, alternatives to the car. The debate has also had an environmental dimension, in the belief that only serious curbs on the use of cars in cities will bring about the reduction in emissions sought by international treaties. Consequently, commentators such as Peter Jones[68] of the University of Westminster have argued that the motivation to introduce road pricing may lie in one or more of three broad objectives:

1. Congestion relief

2. Revenue raising

3. Environmental improvements.

The simplistic division between revenue raising and congestion management is unlikely to apply if the results from the schemes now operational in Europe can be generalized; some schemes (e.g. Durham, London) were intended to raise revenue but have affected demand more than expected with a consequently lower than anticipated revenue stream. Equally, although the third objective does not appear explicitly it is underlying the need to reduce congestion and demand for car travel.

Most cities which are considering road pricing, will require considerable investment to bring alternative forms of transport up to an acceptable standard. In these circumstances, local politicians are unlikely to be able to win support, in the short term, for a scheme which is sufficiently draconian to eliminate congestion altogether. In all probability, schemes will be hybrid and may well start life as revenue raising but move more towards congestion relief over time. The key elements of an urban road-pricing scheme which have to be considered when designing a scheme are:

1. Who should be charged?

2. When should they be charged?

3. Where should they be charged?

---

[68] Peter Jones (January 1994) 'Achieving environmental goals through urban road pricing', Paper to IBG Conference, Nottingham. Searching for Peter Jones on Google, on www.sciencedirect.com, or on the Transport electronic database available on the http://nulis.ac.uk website (you will need an ATHENS login for both, available from the library support people) will reveal a multitude of papers by him and others on the important topic of the acceptability of congestion charging, as well as pretty much every other aspect of this topic, which has been "done to death" by transport academics. It is well worth reading one or two recent papers on acceptability aspects, however; and also something on the land-use impacts of congestion charging.

4. How should they be charged?

5. How much should they pay?

6. How does the combination of the above choices affect the acceptability of the scheme?

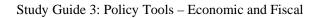7. What should the charging authority do with the money?

The way in which the scheme design responds to the first five of these elements will determine the degree to which the scheme will lean towards revenue raising or congestion relief. In Table 11.2 the key characteristics of the two types of scheme are compared:

Congestion reduction	Revenue raising
1. Target parts of the network and time periods when heavily congested. 2. Limited spatially and temporally. 3. Boundaries of the charged area may be selected to encourage diversion. 4. Categories of vehicles may be exempt (buses and trucks). 5. Range of charging schemes proposed (point based, cordon, area length, congestion based). 6. Charges at high levels to achieve desired behavioural change.	7. Wide geographic and temporal coverage. 8. Fewer exemptions. 9. Geographical boundaries drawn to minimise the chance of traffic diverting. 10. Use of Area Licensing or cordon toll system. 11. Charges generally lower as there is political pressure not to change driver behaviour.
Equity issues	**Equity issues**
1. Necessary trips by poorer people priced off the network in favour of less essential trips by more affluent people. 2. Everyone is asked to pay the same regardless of income.	Not all drivers who will benefit from the road improvements are making a contribution towards the cost of construction. The charging mechanisms tend to be too crude to pick up all the trips made in the urban area (Oslo toll ring intercepts 40% of trips and the Trondheim toll ring a third. Consideration being given to a second ring).

Table 11.2 Congestion reduction and revenue-raising schemes compared

Very recent experience from the London scheme shows that it may have some perverse un-intended impacts. In the first 3 months of the scheme's operation, retail sales at major Oxford St department stores (within the charging zone) were down, compared with increases at other branches elsewhere in the Greater London area. If this effect continues, it may lead to relocation of retail activity to un-charged areas – which invariably are more difficult to serve with public transport. This effect has also been observed in Oslo to a limited extent.

If congestion charging has the effect of reducing the (perceived) accessibility of the charged area – which, invariably, is the city centre – then this can run directly counter to the land use policies of the city or region, and send development to peripheral un-charged areas that are accessible mainly by car. This potentially questions the wisdom of central area charging; perhaps it is congested peripheral areas (I am sure you can think of examples – shopping centres and/or business parks - in cities known to you) that should be charged (more?), and city centre traffic congestion dealt with using more conventional traffic restraint techniques such as parking charging. At present there is a danger that our land use policies could be undermined by charging policies, ultimately aiding urban dispersal and transport problems

further out into urban regions.

Task
Try out the University of Westminster Road User Charging Option Generator available at
www.wmin.ac.uk/ruc. Try to use it as if you were considering different options for a road user
charging or congestion charging scheme for your town/city/area. Does it help you to select
options in a rational way? Why or why not?

The policy and legal context – European and member states

The European Transport White Paper *Transport 2010 – Time to Decide*, issued in 2001, is
clearly supportive of the concept of charging drivers for using roads, in line with the
economic theory that is outlined in the following section of these notes. It identifies that
Europe's roads suffer from the economic and environmental burden of congestion, that this is
inefficient, and that the efficiency of the system can be raised by adopting the "user pays"
principle – that is, that the traveller should bear the full economic, social and environmental
costs of their choice of mode. The implication of this approach is that some form of road user
charging should be adopted so that those who choose to travel on the most congested roads at
the most congested times will pay more than they do at present.

However, the European Transport White Paper is a policy statement issued by the European
Commission, and does not necessarily reflect the views of the Parliament or the Council of
Ministers. In the majority of member states at the present time there is no legislation in
existence that permits local, regional or national authorities to introduce charging for existing
roads. The European Commission has no plans at the present time to initiate a Directive that
would require member states to pass legislation that would make congestion pricing legally
possible (i.e. to give local or regional authorities that wanted to introduce it, the legal ability
to do so – but not to *require* its implementation) in every member state. Some commentators
have suggested that this is because the current Commissioner is not particularly keen on
congestion charging, and also because many member state governments are not supportive
(see for example van Elburg, 2002) and would thus oppose any such directive in the Council
of Ministers. There is a new Directive which makes it impossible for member states to outlaw
pricing of existing roads; but this is rather different from them having to pass legislation
which would permit the pricing of urban roads.

Thus, at the current time, road pricing/congestion charging of existing roads (as opposed to
the introduction of tolls to recoup the construction costs of new roads, which is normal in
several member states) is a legal impossibility in the majority of member states. The UK,
Norway, Italy and now Sweden *do* have legislation that would enable some form of
congestion charging. The Swedish case is an interesting one: two years ago there was no
enabling legislation in Sweden, but the County and city authorities in Stockholm wanted to
introduce congestion charging in the Swedish capital. They were able to persuade the
national parliament to pass enabling legislation, so they have now (2006) been able to
implement their scheme. But there is no guarantee that regional and local authorities wanting
to introduce congestion charging in other member states would be able to influence their
national parliaments in this way – and, if they did not, then their plans for a congestion charge
could fall at the first hurdle. Meanwhile, the Italian legislation theoretically permits
congestion charging but the legal process required is extremely lengthy with much room for
procrastination by politicians and civil servants who may disagree with a scheme.

European projects such as LEDA and COST342 have reviewed the transport policy objectives of national, regional and local governments across the EU. Generally, they find a remarkable similarity: such governments are attempting to improve road safety, enhance the accessibility of the transport system, and bring about mode shift in order to reduce car use and hence cut congestion and pollution from traffic. However, there are relatively few cities and regions that have incorporated road pricing/congestion charging into their strategies for achieving these objectives, although there are more that have *considered* the option of charging, either as participants in European projects, or in discussions with their national governments. However, the majority remain reluctant to include the idea in their policy documents. Later in these notes we will consider some of the reasons why this might be. But we might conclude, at this stage, that congestion charging/pricing exists more as an idea or possibility, than a fully-fledged policy, in most towns and cities in the EU25.

Task
Think about your home city or region. If it wanted to introduce a system for charging drivers for the use of existing roads, would it need legislation to do so? If so, does enabling legislation exist? If so, which level of government makes the decision under that legislation to allow a scheme to go ahead (e.g. in the UK outside London, a local authority has to apply for permission to central government to have a scheme – the local authority cannot give permission to itself). If there is no legislation, which level of government would have to make the law to make charging a legal possibility – and does that level of government have any plans for such a law?

Policy framework at the local/regional level
Any charging system should be a part of a charging authority's integrated policy framework of a series of measures for an area and be compatible with the planning, transport and environmental policies for the area. Each measure in the package should provide a net benefit to the community in the area (which is not to say that there might be some individuals who are worse off as a result of the scheme; but overall, society should be better off). Each measure in the package should be realisable within the plan's time horizon – so, for example, it is unlikely to be very useful to promise a new tram system as an improvement "in exchange for" road pricing, if that tram scheme is not likely to be built for the next 15 or 20 years.

Charging regime
The urban road pricing system may:
* relate to vehicle use of the road space (utilisation and location)
* include an associated parking charge system on the street
* be managed and controlled locally under the authority's supervision
* be fair and enforceable
* be based on differential charges for different vehicle categories at different times of day
* incorporate optimal pricing based on setting a congestion charge which equates to the difference between the marginal cost and average variable cost of each trip.

Operating system
The operating system should be robust and reliable, simple and flexible. It should respect

privacy. Information on the charging rate being levied at any time should be clearly outlined to travellers prior to the start of a trip. The charging system could accept pre- or post-use methods of payment, although the latter must take cognisance of collection and enforcement problems.

Revenue expenditure
The economic benefits (net surplus revenue from user charges for the system) should be spent directly on:

- the transport sector within the area, and/or

- public-transport services, road improvements and traffic management schemes, and/or

- considered as additional local revenue available for expenditure in accordance with the authority's defined priorities.

The acceptability of charging schemes
Introduction
Through their primary economic objective to increase the perceived cost of road use in congested urban areas to cover the external costs of driving, urban RUC schemes have been proposed to help to meet a number of policy objectives, including: reduced traffic levels and/or congestion; improved environmental quality (pollution, noise etc); and/or extra revenue for transport investments. In practice, public acceptability is a necessary condition for RUC to be possible and successful (PATS, 2001). One can establish a trade-off between the effectiveness with which these objectives are achieved and public acceptability, as illustrated schematically by the curve (red line) in Figure 1.3 showing a 'basic acceptability' level.

Although there are limited RUC schemes in existence, there are a few feasibility (e.g. ROCOL, 2000) and academic studies (e.g. May and Milne, 2000) that have investigated the effectiveness of certain scheme combinations. The overall acceptability level of highly effective schemes varies from high to low (as reported in Higgins, 1994; Gomez-Ibanez, 1992; Vickery, 1993; Jaensirisak, 2002). There tends, nonetheless, to be an inverse relationship between the economic and technical efficiency of a scheme, and its acceptability. Acceptability can in general be increased by reducing charging levels, or broadening the range of groups being offered exemptions or discounts (PRIMA, 2000 and Jaensirisak, 2002), but this reduces their effectiveness – and moves us to the left of the curve. However, acceptability should, if possible, not be over-emphasised to the extent that schemes would no longer be efficient or effective in achieving their intended objective(s).

The types of urban road user charge (RUC) schemes of which the public are currently aware (if any) tend to be based on a simple cordon scheme (e.g. as in Norway), and tend neither to be that effectivē (May and Milne, 2000) nor that acceptable (i.e. at around point A_1 in Figure 1.3). Recent MORI surveys in England (in 2000, 2001 and 2002), have found that public support for charging to drive into city centres at peak hours was only 27%, 37% and 30%, respectively, compared with opposition of 53%, 47% and 54% (CfIT, 2000, 2001, 2002). The situation is similar at the European level, where PRIMA (2000) found that there is, on average, less than 30% support for the introduction of RUC across Europe.

There are various reasons why RUC has not achieved public and political acceptability. Some of the concerns expressed by stakeholder and other groups, based on Jones (1993; 1998), Viagas (2001) and Schade, J., & Schlag, B. (2000) , is summarised in Table 11.4. This also illustrates the type of arguments that need to be won, and the issues that need to be addressed, if levels of acceptability are to be significantly increased.

Concerns	Evidence needed
Need carrot, not stick*:*	*There is a need to implement RUC as the alternatives to RUC are ineffective or insufficient in a given situation.*
Ineffective and another form of tax	*RUC is a practical and effective measure; RUC can be designed to reduce traffic volumes, improve environmental quality and if necessary to raise revenue for local transport investments. Therefore it is not another form of tax.*
Undesirable impacts	*A scheme can be devised that will minimise boundary problems and undesirable impacts on business either within or outside the area*
Not fair-(equity)	*Geographic and social equity concerns can be met by varying RUC design variables and introducing a package of measures and revenue distribution that can be provided from the net revenue.*
Technology and privacy	*The RUC technology is reliable, it allows privacy and the system is enforceable.*

Table 11.4 Key Public Concerns About RUC (based on Jones, (1992; 1998), Viegas (2001), Schade, J., & Schlag, B. (2000))
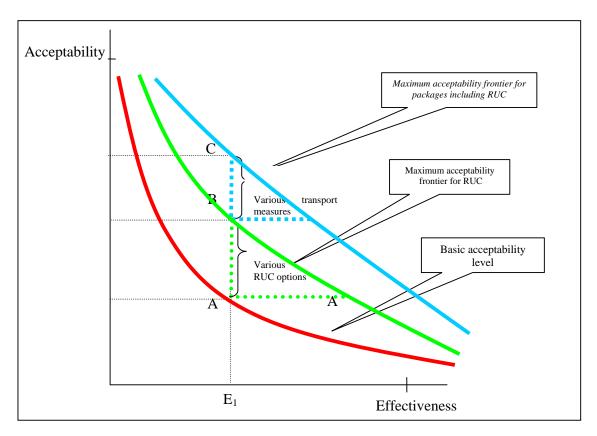
There are many RUC design parameters that can be modified in an effort to shift the 'basic acceptability' to a higher level. These include: varying the area of coverage; the type, time and level of charge; the availability of discounts and exemptions; and/or the administration and the technology that is used for operation and enforcement. Combinations of various design parameters allow a very large number of possible scheme options, which can variously address the concerns and needs of key stakeholders. For example, the concerns of delivery companies could be addressed by providing them with a period pass, while charging car-based users on a per-trip basis.

Studies of public acceptability have further shown that support for RUC increases substantially when the net revenues are hypothecated for transport-related improvements. Jones (1995) found that support for RUC virtually doubled when it was presented as the cornerstone of a package of measures that improved alternative modes and provided a safer and more pleasant environment. The PATS (2001) study recommended the simultaneous use of different measures, in order to make pricing acceptable to policy makers, businesses and users, since single measures were found never to be fully effective if applied in an isolated way. In the case of the MORI studies cited above, support increases (to 39%, 54%, 58%) when the revenue raised is to be invested in public transport, with only 41%, 30%, 23% against (in 2000, 2001 and 2002, respectively). Similarly, in the EU TransPrice (2000) project, there was a considerable increase in support, to between 41% to 64%, for a transport pricing package which included specific revenue hypothecation. The study also suggests that RUC should be considered as part of a package of demand management measures, in order to

increase its effectiveness as well as its acceptability.

Therefore, tools are required to enable Local Authorities to design options that draw on the full range of potential RUC design combinations, and (taking into account stakeholder concerns) the widest possible range of complementary measures. This could potentially shift the focus from basic acceptability to the top (blue) curve in Figure 11.1, whilst not compromising the desired outcomes and effectiveness of the scheme.

Figure 11.1 A Schematic Approach to Increase Acceptability and Effectiveness of RUC schemes

If provided with new techniques and some tools to examine RUC design options in a much more comprehensive and rigorous manner, Local Authorities can have opportunities to identify wider options that could achieve a greater level of public acceptability for a given level of effectiveness (i.e. moving from point A to point B), or achieve a higher level of effectiveness for a given level of acceptability (moving from A to A*) – or some combination of the two. This is shown schematically in Figure 1.4 by the upper (Blue) line, representing the "*maximum package acceptability*" curve. For example, by adding a package of suitable complementary measures to an 'optimised' RUC option at point B, it would be possible to further increase support to point C.

The relationship between the acceptability and effectiveness of RUC schemes is presented in this way because, it is argued, a graphical representation shows very clearly how any scheme

will of necessity be a trade-off between the two attributes, and a more acceptable scheme will tend to be a less effective one (to the point where a scheme could in fact be almost completely ineffective, but almost completely acceptable, and vice versa). The graphical representation also illustrates one of the central arguments of this thesis: that the generation of a wide range of scheme options will tend to lead to the selection of an option that combines a high level of acceptability with a high level of effectiveness, compared with a scheme that is not the result of a wide ranging option generation exercise. It also shows that the packaging of RUC with other transport measures will enhance its acceptability for a scheme of a given level of effectiveness. Finally, it demonstrates that there is a theoretical maximum level of combined effectiveness and acceptability beyond which a scheme cannot go (the acceptability frontier).

All that said, there are a number of caveats that need to be applied when interpreting these figures. They are schematic only and do not illustrate an actual measurable relationship – it is recognised that the actual relationship between effectiveness and acceptability can be more complex and "messy" than the figures imply, so the slope and the location of the lines on the figures would be different for different contexts (e.g. in different cities, for local versus national RUC schemes etc.). In addition, the relationship between acceptability and effectiveness is not static but dynamic in time and location, as evidenced by the recent experience of trying to implement RUC in Edinburgh (Rye, Ison and Enoch 2005). Finally, it is likely to be very difficult if not impossible to predict the acceptability/effectiveness frontier – this could only be derived empirically.

How to make schemes more likely to succeed in practice

Ison and Rye (2004, 2005) have considered congestion charging schemes that have been implemented (e.g. London, Oslo) and also schemes that were planned, but have for a variety of reasons failed to become a reality (Cambridge, Hong Kong, Edinburgh). Using this analysis they have highlighted a number of key factors which, they argue, should be in place if a planned scheme is to maximise its acceptability, and therefore its chances of implementation. These key factors include:

- Agreement (as much as possible) on scheme objectives. If people are not agreed that there is a congestion problem that needs to be solved, for example, then they are even less likely to agree that there is a need for a congestion charging scheme.
- Having the resources available to implement the scheme. This may seem like an obvious point, but it is crucially important. Included in these resources should be the people and the money to be able to *market* the proposals to citizens.
- The ability, and resources, to noticeably improve the alternatives to driving your car, before the congestion charging scheme is implemented. This means improvements to bus, rail, tram and park and ride services across the city, not just in one or two areas.
- A political champion – a politician who is willing to take the risk of promoting and being associated with the scheme. Ken Livingstone, the Mayor of London, is an example of such a "champion". They are however relatively rare figures in politics! If this politician has the direct power to be able to implement the scheme on their own, so much the better.
- Lack of interface required by different political bodies – ideally, the scheme should be the responsibility of one political entity only. If several different levels of government

and/or neighbouring authorities have to get involved, then reaching consensus is likely to be impossible, and different levels of government have different electoral cycles, meaning that their work is slowed or stopped at certain times.

- A single agency to implement the scheme and any supporting measures. If there are many different agencies responsible for implementing different parts of the scheme, it may not all be ready at the same time and some people may completely fail to implement the part that they are responsible for, especially if they do not really agree with the scheme.

Bear these points in mind when you turn to the task at the end of the next section!

Developing charging systems: some experience to date from Asia and Europe
Introduction
As promised, this chapter considers the experience of implementing congestion charging in a number of cities and regions around the world.

The Singapore Charging Schemes
Singapore is a densely populated island-city state (population of over 11.2 million in 2004) in Southern part of Asia (SSA). Roads take more than 10% of its surface area leaving little scope for massive road infrastructure without major disruptions to the quality of life and to the environment. By 1975, car ownership levels were rising (while 60 in 1000 people owned a car in 1970s, it has risen to 111 in 1000) and the city was suffering from major congestion (Foo, 1997).
(a). The Area Licence Scheme

Form and features

Singapore implemented the first RUC scheme in the world in order to reduce car use and increase public transport patronage. The scheme cordoned an area called the Restricted Zone (RZ), about 5 km^2 of the most congested part of the Central Business District (see Figure 5.1) (Lewis, 1993). Although it is known as The Area Licensing Scheme (ALS), operationally it was an entry permit scheme since the licence (daily or monthly-peak or off peak) had to be displayed at the entry points only (22 in 1975-extended to 33 in 1989), on the vehicle windscreen.
The ALS was first implemented on weekdays between 0730 to 1015 hrs (initially to 0930). After a noticeable increase in congestion during free hours, the ALS was subsequently modified to include the evening peak (from 1630 to 1830 hrs) in 1989. In January 1994, the scheme was extended to cover the whole working day (weekdays only) from 0730 to 1830 hrs and 0730 to 1500 hrs on Saturdays (to 1400 in 1995).
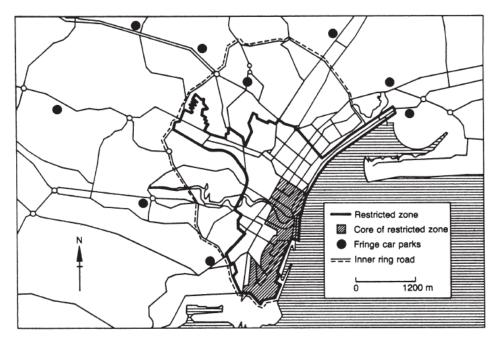
Figure 5.1 Singapore ALS and EPR

(source: Lewis, 1993)

The operation of the scheme was kept simple. Drivers had to register their vehicle in the scheme in advance, as they bought the colour coded licences bearing their vehicle licence number for the period of use (daily or monthly- peak or off peak licences) from post offices, petrol stations, area licence sale booths (located on the approach roads) or convenience stores prior to entry. Licences were visually inspected on the moving vehicles by the wardens at the entry points. With the same area licence for a day, vehicles could make multiple trips into the area. Vehicles already in the area during the charging hours were allowed to travel free of charge (without a licence). The detailed scheme features and how they formed the ALS scheme is summarised in Appendix B.

Effectiveness

There is considerable data available on the effectiveness of the Singapore schemes. Soon after the implementation of the Area Licence Scheme (ALS), peak hour traffic into the Restricted Zone (RZ) was reduced by as much as 45% (Phang and Toh, 1997), traffic speeds increased by 20%, while accidents fell by 25% over the same period (Foo, 2000). Most of this was due to a significant reduction in through traffic and the earlier or later departure of traffic terminating in the RZ (Chin, 2002). Some 14% of car drivers entering the RZ shifted their morning departure time (for work trips) and the total shift to earlier hours accounted for around 5% of the reduction in car traffic during the restricted hours (Gomez-Ibanez and Small, 1994).

Foo (1997) reported that there was also a substantial modal shift after the implementation of the ALS. Immediately after implementation, 46% of all trips to work were by bus compared

with 33% before implementation, representing a 13% increase in public transport use while there was a 10% reduction in car use. Modal shift continued so that by 1983, 69% of the total trips to work in the RZ were made by bus while only 23% were made by car. As expected, most of those who switched to bus were lower income groups.

An OECD study (as reported in Foo, 1997) reported that the ALS also improved environmental conditions and reduced the number of accidents in the area. Between the years of 1978 and 1982, average decreases in total acidity, smoke and levels of nitrogen oxides in the air in the restricted area were 10.7%, 32.2% and 8.4% respectively. During the same period, there was a 23% reduction in accidents within the Central Area region.

As there was still a congestion problem caused by the uncharged outbound trips from the Zone (due to work-to-home trips) which the ALS could not divert, in June 1989 charging was also applied to evening peak hours (from 1630 to 1830). This resulted in substantial reductions in the volume of inbound and outbound traffic. Between May 1989 and August 1989, inbound and outbound traffic during the evening peak hours reduced by between 26% and 47%, and average travel speeds increased from 23km/h to 30km/h (Foo, 1997).

Despite rising vehicle ownership, the ALS managed to retain the same level of traffic reduction until the early 1990s. However, increased traffic volume in the period between the morning and evening restrictions led to the introduction of the whole-day ALS in January 19911. This reduced the total volume of inbound traffic by 9.3% during the entire working-day (0730-1830) (Foo,1997). However, the degree of traffic jams occurring just outside the controlled zones worsened as drivers started to seek more non-ALS routes (Li. 2002).

Customer numbers and land values within the charged area were largely unaffected; and there was no large scale relocation of businesses to areas outside the zone. It has been argued that this may be related to Singapore's existing strict land use planning controls (Foo, 1997).

It should be noted that ALS was not the only measure that was implemented to reduce congestion and its related problems in Singapore. The success of its implementation was supported by other more draconian measures to curb vehicle growth, such as increased road and petrol taxes, doubling the cost of parking at public housing estates and a Vehicle Quota System. There were also public transport improvements coupled with the ALS that led to increases in public transport usage in general (Willoughby, 2001).

(b) The Electronic Road Pricing Scheme
Following the success of the ALS, another scheme known as Road Pricing Scheme (RPS) was introduced on the congested sections of three major expressways in morning peak hours in 1995. Both ALS and RPS were operationally labour-intensive and subject to human error.
After cordon crossing based Electronic Road Pricing (ERP) technology proved to be technically feasible in trials in Hong Kong and the Netherlands, and in view of technological advances (in particular with smart-card technology), Singapore no longer needed to worry about privacy issues. The Singapore government had conducted a study on two major expressways between early 1997 and April 1998 to evaluate the possibility of introducing an electronic charging scheme. The success of this trial led to the application of ERP, first on the

expressways in April 1998, and then in the CBD area in September 1998 (Li, 2002).

