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PROCEEDINGS

FINANCING PUBLIC TRANSPORT INVESTMENT

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CURRENT ARRANGEMENTS UNDER SECTION 56, 1968 TRANSPORT ACT

Tom Worsley, Senior Economic Adviser, Department of Transport

A wider appreciation of the trends in subsidy and regulation of public transport over the past 20 years was required in order to understand the context of current concerns.

Major trends in Public Transport

There had been a growth in the demand for public transport, especially in the south east region of England. This reduced the demand for subsidy required for public transport as revenue increased more rapidly than costs. However the growth highlighted the need for investment in additional capacity for the public transport network. Subsidy to British Rail (BR) had risen from £1 billion in 1980 to about £1.25 billion by the middle of the decade. The Government and BR were broadly committed to keeping the rail network the same size as it was in 1974.

Obsolescence of a large proportion of BR's rolling stock had given the opportunity to invest in new, more cost effective designs of rolling stock. Much of the rolling stock had been bought under the 1955 Modernisation Plan and a large number of trains and multiple units needed to be replaced over a short period of time. This was particularly so in respect of the Provincial Sector of British Rail.

The deregulation of long distance Coach services had caused BR to adopt a more flexible marketing and pricing strategy. This change was also coupled with the phasing out of subsidy to the InterCity sector. (In 1988/89 British Rail InterCity sector made a profit of £24 million on its operation.)

The deregulation of local bus services in October 1986 had reduced subsidy required. Support was given to local bus services in

a number of forms:

1. Revenue support;
2. Concessionary fares;
3. New Bus Grant and
4. Fuel Duty rebate.

Since the 1970's general revenue support as a proportion of local bus services income had increased from 0% to nearly 50% by the mid-1980's. In the case of revenue support this came via local government and by 1985 was £1.25 billion. Apart from the reduction in subsidy the overall effects of deregulation were difficult to chart.

Present policy on subsidy

The House of Commons Select Committee had asked the Department of Transport (DTp) why it spent £1.25 billion on subsidy to BR. Within twelve months the Department produced some observations on this question; a White Paper could have taken over two years to produce. The observations could be summarised as follows:

1. Grants to public transport should be paid for the achievement of specific measurable objectives;
2. The benefits from investing in public transport must justify the costs. The present government sees no reason to pay grants so as to keep fares at low levels. It is committed to the principle of the "user pays" and to the more general principle of reducing the burden of taxation.
3. The Department asserted that subsidy tended to lead to inefficiencies of operation and resource allocation, i.e. in general subsidies leak into higher costs. Counter pressures were needed to deter this type of leakage.
[Reporter's note: the idea that subsidies leak into higher costs had been put forward in a number of studies undertaken since the late 1970's. For a fuller understanding

of the issues relating to this problem readers are recommended to read a paper published in "Transport Subsidy" edited by Stephen Glaister and published by Policy Journals by Ken Gwilliam on "Market Failures, Subsidy and Welfare Maximisation".]

4. There would be no abrupt or sweeping changes to services upon which people had come to rely. This meant that there would be no programme of major railway closures. The government had recently said no to the closure of the Settle to Carlisle rail route.

As a result of changes to Transport Supplementary Grant (TSG) in 1985 capital grants for public transport were not eligible for TSG. Currently the arrangements by which government gives support to investment in local public transport projects (excluding support to British Rail and London Regional Transport, which is provided directly) is through the 1968 Transport Act under the provisions contained in Section 56. The DTp were in the process of revising the guidance note on the criteria for Section 56 grants. At the time of the seminar they were consulting with potential applicants and consultants in respect of the guidelines. The revised note was due to be published in Autumn 1989.

Tom Worsley then identified the key outline elements in the appraisal of public transport investment proposals. These are shown below as follows:

Outline project appraisal

1. Specify base case and options for consideration
 - a) likely outcome of "do nothing" option,
 - b) assessment of minimum cost options, e.g. traffic management, bus priorities, etc.
 - c) assess the pricing policies required to change demand where the supply was not altered,

- d) for light rapid transit schemes the core investments and incremental options needed to be identified.
2. List and quantify user (passenger) benefits. The sponsor of the scheme then needed to forecast the likely demand given:
- a) service quality,
 - b) various assumptions about the level of fares and
 - c) assess the reaction of other public transport operators.
3. Estimate the full project costs
- a) carry out sensitivity tests on the projects capital costs,
 - b) carry out sensitivity tests on the projects operating costs, and
 - c) assess any cost changes elsewhere in the transport system. The sponsor could ignore for evaluation purposes (but not for forecasting demand on the proposed system) the impact upon commercial bus services.
4. Compare the net present values (NPV's) of costs and revenues
- a) If revenues exceed costs, then there is no need for a grant. Sponsors would need to consider the availability of private finance for projects. The capital allocation for a project was likely to be sanctioned, under such circumstances, if this were necessary.

- b) If costs exceeded revenues then the sponsor would need to explore the scope for contributions from private developers to ensure that the scheme went ahead.
 - c) If revenues plus developers contributions were still less than costs, then the sponsor needed to consider:
 - i) the scope for further fare increases either on a general basis or limited to, say, peak hour users; and
 - ii) the eligibility of the proposed scheme for grant in respect of external benefits to non-users, e.g. reduction in road congestion.
5. If grant is required
The sponsor needed to:
- a) Quantify the road decongestion benefits using approved traffic modelling techniques.
 - b) Ideally the model should be used in an iterative form to allow for redistribution and suppressed demand or to use the model in a form which would replicate the above mentioned effects.
 - c) Derive "equilibrium" road user benefits.
 - d) If it was the case the inclusion of external benefits made up the gap between costs and revenues plus developer contributions, then a case for grant exists.
 - e) An assessment needed to be made as to whether the scheme provided "pump priming" development benefits which, if quantifiable, could be added to,

or take the place of the sum provided in respect of developer contributions.

6. Fare assumptions

If fares increases were needed to finance the project then the sponsor needed to:

- a) measure additional user benefits compared with the base case time savings etc.
- b) evaluate and quantify the above benefits, and
- c) the fares increases should not exceed user benefits.

The author noted that the above outline was only a simplified version of the methodology set out in the draft guidance note on Section 56 grants. It is illustrative of the main requirements of the note and should not be treated as a comprehensive guideline. Lastly he noted that this was not the final word on the subject.

Discussion

The discussion following the presentation of the paper concentrated on the clarification of specific points. Peter White (PCLF and Conference Chairman) started off by asking for clarification of the test discount rate to be used in the appraisal of projects. The author commented that the figure to be used was now 8%. The declaration of this rate had been published in answer to a Parliamentary question and had been reported in the Financial Times newspaper over the Christmas 1988 period.

Steve Lowe (MVA) commented on the draft form of the Section 56 guidance notes published. He stated that when these were published in their final form they needed to be much clearer. Phil Goodwin (Oxford University Transport Studies Unit) commented on a number of points including the Local Authority borrowing system and the problems inherent in the system, the avoidance of public contributions to schemes and the criteria

justifying grants for external benefits.

Roy Turner (PCL) noted the problems of using iterative modelling techniques and the effect of long term elasticity coefficients. He also noted that there was relatively firm evidence of the factors which would attract people to use public transport. This evidence had shown that people could not simply be treated as users or non users. Chris Nash (University of Leeds) was puzzled about the fact that neither BR or LRT would benefit from Section 56 grants. Tom Worsley replied that finance for BR and LRT schemes were provided by a different avenue.

Martin Rudd (retired consultant) spoke about contributions from private developers which could either take the form of grants, rate of interest over the life of the project or other forms of contribution. He quoted that the London Passenger Transport Board (forerunner of LRT) had adopted the rate of interest method for a time before the war and that on the proposed Heathrow Surface Rail Link which was being developed jointly by BAA plc and BR, BAA plc were to provide the staff and BR would supply the rolling stock and infrastructure.

Ray Fisher (West Yorkshire Passenger Transport Executive) understood the attraction of potential contributions from developers but questioned the circumstances under which the developer made the contribution. There was in practice no role for the developer in the operation of the public transport investment. The involvement of developers would be dependent upon the developer making compromises with the sponsor and vice versa in order that both mutual interests could be met.