Form and features

Both ALS and RPS had under-penalised contributions to traffic congestion as, having paid for the daily licence fee, drivers could make multiple trips to the zone. In the ERP scheme, which is an inbound cordon scheme, drivers have to pay anytime they cross the cordon inbound. Therefore it is more closely related to actual use of the road so that those who contribute more to congestion, pay more and those who use the roads less frequently pay less.

The ERP scheme currently operates during working hours (0730 to 1900) but only during the morning peak period (0730 to 0930) on the expressways. All vehicles have been fitted with unique in-vehicle units (IU) with a smartcard (called CashCard) slot and have to pay anytime they enter the RZ and/or cross the charging points on the expressways.

Currently, the ERP scheme has differentiated charges for cars, taxis, LGVs, HGVs, buses, motorcycles. The IUs for different vehicles are programmed differently (varying rates based on vehicle size) so that the charge for the vehicle can be determined and deducted automatically from a CashCard. Charging rates are set based on the Passenger Car Unit (PCU) for different types of vehicles. 1.0 for cars private/company, and taxis and light goods vehicles, 0.5 for motorcycles, 1.5 for heavy goods vehicles and small buses (30 seats or less), and 2.0 for very heavy goods vehicles and big buses (more than 30 seats). The normal charge for 1 PCU is set to 1 Singaporean dollar (33 pence). To begin with, discounted rates applied to phase the full charges in over 2 to 3 years for users (Foo, 2000). Charges also varied according to time of day. For the first year, the morning peak hour rates for goods vehicles and buses were set at 25% of their full ERP rate, while that for taxis was one-third of their full ERP rates. Exempted vehicles include fire engines, ambulances and police cars.

All entry points and certain crossing points of expressways have gantries with antennas to communicate with the IUs to deduct the correct charge automatically from the inserted CashCard. There are two gantries at each cordon point. A control box co-ordinates the whole process. The first antenna detects the presence of the vehicle, communicates with the IU and checks the presence and the balance of the CashCard to execute debiting instructions to the IU if everything is in order. An optical line sensor mounted on the second gantry identifies the type of vehicle, and the second antenna, which is also mounted on the second gantry, communicates with the IU and acts as a confirmation device.

If any system error or violation is detected, cameras mounted on the gantries take a picture of the vehicle and its number plate. Violation information is sent to the police to be matched against vehicle registration records. The central computer prepares reports of offences and system errors and sends them to the vehicle owners. Currently, those without an IU have to pay a fine of $70 (approx. £23) while those without a CashCard or insufficient balance will have to pay $10 (approx. £3.3) on top of the un-deducted charge.

Effectiveness

Under the operation of ERP, traffic was more evenly spread out during the day. It increased

the efficiency of the main road network by reducing traffic levels closer to its design capacity. During the peak hours, travel speeds in the CBD were more consistent and, on the expressways, improved from 45 to 65 km/h (Goh, 2002). On the first day of its implementation (April 1, 1998), in the morning peak period (0730- 0930) traffic along one of the heavily congested expressways decreased by as much as 17% (Kaur, 1998 as in Goh, 2002).

The EPR was even more effective than the previous scheme (ALS). It both increased the average traffic speeds and decreased the traffic volumes in both the Restricted Zone and on the expressways. Table 5.1 shows the traffic volume and speed changes prior to and after its implementation. Detailed outcomes of the ERP are reported in detail in Menon (2000), Goh (2002) and Foo(2000).

During the operation of the scheme, average speeds on expressways and main roads within the restricted zone are monitored every half an hour. When the speeds fall below 45 km/h on the expressways and 20 km/h on main roads, the level of charges is increased. Correspondingly, when the speeds improve to 65 km/h and 30 km/h, charges are decreased to obtain optimal speeds on the network. This was perceived as a fair system by the users and was widely supported (Menon, 2000).

Table 5.1 Impact of ERP on daily traffic volumes and speeds in September 1998

	Traffic volume (no. of vehicles)			Traffic speed (km/h^{-1})	
	Pre-ERP	Post-ERP	Change	Pre-ERP	Post-ERP
Areas covered under ERP					
Restricted Zone	271 051	206 000 to 216 000	−20% to −24%	30–35	40–45
East Coast Parkway	16 203	14 400 to 14 900	−8% to −11%	36–67	55–65
Central Expressway	12 398	15 200 to 15 800	23% to 27%	45–63	35–50
Pan-Island Expressway	8020	9400 to 9900	17% to 23%	55–59	55–60

■ source: Foo, 2000

Surveys after the implementation of ERP stated that 95% of those who drove into the Restricted Zone during the operation of the ALS have continued to drive, while only 2% have abandoned their trips. There was not a great number of drivers switching to public transport. It was found that the ERP achieved traffic reduction by cutting down the number of multiple trips drivers used to make under the flat fee system and by diverting some of these trips to alternative free routes.

In contrast to the ALS, the residents of the Restricted zone enjoyed free travel if they only travelled within the zone. There was a fall in the number of taxis entering the area without passengers and this increased the taxi waiting times within the area. This was because, unlike the previous flat fee system under the ALS, drivers of such taxis have to bear the charges themselves each time they enter the area. Revenues obtained from the ERP were lower than

the previous system (ALS), but also the operating costs of the new system were much lower then the manual system (Foo,2000).

Singapore's ERP system shows the following advantages compared with manual systems:
- Prices can be directly and easily adjusted to charge more during peak hours and high traffic volume periods according to vehicle class and location.
- It is a fully automated operation and highly enforceable and does not rely on manpower to manage and maintain the scheme.
- It can be used to reduce air pollution arising from excessive traffic flow on the major arterial roads.
- Prices at under-utilised entry points can be reduced to obtain more balanced traffic levels. However, there is a risk of increasing total vehicles km travelled if this is done.
- Smart card use can overcome the drivers' privacy concerns.
- It is considered to be the most promising instrument to achieve equity in road usage as those who drive more, pay more.

Norwegian RUC schemes

(a) Bergen Toll ring

Bergen is a small coastal city with approximately 237 thousand inhabitants (Statistics Norway, 2004). Due to its topography, access to the central historic area was effectively determined by the limited number of roads and bridges. The city needed a new bypass tunnel to improve its access and traffic flows (Lewis, 1993).

Form and features

Bergen's RUC scheme was the first Norwegian toll ring to be introduced in 1986 to match fund a comprehensive road widening and tunnelling programme designed to improve access to and around the city's business district area and to reduce congestion and accidents. It was a simple inbound cordon crossing scheme that covered an area slightly larger than Bergen's CBD with seven (initially six) toll gates (See Figure 5.2). Because the major objective was to raise revenue, not to deter traffic, there were no effective by-pass routes. The charging cordon therefore covered a wider area than that which was needed solely for traffic reduction. It operated between 0600 and 2200 hours, Monday to Friday. Although a 24 hour, 7 day option was considered, it was rejected due to much lower traffic levels at night and the fear of deterring shoppers from visiting Bergen at the weekends (Lewis, 1993).

Each toll station had two types of lanes: drive through lanes for period pass users and manual lanes with manned booths (see Figure 5.3). A single payment of 10 NOK (approx. 80 pence) was made to attendants in cash. Drivers could buy a book of pre-paid tokens and hand in one
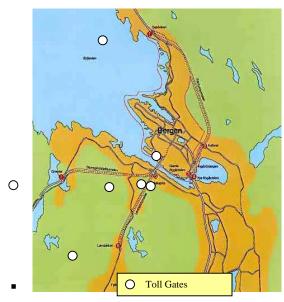
Figure 5.2 Bergen Toll Ring

source: Tretvik, 2003

at manned lanes. They can also subscribe to period passes at sales offices, or through the internet, to use drive-through lanes. Random digital video control was used to enforce the drive through lanes. The cameras read the licence plates (60% accuracy), simultaneously

checking against a data file of all valid numbers (registered prepaid pass owners). This was a

Figure 5.3 Bergen manual and drive through lanes

fairly cost effective filter, leaving about 30 - 40 % for back-office manual handling. However the system is currently being revised to improve accuracy. Non-paying motorists, if they are found to be violators, are liable to a fine of NOK 200 (£16). Currently 1.5 % of the traffic is unauthorised - approximately 1000 entries a day. This represented a loss of 1 mill NOK per year. However this loss is offset by the penalty fee income of more than 5 million NOK (Lewis, 1993).

Effectiveness

Although the Bergen scheme permitted no alternative routes due to the city's unique topology and the scheme's design, it has had little impact on traffic. There was some evidence of travel time shift (Lewis, 1993), and carpooling increased a little, but there was no evidence of impacts on public transport use. Although an increase in city centre-bound traffic was predicted in studies before implementation, in the first year (1986-87) it was actually reduced by 6-7% (LEDA, 2004)

The scheme was effective in raising revenue. The initial investment to establish the ring was 15 mill NOK (approx £1.27 m). The yearly income has proved to be far higher than expected, and now amounts to 70 million NOK (£6 m) per annum, of this 50 million NOK (£11.23 m) is allocated to road construction, 14 million NOK (£1.2 m) for operating costs and 6 million (£0.5 m) is put aside in a fund for improvements. (Bro & Tunnelselskapet AS**,** 2003**)**

(b) The Oslo Toll Ring

Oslo is the capital city of Norway with 700,000 inhabitants. The topography of the city restricted road widening to improve its deteriorating traffic condition. As a solution, a new tunnel was planned under the central part of Oslo (Lewis, 1993).

Form and features

Following the success of Bergen, the toll ring system in Oslo was set up in 1990 primarily to finance future urban road construction schemes and, secondly, to reduce car/vehicle traffic in

the city centre. A simple inbound cordon crossing system forms a boundary of three to eight kilometres from Oslo City centre. It was designed with 19 toll stations to price all traffic entering the area (See Figure 5.4). It is difficult to find an overall principle that governs the location of tolled gates in Oslo other than revenue maximisation. The toll ring is in continuous operation (24 hours a day everyday) and the toll is the same all day and all week (Lewis, 1993).
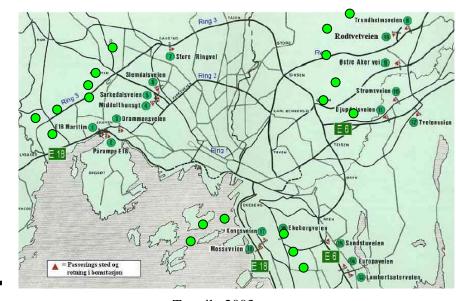
Figure 5.4 Oslo Toll Ring

source: Tretvik, 2003

The Oslo toll ring started with lanes for season passes, but also lanes with coin operated machines. In November 1990 Oslo switched to electronic season passes (an electronic tag inside the front window is used), which greatly improved the control of the lanes reserved for regular users. An electronic season pass is valid for only one car. In December 1991 the system was extended to include pre-paid trips. The windscreen-mounted unit holds details of the identification of the driver, and sends these by two-way radio communication to a roadside beacon. These are checked against a central database and, if the account is not valid, the vehicle is photographed automatically and the driver fined (Fjellinjen, 2003).

Effectiveness

Similar to the Bergen scheme, the administration of the Oslo scheme is very successful from a revenue creation perspective. The capital cost of the scheme was about 250 m NOK (£21.5 m) and the annual operating cost is 66 m NOK (£5.7 m). Annual gross revenues are about 600 m NOK (£51.6 m) (LEDA, 2004). However the reduction of traffic has been less significant. The EU AFFORD project website reported the following outcomes resulting from the scheme:
"Comparison of the trip rates before and after the implementation of the toll ring shows that the total number of inbound trips through the cordon decreased by between 2% and 8%.

There was an overall decrease in the number of trips of 10%. The decrease affected all modes, travel purposes and combinations of origin and destinations. There was no shift to other modes of transport. It thus seems that the relative reduction in car trips crossing the cordon was caused mainly by changes in the destinations of car trips and to some extent also a reduction in the total number of car trips. Car occupancy for cars crossing the cordon did not show any significant changes" (AFFORD, 2004).
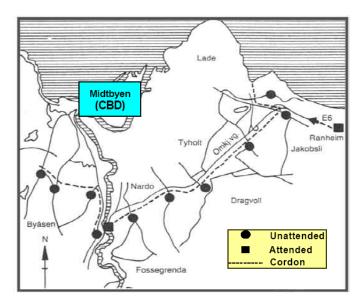
(c) The Trondheim Toll Ring

Trondheim is a coastal city with about 140 thousand inhabitants. Access to the city is determined by the topology of the city. The city needed to improve the quality of its transport system and environment with a comprehensive investments package.

Form and features

In 1991, Trondheim became the third city in Norway to implement RUC. As in the other cities, the aim was primarily to raise revenue to fund an urban transport investment package, featuring a range of improvements to the local transport system, including new road construction, improvements to facilities for pedestrians and enhanced priority and segregation for public transport (Meland, 1994). The scheme was unique in two aspects: it was fully electronic with non-stop toll lanes from the start; and the fully electronic application of the scheme provided an opportunity to apply differentiated charges to encourage a shift in traffic from morning peak to off-peak periods and so to alleviate traffic congestion (Tretvik, 1999).
When the scheme was first introduced in 1991, it was a simple inbound cordon with twelve toll gates covering the city centre and most of the surrounding residential areas as well as the airport road (see Figure 5.5). In 1998 the simple cordon scheme was revised and a zonal-like charging scheme came into operation, with five more toll stations added. This scheme uses several screen lines throughout the city to capture as many trips as possible, fulfilling its objective to raise revenue equitably. Since this revision, two way charges apply at some crossing points.

Figure 5.5 Trondheim Toll Ring Area

source: Tredvik, 2003

Charging hours were initially from 0600 to 1700 hrs on weekdays (Monday to Friday), but under the revised scheme they were extended to 1800hrs for the toll ring. No charge has been applied in the evenings or at the weekends, allowing shoppers to travel free of charge. However, a 24-hour charge applies to the airport road throughout the whole week.

The basic toll level amounts to 15 NOK (*£1.20*). This is roughly equal to 10% of the average hourly earnings for Norwegian industrial workers. The system includes time differentiated charges to influence morning peak travel. Heavy cars (above 3500 kg) are levied double. After 2200 hrs (on the Airport Road) charges are slightly cheaper for those drivers who subscribe to the scheme as regular users. The electronic tags that are used for free-flow are free of charge to these subscribers. There are two methods of subscription: pre or post payment. The subscriber can pay an advance sum of NOK 500 (£43), 2500 (£215) or 5000 (£430). Charges for each crossing are then deducted from this sum. The subscriber can also have an agreement for direct debit from his/her bank account; the bank statement shows the amount debited for the use of the network at the end of each month. They have to pay only once per hour, even when passing the charging points several times; and a maximum of 60 passes per month is charged from the subscribers' account (Lewis, 1993). At some entry points there are plazas with attendants and cash/coin machines for visitors and occasional users, where vehicles can stop and pay the charge (see Figure 5.6) . At the coin machines a "pay later" button is also provided; the user enters the vehicle registration number and takes a receipt to pay the charge within three days.

Figure 5.6 A toll plaza with two Q-FREE lanes and a manual lane in Trondheim

- Source: Tretvik, 1999

The Trondheim scheme operates with a Dedicated Short Range Communication (DSRC) technology (see Figure 5.7). At the toll plazas, a 5.8 GHz frequency antenna reads the tag, then identifies the subscriber and the details of subscription/payment. This is passed on to the lane controller: a computer with a charging algorithm which consists of the registration/subscription data, the payment data, and information on the settings for the charging structure. Coloured lights at the side of the road are used to inform the user about their current status. For each vehicle that passes, an automatic vehicle identification (AVI) system activates a camera that provides a number plate image. If passage is not validated for some reason, (such as no tag, invalid tag or insufficient credit, etc.) then the captured image is kept in the system on which the reason, time and location are recorded. If the passing is later validated then the image is deleted. The pictures are manually checked in the toll centre/office and if necessary a fine is issued to the user.
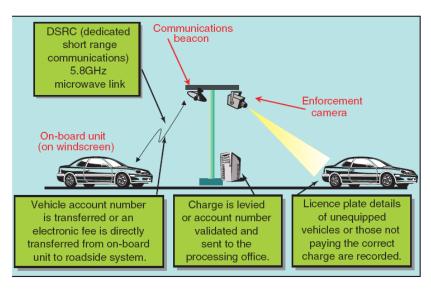
Figure 5.7 Schematic operation of the DSRC technology

source: Hills and Blythe (2002)

Effectiveness

There have been significant impacts on peak-hour traffic levels, with reductions of 10% immediately following the introduction of the differentiated charges, increasing over time to 17% (KONSULT, 2003). However, this was almost offset by an 8-9% increase in inbound car traffic during uncharged periods at evenings and at weekends. Thus, the toll ring seemed to encourage a time shift for home-work and shopping car trips (Table 5.2).

■

Table 5.2 Time Profile of Inbound Car Driver Trips through the Toll Ring (Weekdays)

	Home – Work		**Work – Home**		**Home - Shopping**	
Time Period	**1990**	**1992**	**1990**	**1992**	**1990**	**1992**
00-06 (No charges)	3%	4%	0%	2%	0%	0%
06-10 (High charges)	80%	76%	2%	1%	19%	5%
10-17 (Low charges)	10%	9%	81%	68%	54%	39%
17-24 (No charges)	7%	10%	17%	30%	27%	46%

Source:Tretvik,1999

■

As far as the effects on retailing are concerned, there is not much evidence that the scheme has caused a negative economic impact inside or outside of the charged area. The Trondheim Chamber of Commerce carried out a series of annual surveys before and after the implementation of the charging scheme. Their conclusion was that there was hardly any effect from the toll ring on retail trade (Tretvik, 1999).

RUC schemes Implemented in the UK

(a) The London Congestion Charging Scheme

London is the capital city of the UK with over 7 million inhabitants. Vehicle ownership is about 263 cars per 1000 people (National Statistic Office, 2001). Although high proportion of the trips was made by public transport, congestion has been adversely affecting public transport and commercial activities in London.

Form and features

The ROCOL (Road User Charging Option for London) (2000) study prepared by an independent group of transport professionals was a report for the new Mayor of London on how the new road user charging and workplace parking levy powers could be put into practice. The objectives were to reduce congestion and through-traffic; to encourage use of public transport in central London; to benefit business efficiency by speeding up the movement of goods and people; and to create a better environment for walking and cycling. The ROCOL study considered several road user charging options. These included options covering various geographical areas and time periods for different types of charging and with a range of technologies. The Mayor of London decided on an Area Licence scheme with automatic number plate recognition technology as it was feasible to introduce in his first term. After an intensive public consultation and publicity campaign, the UK's first comprehensive urban charging scheme came into operation in February 2003 and was extended into the West London congestion charging area in February 2007. The extended and original charging area operate as one charged zone.

The Area Licence Scheme (called Congestion Charging) applies to the central business area of London (see Figure 5.8), since traffic movement in central and inner London is severely hampered by congestion. The inside edge of the inner ring road defines the charging boundary and also serves as a diversion route for those who decide not to the charging zone. Road signs and symbols on the roadway indicate to drivers approaching and in the area that they are liable for the charge. As three quarters of daily vehicle trips enter Central London between 0700 and 1900 hrs, the charging period was initially set to cover these hours. However, charging hours were revised to end at 1830 after complaints from the entertainment sector. Motorists who want to enter and/or travel within the area during these hours are subject to a £8 charge. The scheme applies very complicated exemptions and discounts to a wide range of vehicle and user groups. Exemptions include motorcycles, licensed taxis, vehicles used by disabled people, some alternative fuel vehicles, buses and emergency vehicles. Area residents also receive a 90% discount for their vehicles.
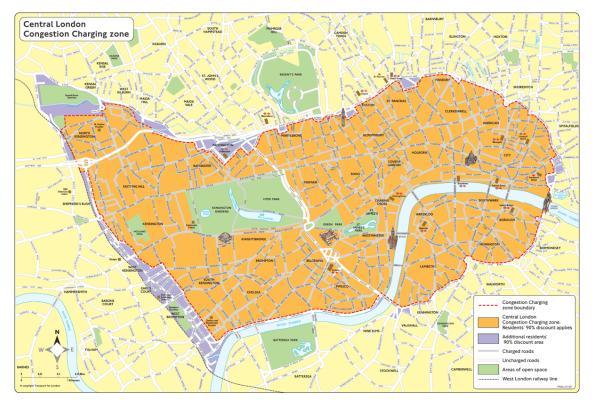
Figure 11.8. The London Congestion Charging Area of Coverage

Source; TfL, 2008

Motorists can register their vehicles and make payments for daily, weekly, monthly and annual passes at selected retail outlets; at payment machines located in the area; by Internet; mobile telephone messaging; or by phoning a call centre. For daily licences, registration and payment can be made until 2200 hrs. Although later registration is possible (after 2200 hrs but before 2400 hrs), it is subject to the payment of a double fee.

A network of video cameras located at the entry/exit points and within the area reads the licence plate numbers of passing vehicles and matches it with the list of registered and paid users (see Figure 5.9). In the case of images that are not clear enough for automatic number plate registration, a manual image checking process is used before sending penalty fines for each day (after midnight). As it is an area licence scheme, mobile cameras and wardens using handsets are also used to check moving and parked vehicles within the charging area. The owners of vehicles that have not paid are sent an £80 fine. This fine is reduced to £40 if paid within two weeks, and increases to £120 if not paid after a month. If individuals persistently evade the scheme and have 3 or more unpaid penalties outstanding, their vehicles will be clamped and removed from the public highways anywhere within Greater London (not just inside the central zone). Details of the scheme can be obtained from the official website at http://www.cclondon.com/.
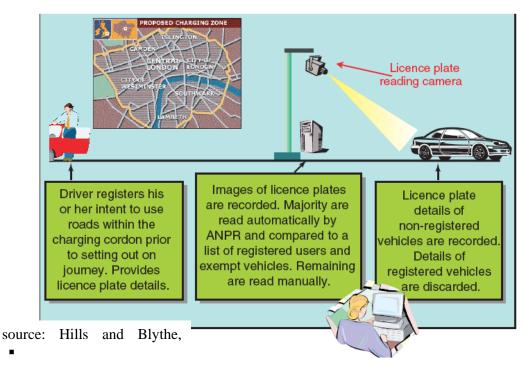
Figure 5.9. Technology of the London Congestion Scheme: Automatic Number Plate Recognition

source: Hills and Blythe,

Effectiveness

In London, a report on the effectiveness of the scheme after three months of charging (TfL, 2003) shows an overall reduction in all vehicles coming into the area of around 20% compared to one year previously. The number of incoming cars reduced by around 30% compared with the last few weeks before charging and by 38% compared with the equivalent period in 2002. There have been small increases in incoming buses, taxis, motorcycles and pedal cycles. Inside the zone, modeling studies predicted a reduction of 10-15% on traffic levels but the actual reduction, is around 16% compared to one year ago. The average speed of traffic across the charging day (including time spent queuing at junctions) is 17 km/hour (11 miles/hour) compared to 13km/hour for the same time of year in 2002. Year by year comparison of these bi-monthly results indicate that the reduction in congestion during charging hours is 40%.

The report on London's Congestion Charging scheme after one year (published in *Impacts monitoring – Second Annual Report: April 2004* by Transport for London, TfL, 2004), reported the impacts of the scheme on a number of indicators including, congestion; traffic patterns; public transport; social and behavioural impacts; business and economic impacts; and accidents, amenity and environment. Some of the key findings are discussed below.

There was a 18% reduction in traffic entering the zone, and a 15% reduction in traffic circulating within the zone (vehicles with four or more wheels). There was only a slight increase in traffic on the Inner Ring Road, but not enough to lead to any operational problems.

There was no evidence of increases in traffic outside of the charging hours (on weekdays or weekends) or on local roads in response to charging. Both the general public and business acknowledged the congestion reductions in and around the charging zone. There were reductions of 30 % on average of congestion in the charging zone. On radial routes approaching the charging zone congestion appears to have reduced by up to 20% compared with the pre-charging levels.

There was a decrease in cars and increase in taxis and two-wheeled vehicles operating inside the zone. Around 65,000 to 70,000 car driver trips no longer cross into the charging zone per day, 50% to 60% of which have transferred to public transport. Some 20% to 30% diverted around the charging zone and the remaining 15% to 25% made a variety of other adaptations. There were no disproportionate changes to the numbers of accidents involving two-wheeled vehicles but some evidence of an accelerated decline in overall accidents within the charging zone.

There has been reductions of approximately 12% in emissions of NOx and PM10 from road traffic within the zone and very small changes of less than plus/minus 2% on the Inner Ring Road (24-hour annual average day); also reductions of 19% in traffic-related emissions of CO_2 and 20% in fuel consumed by road transport within the charging zone (24-hour annual average day).

Overall bus speeds within the charging zone improved by 6%. Additional waiting time due to bus service irregularity fell by 30%; disruption due to traffic delays fell by 60%. Prior to implementation, bus services had been improved to accommodate the additional trips switching from cars. A year after implementation, there are 23 % more buses and 38% more bus passengers entering the charging zone in the morning three hour peak period compared with the situation prior to charging, with some increase in the average number of passengers observed on each bus, although these have generally been accommodated acceptably.

These findings have shown the success (effectiveness) of the London scheme more than was predicted in the initial modelling studies prior to its implementation.

There is now (2008) in the most recent monitoring reports, evidence of congestion increasing once again, and bus speeds and reliability falling within the charging zone. TfL explain this as a result of a general reallocation of roadspace away from vehicular traffic in central London. However, it is a somewhat worrying trend. It is worth your while reading the most up to date congestion charging monitoring report from TfL, or at least the executive summary.

(b) Durham Scheme
Durham is an historic town with some 450 000 visitors a year. Its historic town centre is located in a peninsula accessed with a single carriageway. In 2002, some 4000 vehicles a day were entering the area and around half of them were dropping off and waiting for the passengers visiting the amenities and shops located in the area. This was creating a conflict between pedestrians and vehicles, and also raising environmental concerns (Ieromonachou et al, 2004).

Form and features

In October 2002, Durham County Council introduced a point based entry charge on one section of road to resolve the conflict of vehicles and pedestrians and to produce a better environment for pedestrians in the historic city centre where Durham's cathedral and castle are located (see Figure 5.10). Every day, up to 17,000 pedestrians (daily) use a stretch of road in the charging area that is only wide enough for just one vehicle to pass at a time. A £2 charge applies to all vehicles using Saddler Street and Market Place between 1000 and 1600 hrs on Monday to Saturday.
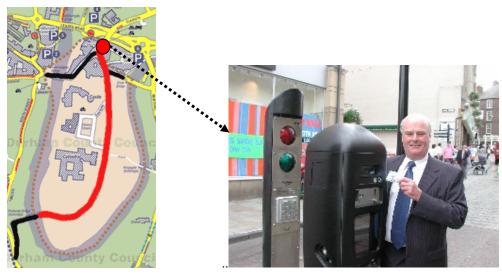
Figure 5.10. The Durham Point Charging and Pay Machine

source: Durham County Council

There is only one vehicle access point to the area as other access roads have already been closed to vehicles. Drivers are charged on exiting the controlled area at a pay machine mounted on an island in the centre of the carriageway that is linked to an automatic bollard which lowers on payment. The pay machine operates only with the correct cash amount. Alternatively, payment is accepted before 1800 hrs at a dedicated shop located in the area. The system is monitored by CCTV and linked to the operation unit via an intercom system. Exemption permits have been issued to a limited number of users who have access to a parking space on the Peninsula in one of two forms (CfIT, 2004):

- Permanent users' vehicles have transponder permits - plastic tags 200mm in length displayed in the windscreen of the vehicle.
- Daily exemption permits are credit card type permits and are presented and retained at the pay station.

Disabled persons can be issued with exemption permits by the establishments they choose to visit or can reserve a permit in advance by contacting the charging company. Exemption permits and the administration of normal permits are dealt with by the operating company who manage and administer the scheme on behalf of the local authority.

Stockholm Scheme

There is also a highly successful scheme in Stockholm, Sweden. Read about it at http://www.stockholmsforsoket.se/templates/page.aspx?id=2453.

Nottingham Workplace Parking Levy

The City of Nottingham has been planning a levy (local tax) on employee parking spaces at the city's large employers for the past 9 years. It now appears close to implementing this, to

help manage congestion, and to raise funds for its second tram line. It is well worth while reading a little about the scheme, at http://www.nottinghamwpl.com/.

Task
At this stage it is worth you considering for yourself the issues involved in introducing road pricing in cities. Think of a city near you (probably with a minimum population of 250,000); what would be the issues facing politicians who wanted to introduce road pricing or a workplace parking levy? Consider:

- how serious is congestion
- how effective are alternative forms of transport
- what would your objectives be
- if you lean towards full congestion charging or revenue raising
- how would you design the scheme to minimise unwanted effects?
- how would you design the scheme to maximise its acceptability to your electorate?
- What technology might you seek to use?

Again, there is no right answer to this – that is one of the problems of being a politician. In many senses, from their perspective, there are only wrong answers!

Literature and Websites
The following literature and websites have been used to derive these written materials. Here you can find further information, project results and good / best practice case studies. Please note that websites may be closed after a certain period.
PROGRESS   (http://www.progress-project.org)
http://trafiken.nu/
http://www.sll.se/w_trafik/41870.cs?dirid=18
http://www.tfl.gov.uk/tfl/cc_intro.shtml - lots of detail on the London scheme. www.london.gov.uk also includes details. A search on Google with the topic "London Congestion Charge" will throw up many voices of opposition to the scheme. www.abd.org.uk also represent the views of some opponents of congestion charging everywhere.

http://www.imprint-eu.org/ - papers on road pricing from around the world.

http://www.imprint-eu.org/links.htm - links to the myriad of EU research projects devoted to the topic.

Acceptability of Fiscal and Financial Measures and Organisational Requirements for Demand Management (AFFORD), (2004), Case Cities: Oslo, http://data.vatt.fi/afford/casecities/oslo.html accessed on 15 August 2004
Acceptability of Fiscal and Financial Measures and Organisational Requirements for Demand Management (AFFORD), (2001), Acceptability of Fiscal and Financial Measures and Organizational Requirements for Demand Management , Final report

Ahlstrand I. (2001), 'The Politics and Economics of Transport Investment and Pricing in Stockholm', *Journal of Transport Economics and Policy*, vol. 35, no. 3, pp. 473-489

Bro & Tunnelselskapet AS, (2003), http://www.brotunnel.no/body_english.html accessed on 5 March 2005

Button, K., (2004), Road Pricing, Final report of ITS Center project: Road pricing for the Center for ITS Implementation Research, A U.S. DOT University Transportation Center

Chin, K.K., (2002), Road Pricing Singapore's Experience, paper presented at the IMPRINT Conference, Brussels

Dix, M., (2002), The Central London Congestion Charging Scheme - From Conception to Implementation, 'Implementing Reform on Transport Pricing: Identifying Mode-Specific Issues', IMPRINT Conference, Brussels, - available at http://www.imprinteu.org/public/Papers/imprint_Dix.pdf

EuroPrice, (2002), Guidance Paper 4- Complementary Measures, available at http://www.europrice-network.org/pdfs/gp11.pdf

EUROTOLL, (1999), Final Summary Report, available at http://www.cordis.lu/transport/src/eurotollrep.htm accessed on 2nd May 2001

Fjellinjen (2003), Oslo Toll Ring, http://www.fjellinjen.no/foreign.htm accessed on 5 May 2003,

Foo, S.T., (2000), 'An advanced demand management instrument in urban transport: Electronic road pricing in Singapore', Cities, Vol 17, Issue 1, pp 33-45, Elsevier Science Ltd, GB

Foo, T.S., (1997), 'An effective demand management instrument in urban transport: the Area Licensing Scheme in Singapore', Cities, Vol. 14, Issue 3, pp.155-164

Goh, M., (2002), Congestion management and electronic road pricing in Singapore, Journal of Transport Geography, vol. 10, pp. 29-38

Goodwin, P.B., (1989), 'The 'Rule Of Three': A Possible Solution To The Political Problem Of Competing Objectives For Road Pricing', Traffic Engineering & Control. vol 30, no: 10, pp. 495-497

Greater London Council (1974) Supplementary Licensing.

Harrison, B., (1986), Electronic road pricing in Hong Kong: estimating and evaluating the benefits, Traffic Engineering and Control, vol 27, pp.13-18

Hau, T.D. (1990), Electronic Road Pricing. Developments in Hong Kong 1983 - 1989, Journal of Transport Economics and Policies, vol 24, pp. 103-214

Hau T.D., (1992a), 'Congestion Charging Mechanisms for Roads: An Evaluation of Current Practice', World Bank Policy Research Working Paper Series WPS 1071, The World Bank, Washington D.C

Hau T.D., (1998), 'Congestion Pricing and Road Investment,' in Road Pricing, Traffic Congestion and the Environment, by Kenneth J. Button and Erik T. Verhoef, eds., Edward Elgar Publishing Limited, Cheltenham, England, Chapter 3, pp. 39-78.

Hau, T., (2000), Transport For Urban Development In Hong Kong, Road Pricing Agenda, Progressing Electronic Road Pricing, Transport Roundtable, Brisbane, Australia, available at http://www.unchs.org/unchs/english/transpor/hongkong.htm

Higgins, T, J., (1994), Congestion Pricing: Implementation Considerations, Transportation Quarterly, Vol 48, pp. 287-298.

Hill, P., (1993). 'Road congestion pricing: when is it a good policy? A comment', Journal of Transport Economics and Policy, vol.27, pp.91-98.

Hills, P and Blythe P, (2002), For whom the road tolls, Royal Academy of Engineering Journal Ingenia, issue 14, pp.21-28

HMSO, (1999), Greater London Authority Act 1999

Ieromonachou P, Potter S. and Enoch, M., (2004) Adapting Strategic Niche Management for evaluating radical transport policies--the case of the Durham Road Access Charging Scheme, International Journal of Transport Management article in press

Ison, S. (1998) A concept in the right place at the wrong time: congestion metering in the city of Cambridge, Transport Policy, vol. 5.

Jacobson, C., Fujii, S, Gärling, T., (2000), Determinants of private car users' acceptance of road pricing, Transport Policy, vol 7, pp. 153-158.

Jaensirisak (2002), Designing acceptable and effective road user charging schemes, traffic Engineering and Technology, July/August 2002)

Jones, P., (1991b), Gaining support for road pricing through a package approach, Traffic Engineering and Control, vol 32, pp.194-196.

Jones, P.M., (1991a), UK Public Attitudes to urban traffic problems and possible countermeasures: poll of polls. Environment and Planning C: Government and Policy 9, pp 245-256

Jones, P., (1992), 'Alternatives to Congestion Charging', the published proceedings of a seminar held by the Transport Policy Committee of the Greater London Authority

Jones, P., (1993), 'Selling the concept of Road Pricing to the public', conference on Road Pricing, highway and Passenger Information Systems, Organised by IBC Technical Services Ltd. Information Technology Division, London Press Centre.

Jones, P., (1994a), Road Pricing and Public Attitudes, Paper presented to the Public Transport Information Unit on 'Road Pricing'

Jones, P., (1994b), Electronic Road Pricing: Meeting Policy Objectives and Public Concerns.

Jones, P., (1995), 'Road pricing: the public viewpoint', in B. Johansson and L.G. Mattsson, Editors, Road Pricing: Theory, Empirical Assessment and Policy, Kluwer, Norwell

Jones, P.M., (1998), Urban road pricing: Public acceptability and barriers to implementation. In: K.J. Button & E.T. Verhoef (Eds.), Road Pricing, Traffic Congestion And The Environment. Issues of Efficiency and Social Feasibility. Cheltenham: Edward Elgar Publishing, pp. 263-2811.

Jones, P., (2001), Addressing Equity Concerns in Relation to Road User Charging, Social Equity in Transport Pricing, CUPID-PROGRESS workshop in Trondheim

Jones, P., (2002), Alternatives to Congestion Charging, published proceedings of a seminar held by the Transport Policy Committee of the Greater London Authority.

Knowledgebase on Sustainable Urban Land use and Transport (KonSULT), (2004), Policy Instruments, http://www.env.leeds.ac.uk/its

Kocak, N.A. and Seale, K. (2004), Political Acceptability of Road User Charging: Lessons from London Congestion Charging, paper presented at WCTR Conference, Istanbul, Turkey

Legal and Regulatory Measures for Sustainable Transport in Cities (LEDA), (2004), Data base, available at http://www.ils.nrw.de/netz/leda/ accessed on 15th August 2004

Marshall, S., Banister, D., McLellan, A., (1997), 'A strategic assessment of travel trends and travel reduction strategies', Innovation: The European Journal of Social Sciences, vol. 10, issue 3, pp. 289-304

May, A.D., (1975b), Supplementary licensing: an evaluation, Traffic Engineering and Control, vol 16, pp162-167

May A. D., Liu R., Shepherd S. P. and Sumalee A., (2002), The impact of cordon design on the performance of road pricing schemes', Transport Policy, vol 9, Issue 3, pp. 209-220

May, AD, Coombe, D and Travers, T (1996) The London Congestion Charging research programme 5: Assessment of the impacts. Traffic Engineering and Control vol 37, issue 6

Meland, S., (1994), Road Pricing In Urban Areas: The Trondheim Toll Ring Results From Panel Travel Surveys, GAUDI Project Report, STF63 S94006

Menon, A..P.G., (2000), EPR in Singapore- a perspective one year on, Traffic Technology and Control, Vol:41, No:2

MVA (1995), The London Congestion Charging Research Programme, Final Report, Volume 1, Government Office for London, HMSO: London.

Odeck, J. and Brathen S., (2001). Toll financing of roads-The Norwegian experiences, Paper prepared for the 14th IRF World Congress in Paris

Pricing Acceptability in the Transport Sector (PATS), (2000), Deliverable 3: Empirical Studies on Price Acceptability

Pricing Acceptability in the Transport Sector (PATS), (2001), Pricing acceptability in the transport systems: Final Report, Transport Research Fourth Framework

Pricing Acceptability in the Transport Sector (PATS), (2001), Recommendations on Transport Pricing Strategies, Final Report, EU Project

Phang, S.-Y. and Toh, R.S., (1997), 'From manual to electronic road congestion pricing: the Singapore experience and experiment', Transportation Research E, Vol 33, No 2, pp 97-106, Elsevier Science Ltd, GB

Pigou, A.C., (1920). Wealth and Welfare. London: Macmillan.

Platt, J., (1992), 'The Case Study in American Methdological thought', Current Sociology, vol. 40, issue 1, pp. 17-48

Pricing Measures Acceptance (PRIMA) (1999), Deliverable 1: Comparison of Transport System in Case Cities and State of the Art Regarding Acceptability and Barriers, Research Project within the European Commission 4th RTD Framework Programme

Pricing Measures Acceptance (PRIMA), (2000a), Ways and Means to Increase the Acceptance of Urban Road Pricing

Pricing Measures Acceptance (PRIMA), (2000b), Pricing measures acceptance, Final Report: Ways and Means to Increase the Acceptance of Urban Road Pricing, Research Project within the European Commission 4th RTD Framework Programme

Procedures for Recommending Optimal Sustainable Planning of European City Transport Systems (PROSPECTS), (2001), Deliverable 4: Initial Policy Assessment, available at http://www.ivv.tuwien.ac.at/projects/prospects.html accessed on 5 May 2004

Richards, M.G. et al (1996) London Congestion Charging Research Programme: 6 -: the findings. Traffic Engineering and Control, vol. 37 , issue 7/8 (other papers in the series include 1,3,5)

ROCOL, (2000), Road Charging Options for London - A Technical Assessment. Review of Charging Options for London Group, Government Office for London, London

Rye, T., Ison S. and Enoch M. (2005), Implementing Congestion Charging: Lessons From

Edinburgh. Paper to 6th International Conference on Environmental Engineering May 26.27, 2005 Vilnius, Lithuania

Schade, J., & Schlag, B. (2000). Acceptability of urban transport pricing, VATT research reports 72. Helsinki.

Seale, K., (1993), Attitudes of politicians in London to road pricing. Proceedings of Seminar F of the PTRC 21st Summer Annual Meeting, 117-128

Singapore Statistics Agency, (2004), Key Stats, available at http://www.singstat.gov.sg/keystats/annual/indicators.html

Smeed, R.J., (1964), Road Pricing: The Economic and Technical Possibilities, (The Smeed Report), HMSO, London

Statistics Norway, (2004), available at http://www.ssb.no/english/municipalities/1201

TfL, (2004), Impacts monitoring - Second Annual Report: April 2004 by Transport for London, available at http://www.cclondon.com accessed on 3rd June 2004

Thorpe, Neil, Hills, Peter and Jaensirisak, Sittha. (2000), Public attitudes to TDM measures: a comparative study in Transport Policy, vol 7, pp. 243-257.

Tillama, T., Wee, B and Jong T., (2003), Road pricing from a geographical perspective: a literature review and implications for research into accessibility, Paper presented at the 43rd European Regional Science Association Congress (ERSA), August 27th-30th, Jyvaskyla (Finland) -available at http://www.feweb.vu.nl/md-pit/Publications/ERSATillema2003.pdf accessed on 2nd March 2004

Transport and Travel Research (TTR), (2000a), Urban Road User Charging Scheme Design Principles: Report on Literature Review, Prepared for DETR,

Transport and Travel Research (TTR), (2000b), Urban Road User Charging Scheme Design Principles: A Preliminary Scheme Design Guide, Prepared for DETR,

TransPrice (2000), Trans Modal Integrated Urban Transport Pricing for Optimum Modal Split, Final Summary Report

Tretvik, T. (1999), The EuroPrice Project: The Trondheim Toll Ring And The Effects On Retailing, Report From SINTEF Civil And Environmental Engineering.

Tretvik, T., (2001), Urban road pricing in Norway: Public acceptability and travel behaviour, MC-ICAM Conference on Acceptability of Transport Pricing Strategies, Dresden, Germany

Tretvik, T., (2003), Norway's toll rings: Full scale implementations of urban pricing, paper presented at IMPRINT seminar, Budapest, available at

Van Elburg, J-C (2002) Policy and Research European Transport Policy and Interaction with National Decision Making. Paper to European Transport Conference.

Victoria Transport Policy Institute (VTPI), Online TDM Encyclopedia, available at http://www.vtpi.org

Viegas. J.M., (2001), 'Making urban road pricing acceptable and effective: searching for quality and equity in urban mobility' Transport Policy, Volume 8, Issue 4, pp. 289-294

Willoughby C., (2001), Singapore's motorization policies 1960-2000, Transport Policy, vol.8, pp.125-139

Answers to self assessment questions and research exercises

Unit 8

8.1

What taxes are levied on public and private passenger transport?

How could the application of taxation to transport be better targeted to influence trip making?
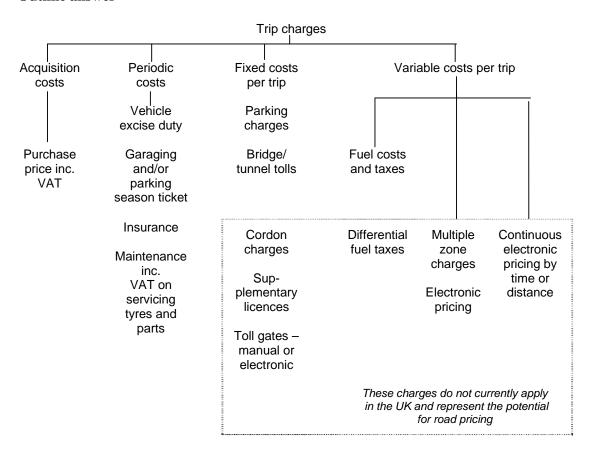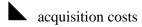
Outline answer

Figure 8.1 Incidence of costs and methods of applying charges for car trip making

Figure 8.1 showed the way in which the cost of motoring was built up. That part of the unit also discussed the significance of the different elements of that cost:

➤ acquisition costs

➤ periodic costs

➤ fixed costs per trip

➤ variable costs per trip.

From your reading you should have appreciated that trip-making decisions for car users are taken on a marginal cost basis, and these costs will be typically 25% of the average cost. Whereas for public-transport trips the passenger will pay the average cost of the journey. Public-transport operators do enjoy fuel-tax rebates but their costs also have to include labour costs, which are typically 70% of their total costs. Where passengers commit to buying a season ticket their subsequent marginal cost per journey becomes zero.

Clearly taxation needs to concentrate on shifting the balance of marginal costs to average costs for car users.

8.2
From your reading of this unit and www.vtpi.org, set down in note form:

➤ *the various taxation measures which apply or could apply to transport provision and use*

➤ *summarise the effectiveness of each as a policy tool.*

Outline answer
The main forms of taxation are:

➤ vehicle excise duty

➤ fuel tax

➤ VAT (sales tax)

➤ congestion charging

➤ parking charges (including work place parking levies).

The web site's argument is that very substantial environmental costs are not taken into account in decisions by users of the transport system. Furthermore, the tax system and the way people pay for transport introduce considerable distortions into those decisions.

A high proportion of travel decisions are taken on the basis that the car is there – paid for. Indeed for short trips it is there, fuelled up, paid for. Consequently, the decision making is based on the immediate marginal costs of making the journey, fuel, tolls and parking charges.

▲ Vehicle excise duty (VED) – Not part of the marginal costs of motoring and therefore does not influence trip making. However, the current government strategy of varying the rate of VED according to the polluting characteristics of the vehicle (smaller engines paying less) can influence the environmental impact of trip making. It can therefore contribute to the overall level of transport pollution.

▲ Fuel tax – can influence trip-making decisions, particularly longer journeys. Certainly helps to concentrate the mind of vehicle manufacturers in the area of fuel efficiency of their engines. Tends to be a blunt instrument in terms of controlling congestion and is perceived as unfair to rural communities where fuel prices are higher anyway.

▲ VAT and other sales taxes – applies to fuel and vehicles. On vehicles it helps to increase the cost of buying a car but thereafter has no influence. VAT on fuel is a very small proportion of the total tax burden and its influence needs to be viewed along with fuel tax.

▲ Congestion charging – probably the most targeted charge when considering methods of reducing travel demand in congested and polluted areas. Clearly, a successful scheme would not only reduce pollution by reducing the number of vehicles, but also ensure that the vehicles were operating more efficiently and therefore producing less pollution per vehicle.

▲ Parking charges – the most effective means currently available for influencing travel decisions. Charges typically are set to discourage long-term stay. Effectiveness of schemes can be undermined if season tickets are offered and currently by the provision of free parking by employers at their own premises (PNR parking). The proposed workplace parking levies aim to tackle this anomaly but charges need to be passed on to employees, preferably on a daily basis.

Unit 9

9.1
How is local transport funded in Great Britain?

Outline answer
Local transport includes all the elements of transport expenditure that are the responsibility of local authorities. In general, local authorities are funded:

▶ by specifying the level of revenue expenditure that the council can incur (including the repayment of loan charges)

▶ by allowing local authorities to borrow money to fund capital expenditure (loan consent) and now grant consent.

▶ Larger schemes can be funded through special grants (Section 56) and the PFI.

There are differences between England and Scotland, and as the single capital pot system beds down in England, the system will evolve yet again. (Yet another reason for keeping up to date with the technical press.)

9.2
What Grants are available to encourage the transfer of freight traffic from road to rail and what are the key criteria for a successful bid? (NB it appears that the SRA will bring back these grants at such time that it has funds available).

Outline answer
Freight Facilities Grant and Track Access Grants.

The criteria for Freight Facilities Grant are:

▶ When compared with the road-transport alternative the proposed facilities would not be commercially and financially viable without grant.

▶ Providing the facilities will secure traffic on rail where the alternative is road transport.

▶ Railtrack have approved the provision of the facilities, and that, in the case of rail, the operator is prepared to carry the traffic.

▶ The proposed expenditure is of a capital nature, which has been recently extended to include locomotives and freight-specific track and infrastructure.
▶ The project will be of significant environmental benefit to localities. This again has been extended to include in the grant assessment lorry miles saved on not just rural and urban roads but also inter-urban dual carriageways and motorways. (Standard values per lorry mile are used for different types of road.)

◤ The traffic in question will be retained on rail for the minimum period specified.

For freight services which do not require new or additional facilities, track access grants can be paid to reduce the cost by rail to that of road haulage, where this is justified by the environmental benefits accruing from the removal of traffic from the road network.

9.3
Explain the pros and cons (as you see them) of the PFI.

Outline answer
The drive by the Conservative Government of the 1980's to free the transport industry of the dead hand of bureaucracy led to the need to move the direct responsibilities for developing transport (and other) infrastructure to the private sector. The four principles at the heart of PFI were:

- Risk Transfer

- Output Specification

- Whole Life Asset Performance

- Performance Related Rewards

Considering the pros and cons under these headings.

Risk Transfer
Many public sector civil engineering projects have earned themselves a degree of notoriety by significantly exceeding their original budgets. The argument is that the private sector is better at estimating the risk involved in these projects. The basis of the PFI contract is a fixed price to the commissioning organisation. Consequently, there is greater certainty in budgeting. Critics however claim that because private sector companies have to make a profit their price for the job will be higher. Critics will also cite instances where the estimated cost in the public sector is lower than the PFI cost. This ignores, of course, what the final public sector cost might be. Costs are also often not just for construction but also the ongoing maintenance (see whole life asset performance). Private sector operating consortia may ask for greater subsidy if their revenue is below forecast – see the example of the rail industry and also Croydon Tramlink. This may leave the government as "under-writer of last resort" if it is not willing to let the operator go bankrupt.

Output Specification
The benefit of using output specifications is that it concentrates the minds of designers on the required functions or services that the facility will provide and not on the physical specification. The downside to this is that it is often more difficult for the commissioners of the schemes to detail their requirements in this way.