Andrew Evans (Flinders University and Bristol University) noted that the Government would ideally like to see contributions from the private sector but the way in which sponsors funded their part of the project was problematical. This was due to finance coming from the Local Government general finance system.

Rufus Barnes (London Regional Passengers Committee) stated that in London there was already intense pressure on the

public transport network. Overcrowding needed to be relieved. Passengers were paying for improvements "up front" and may never actually benefit from improvements due to the significant increases in demand experienced on the systems. He went on to say that no decision had yet been taken on the funding of the proposals of the Central London Rail Study (CLRS). This could be looked at in two ways; firstly in relation to the funding of new lines where there would be an improvement in service quality and secondly reducing the deficits of Network South East and London Underground Ltd. rail services. Roger Webber (London Buses Ltd.) took one of these points further by asking if an improvement in quality justified an increase in fare, did a deterioration in quality of service justify a reduction in fares!

Stuart Cole (Polytechnic of North London) said that the 8% test discount rate was still being discussed by the Welsh Affairs Committee of the House of Commons and that interested parties were still being consulted.

Martin Higginson (Birkbeck College) raised a whole series of points on the CLRS. The study had not solved the difficult question as to who should operate the new lines. Only the aggregate benefits of the schemes had been analysed. The summation of external benefits and internal benefits had been excluded. In future, the author replied that it would be possible to devise a schema whereby benefits were split between external and internal.

Finally Peter White ended the discussion in order to keep to the timetable of the seminar by asking the last question about the Heathrow surface rail link. He felt that there would be a reduction in the congestion on the Piccadilly Line as a result. Tom Worsley noted that this problem had been treated in a neutral way because of the problems in assigning passengers between the two routes.

Report by Ernest Godward, Financial Appraisal Specialist, London Underground Ltd.

Note: The comments contained within this article are the reporter's own and do not reflect those of any organisation worked for.

THE PASSENGER TRANSPORT EXECUTIVE GROUP (PTEG) RESPONSE

Bill Tyson, Consultant Economist and Economic Adviser to PTE Group.

Concentrating on the practical issues surrounding Section 56 grants - background to the PTE interests is:

1. The PTE's responsibility for local rail services is defined by Section 20 of the 1968 Transport Act. Tyne & Wear and Strathclyde PTEs actually run their own rail systems. All of the PTEs have been examining local rail services recently (especially as much of the rolling stock is due for renewal). Examination of local rail services led to (e.g.) the Manchester LRT proposals.
2. The PTEs also have some more general responsibility for local public transport policy (e.g. plugging the bus network gaps) and it should be remembered that rail can give a higher level of service and contribute to congestion reduction.
3. Investment in rail/public transport can assist the economic development of certain areas.

Therefore a lot of schemes are currently being evaluated by the PTEs, e.g.:

- * Manchester - Metrolink
- * Merseyside - Renewal of signalling and extension to system electrification
- * South Yorkshire - Sheffield Supertram
- * Strathclyde - undertaking a major strategic study of rail and light rail options
- c

- * Tyne & Wear - Metro extension to the airport: rail/Metro provision into Sunderland to be studied.
- * West Midlands - electrified cross-city lines and the Midlands Metro
- * West Yorkshire - Leeds Light Rail; Bradford

As local authority public transport funding arrangements changed, Section 56 grants became more important. There is currently great concern over the proposed new criteria - this concern was heightened by the unusual way that the proposed Section 56 changes were announced.

Basically there were three types of response to the proposed changes:

1. technical response;
2. Director General's response to senior DTp officials;
3. Political response (e.g. the meeting between the AMA, PTA Chairman and Michael Portillo).

I'm going to concentrate on the technical response from a practical point of view. This **Will** be considered in two sections:

1. Concerns of principle - comparability
- overall evaluation
- developers' contributions
- equity issues;
2. Practical concerns - the availability of techniques
- fares/external benefits tradeoff
- environmental benefits
- economic regeneration
- schemes in progress (based on 'old' criteria).