Whole Life Asset Performance
Too often in the past scheme evaluation and choice has concentrated on the initial capital cost of a project and ignored the on going running and maintenance costs. However, under PFI the commissioner does not fund the capital but pays over time for the use of the asset. The builder is encouraged to consider the total cost of the project over its life. Again, it is a more difficult task for commissioners to specify their requirements over this longer timescale.

Performance Related Rewards
The benefit of paying against results is fairly obvious. The customer pays for what he gets. However, this does require the commissioner to ensure that the basis upon which success is judged is appropriate. Properly structured whole life specifications are crucial to this.

9.4
Suggest how the measurement of performance (the outputs) of PFI transport projects could be better aligned with transport policy.

Outline answer
I indicated in the unit that output measures for transport schemes might conflict with transport policies. An obvious example is the concept of shadow tolls as a means of paying for new roads. At a time when transport policy is trying to restrain use of the car, does this send the right signal? Rewarding a tram operator against passenger – km may sound more in tune with transport policy, but it could depend on how those passengers have been gained. If they are abstracted from bus services and none or very few have come from cars is that really what we wanted the scheme to do?

The reason these indicators are chosen is because they are simple and easy to measure. But that doesn't mean that they should continue to be used. Perhaps within an urban environment we should be looking at PFI's that cover a package of measures that aim to achieve a council's transport objectives. So, a package might include some road building, bus and cycle priorities, traffic restraint and management, pedestrianisation, parking control and environmental enhancements. The measures could then include accident reduction, traffic speeds, modal shift and air quality.

London Buses (see www.tfl.gov.uk) have recently introduced new contracts specifically intended to give private bus operators incentives to run services in a way that meets passenger requirements in terms of reliability, driver training, comfort and vehicle cleanliness.

This is one of those questions for which this no right answer. That's my view **and** one of my hobby horses.

Unit 10

10.1

Imagine that you are (further) developing the parking policy for a town or city that you know well, with a population of at least 25,000 people. You are trying to balance the 3 aims of demand management, revenue raising and maintaining the perception that parking is not limiting economic vitality. What do you do?

Your answer obviously depends on the nature of the parking problem in the city you have chosen. Some issues with which you may wish to deal:

Reducing parking for commuters to discourage car commuting at peak hours.
Providing short stay parking on and off street for shoppers to maintain retail vitality.
Relocating long stay parking to park and ride.
Generating parking revenue to spend on other transport projects.
Ensuring that residents can park close to their homes and not have to compete for space with commuters.
Providing sufficient kerb space for parking and loading.
Protecting bus and cycle lanes, and formal and informal pedestrian crossing points, from the effects of parked cars.

This may require a range of measures including:

Wider on-street parking controls to deal with obstructive parking and to provide loading opportunities, perhaps within a criminalized regime.
A controlled parking zone to provide space for residents and to generate revenue – this may require a move to a de-criminalised environment.
Changing the tariff structure at Council-owned car parks and on-street, to promote short stay at the expense of long-stay.
Changing parking policies for new development to reduce provision or to transfer it to park and ride, and to secure developer contributions to the cost of on-street parking controls.

Unit 11

11.2
A road-pricing scheme is planned for a historic city (population 400,000) that experiences high levels of congestion within its centre. The city has policies to improve the environment for residents and pedestrians, and to encourage walking, cycling and public-transport use, but has experienced a reduction in central-government funding required to fund such a strategy.

Spend about an hour setting down how you would design a road-pricing scheme that is consistent with the stated policy objectives, and that you think would be politically acceptable.

Outline Answer

▲ You should recognise policy trade-offs, which are central to this question, and should be stated quite explicitly. In this case:

   ▲ the council wishes to improve the environment but lacks the funding to pursue this strategy

   ▲ there are long-term and short-term issues to consider.

▲ Conflict between revenue generation and congestion reduction needs to be recognised. These types of scheme have completely different types of objectives and design. You should have differentiated between the two.

Pricing schemes for congestion reduction will include:

   ▲ target parts of the network and time periods when traffic is heavily concentrated

   ▲ limited spatially and temporally

   ▲ boundaries of the charged area may be selected to encourage diversion

   ▲ categories of vehicles may be exempt (buses and trucks)

   ▲ range of charging schemes proposed (point based, cordon, area length, congestion based)

   ▲ high level of charge to achieve desired behaviour change

   ▲ equity issues – necessary trips by poorer people would be priced off the network in favour of less essential trips by richer people. Everyone asked to pay same regardless of income.

This scheme is consistent with policy objectives but if applied over a small area may not produce the level of funds needed to fund the strategy. It may therefore need to be a long-term scheme. In the short term it may be more desirable to institute a revenue-raising scheme to provide funds in order to let local authority pursue strategy.

You should also have discussed the merits of a revenue-raising scheme compared to congestion relief scheme in this context.

A revenue-raising scheme design features would include:

▲ wide geographical and temporal coverage to minimise chance of traffic diverting

▲ charges lower, as political pressure is not to change driver behaviour

▲ equity issues – charging mechanisms too crude to pick up all trips in urban area.
Try to illustrate your answer with some examples.

Study Guide 4: Policy Tools – Regulatory and Promotional

Introduction

This is the fourth and final study guide of the Transport Policy Module and covers:

Policy tools – regulatory and promotional
In the first of the four units (Unit 12) we will look at the way in which land-use planning relates to transport and how it can impact upon the demand for transport. A key theme of the government's transport policy is the need to integrate land-use planning with transport. Then in Unit 13 we look at the whole armoury of measures that are available to the traffic and transport engineers to manage traffic and to encourage people to use their cars in a sustainable way. In Unit 14 we look at ways in which walking and cycling can be promoted as part of a sustainable transport strategy. Finally, in Unit 15 we draw together all the strands of this module by looking at the way in which we formulate a transport strategy for an area. We look in particular at the development of a strategy for an urban area but the basic approach is the same for rural areas and to that now being developed for multi-modal corridor studies. We will look at this in the context of the barriers to implementation that we have identified in previous Units, and if/how these can be overcome. In this final unit we also look at the preparation and implementation of Local Transport Plans (or Strategies in Scotland).

When you have finished Unit 15, you will have completed the module. I hope you will have found it interesting and challenging. Good Luck in your exams.

How to use this study guide

This study guide is exactly what the name implies – it is to guide you through the study of this module. For this particular module – Transport Policy – there are 4 study guides in all, covering 15 separate units. It should take you about 130 hours to work through this module. But that is not the time taken just to read it, it also includes the time taken to read the recommended supporting texts like *A New Deal for Transport?*. It also assumes that you will want to make your own notes as you go through and allows time for you to complete all the activities included within the text.

Signposts and activities

As you work your way through this study guide you will come across a variety of signposts. These are used to flag up particular activities that you will need to do.

◣ Activity

This is where I will ask you to undertake a specific activity, usually at several points during a unit. Activities may include retrieving information or finding out facts yourself. This is something only you can do and so there are no set answers to activities in the study material, although your course tutors will be able to give some suggestions to you.

◣ Assignment

As part of the assessment for this module, an assignment is included. This will enable you to add breadth or depth to the knowledge acquired during your study of the module.

◣ Case study

I have included case studies at appropriate points throughout the module to illustrate the application of some of the policy tools discussed.

◣ Learning outcome

Learning Outcomes list the expected results which you should be able to achieve after studying the module and each specific unit.

◣ Recommended reading

Whilst the study guides cover all aspects of this module, your understanding of transport policy issues will be considerably enhanced by reading widely from the reading list. However, the recommended reading items are musts.

◣ Self assessment questions

These are particularly useful activities, providing you with an opportunity to apply your new knowledge and compare your answer with those provided in the study material (at the back of each study guide). Don't be tempted to skip these or look up the answers without first attempting the question. They have been designed to help you progress through the course and you may find it more difficult in the long run if you have not given yourself the opportunity to apply your knowledge and test your understanding. You will find the answer will often provide an explanation which will help you to understand where your response may be wrong. Space has been left in the text for you to insert your answer. This can be a very useful aid to revision in the future.

� Summary

A summary will be provided at the end of each unit. This will cover the main points and allow you to check whether you are conversant with all the topics covered.

◣ WWW search

At particular points during the text, reference will be made to information which can be accessed through the World Wide Web (WWW). Please bear in mind that the accuracy of some of this information can be questionable, so always check it against reliable sources and try and verify it. It is, however, a useful way to access publications and information from government and other transport specialists; and to access the views of lobby groups on particular transport issues.

Unit 12: Land-use planning and transport demand

SEMESTER 1 2008 STUDENTS PLEASE NOTE: THIS UNIT IS STILL TO BE UPDATED. AN UPDATED VERSION WILL BE SENT TO YOU EARLY IN THE SEMESTER.

Introduction

In Units 3, 4 and 5, we looked in some detail at the organisations and legislation involved in administering, planning and providing public transport in Britain. In this unit, we shall look at the processes whereby the demand for transport is influenced by the uses to which land is put, and the extent to which transport problems can be alleviated when land-use changes are being considered.
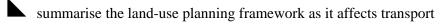
In this context, it's worth remembering that for only a few people is transport actually an enjoyable end in itself – riding on the steam train from Fort William to Mallaig, maybe. For most of us, most of the time, it is the necessary process to get us from where we are (home, perhaps) to where we want, or need, to be (work?). We want the transport, whether public or private, to move us as quickly, as easily, and as cheaply as possible from one to another, and do not, usually, mind too much about the effects on other people.

You, especially as you are studying transport policy and thus have an interest in transport, may feel that this is an unduly cynical view. Perhaps you're right, and I am being deliberately provocative, but read the comments in the press made whenever any restrictions on travel or planning are proposed.

◣ Learning outcomes

Once you have worked your way through this unit, including the self assessment questions, you should be able to:

◣ summarise the land-use planning framework as it affects transport

◣ identify the land-use forms that support sustainable transport

◣ understand what transport and land use planners have to do if land use is to be used to reduce the need to travel, especially by car.

A bit of reading…

Before we start, it would be well worth having a quick read over Unit 4, including any notes you made. This explains the legislation which governs the planning process, and is so fundamental to the material that follows that you really must be *'au fait'* with it.

What should land use planning be trying to do in order to reduce the need to travel, especially by car?

Land use planning policy in the UK for the past 14 years at least has had as one of its key objectives the idea that the planning of new land uses can reduce how far, and influence how, people travel. But what does this mean in practice? The EU project MAX (www.max-success.eu) puts it as follows (WP D WS Analysis 1 report, 2008):

Transport or spatial planners, when considering the LUP system as a means for the achievement of sustainable transport, look to it to produce urban structures that reduce the need to travel, especially by car, and provide better conditions for sustainable transport modes (public transport, nonmotorized modes). The literature shows that there are a number of recognised ways that it is thought that such an objective can be brought about, and modelling (in projects such as SCATTER – see WP D State of the Art report) and some empirical examples such as the development of the City of Copenhagen have shown that this can indeed be the case. Key amongst these are the following:

- A poly-centric urban structure where basic needs can be accessed in local centres, with easy access by public transport and cycling to other higher-order centres.

- Medium and high land use densities with a mix of different uses rather than rigidly separating these uses since, if they are separate, people must travel further to access them.

- Development, especially the kind of development that generates lots of trips (e.g. offices, shops – but also housing) should be concentrated at nodes and along the corridors of the public transport network or at the very least in places that have the potential to become public transport nodes. These areas (nodes and corridors) should be identified in strategic and local plans, possibly by the use of accessibility measurement. Thresholds of (public transport) accessibility could then be set, such that certain types of development are discouraged or not permitted in areas where accessibility levels are below the threshold.

- Re-use of brownfield sites rather than permitting new development on green field sites, as the latter course of action adds to less sustainable urban sprawl.

- When new development is planned, its transport impacts should be assessed and its location should take into account its transport needs. If the transport impacts of the

development are predicted to be too large in the chosen location then a different location may need to be selected.

- Parking standards that limit the amount of off-street parking required to be provided with new developments in order to new parking to restrain car use to and from new developments.

- Implementing measures (called travel plans in the UK) to reduce car use to and at new developments.

For their implementation to be most effective, all the mechanisms above should be supported by their explicit inclusion in policy documents from all levels of government that are involved in the LUP process. However, as shown by other sections of this report, it is still sometimes possible for LUP to effectively support sustainable transport objectives at the local level, even if the national is less supportive – Amsterdam and Munich are examples of this.

In addition, institutionally and organisationally, if planning and transport are to be better integrated, it may be necessary to make organisational changes to ensure that transport planners and land use planners work together more closely, and to ensure that land use planners know what transport planners are trying to achieve. This can be the case even if they already work for the same organisation, as they are still likely to be working in different sections/departments with different points of view.

The degree of cooperation is best measured by the division of powers in the preparation of joint strategies. Two extremes of cooperation between departments relevant for sustainable transport can be identified:

- no cooperation: informing other departments only when a draft policy, plan or programme has been submitted to the city council or parliament;

- full cooperation: defining joint visions of the future, leading to joint actions, formulated in strategies, which are jointly initiated and subscribed to by the involved departments.

In between these extremes lies the procedure of informing other departments at an early stage and commenting on draft papers on an ad hoc basis at low level, high level or ad hoc joint task group level, or informing working groups at low or high level in the administration (EEA, 2001).

Supporting measures
To support these land use measures and policies, complementary transport policies are necessary. If cities, regions and/or countries do not have a clear objective to achieve sustainable transport, mobility management (MM) is not on their agenda and consequently the same goes for integration of transport with LUP and MM. For example, it may be necessary to strengthen nodes and/or create new corridors in the public transport system by opening new routes and lines, or increasing service frequencies. Improved cycling and walking

environments are necessary if the physical proximity of homes and other activities, brought about through the LUP system, is to result in greater levels of walking and cycling. In certain countries (e.g. the UK and Ireland) it is possible for the public sector to make agreements with and/or impose conditions on new developments such that developers pay the cost of all or some of the transport system improvements that are associated with the development. Parking policy is one of the most important supporting measures as it has a key influence over how people travel.

The projects in the LUTR cluster [of EU projects – see www.lutr.net) also recognised that land use planning alone is a slow-acting measure that, on its own, is likely to have relatively small impacts on people's travel behaviour – especially as real incomes rise, since this makes physical proximity a less important factor in people's choice of destination. Therefore, the projects identified that it is important to support the integration of transport and planning with measures that influence the real cost of travel, making car travel more expensive, and/or alternative modes cheaper.

Key legislation

There is, as you will readily appreciate, a huge amount of legislation relating to planning. In this first part, I'm going to try to separate out those parts that are of relevance to this topic and those which are not, or only have a minor impact on transport. Let's, to coin a phrase, start at the top.

European
The main impact of European legislation has been to move towards harmonising legislation in the member states. This has political dimensions (especially in Britain with its island status), and can be controversial, as the debate over the Euro single currency demonstrates all too vividly!

The application of European policy has been influenced by the availability of structural funds for some transport infrastructure, especially that proposed in more remote and/or disadvantaged areas. Among others, Strathclyde, Merseyside, the Western Isles, and (especially) the Irish Republic have had large injections of funds in recent years for specific projects. The availability of up to 50% funding has certainly influenced the choices of schemes for implementation.

Initially much of the funding went into highway schemes, but more recently there has been a presumption in European funding against road schemes other than those essential for access to specific sites and in favour of public transport. The current round of major funds for use in Britain may well be the last. The addition, with reunification, of East Germany and the likely joining in the fairly near future of other former 'Iron Curtain' countries, together with the amount of past investment made in Britain, means that general large-scale funding from Europe is (in my personal opinion) unlikely to feature extensively in years to come. The best

that can be hoped for are specific projects, such as the Trans-European Networks, and a limited number of more local projects.

European legislation (Directives) aimed at harmonizing regulations across the EU in the Commission's ongoing quest to create the Single Market have an increasing effect on the regulation and operation of transport in this country. Legislation on maximum working hours, for example, has significant implications for the costs of public transport operations and freight haulage. Proposed legislation on contracting out public transport services will not be of great relevance in this country, as we have in the main gone far beyond what is required; but it is having major effects on the structure, operation and financing of public transport in other member states such as Spain, Germany, Belgium, the Netherlands and Italy. The Commission is also competent to legislate on vehicle standards (for example, how good a car is at killing any pedestrian that it may hit), and is negotiating a greater role for itself in setting speed limits and other road law, particularly as it affects freight transport. We are likely to see a further role for the EU in making legislation that affects the operation of our transport system; how we as citizens are supposed to have any democratic control over the unelected bureaucrats who initiate these laws is an interesting issue, but one that lies outwith the scope of this module.

Planning in Britain

In Unit 4 I explained the basis of the planning legislation and responsibilities, and how the detail varied in England, Scotland, Wales and Northern Ireland. Whilst there are detailed differences, the thrust is the same for all the United Kingdom at present, though there is scope for greater variation in the future with the Scottish Parliament and Welsh Assembly now in being.

To set the scene, I'll now run through the basis again.

National

Government now uses three main types of publication to promulgate the policies to be adopted in planning and transport.

▶ **National Planning Policy** (NPPs, in Scotland) (Planning Policy Guidance (PPGs) in England and Wales) provide statements of government policy on nationally important land use and other planning matters, supported where appropriate by a locational framework. See http://www.communities.gov.uk/index.asp?id=1143926 and http://www.scotland.gov.uk/Topics/Planning/PolicyLegislation/Policy

▶ **Circulars**, which also provide statements of government policy, contain guidance on policy implementation through legislative or procedural change. See for example http://www.scotland.gov.uk/Topics/Planning/PolicyLegislation/Circulars

▶

Planning Advice Notes (PANs, in Scotland) provide advice on good practice and other relevant information. http://www.scotland.gov.uk/Topics/Planning/AdviceGuidance/PANs

Statements of government policy contained in NPPs (PPGs) and circulars may, so far as is relevant, be material considerations to be taken into account in development plan preparation and development control. Putting it another way, it is important to comply with them when producing a plan (RSS or LDF), or when making a planning decision – or to explain why you have made the decision *not* to comply with them in this particular case. They are not law, but they have to be taken into account.

As outlined in Units 3 and 4, the planning system in the UK has undergone some recent changes and in particular is moving from one of structure plans and local plans to Regional Spatial Strategies and Local Development Frameworks. This intended to make the planning system less unwieldy and more responsive to local needs. So, in the example given below, for Structure Plan now read Regional Spatial Strategy; and for Local Plan read Local Development Framework.

A brief overview of the planning process

The planning process in Britain is, in its essential features, the same whether it is for a small extension to a private house or for a large out-of-town shopping centre. The actual detailed processes, of course, are very different! To set the scene for the discussions which follow, I'll give a quick summary of the main points. This is **only** a summary; for a more detailed explanation, you should refer to one of numerous textbooks, such Davies' *Planning Control in Western Europe*[69] on this subject.

Everywhere in Britain has, at present, a Structure Plan (which sets out the general intentions of the regional planning authority on the anticipated land use for each location) and a Local Plan, which gives more detail. For example if a housing development was envisaged, it would be expected that the land would have been 'zoned' by the planning authority for housing. This does not, of course, mean that there are already houses on the site; it may a former industrial site (often called 'brownfield') or agricultural farm land (called 'greenfield').

The first stage is, normally, to check that the **principle** of the development is acceptable. Obtaining the necessary consent is usually achieved by means of **Outline Planning Permission**. Acceptance does not grant permission to build anything, but is usually done when there is liable to be a dispute between the developer and the planning authority over the proposals. An example of this is the frequent attempts by the national housebuilders to construct new houses on agricultural land, often in the Green Belt, as houses there are more popular with families than inner-city properties.

---

[69] H W E Davies (1989) *Planning Control in Western Europe* (HMSO, London)

For large developments, obtaining Outline Planning Permission can be a lengthy and expensive task. The developer will have to demonstrate that all the numerous relevant public bodies, such as Water Supply, Drainage and Sewerage and Roads, have been consulted. In the case of Roads, a large development will usually require a Traffic (nowadays usually called Transport) Impact Appraisal (TIA), whereby the developer demonstrates the level of traffic generated by the development and the extent to which the surrounding highway network (with or without improvements) can cope. Later in this unit you will find more about TIAs in the section on transport assessments.

If the Outline Planning Permission is turned down by the planning authority, it is possible to appeal to a higher level; this is usually the appropriate Secretary of State, but is now the First Minister in Scotland. A Planning Inquiry, chaired by an Inspector appointed by the government takes place; all concerned parties can make their case at this inquiry, although the proceedings nowadays tend to be dominated by high-powered teams of (very expensive) lawyers. The Inspector then makes a report to the Secretary of State, who decides whether or not to grant the planning permission sought. It is important to note that the Secretary of State is not obliged to follow the Inspector's recommendation, but can (and sometimes does) place more weight on other considerations.

Once Outline Planning Permission has been obtained, the developer will usually proceed to seeking Detailed Planning Permission. As the term implies, this covers everything down to the finest details, including landscaping. Sometimes, especially for smaller developments, both stages of Planning Permission are done at once as this speeds up the application timescale. However it does run the risk of a large amount of abortive work if the principle of the development is not accepted.

Davies' book contains a useful chart summarising the development control process, and this is reproduced as Appendix 13.1.[70]

As has been indicated above, there is a very wide range of possible developments that are subject to Planning Permission – more formally development control – by the local Planning Authority. Appendix 13.2,[71] also reproduced from Davies' book, gives five examples of development control in practice, identifying various consultations, the matters to be taken into consideration, and so on.

Transport and planning guidance

You will recall that in Unit 6 we looked at the way in which Planning Guidance had changed significantly in the early part of the 1990s. The publication of PPG 13 by the Department of the Environment in 1994 was a watershed, as was its update in 2001. The Scottish equivalent, NPP 17, is the Scottish version of this and is the government's most recent policy statement

---

[70] Appendix 13.1 will be found at the end of Unit 13

[71] Appendix 13.2 will be found at the end of Unit 13

on transport and planning.[72] As it was quite a radical change from previous policies in a number of areas, I feel that you'd find it useful to have a read of it before I discuss the principal issues it raises. It is also of great value in that it gives cross references to a very large number of other government documents on specific topics. Some of these might at first sight appear somewhat arcane, but you will find them invaluable if (or when) you come across the particular circumstances in 'real life'. It would also be of great value if you read the 2001 version of PPG13 available at http://www.communities.gov.uk/index.asp?id=1144014.

---

[72] The Scottish Office (April 1999) *Transport and Planning*, NPPG 17 (TSO, London)

Policy context

National policies have undergone a radical revision following the election of the New Labour government in May 1997. The government started with a commitment to putting sustainable development at the heart of policy making but, as we have seen, this has perhaps changed somewhat with regard to transport policy. Integrated transport policy means that considerations of transport, land use, economic development and the environment should take place together, rather than letting one predominate with the rest having to fit in as best they could (so-called 'joined-up thinking'). To date (2003), the use of land-use policy to reduce the need to travel appears to be a policy that has remained broadly intact, perhaps because it is now the responsibility of the ODPM, and it was the Deputy Prime Minister who was always more committed to sustainable transport than many of his colleagues. A 2006 review of the planning system, and the demise of the Deputy Prime Minister, may change this situation.

In reading what follows, do keep in mind the changes that are required in comparison with the earlier planning guidance. It is in this field, if you'll forgive the pun, that the government's changed policies will have perhaps the greatest effect as the duty on planners moves from little more than making the environment and transport fit in to the development to an approach where all aspects must be considered together.

It is the aim of government to promote an integrated approach based on a set of objectives.

▰ To meet commitments on greenhouse gases and air quality.

▰ To enhance the quality of urban life, especially the viability and vitality of town centres.

▰ To reinforce the rural economy and way of life.

▰ To maintain and enhance both the natural and built environment, restricting adverse impacts.

▰ To support sustainable economic development within a pattern of land use and transport that reduces dependency on the car and promotes a genuine choice of mode with more use of walking, cycling and public transport.

▰ To ensure that the impact of developments on transport networks does not compromise safety or efficiency.

The government feels that land-use planning can contribute to these broad policy objectives for integrated transport and land-use planning through:

▰ reducing the need to travel by regulating the pattern of land uses in relation both to each other and to transport facilities

▰ enabling people to access local facilities by short walking or cycling trips

▰

       supporting high-quality public-transport access to developments so that public transport is more attractive than car use

▰ supporting the management of motorised travel to enable it to undertake its essential role effectively, but otherwise to contribute to sustainable transport objectives.

Transport and the environment
The government sees the protection of the environment as a key requirement at the heart of its planning and transport policy. The protection is more than just pollution; it includes climate change and air quality, noise and water quality, and drainage, as well as impacts on the landscape, countryside and the built heritage. There are a number of other NPPs and PAN documents dealing with specific aspects; you'll find references to them in the text of NPP 17.

Transport and the economy
The essential role of transport, especially in a country like Scotland where the physical distribution of the population is wide, is acknowledged.

Transport and society
Notwithstanding the huge growth in car ownership, only 62% of households in Scotland had the use of a car in 2001. For the 38% of households, and other household members without access to a car, essential requirements beyond very local travel are :

▰ good quality, safe, and reliable public transport

▰ between the right points

▰ at the right times

▰ at an affordable cost.

If any of these is missing, the risk of social exclusion becomes severe. Planning can play a significant role in influencing the location of development in relation to social exclusion.

NPP17 and PPG13: response required by local authorities

The government, in NPP 17, is quite specific on the nature and content of plans required to meet its requirements. They state that Development Plans and Local Transport Strategies must complement and reinforce one another, with the former providing the opportunity for examining the relationships between transport and land-use planning, promoting integration and ensuring a contribution towards the need to reduce travel.

There are eleven specific duties laid down for planning authorities in this respect.

▲ **Partnership**: Work in close partnership with other authority departments, public-transport operators and users, road hauliers, the trunk-roads authority, local businesses, walking and cycling groups and local communities. In effect, that's everyone! As with other policy areas and statements from this government, the key word is Partnership.

▲ **Disabled**: Consult with, and take on board, the needs of disabled people.

▲ **Co-ordination**: Make sure the objectives for land use, transport and the environment fit together.

▲ **Air quality**: Have regard to air-quality objectives, targets to reduce road traffic and safety issues for all users.

▲ **Integration**: Make sure that new developments fit in with existing built-up areas, with existing or planned transport infrastructure (especially walking, cycling and public transport), and with public-transport services.

▲ **Linkage**: Plan developments so that related land uses are close together to reduce the overall amount of travel.

▲ **Green links**: Establish green routes, protect and enhance green spaces and footpaths, to provide car-free recreation.

▲ **Traffic impact**: Take account of the impact of traffic demand from the new development on the surrounding area

▲ **Trunk roads**: Try to ensure that trunk roads and major through routes do not have their strategic function, especially in urban areas, diluted by large numbers of short local trips serving the new development.

▲ **Waterways**: Maximise the use made of waterways, including as an agent of regeneration and for leisure and tourism purposes.

▲ **Infrastructure**: Where new transport infrastructure is justified, design it to maximise the benefits to walking, cycling and public transport, and safeguard it for the future.

So far as the transport elements of land-use planning are concerned, I suggest that the following are the key issues that will need to be addressed when considering NPP 17 or PPG 13.

Amenity

▰ Site characteristics – topography, landscape, archaeological features.

▰ Design / visual quality – style, relationship with surroundings.

▰ Physical impact – daylight, noise, privacy.

▰ Operational effects on amenity – hours of operation, litter, construction phase.

▰ Relationship to surroundings – historic buildings, impact on amenity landscape.

Arrangement

▰ On-site layout – roads, parking layout and capacity, open space.

▰ Off-site relationships – incompatible and related uses, transport accessibility.

Efficiency

▰ Use of resources.

▰ Conditions of vacant land / buildings.

▰ Loss of agricultural land.

Strategic and other planning considerations

▰ Co-ordination – phasing, interim measures.

▰ Distribution and location – loss of existing land use, employment generation.

What does this all mean in practice?

The thrust of PPG13 and SPP17 is that, in making their development plans, local authorities should choose sites for high trip generating uses (retail, employment and leisure) that minimise the need to travel by car and maximise accessibility by alternative modes. Local authorities should also change supplementary planning guidance in local plans so that they seek to reduce parking provision in all new development, and increase the density and mix of development. The former is intended to reduce car use, and the latter to reduce the need to travel, and travel distances, by all modes.

In development control decisions, SPP17 and PPG13 mean that local authorities should seek to secure developments that are in locations that are easily accessible by alternative modes

and that have reduced parking for cars. Local authorities should also seek developer contributions to improvements to nearby public transport services and infrastructure (e.g. new stops, bus lanes, bus shelters) and for walking and cycling. At the micro level, it also means that sites should be designed in such a way as to make them at least as convenient to access by alternative modes as by car – this would mean, for example, keeping store entrances close to main roads, not at the back of a car park; and making sites permeable to pedestrians, with entrances on as many sides as possible.

There are of course lots of reasons why local authorities may not be able to do this – the most important being that they are not inundated with development proposals and so cannot afford to "scare off" development that could bring jobs by insisting on what might seem to the developer and to many local councillors un-necessary conditions relating to sustainable transport.

It is also important to remember that the 2001 version of PPG13 included, for the first time, national maximum parking standards for new development. These are not binding on local authorities or developers, but they become a material consideration in a planning decision, which means that there would have to be very good reasons to exceed them. This is important, in that many local authorities had previously felt that it was impossible for them to have restraint-based parking standards if other neighbouring authorities did not – they felt that the only effect would be to drive most development to the areas with more generous parking standards. As we saw in Unit 11, this is not always the case – there are other more important reasons that draw development to particular areas – but is a powerful argument which has been neutralized, to some extent at least, by the publication of national parking maxima. In Scotland, too, there are now national maximum parking standards – an addition to SPP17 – which play the same role.

◣ Case study – planning process for a new supermarket

To give an illustration of the process using a realistic example, let's look at the stages involved in handling an application to construct a new local supermarket, or convenience retail development in the jargon! Let's say that it is proposed that it should have 700 square metres of gross retail floorspace, and that you are acting for the local planning authority. As it happens, as I write this there is just such a proposal on the go in Helensburgh, where I live, but I'd stress that this one is purely hypothetical.

You need to be clear on the basic planning and development procedures and, under the new planning legislation, assess how NPP 17 (or PPG 13 in England) type guidance would impact on the planning considerations associated with the application.

1. Outline application
This must include enough information to establish the principle of the development – size, anticipated use and location. An outline application may be useful where the promoter does not wish to buy the land or commit himself to the cost of the detailed design until the principle of the development has been accepted. Outline permission could be granted with conditions relating to, for instance, siting, appearance, landscaping and access arrangements.

2. Pre-application discussions
These will usually be informal, aiming to establish the likelihood of permission being granted and what conditions might be attached.

3. Negotiations with other organisations
This will concern the traffic consequences, the availability of other sites, the site quality and the need for the proposal.

4. Planning considerations
The development would normally be permitted where there is no detriment to existing business in the vicinity, where the length of shopping trips is reduced, where there is less need to use cars for access thereby reducing congestion and where there is no loss of residential amenity. Not many shopping developments come into this category!

It would be favoured if it serves to improve the environmental quality by virtue of its design and layout, if it provides consumer benefits in terms of choice, quality and convenience, and if it is consistent with the adopted Local Plan and consistent with adjoining land uses, with adequate parking provision.

5. Application, registration and advertisement
For outline permission, it should be advertised if it is a departure from the Local Plan, and the government department should be notified as they may wish to 'call in' the application to determine it directly.

6. Consultation
The local community council, highways authority, and gas water and drainage companies need to have their views sought; they must reply within 28 days. This can give rise to lengthy negotiations unless there is agreement reached at the pre-application stage. The consultations are intended to enable any problems caused to the 'statutory undertakers' to be clarified in good time.

7. Policy guidance
It will be necessary to consult all the existing development plans (which have, since 1992, had enhanced status) and other aspects of national policy and precedent.

8. Analysis: planning officer's report and recommendation
This must be based on the adopted development plan and other material considerations; these could be about strategic planning, location, phasing and servicing arrangements, plus amenity consequences (including 'Green Belt' issues).

9. Planning committee decision
The local authority is required, in normal cases, to give a decision within eight weeks. Options open to the Committee include granting the application with or without specific detailed conditions and outright rejection. Reasons must be given for any rejection or conditions imposed; these can be the subject of a subsequent appeal. Agreements reached for extra facilities (planning gain) are not normally part of the planning permission.

10. Issue decision notice

Any conditions must be spelt out in the formal decision notice. These could include road accesses, landscaping requirements and the care to be taken of any archaeological features on the site. There will often be some reserved matters relating to details still to be settled at the time of the application such as exterior finishes and the exact layout. The planning agreements will, for example, require the developer to donate some land for a new junction with the existing road network.

So much for the traditional type of planning permission process. As I have, I hope, made clear in this unit, the government does not accept that the old ways are good enough, and are concerned that too many large planning applications have been granted with insufficient thought being given to the wider consequences. It is the new NPP 17 and PPG 13 which will amend the thinking process.

▲ **Recommended reading**

Okay, so those are the essential elements of NPP 17 and PPG13. Now read them for yourself.

Then I want you to read the Chapter by Headicar in *Future Transport Choices* (hine book.pdf on the student webserver) that deals with land use planning.

▲ **Self assessment question 13.1**

Having read and digested all that I would now like you to consider the following questions

13.1 An outline application, for a new housing development for 325 houses on 15 hectares of farm land on the edge of the town, that has been received by the planning authority. What are the basic planning procedures associated with the application? How would SPP17 (PPG13) impact the planning considerations, if you are an authority in Surrey or Edinburgh (economically buoyant south east England/Scotland); compared with Stockton-on-Tees or Stonehaven (more economically depressed north east England/Scotland)?

Development plans

So how does this guidance affect development planning in practice? Let's look at the two main levels of development planning in turn. In thinking about this, you will want to be aware of the changes that have occurred following the Planning and Compensation Act 1991, which has resulted in enhanced status for the development plan.

Structure plans
Note that Structure Plans are now being superseded by Regional Spatial Strategies (see Unit 4). The government has given a specific instruction[73] that existing policies and proposals in Structure Plans be reviewed to ensure that they are consistent with NPP 17. It is clearly stated that Structure Plans should include measures designed to contribute towards reducing the need to travel, especially by car, and to increase the choice of mode available, and relating to the following:

▲ Planning general housing, employment, education, retail, leisure and other land uses and developments to fulfil the objectives of this (and other) NPPs.

▲

---

[73] Scottish Office Development Department (1999) SPP17, *Transport and Planning*, (Scottish Office) paragraph 73

A land use and transportation strategy that takes into count the nature, scale and design of infrastructure and has regard for the environment. It must also include appropriate public transport and green transport facilities (in the widest sense), and look to reallocate road space to other modes and safeguard disused transport routes.

▶ Strategic consideration of management measures complementing the strategy and covering parking, traffic management and traffic calming.

▶ Case study – west of Stevenage development (Hertfordshire County Council Structure Plan Review)

When reviewing its Structure Plan in the late 1990s Hertfordshire had to consider how it accommodated its share of the demand for new housing in the south-east, whilst still minimising the demand for travel, particularly travel by car. Hertfordshire does not have one dominant county town and its proximity to London means that much of the additional housing required was not necessarily to cater for natural growth of the existing communities. Consequently, spreading the allocation of additional housing evenly among all the existing communities was not the only option to be considered.

After considerable investigation into alternative strategies, the council opted for a concentration of housing development to the west of Stevenage. Stevenage is a post-war new town and a significant employment centre within Hertfordshire. The current western boundary of the town is constrained by the East Coast Main Line (railway) and the A1(M). The proposed development will have excellent access to:

▶ the town centre (employment and shopping)

▶ the railway station and bus station (for longer distance commuting)

▶ the main employment, industrial and commercial centres.

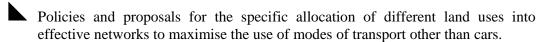There will not, however, be direct access by car to the A1(M) or the surrounding countryside.

The proposals met with considerable opposition, particularly from Green Belt and countryside groups. However, the transport sustainability arguments won the day.

Included with the papers at the back of the unit you will find some background material[74] that was presented to the Structure Plan Examination in Public. I am most grateful to Hertfordshire County Council for their permission to use this material as an example of good land-use transportation planning.

---

[74] 'Land West of Stevenage – Transportation Impact and Requirements' paper prepared for examination in public, Hertfordshire County Council, undated

Local plans

Note that Local Plans are now being superseded by slightly less prescriptive Local Development Frameworks (see Unit 4). Local Plans are essentially the detailed application in specific places of the policies set out in the relevant Structure Plan. Nonetheless, the government now look to Local Plans (and in future LDFs) to set out the following:

▶ Policies and proposals for the specific allocation of different land uses into effective networks to maximise the use of modes of transport other than cars.

▶ Land-use policies to improve air quality.

▶ Designation of 'through routes' along which development will be resisted.

▶ Identification of sites for locating, or relocating, freight activities alongside rail routes.

▶ Proposals for access to ports and airports, including by public transport and related facilities.

▶ Proposals for infrastructure, either as part of a development or as an improvement to the existing network, to encourage the use of walking, cycling and the use of public transport.

▶ Proposals for the improvement of local roads and other transport infrastructure to accommodate developments put forward in the plan.

▶ A review of previously safeguarded routes in the Structure Plan with the objective of removing the blight caused by schemes unlikely to be progressed.

▶ An appraisal of the effects of road and other construction, taking into account all aspects of the environment (and demonstrating that less damaging options have been fully examined) and showing how any adverse effects would be mitigated.

▶ The retention and safeguarding of existing linear routes such as canals and disused railway solums for use by pedestrians and cyclists.

▶ Compatibility of standards for road construction and planning.

▶ Detailed arrangements for traffic and parking management, public-transport priorities and park-and-ride, and safe and secure provision for walking and cycling in support of the land-use policies.

◤ Case study – Edinburgh car-free housing zones

One of the ways of reducing dependency on cars is to plan housing developments that give ready access to jobs and services by other means. Nonetheless, even assuming that the majority of our needs can be met without a car, occasionally it can be a more convenient way of making a journey. To get around these problems a number of cities have been experimenting with car-free housing zones, which sometimes include access to a community car sharing club as part of the development. Experience with such a development in Edinburgh has shown that it is essential that it should be located in an area with a controlled residents' parking zone, as it is impractical to include a condition in title deeds or tenancy agreements that residents within the development should not own a car. Consequently, the only way to ensure that they do not bring one into the area is to ensure that they cannot buy a resident's parking permit.

Development Control
Development Control – more informally known as Planning Permission – requires that decisions are taken in line with the development plan unless material considerations indicate otherwise. The government states that the provisions of this NPP is such a material consideration; this implies that the NPP takes immediate effect, and there is no requirement to await the revision of the development plan.

Topic-specific NPPs

There are a number of further NPPs which relate to specific planning topics. All of these do, naturally, have a transport implication, and you should be sure that you check in them for policy statements if you are working in that area.

Some of those that you are, perhaps, most likely to come across are those for housing,[75] retailing,[76] and business and industry.[77]

---

[75] Scottish Office Development Department *Land for Housing*, NPPG 3 (Scottish Office) 1996

[76] Scottish Office Development Department *Town Centres and Retailing*, NPPG 8 (Scottish Office) October 1998

[77] Scottish Office Development Department *Business and Industry*, NPPG 2 (Scottish Office) 1993

NPPs and PANs

The NPP series give **Statements of Government Policy** and thus should always be followed unless there is a strong case for a different approach. It is unlikely that a deviation from NPP 17 will be accepted by the government without strong reasons. The PAN series, however, offer **Advice on Good Practice**; while you will, probably, usually follow the leads put forward there, it is open to the planner to propose a different solution if special circumstances warrant it.

Do also remember that government policy is evolving as I write this in October 1999. It may be, by the time that you're reading it, that further policy statements will have been made. I've said it before in other units, and will no doubt say it again, but there is no substitute to a programme of reading the trade press. It is certain that anything of significance will be reported in journals such as *Local Transport Today,*[78] and I would recommend that you ensure you see at least one of this type. There are, of course, many others, and I would commend you to at least have a quick look at as many as you can.

PAN 57 – transport and planning

The Planning Advice Note offers suggestions for good practice 'on measures planning authorities may consider in fulfilling their integrated land use and transport responsibilities in a sustainable manner'.   See http://www.scotland.gov.uk/consultations/planning/pan57-00.asp

And if that's not a hint, I don't know what is!

Policy approach
In considering proposals, the developer and planning authority will need to consider the following:

- Transport assessment – what effect might the proposal have on traffic?

- Local transport impacts – how might they affect the existing situation, including during construction?

- Developer contributions – how much should the developer contribute to the transport expenditure?

- Green transport plans – how sustainable is the development?

In looking at these aspects, the planning authority will consider all aspects of the transport requirements. These include:

- Non-motorised modes of travel – pedestrians, cyclists, the disabled and access routes to schools. As an aside, in many areas it is the 'school run' that is the most

---

[78] Scottish Office Development Department *Local Transport Today* is available by subscription; telephone 020 7582 6626

significant source of traffic congestion as greater numbers of children are taken to school by car (nearly 20% of primary pupils).

▲ Public transport – including the scope for park-and-ride schemes (but, beware, park-and-ride is not a panacea for all ills; a recent research exercise[79] indicated that its benefits may be exaggerated).

▲ Managing motorised travel – covering traffic management, car parking, environmental effects, road layouts and not forgetting freight.

▲ Development control – as well as local issues, the effects on trunk roads require specific consultation.

▲ Recommended reading

I have been quite brief in my review of PAN 57, so it is essential that you read it for yourself.

▲ Self assessment question 12.3

Consider the issues involved in trying to obtain planning consent for an out of town shopping development.

By now you will be aware of the clear steer message that the government is giving to the planning side. You will, I am sure, also appreciate the changes from the more car-orientated policies that the previous Conservative government followed. I now want you to undertake a short role-playing exercise.

Imagine that you are a developer. You have seen the large out-of-town shopping centres, like Braehead that opened recently near Renfrew, and Cameron Toll on the south side of Edinburgh, and you feel that there is money to be made from another such development in your own area. Purely for the sake of this exercise, I stress, let's imagine that you have found a site close to the M8 between Glasgow and Edinburgh. There is, clearly, a large catchment area. Do you feel that you could develop a proposal that fits in with the government's policies? How would you address the conflicts? What 'sweeteners' might you need to include? Is it worth pursuing?

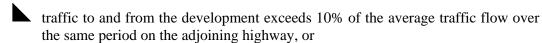*If you were instead to be promoting a housing development, how might your approach differ?*

---

[79] *Environmental Cost–Benefits of Bus-based Park-and-Ride Systems,* Research Report 1999/4, Transport Studies Unit, University College, London

What about a proposal that would lead, when completed, to a substantial number of additional jobs?

Transport assessments

The documents we have been reviewing all refer to the need to undertake Transport Assessment some times referred to as TIAs. Originally, TIA stood for Traffic Impact Assessment, but increasingly (in line with the emerging guidance) what local authorities ask for is a Transport Impact Assessment. Put simply, they are the calculations of the effects that a proposed development would be expected to have on the transport network in the vicinity, and thus the changes that would be required. It is not just highway trips, but includes public transport, walking and cycling, and they must take account of safety and environmental considerations, not just congestion.

While they will normally be produced by the developer in support of the application, they must be impartial, and cover both positive and negative aspects. The IHT has produced a guidance booklet,[80] which is a great help to those involved. However, it is important to recognise that this document was developed prior to the publication of PPG 13 and NPP 17 and its methodology still suffers a little from treating public transport as an afterthought. TIAs are, normally, only produced for larger development proposals, where:

◤ traffic to and from the development exceeds 10% of the average traffic flow over the same period on the adjoining highway, or

◤ traffic to and from the development exceeds 5% of the traffic flow on the adjoining highway, where congestion exists, or will exist, within the assessment period, or in other sensitive locations.

They will normally be undertaken as a matter of course for the largest developments, including those where:

◤ residential development exceeds 200 units

◤ business development with a Gross Floor Area (GFA) exceeding 5,000m^2

◤ warehousing with a GFA exceeding 10, 000m^2

◤ retail development with a GFA exceeding 1, 000m^2

◤ 100 trips in or out are expected in the peak hour, or

◤ 100 off-street parking spaces have a single access to the surrounding road network.

---

[80] Institution of Highways and Transportation (1994) *Guidelines on Traffic Impact Assessments* (IHT)

It is clearly prudent for there to be agreement between the developer and the planning authority on the scope of the TIA before it is undertaken. You will deal with this much more in Module BE71008 Highway Planning and Design.

Managing transport demand

The very substantial changes from the previous policies have generated a considerable amount of research into the scope for managing transport demand in the real world. I would like to conclude this unit by looking at two of them, both of which have been reported in *Traffic Engineering and Control* (TE&C) during 1999.

Using the land-use planning system

The first article is 'Managing transport demand in Scotland through the land-use planning system',[81]. The paper reports the results that the authors found from a survey they carried out into the attitudes of planning professionals. It is important to note that the paper was prepared before NPP 17 was published, but it was by then clear what approach the new government was pursuing.

Two specific questions were asked, both of which, it should be remembered, are in a Scottish context:

▰ To what extent does Scottish local-authority policy already emphasise the need to reduce travel through the planning system?

▰ What emphasis is given to travel reduction in comparison to other policy objectives of the planning system, and what impacts do the relative priorities have on planning decisions in practice?

It is noted that in Scotland, unlike England and Wales, it is the government (through the Secretary of State)[82] who approves, possibly after making modifications, the Structure Plans. Also it is noted that by May 1998 only 90% of the 236 Local Plans had been formally adopted.

Two questionnaire surveys were undertaken by the authors, in May and December 1997: 21 responses were received (out of 21) for the first survey, and 12 responses to the second, which was intended to monitor any changes in priorities. Respondents were asked to rank, on a scale of 1 to 5, the importance of specified topics.

In the first survey, the average rankings recorded were, for the average importance of the need to manage the demand for transport by:

[81] J Hine, T Rye and M Hulse (Napier University) (June 1999) 'Managing transport demand in Scotland through the land-use planning system' (TE&C)

[82] Since the establishment of the Scottish Parliament this power is now exercised by the Scottish Minister

▰ restraining the use of the car – 2.8

▰ promoting access by public transport – 3.3

▰ promoting access by cycle and foot – 2.8

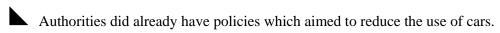showing the relative importance seen for public transport.

However further questions explored planning authorities views on the relative importance of car transport in comparison with other planning issues. The results are interesting, in that they show the management of car transport to be lower than all the other attributes:

▰ managing demand for motor transport – 2.7

▰ economic development – 4.5

▰ protection of the Green Belt – 2.8

▰ improving the physical landscape – 3.2

▰ providing housing land – 4.0

However in the second survey, six months later, half the respondents said that they now accorded the management of transport a higher priority, as they did for economic development.

There is a clear conflict between economic development and managing transport. The latter was seen as primarily an urban problem, though it seems that there, too, the former is often the most pressing demand. Thus managing traffic was rarely seen as the highest priority. There was also a degree of scepticism about whether the guidance from government (at that time in draft, remember) would be effective.

Overall, the responses to the two questions posed could be summarised as

▰ Authorities did already have policies which aimed to reduce the use of cars.

▰ Economic development is seen as the prime policy objective, with management of travel being regarded as less important. Promotion of public transport is, however, seen as a 'good thing'.

The reorganisation of local government in Scotland, and the associated abolition of the big regional authorities, has emphasised the competition between areas trying to secure investments, especially 'inward investment', to their areas. The extent of unemployment makes this approach hardly surprising. For instance (and I stress that I'm speaking hypothetically), it would be galling, to put it mildly, to North Lanarkshire Council if the area

were to lose an opportunity for new jobs on the Ravenscraig Steelworks site at Motherwell on car-usage grounds, the more so if this meant that the jobs went to another country.

There is a clear scope for conflict between the local economic objectives and the government's national transport objectives.

Public transport accessibility, parking standards and developer contributions
The second paper, with the title 'Encouraging sustainable development by linking public transport accessibility, parking standards, and developer contributions'[83] relates to practice in the High Wycombe area of Buckinghamshire, some 30 miles north-west of London on the 'M40 corridor'.

The situation in the London commuting area, of which this is a part, is one of intense pressure for new housing allied to much greater levels of congestion than we, mercifully, experience in Scotland. As the government's new 'sustainable transport' policies will perhaps bite sooner and harder there, it is instructive to look at the area to learn lessons for application in Scotland and in other parts of the UK.

In the Wycombe District Council area, the Local Plan was recently updated, and a methodology was adopted to satisfy the requirements of the new approach. High Wycombe itself has a population of around 90,000 with high car ownership; 80% of work trips from home are by car, in spite of a good, recently re-equipped rail route to London (Marylebone), with 3% by bus. Moreover, 18% of trips to the town centre are on foot or by cycle, with the latter being felt to be restricted by the local topography. There is a controlled parking zone and a proposal for a park-and-ride scheme for long-term parking on each of the approaches to the town. However this is not felt to be adequate, and thus further measures were necessary to support the overall strategy.

There are four strands to the evolving proposals:

1. **Current parking issues**
   The target change is to move away from a demand-led to a sustainable transport policy, and thus set clear guidelines for the stabilisation of (or reduction of) traffic growth. The key issues are seen to be town-centre development, a possible reduction in council control of the price of car parking, and suggested developments near the town's main railway station (which could also reduce the space for parking for commuters to London there).

2. **Public-transport accessibility**
   Several measures of public-transport accessibility were considered, and it was decided to adopt the TRICS (Trip Rate Information Computer System) catchment population approach. The existing public transport was modelled mathematically (using EMME/2) to deduce journey times on a zone-to-zone basis, with

---

[83] G Carson, M Dix, J Callaghan and R Slevin (July/August 1999) 'Encouraging sustainable development by linking public transport Accessibility, parking standards and developer contributions' (TE&C)

accessibility being grouped into one of five bands; 35 minutes of (generalised) travel time was judged to be the appropriate threshold of acceptability.

3. **New parking standards**
    The indications from the Transport White Paper are that future funding from government will require the adoption of policies to reduce car dependency. Thus it is intended to tighten the current standards, and adopt *maximum* rather than *minimum* provision as hitherto. The new standards will depend on the Public-transport Accessibility Index, and are modest reductions.