1. Concerns of Principle

1.1 Comparability (highways versus public transport)

Under the 'old' scheme, social cost benefit analysis (SCBA) was used for all projects. The position is somewhat blurred under the new arrangements. One important point is that, instead of making the case for a grant based on a SCBA of the whole project, the Section 56 arrangements pick out bits and pieces of the project (unlike highway appraisal). Will public transport schemes thus lose out to highway projects?

1.2 Overall evaluation

You never look at the overall evaluation rate or return for projects if you are only concerned with the new Section 56 criteria. You are only looking at part of the benefit. Schemes could continue to be evaluated by SCBA (using a common framework for all schemes). Section 56 only provides 50% of costs. Local authorities therefore need their own decision-making criteria. The start point is benefits to passengers.

1.3 Developers' gains

This has already been discussed. The PTEs' concern is - can they capture such gains? A Canary Wharf type development is quite easy (where one massive development alone justifies infrastructure investment) but real life is seldom so simple (you get all sorts of 'free riders'). Also, by using the (time consuming) Parliamentary Bill procedure - whereby developers can petition against any proposals - you have effectively declared your hand. On the other hand, if you negotiate with the developers first, you still have to wait ages until the Bill gets through. Developers' contributors are not the universal panacea. How, for example, do you treat the case of the developer requiring diversion of your network?

1.4 Equity

Public money is being used to provide time saving benefits to road users but not to public transport users under the

new criteria.

2. Practical Concerns

2.1 Availability of techniques

The conventional view based on practice up to now has been that the effect(s) of congestion, accidents, savings in road vehicle operating costs are minimal and hardly worth bothering with in practice, although in theory they are, of course, benefits. All of a sudden these things have become important. I highlight three deficiencies of existing techniques for measures taken.

2.1.1 Measuring the extent of changes in modal split (at the required level of detail). Not everywhere has the advantages of LTS. More likely you have to use LTS from the 1060s/170s - not entirely suitable.

2.1.2 Measuring the benefits of reduced congestion (at the required micro level). Do the existing models measure this in sufficient detail? You may be only looking at part of the network - also what are the effects of unreliability caused by congestion, especially on bus users?

Two approaches:

- try to develop a 'rough and ready' approach like that incorporated into the 'Glaister model';
- adapt CONTRAM, SATURN (this may be expensive especially as the effects of relief of congestion by rail schemes are not confined to small areas of the road system).

2.1.3 Accidents: what is the relationship between public transport usage and reduced accident rates (especially for pedestrians and cyclists)?

If you take people off the roads (and can actually calculate the accident reductions) what are the internal and external components? External components may include police and health service costs (remember that 84% of accidents involve a second person/vehicle).

This area needs further research.

2.2 Fares/external benefits tradeoff

If you increase fares, you price users off your system - but how price sensitive are users? This is another area requiring research.

There are problems associated with capturing the benefits to existing users - how much do we really know about elasticities? (e.g. for peak-hour travelling, children, OAPs etc.).

In Manchester (Metrolink), for example, there **will** be street running in the city centre therefore no closed stations - therefore some form of self-service ticketing arrangements will be required. To reduce revenue dilution you probably require a simple zonal fares system (and there are other constraints on the pricing system). On top of this, different users get different benefits and the process of capturing user benefits is therefore constrained.

2.3 Environmental benefits

The consultation document also mentioned environmental issues. Are the current techniques for measuring these sufficient?

2.4 Economic regeneration

This is important in some areas - it may be part of the justification for new schemes. In many ways it remains difficult to estimate the full effects on public transport investment.

2.5 Schemes in progress

The new criteria applies to all schemes (not only to new schemes) - including Metrolink. This raises the practical problems of changing the evaluation goal posts. The DTp has been very helpful but there are still some problems.

The PTEG commissioned consultants (HFA) to examine all the existing work of relevance to the new criteria. This should be finished by the end of July (1989). This should identify gaps - areas for further research - which should be filled quickly. There really is a need to develop a code of practice for the appropriate SCBA techniques applicable to LRT schemes - one which is preferably 'approved' by the DTp.

Questions

Chris Woods (PCL): You said that there were problems with techniques for evaluating environmental benefits but such techniques do exist. The trouble surely is the DTp's insistence on placing monetary values on such benefits.