4. **Developer contributions**
    The level of Developer Contributions sought has been derived following the previous work on Public-transport Accessibility and Parking Standards. It is the intention that two-thirds of the shortfall in the current capital programme should be funded by new development in the Wycombe area. Using historical trends and the TRICS database, an estimate has been made of the daily traffic movements generate by new developments. It has been calculated that contributions from the developer equivalent of £210 for each daily trip are required. Developments with less than ten net movements a day, such as a single house, are excluded. Special arrangements are envisaged in the central area of High Wycombe, to take account of public spaces and park-and-ride schemes.

    It is intended that the contributions from developers will be secured through the planning-permission process. They will be held in an interest-earning account which will only be used for transport purposes, and the projects will be as close as possible to the area where they were collected. There is a fall-back provision that any contribution not used after ten years is returned to the developer. The mechanism will be reviewed annually to take account of changes to the public-transport network, the population and the strategies adopted in other areas.

◤ Self assessment question 12.4

Managing demand through the land use planning system and encouraging sustainable development.

Take at least an hour now to consider the ramifications of these two articles. Think about the different parts of Britain to which they refer – what does that tell you? How do you feel that the potential conflict between national transport strategy and local economic development strategy might be resolved? Do you feel that the High Wycombe experience could apply outside south-east England and other economically buoyant areas? Consider also the effect of maximum parking standards. Set out, in note form, your responses.

◤ Summary

In this unit, we have explored the government's new approach to linking land-use planning to transport demand. We have seen how there is a very strong desire to move away from the notion that transport provision, on a 'predict-and-provide' basis, followed after decisions had been made on the land-use development strategy. This is another manifestation of the clear intention to produce a series of **integrated** strategies in **partnership** with all the organisations involved. Those two key words occur again here, as they have (and will) in many other units of this course. We have looked in considerable detail at NPP 17, the policy statement for Transport and Planning produced by the government for use in Scotland. We moved on to consider the related guidance note PAN 57.

Finally we reviewed a couple of recent articles in the professional press. One was the results of an academic study seeking the views of practitioners in Scotland for their priorities within their areas, and suggesting that there may be some conflicts ahead. The other looked at a case study in High Wycombe, north-west of London, where a methodology for capturing contributions from developers has been proposed.

It is very important to be aware of the government's changes to the planning system, that have occurred in England, and will shortly do so in Scotland. We considered this in a previous Unit, but you should remember that it has led to:

The end of structure plans.
The end of local plans as they are currently written.
A much stronger role for regional planning guidance.
Simplified and reduced numbers of national planning guidance.
Revised methods of securing developer contributions to the cost of transport related to the development.

Keep an eye out for these changes.
In the next units (Units 13 and 14) we will look at the way in which traffic regulation and the promotion of green travel modes can influence our travel choices.

Unit 13: Smarter Choices

Introduction

There is growing evidence from psychology/social science that promotional campaigns, personalised travel plans where people are talked through their travel patterns and helped to consider ways to change, and other measures to make people more aware of the travel choices available to them, can have a significant impact on mode choice even when the time and money cost of modes remain unchanged, perhaps by overcoming the inertia in people's choice of mode (Cairns et al, 2004). Collectively in the UK these methods are called "Smarter Choices"; elsewhere in Europe they tend to be referred to as "mobility management" (see www.epommweb.org). In rhetoric, if not in funds devoted to them, they have taken an increasingly important place in UK (especially English) transport policy. This is because evaluations report, in cases such as the "Sustainable Travel Demonstration Town" in Darlington, England, reductions in car use of 10-15% (see www.dothelocalmotion.org.uk) so, especially in relation to their low cost, they seem highly effective. Also, since the whole concept is based on giving people a choice, rather than on difficult decisions such as charging people to use something that was previously free (road pricing), or alienating bus operators who might also be major donors to your political party[84], or reallocating road space away from certain groups of people towards others, Smarter Choices is highly politically attractive.

Rather than write a lot in this Unit about Smarter Choices, I have recommended some relevant reading. As you are reading the summaries of this material, consider the following questions:

1. What are the measures that are included within Smarter Choices? How are they supposed to work? How much do they cost? How do you put them into effect?

2. How effective are the measures at getting people out of their cars? Does this effect last over time?

3. What do we know about who uses/takes up these measures, and who does not? Can we assume that everyone will be equally interested in them and want to take part?

4. How is the effectiveness of the measures normally evaluated? Are there any problems with this evaluation?

5. Can Smarter Choices work on their own to change travel behaviour in the long term? Or do they complement other measures?

---

[84] See Sunday Herald (2007) *SNP donor in £3.3m hovercraft subsidy plea.* Found at http://www.sundayherald.com/news/heraldnews/display.var.1807832.0.snp_donor_in_3_3m_ hovercraft_subsidy_plea.php (accessed 24th December 2007)

To answer some of the above questions, dip into the following (at least read the summaries):

Cairns, S. *et al* (2004) *Smarter Choices: Changing the way we travel.* DfT, London. http://www.dft.gov.uk/pgr/sustainable/smarterchoices/ctwwt/

Other DfT documents at http://www.dft.gov.uk/pgr/sustainable/smarterchoices/

Making person travel planning work at http://www.dft.gov.uk/pgr/sustainable/travelplans/ptp/

Material on Mobility Management produced for ELTIS www.eltis.org at http://www.eltis.org/docs/Mobility_management_reference_material.pdf

◤ Research exercise 13.1

Make notes on the following question.

An urban centre with a population between about 100,000 and 300,000 – not a principal conurbation but a large and important regional centre. It is important for shopping, and is a centre for local government with a wide range of services, and has an historic core which is a tourism magnet.

Using examples, discuss the suitability of different Smarter Choices measures to control travel demand that you feel would be practical options and that would, or should, attract a wide range of support?

Unit 14: Walking and Cycling

Introduction

Walking and cycling are rather the poor relation of transport policy. This is in spite of the fact that walking is part of the vast majority of trips – even if it is just walking from the car to the front door – and because the majority of trips that we make are of a length that could be made on foot or by bike. Walking is still the predominant mode in the UK for trips under 1 mile. Walking and cycling also have a major advantage over public transport, which is that they take you exactly where you want to go and are, like the car (or even more so) "door to door". Finally, the 2001 Census has shown that, supported by relevant policies, the proportion of trips made to work on foot and by bike has, for the first time in many years, grown over the past decade. In Edinburgh, for example, 1.8% of people traveled to work by bike in 1991; by 2001, this had risen to 3.1%. In the same city, around 24% of trips are made entirely on foot; in addition, walking is a part of almost every other trip.

◣ Learning outcomes

Once you have worked your way through this unit, including the self assessment questions, you should be able to:

◣ Understand the importance of walking and cycling as a means of transport;

◣ Be able to critically evaluate policies to improve conditions for walking and cycling; and

◣ Understand some of the barriers to the wider implementation of such policies.

◣ Reading

The following excerpts are taken from the a draft Local Transport Strategy. Those relating to walking are themselves based closely on the Camden Walking Plan (available at www.camden.gov.uk), noted as an example of best practice in promoting walking.

"Walking is cheap, quiet and pollution-free. Over short distances it is a very efficient and reliable mode of transport. It significantly reduces risk of cardiac diseases, obesity and diabetes, and improves mental well being. Walking still accounts for over 25% of all trips made in **** by residents (excluding very short trips) – a percentage that has increased since the last LTS. A further 20% of trips are made by public transport, which will involve a walk to the stop or station at either end; and most car journeys include a walk to and from the parking place. Therefore, walking is a vitally important mode of transport for almost all the

City's people. Notwithstanding the universality of walking, there are certain people who are more dependent on it than others: children, the elderly, and people who do not have enough money to buy a car or travel by bus as often as they might wish. Therefore, from a social inclusion perspective, walking is also vitally important.

If it is more attractive for people to walk in their own neighbourhood, they will be more likely to shop locally rather than drive to out of town stores. While trade from passing vehicles is sometimes emphasised, this ignores the deterrent effect on local custom from motor traffic that dominates an environment by its speed, noise and pollution, and by making it difficult to cross from a shop on one side of the road to one on the other. By improving the environment, people are more likely to come to a shopping area, and to spend more time there. The relationship between increased pedestrian flows and increased trade is accepted by many retailers, and has been graphically demonstrated in ***** on **** Street, where the widening of footways significantly increased footfall and hence retail turnover.

Therefore, pedestrianisation and better pedestrian facilities can have a significant role in maintaining the vitality and attractiveness of shopping streets, and can help to reproduce the traffic-free environment of shopping malls. Both local and national evidence suggests that pedestrianisation and other measures to improve conditions for pedestrians generally benefit city centre shops ('Transport Policy' 2:1, pp.51 - 56, 1995). To help maintain and support the competitiveness of the city centre, the Council will seek opportunities to pedestrianise further appropriate streets.

Traffic calming measures reduce the speed of motorised transport and make roads safer for pedestrians. In ****, the Council will promote many of the measures traditionally associated with traffic calming (such as narrowing carriageways), but as part of the more strategic approach developed in this Local Transport Strategy in general. In particular, new controlled parking zones (CPZs), route action plans and 20 mph zones will be subject to a strengthened and modified Council road user safety audit in order to maximise benefits for walking.

Perceived and actual road safety and personal security hazards deter walking. By ensuring that the streets of ***** are attractive and safe, and that residential areas offer people the opportunity for local social and play activity, the Council will also work towards reducing social exclusion and isolation.

Achieving a quality pedestrian environment

In contrast to the driving experience, where – on main roads particularly – road design has historically aimed to provide a "clear run" with as few interruptions as possible, the pedestrian experience is the converse: direct movement is normally interrupted at every junction. Even where signalled crossings are provided, it is the pedestrian who must request an opportunity to proceed, not the driver. The Council's policies on walking aim to redress this balance somewhat. These policies are informed by the Five Cs', which have been identified as vital characteristics of a quality pedestrian environment:

connected - It must be easy to walk from place to place without meeting dead ends or impossible
   road crossings.

convenient - Routes need to be direct without unnecessary detours; and shops, jobs, services and
   homes need to be as close together as possible.

comfortable - Footpaths need to be well maintained and wide enough, they need to be well lit
   and to offer shelter and resting places.

convivial - Pedestrian routes need to be friendly, attractive and interesting

conspicuous - Pedestrians need to be acknowledged as a form of traffic, and they need to
   become conspicuous in people's minds. Pedestrian facilities and the places people want to
   reach on foot need to be clearly identifiable and well signposted.

Adopting these principles has implications for the design of all schemes that change the
nature of the street environment in any way (including controlled parking zones), and for the
inspection regime for roads and footways.

Tools for improving the pedestrian environment

*The key tools that the Council has at its disposal to improve the pedestrian environment are
as follows:*

*Controlled parking zones (CPZs). Because designing new CPZs requires a detailed review
of the use of streetspace for parking, they are also an ideal means to improve conditions for
pedestrians, particularly through the provision of kerb buildouts at junctions and other
crossing points, and by reducing parking that obstructs pedestrian vision or movement.*

*Traffic calming. Traffic calming slows traffic and often reduces total vehicle flows, making
the street more pleasant and less intimidating for pedestrians. In addition, humps and speed
tables can provide additional informal crossing points. The same is true of **20 mph zones
and limits**, which also have an impressive record of improving road safety – of 250 zones
around Britain that were reviewed for the Government, there was an average 66% cut in
accidents and 75% fall in child casualties.*

*Home Zones are based on Danish, Dutch and German experience of radical re-designs of
residential streets, where vehicle speeds are reduced to 10 mph or less, street space is shared
much more equitably between vehicles and pedestrians, and where pedestrians have priority.
Home Zones can in some circumstances increase the provision of on-street parking, by
reducing the amount of space for moving vehicles and blurring the distinction between areas
for pedestrians, and areas for vehicles. The Council is taking part in a national pilot scheme
to look at the practical issues associated with the introduction of a Home Zone in the
Caledonian area, near the city centre. The participation and commitment of local residents
has been sought in the process.*
*Clear Zones – the Council has the power, subject to statutory consultation, to designate an
area with poor air quality as a low emission zone, and to regulate the amount and type of*

traffic entering that zone. This would also be an opportunity to improve conditions for pedestrians at the same time. The Council is considering the need for Clear Zones as part of its Air Quality Action Plan.

***Pedestrianisation**, for either part or all of the day, can be a powerful means to improve the quality of the street environment and increase the usage of the street, and hence retail turnover.*

***New pedestrian links** - short cuts - for example across railways, rivers or at the end of culs de sac can, if used judiciously, significantly reduce journey times for pedestrians and provide comfortable direct routes free from traffic.*

Policies

W1.   **Design Standards.** The following provides a summary of key design principles for footways. These are a summary of the principles on which the Pedestrian Design Manual (see WP6, below) will be based. The Design Manual will inform all new and major maintenance schemes undertaken by the Council. Footways should:

- Offer continuity of travel.
- Be wide enough for two wheelchairs or prams to pass (minimum 1.8 metres). There should be an increase in width (to a minimum of 3.0 metres) where pedestrian traffic is high, and alongside busy roads.
- Have frequent and convenient road crossing points incorporating flush dropped kerbs or (at side road junctions) raised carriageways, the latter affording pedestrians more priority over traffic at these junctions.
- Be well lit.
- Be free from unnecessary obstructions.
- Be protected against footway parking where this is likely to occur.
- Have an even, well-maintained and non-slip surface.
- Not incorporate the use of staggered barriers.

W2.   There will be a presumption in favour of road maintenance (other than minor patching or surface dressing works), new traffic management schemes, new/revised controlled parking zones and new developments always incorporating measures for pedestrians, particularly:

- sufficient footway widths, as defined above.
- raised entry treatments of side roads.
- drop/flush kerbs and tactile paving at all crossings, including side roads where raised entries are not feasible.
- Protection of crossings from obstructive parking, including side road crossings and entries to pedestrian-only steps, closes and paths.

W3.   There will be a presumption against the introduction of new pedestrian guardrail in situations where this will cause significant diversions to pedestrians.

W4.   Design and review of controlled parking zones will be used as an opportunity to rationalise and improve the streetscape in these areas and to build in improvements in the pedestrian environment – particularly crossing facilities and footway width – in line with policies in this Chapter of the LTS. Designs for new or altered CPZs will be audited to this effect. See also chapter on Parking.

W5.   For reasons of road safety and accessibility, there will be a presumption in favour of the provision of pedestrian phases on all arms of traffic signal controlled road junctions, except where no pedestrian crossing demand is likely.

W6.   At pelican crossings meeting the criteria set out in Appendix 3 the return period for the 'green man' phase will always be set to the minimum of 20 seconds. At other locations there will be a presumption against 'linking' pelican crossings into the urban traffic control system, except where 'de-linking' would lead to unacceptable delays to bus passengers.

W7.   At signalled junctions where capacity constraints permit (see definitions in Appendix 4), signal controllers will be set so that, when a pedestrian stage is called, it is the next stage in the cycle.

W8.   To help maintain and support the competitiveness of the city centre and other shopping areas, the Council will seek opportunities to improve pedestrian facilities, particularly footway widths, and consider partial or complete pedestrianisation in appropriate streets.

W9.   Maintenance in areas with high numbers of "trips and slips" accident claims will be of high priority in the allocation of maintenance resources.   (See also Chapter 8 on maintenance.)

W10.   (See also Parking). The Council views parking on footways and across the mouth of junctions as both dangerous and obstructive to pedestrians. It will take action to solve these problems where they occur.

W11.   The Council will take action to improve lighting and CCTV coverage in areas where personal security has been identified as a particular problem.

W12.   There will be a presumption in favour of seeking the following in relation to new developments of a size for which a transport assessment is required, regardless of the location of that development:

- Permeability of the site for pedestrians – direct pedestrian/cycle routes, and several pedestrian/cycle entrances and exits – normally more than the number of vehicle access points.
- Pedestrian walkways and crossings through and in car parks, including between each aisle.

- Contributions towards the cost of new pedestrian/cycle links (e.g. bridges) across nearby features (e.g. rivers, railways) that would otherwise reduce the accessibility of the site on foot.
- Contributions for pedestrian facilities at junctions "in scope" of the development, including side road entry treatments and dropped kerbs at uncontrolled crossings.
- The building to be orientated in such a way that the main entrance is at no greater distance from the nearest bus stop than it is from the centre of the car park.

Programmes – Base Scenario

See also 'Land Use Planning and Development Control', Parking, Road Safety, and 'Maintaining the Network'.

Throughout the period of the strategy, the Council will:

WP1. Related to funding availability, pursue a prioritised programme of providing and improving pedestrian phases at existing traffic signalled road junctions.

WP2. Related to funding availability, continue with a programme of installing pedestrian crossings.

WP3. Related to funding availability, set a target for the provision of dropped kerbs and tactile paving at all controlled and then uncontrolled pedestrian crossings, and work to meet this target.

WP4. Build pedestrian improvements into the design of new or modified CPZs, and subject these designs to an audit against policy (see also chapter on Parking)

Subject those routes with the highest numbers of pedestrian accident claims to a more intensive maintenance regime This work to be priority funded from the Council's current maintenance revenue budget. (See also Chapter 8, Maintenance.)"

And…

"Cycling is a very efficient form of transport; it is cheap, healthy, and does not pollute. Cyclists need very little space and cycling facilities are inexpensive. Nevertheless, cyclists are often pushed to the margins of space originally intended either for pedestrians or general vehicular traffic, and this makes them feel unsafe. The biggest single deterrent to greater use of cycling is the perceived and actual risk of being involved in an accident. This is related both to the facilities provided, and the behaviour and training of cyclists and other road users.

Since 1999, the percentage of all trips made in the City residents by bicycle has risen by an eighth (whilst accidents involving cyclists have reduced), but these trips still account for less than 2% of all trips made. The City's travel patterns, and experience elsewhere, suggest there is huge potential for further growth. Increasing cycle use can reduce pollution and the demand for road and parking space.

Increased cycle use may also benefit local businesses, as they gain customers who might otherwise drive to out of town stores. It can help reduce social exclusion and isolation, since cycling is cheap and available to most children and adults.

The Council has carried out two surveys looking at why people in the City do not cycle, or do not cycle more. The two biggest reasons given were safety and difficulty in storage and parking. The policies and programme adopted for cycling concentrate on these issues.

Cycling could have a major role as a means of access to longer public transport journeys, especially by rail. The population within a 10 minute cycle of a typical rail station is about 15 times that within a 10 minute walk. In continental Europe cycling to rail stations is typically much more common than in the UK. The Council will seek to increase the use of the bicycle for this purpose.

Policies

C1   There will be a presumption in favour of new traffic management schemes always incorporating measures for cyclists, particularly:

- exemptions from road closures

- advanced stop lines and/or cycle lanes at traffic signal controlled road junctions (see Criteria in Appendix 4)

- all new pedestrian crossings to be assessed as potential Toucans

- cycle lanes or, where appropriate, cycle paths, in all schemes involving main roads with speed limits of over 20 mph and no bus lanes. On streets which are heavily parked at certain or all times of day, the cycle lane (including contraflow lanes, where relevant) should be on the outside of the parked cars.

C2   There will be a presumption against new one-way streets; point no entries with cyclist exemptions are easier to implement and fulfil the same function in residential areas. Where new one-way streets have to be implemented, there will be a presumption in favour of installing contraflow cycle lanes.

C3   There will be a presumption against constructing any new roundabouts with more than one entry, exit or circulating lane within the built up area, because of the poor safety record of this type of junction for cyclists.

C4   Where new cycle/pedestrian paths are constructed or designated, there will be a presumption in favour of segregating cyclists from pedestrians by a raised white line or kerb. Consideration will be given to providing such segregation on existing heavily used paths.

C5   The Council will install or seek installation of secure bicycle parking, particularly cycle lockers, at railway stations and Park & Ride sites.

C6   Tram lines using former rail routes must be paralleled by cycle/pedestrian routes.

C7   The policies set out above will be implemented through the use of an expanded audit of all new schemes, and large maintenance schemes.

Programme – Base Strategy

Throughout the period of the Strategy

CP1.   As funds are made available, design and then develop the cycle network so that no resident lives more than 400m from the nearest route. The network may include sections of road with 20 mph speed limits as well as fully segregated sections. The South Central Cycle Network, and North – South and East - West routes across the city centre, will be priorities for implementation, as these are the areas with the highest levels of cycle use at present.

CP2.   Increase levels of cycle parking in the city and district centres. The Council will prioritise areas for the installation of cycle parking based on observed levels of demand.

CP3.   In traffic management and other schemes, make a presumption in favour of replacing large roundabouts with traffic signals, as these are safer for pedestrians and cyclists.

CP4.   In new schemes and developments, presume against the use of roundabouts for the same reasons.

CP5.   Review existing roads with a series of existing cycle facilities and/or bus lanes. Based on this review, implement a programme of low cost improvements aimed at filling gaps in facilities and at maximising the quality of provision for cyclists along the roads concerned.

CP6.   Continue with its programme of advanced stop lines and cycle lanes, with the aim of providing either or both at all traffic signal controlled junctions meeting the criteria set out in Appendix 4 by 2006.

CP7.   Complete the remaining National Cycle Network route in the city by 2005, subject to funding availability.

CP8.   As part of wider traffic management schemes, replace (or where that is not feasible to modify) existing roundabouts to make these junctions safer for cyclists and pedestrians."

Now, read the Chapter by Tolley in *Integrated Futures and Transport Choices* (Hine and Preston, 2003). Based on this, do you think that the strategy excerpts above show that the City is on the right path for achieving increased levels of walking and cycling? Why or why

not? Do you think that there are factors that are critical to the success of walking and cycling policies over which transport authorities in fact have very little control?

◤ Self assessment question 14.1

Implementing a policy to improve walking and cycling

Considering a town or city with which you are familiar, develop in note form the basics of a cycling and walking policy. If there is already one in place, consider how it could be improved. List the types of measures that you might wish to see in place, how you would build support for them, and how you might go about funding them. You will find the paper by Gaffron, included on your course CD, useful in answering this question.

Unit 15: Developing and implementing strategies

Introduction

We have looked in the preceding fourteen units at a very wide range of aspects of transport policy. After looking at the historical foundations of our profession in Unit 1, we covered all the main legislative guides in Units 2 to 4, moving on to the administrative structure now prevailing for road and rail in Britain in Unit 5.

In Unit 6 we discussed the changing attitudes, followed by a comprehensive review of the Transport White Paper in Unit 7, dealing with the special requirements of freight in Unit 8.

In Units 8 to 11 we looked at economic aspects, including taxation, methods for funding infrastructure, economic appraisal and charging regimes. Then, in Unit 12 we looked at land-use planning and, in Unit 13, the scope for regulating the demand for transport and promoting sustainable transport. In Unit 14 we looked briefly at the scope for walking and cycling to play a role in our transport policies.

Now, in the final unit of this module, I want to try to draw together all the disparate threads by looking at the methods for formulating a transport strategy, looking particularly at the process for developing an urban transport strategy. This will lead into the government's advice to local authorities on preparing a five-year rolling programme in a Local Transport Plan.

Also, importantly, I would like you to look at the barriers to the actual implementation (*delivery*) of that strategy or plan. This is a current political issue and rightly so; in spite of considerable additional resources going into transport planning, relatively little seems to be coming out in terms of schemes on the ground. So we need to think why policy may not always be implemented.

◤ Learning outcomes

Once you have worked your way through this unit, including the self assessment questions, you should be able to:

- ◣ explain the process for developing a transport strategy

- ◣ summarise the main elements of policy evaluation

- ◣ understand the key barriers to policy implementation

- ◣ develop your skills at formulating or amending a transport strategy for a particular area.

▲ Recommended revision and reading

I'm sure that, when you were at school, your teachers often used to tell you to revise your work. Certainly mine did! At the risk of being tedious, I really must repeat that advice. As we'll use, in one way or another, features of almost all the previous sixteen units, I think it would be as well for you to remind yourself what has gone before. I know, only too well, how 'distance learning' like this can take a long time, so it may be some time since you last looked at parts of the early material.

In addition, there is a very useful paper included on the module CD by May (1995) which reviews the various components of transport policy and summarises – in tabular form – the effectiveness of the range of measures we have discussed in the earlier modules. Although somewhat dated, it is a useful summary of the issues that, broadly, remain the same today. Spend a short time reviewing this before we go on!

The government's requirements

As we have noted on many occasions throughout this course, the national policies on transport have undergone significant changes since the election of a Labour administration in May 1997. The base upon which the government have built their detailed policies is the integrated transport White Paper, *A New Deal for Transport – Better for Everyone*[85] published in July 1998, and subsequent policy documents that we have examined in previous units, and in the course text, *A New Deal for Transport?* By Docherty and Shaw (eds).

The key change of emphasis was on redefining the word '**Integration**'. It stressed that it is more, much more, than making sure that trains and buses connect, important though that is. The integration required by government is on policies, making sure that the policies on transport fit with policies on planning, and that the policies applied locally are not inconsistent with national policies. And, perhaps most important, it means ensuring that the private sector (who, remember, now operate almost all public transport outside London) and public sector are working in co-ordination, not opposition. To use the current jargon, 'joined-up thinking' is called for!

The government acknowledges that this national strategy cannot be implemented in any meaningful way by the government alone. A Partnership – that word again! – is essential. If you bear in mind that almost half of the journeys made are less than around two miles long, you'll readily see why it is local authorities, local operators, local businesses and, above all, local people who are essential if the best local solutions are to be found.

Although there are regional initiatives in transport policy and delivery, these do not yet have statutory basis. Consequently it is the *Local* Transport Plans (and Strategies) that we'll

---

[85] DETR (July 1998) *A New Deal for Transport: Better for Everyone* (TSO, London)

examine here, as these are the places where local authorities state their local policies, and (in England and Wales) bid for a share of the financial resources to implement their plans.

Basis of Local Transport Plans

The government issued a consultation document[86] in November 1998 (with responses within two months). Subsequently a further document, entitled *Guidance on Provisional Local Transport Plans*,[87] was issued in April 1999. In keeping with the government's commitment to devolution, a separate document was issued for Scotland[88] in February 1999 requiring Local Transport Strategies; this is very similar to the DETR one for England that we'll be discussing here.

The key point about LTPs is that they should set out a logical strategy for the achievement of local transport objectives. So they should generally follow the format:

- Problems
- Objectives and targets to solve problems
- Policies – ways in which objectives will be achieved
- Action plan – things that will be implemented - to achieve objectives
- Monitoring

The point here is that there is an attempt to move away from programmes of "favourite schemes" that may or may not achieve objectives, to thinking about what the problems are and then what can be done to achieve objectives.

Within the outline guidance set regionally, in a Regional Transport Strategy, for example for south-west England, local authorities are required to prepare a Local Transport Plan (LTP). It is a significant change for authorities, in comparison with the previous regime, where funding was usually agreed on a year-by-year basis. In Scotland and Wales the guidance comes from the Scottish and Welsh Executives, although in Scotland regional co-ordination bodies are now firmly on the political agenda (something of a *volte-face* if one reads the consultation document of 1999 on the same issue, though not in French).

LTPs are for a five year period, and will cover all modes of transport, urban and rural. Funding from government is no longer earmarked for specific schemes, but, in contrast, a total is allocated on the strength of the strategy that the council adopts. The council will have the freedom to decide how to spend its funds to meet its objectives, and there will be monitoring of the council's performance against targets. As explained in a previous Unit, now in England as in Scotland, the Council does not even have to spend this money on transport.

---

[86] DETR (November 1998) *Guidance on Local Transport Plans* (TSO)

[87] DETR (April 1999) *Guidance on Provisional Local Transport Plans* (TSO)

[88] Scottish Office Development Department (February 1999) *Travel Choices for Scotland*' (Scottish Office)

The extra freedom has been supplemented with considerable additional funding for local transport (see Unit 7). Authorities that introduce trial schemes for congestion charging or workplace parking levies will be able to keep the revenues for the first ten years (for ever in Scotland!). Guidance on LTPs states clearly that they will be expected to follow the national policy direction in favour of delivery of packages of measures that include public transport schemes, walking and cycling, and want to see appreciable improvements in these.[89]

The need for meaningful consultation is stressed to ensure that LTPs do command widespread support in their communities. It is made clear that some of the previous lip service consultation exercises are not acceptable, and that the views of local users are vital; it's that '**Partnership**' word again.

Initially all local authorities were obliged to prepare their first provisional LTP by July 1999. Government accepted that in the short timescale between the publication of the guidance, early in 1999, and the required submission date of July 1999, it was not a practicable proposition to produce a wholly comprehensive LTP with all the 'Is' dotted and 'Ts' crossed. They also accepted that a full consultation exercise was unrealistic.

However, they did require that the issues be identified, with a plan of work for filling the gaps and finalising the plan. Revised final guidance on the production of LTPs was produced in early 2000 to enable local authorities to produce full plans, for the five-year period starting in April 2001. It is made clear that the general duty on councils to achieve 'best value' applies to transport as much as other activities, and that LTPs will be considered in assessments of performance so that the authority's achievements can readily be judged.

Local Authorities in England have now submitted their second round LTPs. Guidance on how they are supposed to prepare them is available at http://www.dft.gov.uk/stellent/groups/dft_localtrans/documents/page/dft_localtrans_504005-32.hcsp. The emphasis in LTP2, as it is called, is on *outcome* targets (e.g. actually changing modal share, rather than implementing things that might influence it) but at the same time there is less emphasis on major schemes such as light rapid transit. Watch out in Local Transport Today for further commentary on LTPs.

◤ Recommended reading

As already mentioned, these notes are derived from a valuable book produced by the Institution of Highway and Transportation Engineers called *Guidelines for Developing Urban Transport Strategies*.[90] If you can get hold of a copy, you should read it yourself.

---

[89] 'DETR penalised local authorities with "insufficient commitment" to car restraint in Local Transport Plans' *Local Transport Today*, 20 January 2000, p3

[90] Institution of Highways and Transportation Engineers (1996) *Guidelines for Developing Urban Strategies* (IHT)

You should also read Chapter 3 of *Transport in the Urban Environment*,[91] which contains a valuable list of references for further reading.

▲ Self assessment question 16.1

Reviewing a land-use transportation study.

As a professional entering the transport planning field, I would imagine that you can get hold of the report of a Land-use Transportation Study from the 1970s. There may be some in your local library or possibly at your work, or you'll be able to borrow an old one from a colleague or friendly council. If you're still stuck, then why not ask one or two of the major consultants if they will let you have a copy of one, stressing that its purely for academic research?

Read it carefully – but in the interests of your time, I suggest that you skip the technical appendices – and see what evidence you can find that the logical approach summarised in this unit has been followed. Make notes of points that strike you as particularly good, as well as the areas where you feel unhappy with what is written. Try to "benchmark" the report, not against local (or even international) benches, but against the "ideal" transport strategy that we have outlined in the preceding sections of this Unit.

Local Transport Plans

Let's look in a bit more detail now at what the government has said about what should be in LTPs.

Part 1 – Coverage

It is acknowledged that, in the past, councils' transport plans and TPPs have suffered from 'short-termism'; that is that they have worried too much about next year without looking at the more distant future (this is perhaps less true of Scotland, where TPPs were rolling programmes up until 1996).

Following the principles in the White Paper, local authorities are required to have a fundamental look at their existing strategies. They must demonstrate that the LTP is consistent not only with the White Paper, but also with any Regional Strategy endorsed by the government. They must also follow the principles of 'best value'[92] and show continuous improvements in costs and quality of *all* local services. Finally they should ensure, as far as possible, that the choice of travel mode is widened for as many people as possible.

---

[91] Institution of Highways and Transportation Engineers (1997) *Transport in the Urban Environment* (IHT)

[92] 'Councils work out lessons from first local transport plans and £755m DETR award' *Local Transport Today*, 6 January 2000, p7

Buses

Buses have a key role to play in all integrated transport networks, however comprehensive a service is provided by any other modes. Councils are urged to improve priorities and are offered a stronger role than the previous 'gap filling' one that applied in the wake of deregulation. It is always worth considering the extent that buses can provide a quality of public transport that is perceived to be as good as rail.[93] Remember, though, it's not just the *actual* quality that's important, but the potential passenger's *perception* of the quality.

Specifically, local authorities are expected to look at:

▰ **Networks** – considering them both quantitatively and qualitatively. The creation of Quality Partnerships and/or Quality Contracts is suggested.

▰ **Expenditure** – look at the urban/rural mix, and seek private-sector contributions (this could well be the operator, remember).

▰ **Integration** – authorities will be given statutory powers in respect of passenger-information provision, and authorities are urged to provide a comprehensive service, possibly as part of a Quality Partnership. Similarly there will shortly be powers to assist the development of multi-modal ticketing schemes, again, if possible, on a partnership basis.

Rail

LTPs must take account of the role that '**Heavy rail**' – that is the former British Rail network – can play in reducing car use. It is made clear that the government, through the DfT, will consider additional funding for schemes with social, integration and modal shift benefits.

Authorities are also urged to consider schemes to help the transfer of freight from road to rail, and to consider the role that grant aid could help in specific circumstances.

Light rail, and similar rapid transit systems are acknowledged to have a valuable contribution in particular locations. However their capital costs are very high, especially when compared with bus-based schemes. While not closing the door on future light-rail schemes, the government emphasises that central funding of such projects is likely to be very restricted. Accordingly it is clear that an LTP should not have a light-rail scheme as a central part of its strategy unless there is a realistic prospect of funding, including a public–private partnership, in the five-year life of the LTP.

Taxis (and private hire vehicles)

---

[93] 'Can upgraded urban bus systems really do as good a job as light rail'; *Local Transport Today*, 17 June 1999, page 7

LTPs must take account of the role that taxis and private hire cars can play, especially outside the large conurbations. Taxi-sharing schemes are commended, as are the allocation of priority schemes on the road network (including well-placed ranks) to taxis.

Voluntary and community transport
LTPs must maximise the potential of any voluntary and community transport schemes in developing an integrated transport network. However the need to comply with the legislation relating to the operation of bus services is stressed.

Cycling
The importance that the government attaches to cycling has been mentioned many times in this course, as it is in all the government's publications.

The Royal Commission on Environmental Pollution report[94] made a number of recommendations relating improving conditions for cyclists, and the *National Cycling Strategy*[95] (NCS) was published in July 1996 and has a target of doubling the number of cycle trips by 2002, and doubling them again in the next ten years. In May 1999 a second Progress Report[96] was published, showing very modest increases in cycle use, but stressing the links between the NCS and the other government initiatives on transport topics; it also gives a useful summary of research being carried out into aspects of cycling. A Transport Research Laboratory report,[97] among others, offers guidance on measuring the effectiveness of cycle provisions.

While it is clear that a high quality of provision for cyclists is essential in an LTP, and that the extra space for cyclists should come from the roadway rather than a footpath, many local authorities appear to be less than wholly committed[98] to achieving the NCS targets. On the other hand, some parts of the private sector are being more pro-active; the furniture retailer IKEA gave all its 4,500 staff a bicycle for Christmas in 1999 to encourage them to cycle to work.

Walking and pedestrianisation
As clearly stated in all the publications from the government, walking is a mode of travel to be developed, and made more attractive, in an LTP. It is suggested that a Local Waking Strategy be included in the LTP, linked to health-improvement initiatives, with children's trips to school being a feature. Clarity, convenience and safety are the three watchwords for local walking routes, especially in urban centres and to reach public-transport access points;

---

[94] Royal Commission on Environmental Pollution (1994) *Report of the Royal Commission on Environmental Pollution* (HMSO, London) [Cm2674]

[95] Department of Transport (July 1996) *National Cycling Strategy* (HMSO)

[96] DETR (May 1999) *National Cycling Strategy: Second Report 1999* (TSO)

[97] *Guidance on monitoring local cycle use*, TRL Report 395, Transport Research Laboratory, 1999

[98] 'Most authorities "failing to aim for national target cycling level"' *Local Transport Today*, 20 January 2000, p6

although the anticipated DETR guidance has been delayed, all strategies should bear in mind the likely requirements.

Allied to this, the government is keen to see 'vehicle-restricted areas'. This could be full pedestrianisation, but the scope for allowing at least cycles in too is commended. Access for servicing vehicles at specific times of day is suggested to ease the lot of properties in the area. Similarly the creation of 'home zones'[99] in residential areas is suggested; this is, in effect, the adoption of the Dutch '*Woonerf*' principles where a motorised vehicle's access is only possible at very low speeds.

Waterways
Waterways are seen as having scope for a certain amount of use for freight, but also as a means of providing safe routes away from the dangers of motorised traffic for pedestrians and cyclists.

Motor cycles
The scope for including powered cycles in the LTP proposals, including mopeds, is mentioned. While the anti-social aspects of some motor cycles is accepted, it is suggested that they could be allowed to use bus-priority measures.

Traffic management and demand restraint
The LTP is required to take a strategic view of traffic management, accepting the role that it has in achieving the overall objectives. We discussed this in some detail in Unit 15, and noted the scope for a reallocation of roadway space as one of the means of controlling, or at least influencing, the demand for travel. Integration with the rest of the LTP is critical if a scheme is to succeed, with a fair balance between those who gain and those who lose.

Road user charging and workplace parking charges
We talked about the range of measures for charging road users to enter congested areas in Unit 12. We also considered the scope for (and difficulty of) charging employees for parking places at their workplace (Unit 15).

These are controversial topics, and, in the past, transport policy makers (and politicians) fought shy of tackling them, filing the idea in the 'too difficult' category. But times are changing, and it is clear that the government would like to see a trial scheme or two. Primary legislation will be needed, so this cannot be employed in the first round of LTPs, but it's clear which way the wind is blowing.

The need for controlling the amount of space provided for parking in association with new developments is mentioned; we looked at this in Unit 13.

---

[99] 'Scotland to get Home Zone pilots, as English councils go ahead without DETR' *Local Transport Today*, 2 December 1999, p6

Parking

The government is satisfied that the initiative (for some local authorities) to move from the police for the enforcement of parking restrictions to a council's own employees or agents ('decriminalisation') has been a success. It is looking to other authorities to follow suit.

Safety

As you might imagine, safety is a very high priority, and the role that local authorities can play in the reduction of road casualties is appreciated. The LTP must embrace all aspects of road safety in achieving the goals of safe and sustainable transport. It has been found in the past that it is very difficult to reduce slight injuries, and thus it is suggested that effort be concentrated on measures that reduce the number and severity of serious accidents. This will require the formulation of a Local Road Safety Strategy, along with a reasonable target for reducing accidents. As part of this safety management approach, local authorities are invited to be more innovative in applying 20 mph limits in agreement with the police; there is no longer a requirement for specific consent for the lower limits.

Integrated transport

The government is well aware that to produce an attractive alternative to the private car, it is essential that public transport is as near seamless as possible. They urge that, where possible, public–private partnerships should be set up to encourage easy interchange between modes.

An important form of this interchange, of course, is **park-and-ride** where the car users leave their vehicles for a continued journey by bus or rail. Don't forget the role that park-and-ride for cyclists can play, but don't feel that it's a panacea for all problems. A study[100] by University College has suggested that bus-based park-and-ride has cast doubt on the effectiveness of this technique as a means of reducing traffic.
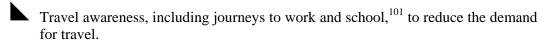
Accessibility

The LTP process now has to include in it an **accessibility audit** of the plan area. This is supposed to consider how accessible various key facilities and services are to the people living in the plan area, but particularly those without a car, and those with mobility impairments. This might include mapping exercises. Following the audit, a review of the resources available to overcome barriers to greater accessibility should be carried out, and then an action plan of prioritised measures to enhance accessibility should be put together, with an accompanying monitoring plan. Accessibility measurement is an increasingly important aspect of transport planning more generally – the idea being that, since transport is only a means to an end, it is more important to ensure that everyone can access the services that they need (the ends) rather than facilitating the ever greater mobility of the majority whilst leaving a minority without the ability to get to what they need. A review of

---

[100] Transport Studies Unit (1999) *Environmental cost-benefits of bus based park-and-ride systems* (University College, London)

accessibility   measurement   can   be   found   at
http://www.scotland.gov.uk/cru/kd01/blue/accessibility-01.asp.   Government guidance on
how   to   deal   with   accessibility   in   the   LTP   process   can   be   found   at
http://www.dft.gov.uk/stellent/groups/dft_control/documents/contentservertemplate/dft_index
.hcst?n=8592&l=3, although it has to be said that at present this is not wholly comprehensive
– new and improved guidance is due out soon.   The one example of LTP accessibility
planning included on this site relates to work done in Surrey, where public transport
accessibility analysis was used to demonstrate to a new supermarket developer the benefits of
their paying for a new bus service.

Other aspects
There are a number of other aspects for consideration in formulating an LTP. In the interests
of space, these are just listed here, but don't assume that they're any less important!

- Travel awareness, including journeys to work and school,[101] to reduce the demand for travel.

- Crime, and (perhaps even more vital) fear of crime.

- Highway maintenance, including lighting.

- Bridge strengthening.

- Major improvement schemes (no one seriously pretends that *some* new road works won't be essential).

- Rural transport, including buses and community transport.

- Freight, including sustainable distribution and Freight Quality Partnerships. (We discussed a wide range of freight issues in Unit 8.)

- Social inclusion, covering women's issues and transport for the disabled and other minority groups.

- Action on climate change, air quality and noise.

Part 2 – The plan process

It is appreciated that the introduction of LTPs is a significant change for local authorities, and
there is a concern that the LTPs should be robust. The first stage, which was required to be
completed by July 1999, was the plan from the five-year period from April 2000 to March
2005. On this basis, resources for the first year (2000–01) were allocated. Full LTPs,
including an assessment of progress since the Interim LTP, were submitted the following

---

[101] 'Making changes in school travel behaviour needs hearts, minds – and resources' *Local Transport Today*, 15
July 1999, p7

year. Subsequent to that, Councils have been required to submit an annual progress report (APR). (This requirement does not apply in Scotland.) Funding is allocated on the basis of the quality of the LTP and then on the progress made in the APR. Initially, and in a great break from tradition that was welcomed by local authorities, funding was allocated annually for the next 2 years (again, in England only). In 2001, however, this was reduced to 1 year, bringing back once again the problem of ensuring that money is spent by the end of the financial year in April. For complex schemes involving considerable consultation, this can be a major problem.

Authorities must consult on their LTP. There is the duty of best value on local authorities to deliver services by the most economic, efficient and effective means possible and to seek continuous improvement. It is noted that LTPs will be a key part of the process by which authorities meet their duty of best value. The government feels that there would be advantages in making LTPs statutory, and proposes to bring in appropriate legislation in due course.

The Road Traffic Reduction Act 1997[102] obliges local authorities to review the demand for travel on local – not trunk – roads in their area and produce targets for reducing it. While national forecasts are still being revised, it is intended that all local authorities produce interim statements to demonstrate clearly that they are taking the obligations of this Act seriously.
A useful summary of the extent to which local authorities have had to adjust their practices (and their policies) was published in *Local Transport Today*[103] in August 1999, just after the deadline for lodging the first plans with the government.

Public participation
The government is especially keen that there is full consultation on the LTP as it is formulated. This will include all operators (not just the public-transport operators; remember to include those who operate fleets of lorries) and representatives of users (including, for example, women, the disabled and others with special needs) and local businesses.

Form and content of a Local Transport Plan

There are several key words that are often used when talking about strategies and plans that it is important not confuse. Some definitions are provided below (thanks to former MSc student Niall Gardiner of Dundee City Council for assistance with these!):

The **Vision** is the authority's over-arching aspiration for its area and how this relates to transport.

Problems and issues are the identified difficulties in the region or area which are in some way related to transport. For example, lower than desired economic development may be related to a perception of peripherality that itself is seen to be caused by under-developed

---

[102] Road Traffic Reduction Act 1997

[103] '*Councils change policy and practice to meet local transport plan requirements*'; Local Transport Today, 12 August 1999, pages 8–9

transport links.

Objectives are what is desired in the wider terms (to achieve the vision and solve/improve the problems and issues). For example, to reduce social exclusion, pollution or traffic congestion. Building a scheme e.g. dualling a particular road is not an objective in itself, but a possible *intervention* (see below) which can help to achieve objectives.

Strategy is the overall way in which objectives will be achieved.

Intervention: a term used to encompass actions - *policies* and *schemes* - which can be taken to change a transport system. Some examples of interventions might be dualling a road, building a new railway station, introducing a new train service, or mounting a regional road safety campaign.

Policy: a declared, statement of principle to change the transport system in a particular way or to retain and maintain a particular aspect of the system. For example, "There will be a presumption in favour of schemes that lead to greater physical activity, and that facilitate independent travel by children."

Scheme: a specific, defined action to change some aspect of the transport system (from management measures, including publicity campaigns, to expensive infrastructure projects)

Thus a **transport strategy** is a set of **policies** and **schemes** which together act in an integrated manner to develop an area's transport system to provide for present and future demands in order to achieve a set of defined **objectives,** to ameliorate **problems and issues**, and to realise the strategy's overall **vision**.

So, once we have got those definitions out of the way, we need to consider the five key elements of an LTP:

1. **Analysis of problems and opportunities**
    This will include a description of the existing travel patterns and all known problem areas. There is a specific need to analyse accident trends. Anticipated future demands and problems should also be covered.

2. **Objectives consistent with integrated transport policy commanding widespread local support**
    The objectives must enhance the environment, improve safety, contribute to an efficient economy supporting sustainable growth, promote accessibility for all, especially those without a car, and promote integration of all forms of transport. They must be acceptable to a wide cross-section of the community.

3. **Long-term strategy to tackle the problems and meet the objectives**
    An overview of how the measures making up the strategy interrelate and contribute to the objectives. LTPs need to indicate the broad priorities attached to the main elements of the strategy to assist identification of what can be achieved

in the event (highly probable, you might think!) that the national programme is over bid.

The development over the past years of 'package' bids is welcomed, and it is accepted that in many ways LTPs are a wider application of these principles.

4.   **Costed and affordable five-year implementation programme of schemes and policy measures**
The summary should include all the proposed capital expenditure, regardless of where the funding is coming from. The expenditure required from government needs to be identified, whether through general transport capital or a Private Finance Initiative. Any anticipated grants from the European Union must be mentioned, and, in due course, any income from (for example) road charging.

5.   **Set of performance indicators, targets and outputs to show whether the LTP is succeeding**
While there is a need to include a set of performance indicators, there is no proscription on the precise package. It's up to the authority, but there is a clear hint that more specific indicators may be required in later LTPs. There will thus be a need for the authority to establish a regular monitoring programme. There will also be a need for the authority to produce an annual report showing how the expenditure and performance agreed at the start have actually been achieved.

In addition, naturally, there is a requirement to demonstrate that the LTP is consistent with any land-use development. Ideally, of course, the plans will by now have been prepared in parallel.
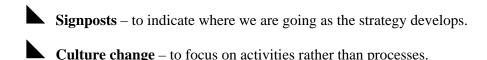
Targets and monitoring of progress

It is fairly easy to form a grand vision of objectives, especially from a political viewpoint. However it is most important to monitor progress towards these objectives to be able to judge whether the strategy is successful or not; this is best achieved by setting quantifiable targets, and thus target setting is now becoming a growing part of the strategy-formulation process. These targets, of course, must be realistic if disappointment is not an inevitable consequence.

Most LTPs and LTSs will include targets and indicators (e.g. "the mode share for public transport for journey to work for residents of Dewsbury should increase from 18% to 22% between 2001 and 2011") against which to measure progress. The DfT in particular has been insistent that a proportion of LTP funding is reserved for monitoring; this is in my view a long overdue development.

It is important, however, to keep a sense of perspective. The lack of success in achieving a particular target does not mean that the whole strategy is flawed or that no progress has been made. There have been a number of targets relating to reductions in traffic flow, greenhouse gases and accident casualties; success in meeting them has been mixed, but in the case of 'accidents', significant progress has been made in reducing the levels of accidents.

So, why do we set targets?

▶ **Signposts** – to indicate where we are going as the strategy develops.

▶ **Culture change** – to focus on activities rather than processes.

▶ **Measure achievement** – to see how we are moving towards the objectives.

▶ **Management and control** – to direct activities where we want them.

▶ **Standards of service** – to judge how well we are doing, such as the Citizen's Charter.

▶ **Lobbying** – to focus greater attention, and resources, on a specific issue.

The government is very clear that target setting and monitoring is an integral part of the transport-strategy process. Thus it is (argued to be) essential that the targets you choose have five particular attributes (although not all targets that are chosen manage to do this!):

▶ They must be **specific**

▶ They must be **measurable**

▶ They must be **relevant**

▶ They must be **time-limited**

▶ They must be **realistic**.

The reasons for these requirements are, if you pause for a moment to think about them, obvious. But you'd be surprised how often the guidelines have not been followed. Or maybe you wouldn't!

Assessment of Local Transport Plans
The government has stated that the allocation of resources will be determined by its assessment of the LTPs submitted, especially the need to provide good value for money. In future years, there is an indication that the delivery against the agreed programme of previous LTPs will be taken into account. In Unit 11, we looked in considerable detail at the processes for carrying out an economic appraisal for transport projects. The results derived from these procedures will be required in support of projects in the LTP. The LTP should be capable of being appraised using the NATA (New Approach to Appraisal – now incorporated within Webtag www.webtag.org.uk) (see BE71007, Transport Economics and Appraisal, for more details). There's an article about its first use in Britain in *Local Transport Today*.[104]

---

[104] 'First common appraisal framework study proposes M4 relief road alternative' *Local Transport Today*, 3 June 1999, p1

The assessment of LTPs, and the funding awarded to them compared to what is bid, is available on the DfT website. Up until 2004, funds were allocated to authorities on the basis of the quality of their LTPs. This changed in financial year 2005/06, such that a proportion of transport funding was allocated on this basis, but the bulk will be an allocation based on population and other demographic and economic indices. This may lead to LTPs varying more, as there will be less pressure to show how the LTP conforms to national policy and guidance. In addition, under the second round of LTPs ("LTP2"), progress reports can be submitted every two years instead of every year, and their status has been downgraded. In general, over the years 2005-2008 and with the move into LTP2, the trend has been away from very tight Whitehall control of the content and funding of LTPs; there is now more flexibility for local authorities, as part of a wider trend in central government.

Major Local Transport Schemes
Some projects will have a cost in excess of £5 million. These are excluded from the normal LTP process, and will be appraised in their own right, using the Webtag techniques. Funding for these schemes, once approved, will be earmarked to the specific scheme in the traditional way. Given the priorities expressed by government, for maintenance of existing assets and low-cost measures to encourage public transport, walking and cycling, along with a reduction in accidents, it is clear that submission of a large number of expensive projects – especially road projects - is not reasonable.

With these caveats in mind, it is stated that, in general, any one authority can have only one major scheme on the go at one time, whether conventionally funded or through the Private Finance Initiative.

Levels of funding

As noted in Unit 7, there has been over the past ten years a big increase in funding for local transport in England, although this rate of increase has now slowed, compared with 1997-2006. If you wish to find out how individual local authorities have done in their allocations compared with their bids, and why, you can check on the Local Transport Section of the DfT website, http://www.dft.gov.uk/stellent/groups/dft_localtrans/documents/page/dft_localtrans_033104.hcsp. The table below is also taken from the DfT website but it was posted in 2001/02 so sums may have fallen since then.

LTP Settlements 1999/2000 - 2005/06								
Earlier LTP settlements [8]			Current LTP settlement					5 year total
(£ billion, cash)	1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	

Total[9]	0.54	0.68	1.36	1.52	1.67	1.94	1.93	8.43

These figures do not sum exactly to total due to rounding.

The other major recent change in LTP capital funding in England is that major schemes (those costing over £5m), at least, have to be decided at the regional level – funding has, since 2004/05, been now granted via the Regional Assembly and it is the RA that has to recommend to DfT how it should be allocated to different areas, meaning that some councils will end up with nothing to fund major schemes. If you want to learn more about this process, you could go to http://www.wmra.gov.uk/page.asp?id=157 and look at briefing note 3; you could also look at http://www.dft.gov.uk/stellent/groups/dft_localtrans/documents/divisionhomepage/039134.hcsp. It is not essential to know about this in detail, but knowledge of it would be likely to gain you extra marks in answer to a relevant exam question.

What has the LTP regime achieved?

A key government objective for many years, but increased in importance with a measurable national target set in 1999, is traffic injury accident reduction. In order to deal with this, many local authorities have introduced area-wide traffic calming and other safety schemes to the benefit of (child) pedestrians in particular. Safety camera partnerships have allowed local authorities to raise revenue from speeding offences at accident blackspots to put back into further road safety campaigns. As a result, there have been sharp reductions in injury accidents and deaths involving pedestrians, in many cases already exceeding government targets of a 40% reduction in Killed and Seriously Injured (KSI) casualties and a 50% reduction in child KSIs by 2010 compared to 1994-1998. There is also some evidence that in terms of exposure, roads are becoming safer for pedestrians (see for example City of Edinburgh Council, 2006).

Pedestrians are also likely to have noticed improved footway surfaces and many more dropped kerbs, whilst road surfaces have also been improved much faster than in years before the LTP system, due to the importance placed by central government on maintenance. Almost all LTP areas will have seen more pedestrian crossings and, in certain areas (e.g. Nottingham, Birmingham), replacement of 1960s subways with surface crossings; some have also implemented extended pedestrian zones.

Improvements to bus services have formed a key part of all LTPs, as bus patronage is a core indicator of LTP performance. Local authorities' control of bus services is limited, as Richard Knowles' chapter explains.   The LTP system has nonetheless witnessed a great deal of growth in local authority and bus operator voluntary partnership working, where the former have improved infrastructure (new bus stops and shelters, bus lanes, and some times bus stations), whilst the latter have introduced new vehicles, route branding and simpler, re-structured route networks, sometimes resulting in spectacular increases in ridership (mostly in

smaller towns and cities that previously had very low bus ridership per head – see CPT (2004)). However, whilst it is legally possible for authorities – with the permission of central government - to control bus fares, routes and schedules, in practice this has not occurred. Very few effective multi-operator tickets are available outside the PTE areas of the UK (the largest urban areas) and in all areas they are invariably more expensive than single operator tickets. In contrast, due to local authority, bus operator and national initiatives, the availability of information (paper and electronic) has improved immensely.

Whilst, as noted above, certain towns and cities' principal bus operators have achieved significant increases in bus ridership over the past 5-10 years, on aggregate, bus ridership has continued to fall in England outside London – by 7.2% between 2000/01 and 2005/06. It also fell marginally in Wales but increased by 4.1% or 19 million passengers in Scotland, a rise accounted for almost completely by patronage on the main operator in the City of Edinburgh, Lothian Buses (DfT, 2006; City of Edinburgh Council, 2006).

Local authorities have also put considerable sums into cycling during the LTP years, as shown by Table 15.1. This has generally been to install new on-road cycle lanes, or shared footways for pedestrians and cyclists, and/or advanced stop lines. Linked to this has been the development by a charity, SUSTRANS, of a national cycle route network including many off-road sections. Cycle infrastructure has therefore improved in most towns and cities in the past 10 years but it is of highly variable quality and therefore usefulness. Nonetheless, certain cities have witnessed measurable increases in numbers of their residents cycling, although the overall national trend in cycling continues downwards.

The past ten years has also seen a considerable increase in the number of towns and cities in Britain that have taken over responsibility for enforcing parking from the police. This has led to larger areas being covered by controlled parking zones, more effective enforcement and also, for some councils, it has become an important income stream: the net income from on-street controlled parking in the City of Edinburgh was £19 million in 2005/06, for example (Scottish Executive 2007). In tandem with this, many authorities in the more economically buoyant parts of England have adopted maximum parking standards for all new developments – backed up by national maximum standards since 2001 for all large developments– which has led to reduced parking supply at larger new offices, hospitals and residential developments.

Related to this, increased emphasis has been placed on voluntary travel behaviour change (so-called soft measures) such as travel plans, travel awareness campaigns and personalised travel planning. Many authorities employ travel plan officers, and promote school travel plans, and state in their LTPs that a large proportion of the employees in their areas work in organisations that have a travel plan in place.

Many LTPs include aspirations for improved rail services and new rail stations. However, English local authorities have no direct powers over the railway network or services, so the most that local authorities can do is to lobby for, and provide input to the non-rail related aspects (such as station car parking or bus stops) of the rail improvements to which they

aspire. Since 2000, four local railways in Britain have (re-)opened to passenger services: Edinburgh Crossrail (2 km); the Larkhall line project in Lanarkshire and north Glasgow (two sections of 4.7 km and 1.6km respectively); South Acton to Brentford in London (3 km); and Halifax-Brighouse-Deighton (6 km) in West Yorkshire.

Since 2000, some 13 new stations have opened, and the majority of other stations have been refurbished under Railtrack's (the infrastructure owner, now Network Rail) station enhancement programme – although this was in most cases a programme to put right many years of inadequate maintenance. The capacity of Leeds City station was significantly enhanced in works that ended in 2002, and Waverley Station in Edinburgh benefited from additional platforms to increase its capacity from 24 to 28 trains per hour, with works completed in 2007. In the period since 1997, two tram and one light rail scheme have opened: the former in Croydon and Nottingham, and the latter in Sunderland, with short extensions to existing trams in Manchester. It is difficult to assess on an aggregate scale the changes that have taken place in rail services since 2000 but in general there has been a tendency for operators to increase off-peak service frequencies, whilst peak rail services into major centres could not be increased because they were already fully using the available capacity. The West Coast mainline from London to the West Midlands, north west England and Glasgow has been upgraded to benefit mainly longer-distance passenger services, and freight.

It is also worth noting that the LTP regime has *not* spelt the end of road building in England. Atkins' report for the DfT (Atkins, 2006) lists 58 major schemes completed during LTP1, of which 35 were roads schemes, mainly bypasses and inner city relief roads.

In summary, then it appears that LTPs have brought about changes in the street environment to improve road safety; road maintenance has improved; the quality of buses and their infrastructure and information has been enhanced, and service frequencies on key corridors have in many towns and cities been increased by simplifying route networks– at the expense of leaving more areas un(der)-served – much of this being change being brought about by bus operators. On-street parking management has increased in extent and intensity, and the availability of parking in the newest large developments has reduced. This is confirmed by Atkins' review of LTP1 delivery for the DfT (Atkins, 2006).

However, LTPs have not been able to influence some key public transport variables, such as the extent of rail networks and services, new trams, bus schedules, and ticketing and fares, the latter continuing to rise above inflation. Whilst the number of schemes listed in LTPs as having been implemented may be impressive, often numbering in the thousands, a "scheme" may be something as relatively small scale as a new bus stop pole and flag – of the approximately 105,000 public transport capital improvements brought about by LTP1, over 101,000 were indeed improvements at new and existing bus stops (*ibid*). This is not to belittle the system but rather to point out that the changes that it is able to bring about in most towns and cities remain relatively minor in scale and therefore impact.

Resources for local and national transport

A key point to note about the financial resources made available by the LTP system is that they are capital monies – that is, they can only be spent on building things, or on capital maintenance. Revenue spending is granted separately to local authorities by government, and the amount received is largely independent of the quality of the LTP. The total amounts spent in the LTPs reviewed for this chapter are shown in the Table below. It is notable that the amounts spent on new demand management, public transport, safety and walking/cycling schemes are still much lower than the amounts spent on maintenance (although this includes footway maintenance) and, in some cases such as Essex County Council, on new road schemes.

The amounts in Table 15.1 show the capital funding allocation granted to the councils through the LTP settlement, and are in cash terms. Many councils spent additionally from general capital and revenue funds, by "prudential borrowing", and/or from developer contributions. Southampton, for example, supplemented its £20.5m LTP settlement with a further £60m of capital and revenue funding, mostly from internal sources (Southampton City Council, 2006). Suffolk's £150m of LTP allocation was more than doubled with an injection of £170m in revenue and capital from the authority's general funds (Suffolk County Council, 2006). A general and important point to note is the very large increase in transport capital spending made available to English local authorities by the government since 1997, which has helped to address a backlog in road and bridge maintenance. According to the 2000 Local Transport Plan Settlement (DfT, 2000), the £1.3 billion (cash terms) of transport capital spending allocated to English local authorities for 2001/02 financial year represented an almost 100% increase on the previous years; this level of funds increased to around £1.6 billion in 2006/07.

Table 1 – LTP spending 2000/01 to 2005/06

Area	Population	Rural or urban	PT infra-structure	Cycle schemes	Walking schemes	Road safety	Traffic calming and management	Travel plans/SRTS	Mainten-ance	Local road schemes	Other	TOTAL	Spend per capita
Bristol	1,000,000	Urban	18.83	4.05	6.38	15.53	20.63	8.03	67.00	1.65	0.00	142.08	£142.08
Cheshire	672,400	Mixed	8.50	2.50	0.50	6.00	17.50	0.50	73.00	6.50	1.00	116.00	£172.52
Cumbria	496,200	Rural	4.00	1.00	3.50	12.80	0.00	1.28	48.00	4.80	6.56	81.94	£165.14
Essex	1,320,000	Mixed	9.13	5.22	5.22	10.43	24.12	3.91	90.10	262.50	7.17	417.80	£316.52
Nottingham	630,000	Urban	14.00	4.50	7.50	12.50	11.00	4.00	39.50	2.00	10.00	105.00	£166.67
Plymouth	250,000	Urban	2.50	1.00	2.00	3.00	4.50	3.50	11.50	10.50	3.50	42.00	£168.00
Southampton	217,000	Urban	3.65	1.23	2.05	1.19	0.00	0.21	8.55	0.86	2.71	20.44	£94.19
Stockton	187,000	Urban	2.16	0.80	1.28	2.24	1.28	0.24	5.00	28.41		41.41	£221.44
Suffolk	684,000	Rural	40.00						70.00	21.30		131.30	£191.96
Surrey	1,076,923	Mixed	17.50	3.00	5.80	22.30	17.00	1.10	70.00	5.70		142.40	£132.23
Thurrock	145,689	Mixed	1.84	0.65	0.45	3.42	1.51	0.35	6.18	8.54	0.72	23.65	£162.35
West Yorks	2,200,000	Urban	54.29	5.80	12.70	14.10	34.24	6.06	179.00	8.30	9.50	324.00	£147.27
England	52000000	Mainly urban	806.8	175.6	191.7	524.4	570.7	33.6	3586	297.1	542.1	6728.00	£129.38
England % by category			11.99%	2.61%	2.85%	7.79%	8.48%	0.50%	53.30%	4.42%	8.06%	100.00%	

Sources: Individual authorities' LTP1 Delivery Reports; and Atkins (2006)
Costs in £m to the nearest £0.5m
Where gaps are shown this does not necessarily mean that nothing was spent in this category, only that is was not listed in the Delivery Report in this category
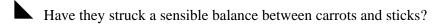
▲ **Self assessment exercise 16.1**

Reviewing Edinburgh's Local Transport Strategy.

Edinburgh has managed to create the impression that it is one of the more radical local authorities as far as transport planning is concerned. You should be able to find its LTS on their website, at http://www.edinburgh.gov.uk/internet/transport/transport_policy_and_planning%20/cec_local _transport_strategy_2004-07 . Read the Summary Chapter of the existing strategy (Chapter 6). What do you think of their plans, and their achievements so far?

> ▲ Have they struck a sensible balance between carrots and sticks?

> ▲ How would you improve on their plan?

> ▲ Will people accept the restrictions (if any) proposed on their use of cars?

> ▲ Could it encourage business to move out of Edinburgh?

There are no right answers to these questions, but compare your comments on Edinburgh's approach with what you have learned in Unit 15. How effective do you think Edinburgh's plans to restrict the demand for travel, especially by private car, are? Will they affect commercial activity adversely? How will they improve the attractiveness of the city, especially the central shopping and business areas, for residents and tourists?

Think of all the different reasons people have for visiting Edinburgh, and judge whether they benefit or not overall from the changes.

▲ **Research exercise 16.2**

Reviewing a Local Transport Plan (Strategy).

Get hold of a copy of your local council's Local Transport Plan (Strategy) and review their proposals. (If you live in London get the LTP for the County outside London and nearest to you.)

> ▲ Does it conform with national policy (as you now understand it) – will it make a contribution to the achievement of national policy objectives?

> ▲ Have they examined the scope for reductions in travel demand?

> ▲ Have they looked at fiscal measures and road pricing?

▲ Have they reviewed the land-use strategies, especially at the edges of any 'controlled area'?

▲ Have they followed a process for putting together the strategy similar to that outlined earlier in this unit?

▲ How would you improve the strategy?

Compare the LTS/LTP from your local area with one that is regarded as an example of best practice – try Oxfordshire, Surrey, York, Bath and Northeast Somerset, Warrington, or City of Nottingham. (NB these documents can be quite long! So just skim read parts on the plan process, what they are trying to achieve, and their targets and indicators.)

Again there is no right answer to these questions. But it is your considered opinion. So don't send your views to me, send them to your local council. It's part of the public participation process!

▲ Implementing local (and national) transport policy

At the time of writing (2003), the key word in transport policy is "delivery". This is because there is a perception that resources for transport have been increased significantly, and yet new schemes are not appearing on the ground – they are not being "delivered". Things are getting bad – so bad, in fact, that the Scottish IHT recently held a conference in Edinburgh called "Fund and Deliver". Dreadful puns aside, this is a crucial issue, as it could affect your employment prospects in the medium term – if things are not delivered then government is likely to get fed up and pull the funding plug.

At this point in writing the module I am not going to go on at length about reasons why policy is not delivered as intended. Instead, listed below are a number of articles and reports, available on either the web or the student webserver (www.sbe.napier.ac.uk and then Resource Centre and use the username sbe and password student), and I suggest that you browse them (or their summaries at least) so that you begin to get some appreciation of the reasons why policy is not always implemented. It is also useful to think about any theoretical frameworks that may help to explain how policy can best be implemented – the one by Gunn, cited in Ison and Rye, is useful.

Then you should summarise the articles and reports and add any other reasons that delivery may not be as smooth as planned. Thinking back through the Units in this module may help. Then, finally, see if you can think of a policy delivery environment in which barriers to implementation are minimized – i.e. how far barriers can be overcome to get towards the ideal implementation environment as outlined by theorists such as Gunn.

Ison, Stephen & Rye, Tom, 2003, 'Lessons from travel planning and road user charging for policy-making: through imperfection to implementation', Transport Policy 10 (3), July, pp 223-233 available on the webserver.

Gaffron, Philine, 2003, 'The Implementation of Walking and Cycling Policies in British local authorities', Transport Policy 10 (3), July, pp 235-244, available on the webserver.

Transferability of best practice in transport policy delivery – see
http://www.scotland.gov.uk/library5/development/bpitp-00.asp

Local Transport Plans Policy Evaluation: Part 1 Process Evaluation available at
http://www.dft.gov.uk/stellent/groups/dft_control/documents/contentservertemplate/dft_index.hcst?n=8302&l=3

Stead and Geerlings in *A New Deal for Transport?*

◣ Summary

In this unit I have tried to draw together a large number of the separate strands that we've discussed in previous units. It is, after all, the formulation and acceptance of a Transport Strategy that is the end goal of a transport policy maker.

This unit looks in detail at two aspects. First there are the processes by which an Urban Transport Strategy is formed, starting from first principles. Then, using the experience gained in the logical analysis carried out, we looked at the government's aims in devising a the new system of Local Transport Plans, examining the coverage that the government wishes to see in them and the processes which have to be carried out. I also encouraged you to consider some real Plans and Strategies, and compare them with each other.

Finally, we considered reasons why policy is not implemented, and perhaps some ways in which implementation can be improved.

Now it's over to you. Good luck!

Answers to self assessment questions and research exercises

Unit 13

12.1

What are the main differences between PPG13 and SPP17? Which to your mind is more "radical", or closer to the sustainable transport agenda?

Outline answer

Essentially the two documents are similar but PPG13 is rather more prescriptive in its guidance, particularly on minimum settlement size and the location of new development. It is also more "radical" in its statements on parking provision, including in residential development.

12.2

An outline application, for a new housing development for 325 houses on 15 hectares of farm land on the edge of the town, that has been received by the planning authority. What are the basic planning procedures associated with the application? How would SPP17 (PPG13) impact the planning considerations, if you are an authority in Surrey or Edinburgh (economically buoyant south east England/Scotland); compared with Stockton-on-Tees or Stonehaven (more economically depressed north east England/Scotland)?

Outline answer

This exercise looked at the process involved in seeking an outline planning application for 325 houses on 15 hectares of arable land on the fringes of a town. This is a pretty large development, and, in looking at the application, there is no doubt that the section of Appendix 13.2 you should be looking at is the second from the right. Is there a 'Green Belt' around this town? Probably, in which case you would want to be satisfied that there is no other reasonable site. What is the status of the land in the Structure Plan – is it seen as potential additional housing land?

How difficult would it be to service the sites, thinking particularly of incoming utilities and sewage treatment? What are the traffic issues on surrounding roads? For a development of this size, are any community facilities proposed? Can the local school cope with the probable additional children? Can the development be served well by existing public-transport services, possibly with a small diversion, or will additional routes be required? It's only an outline application (and therefore, dare I say it, a speculative bid by a developer), so a detailed consideration of the internal layout and appearance is not yet appropriate. Nonetheless, you should be considering whether the type of housing proposed is reasonable.

The requirements of NPPG 17 (PPG 13) will require the developer to demonstrate how the development will served by public transport and how walking and cycling can be encouraged.

PPG 13 also suggests that the traditional Traffic Impact Assessment that this size of development would ultimately require should be replaced by a Transport Impact Assessment. In Surrey or Edinburgh it is likely that you would be seeking to maximize the density of at least parts of the development, secure a mix of uses, and secure contributions for new bus services linking the development to the city. Reduced parking provision might also enter into the argument. In more economically depressed areas, you may simply accord with the developer's suggestions, or ask only for basic infrastructure for public transport, walking and cycling.

12.3
Consider the issues involved in the trying to obtain planning consent for an out of town shopping development.

Outline answer
This time you are considering a proposed out-of-centre shopping centre. There are now a number of these around the country, such as Brent Cross in north London, Meadowhall in Sheffield, the MetroCentre in Gateshead, Merryhill in the West Midlands and, most recently, Braehead at Renfrew to west of Glasgow. My hypothetical example in this exercise refers to a proposal that has been around for some years for another at Newhouse, about ten miles east of Glasgow near the EuroCentral industrial development.

Using the Appendices in Unit 13, the process for examining the case for this development should be clear. As you, in this example, are taking the role of the developer, you will probably need to offer more. Funding the additional road works will certainly be required, and you may think it worth including some leisure facilities. You'll need to be able to develop a convincing case to show how your proposal is not just abstractive from existing centres, as the government is not supportive of such schemes, but will add that 'certain something' that's impossible by any other means.

In researching this exercise, you might find it helpful to consider the Wal-Mart takeover of Asda in 1999. Wal-Mart is a huge American organisation that thrives on these very large, out-of-town shopping malls. It is very likely that, in buying into the British retail scene, they feel that there's scope for an expansion of this type of development. See what they have to say that might help the case in your example.

If you were instead to be promoting a housing development, how might your approach differ?

Outline answer

- If it's a housing development that you're considering, the issues involved are rather different in some respects, though similar in others. The water supply and sewage disposal issues will, of course, still require to be addressed (though the quantities will be rather different!), and you'll need to consider the quality of the land ~ is it contaminated from previous industrial use, for instance? Other considerations for housing developments in general are those we discussed in the previous Self-Assessment Exercise in this Unit; look back a couple of pages. A crucial issue will be the traffic impact – for housing the

requirement will be to cater for residents going to and fro, and their visitors; these will be fairly low traffic flows and so the scale of road works in the surrounding area will be much smaller – just a junction improvement on the main road, perhaps.

I would suggest that, other things being equal, the planning authority is more likely to welcome housing developments as it brings more population, and thus spending power, into its area. However in the particular area I mentioned (which is some way from existing settlements), there would need to be specific consideration given to the effects on local facilities, such as schools.
What about a proposal that would lead, when completed, to a substantial number of additional jobs?

Outline answer

- Industrial developments are a mixed blessing! While anything that brings more employment will nearly always be welcome to the planning authority – indeed there are often substantial grants available to encourage new employers to come to specific areas – the existing local residents will usually be unenthusiastic about the noise and traffic arising from such a development. But please re-read the question! The site I've referred to in this [hypothetical] example is alongside the A8 between Glasgow and Edinburgh, so there are few existing local residents. In an area of industrial decline – as this is – the boost to the economy from new jobs will mean that the application will probably be welcomed. Those of you who know the area will, of course, have realised that just such a development, called EuroCentral, has recently taken place. The concerns will often be ground conditions and the provision of services, and access for the large vehicles used to bring materials in and products out, plus the requirements of employees getting to and from their work.   In the case of EuroCentral, an extensive network of new roads, including a grade-separated junction on the A8, has been provided.   The development has provided a considerable number of jobs and helps to offset the industrial decline suffered when the Ravenscraig steelworks in Motherwell closed.

12.4
Managing demand through the land-use planning system and encouraging sustainable development.

Outline answer
This exercise is really just to prompt you to take time out to have a think about the ramifications of the two articles that I have discussed in the unit. While they are, inevitably, related to specific circumstances, and thus contain some detail of limited general application, there are a number of points that apply more generally. There are not really any 'right' or 'wrong' answers here; it's just a question of thinking of all the possible angles, considering

experiences elsewhere in similar locations, and trying to weigh up all the options to reach the best solution for your specific area.

Unit 14

14.1
Reviewing a land-use transportation study.

Outline answer
This exercise involves finding a copy of an appropriate transport study for an area that you know and examining it in the light of the previous 13 units of this Transport Policy Module as well as the material in the first half of this unit. There are no right and wrong answers here, but do bear in mind that if the study was carried out some time ago, the different political background will inevitably mean that some of the ideas and conclusions will seem a bit out of date now. Also the mathematical techniques used have changed over the years, so don't be too hard on those who produced plans long ago – I might have been one of them!

15.2
Reviewing Edinburgh's Transport Strategy.

Outline answer
As I've already said in the text of the unit, there are no right and wrong answers at this stage. Just have a careful think about the conclusions reached and see whether, in your opinion, they follow logically.

15.3
Reviewing a Local Transport Plans (Strategies).

Outline answer
Now, and finally in this module, I have invited you to get hold of a copy of the Local Transport Plan for your own area, and examine it carefully to see how well it fits in with the requirements that we've identified in this, and the preceding units.

Barriers to implementation and delivery (of transport policy in Britain)

These break down into two main categories:

Structural – e.g. fragmented governance structure, fragmented rail industry, bus deregulation, lack of subsidy, years of underfunding of transport compared with our European counterparts, reliance on PFI due to PSBR concerns, reliance on consultants, the nature of our consultation and local political systems.

Organisational – see Gunn's desiderata.