A: The quantification (in money terms) of such benefits is becoming more and more important.

Geoff Warren (LB Camden): Public transport and highway assessments should be made on the same basis. The provinces are no worse off than London. No answer.

Reg Evans (HFA): Schemes are assessed on a fair basis. What time savings do we measure? Highway = all generalised cost savings; public transport = all generalised cost savings or those recaptured through fares. These values should be comparable. The issue at this stage in the project is to ensure comparability. No answer.

Dr. Alan Sturt (PCL): There is a lack of comparability because in public transport we always talk about capturing the benefits. No attempt to capture any benefits in highway assessment. No answer.

Chris Nash (ITS): What about comparability within public transport, e.g. LRT versus bus schemes? What about the treatment of bus priorities?

A: Difficult because standard operational response, e.g. increasing bus frequency are not possible in the post-deregulated climate. Under bus priority schemes the people who benefit are the bus operator (capturing extra trips - similar to bus stations) and the passengers (through a more reliable service). Yes, there are problems of comparability within public transport (especially as one market is deregulated). One other point to note maybe what are the adverse effects on congestion of bus priority measures?

P.R. White (PCL): It will be interesting to watch developments in New Zealand which is about to deregulate its bus industry. In NZ there is a common fund for both bus and rail services. This also enables consideration of co-ordinated fares policies, e.g. keeping fare levels low in the peak as part of an overall strategy to reduce congestion.

Steve Lowe (MVA Consultancy): On the theme of comparability, is there a mechanism allowing PTEs to support public transport .. allowing a system found to be viable if it operated at limited times of the day or week .. at reduced fares - but PTEs contract in at other times?

A: This point came up in Manchester. The consortia were bidding to build the scheme and also for a 15 year franchise to operate it - at a minimum level of service specified by the PTE. We looked at the PTE contracting in services. The government would not be in favour - prefers to give one-off capital grants as opposed to any ongoing commitment. Could be done in principle - worthy of evaluation.

John Fearon (TPA): With an operating franchise for 15 years, how do you deal with uncertainties?

A: Remember that no final decision has been made on Section 56 for Manchester. We were forced into a reverse appraisal. Technically you could calculate how much they were prepared to bid for the franchise. You also have to look carefully at the scope for competition with bus. There is a limit to pricing up without

losing substantial passengers to the bus system - therefore no control over fares is required.

G.B. Cooper (BRB): What is the assumption regarding pricing in the base case (e.g. if the drive is to reduce subsidy - needing substantial fares increases)? How does this affect rail congestion benefits?

A: You have to look at the project under both scenarios - or, indeed, a series of options. Will the government go for high fares with low ridership (or the other way about)?

In Manchester, one of the questions is - what is the level of service that the bidders will provide? A low frequency, congested system is out of the question.

COMPARABILITY OF EVALUATION PROCEDURES

John Bates, Independent Transport Consultant

The theme of John Bates' presentation was the need for comparable evaluation procedures between highway and public transport investment projects. The subject was discussed in terms of generalised cost, changes in which were traditionally measured differently for highway and public transport, because of the presence of the fares factor in public transport.

The change in consumer surplus (S) was defined as:

$$S = 1/2 (T' + T) (g' - g)$$

where T = demand, g = generalised cost and the prime ('), indicates 'after' values. This is known as the 'rule of a half', summed over all modes of transport and for all ij pairs, this formula becomes:

$$S = -1/2 \sum_{ij} (T'_{ijm} + T_{ijm}) (G'_{ijm} - g_{ijm})$$

Figures 1 and 2 show the different measurements of change in consumer surplus for highway and public transport projects. Change in consumer surplus is indicated by the sum of areas A and B in Figure 1. Figure 2 shows, for public transport projects, the effect of different fare levels (fo to r') on the change in consumer surplus. The surplus created by an improvement in service may be eroded by an increase in fares or increased by reducing fares, for example to encourage greater use of an enlarged facility. The same principle would also apply to highway schemes where tolls were present.

Figures 1 and 2 illustrate the principles of the evaluation, but assume independence between the modes of transport. In practice, there will be modal interdependence, so that an improvement in public transport will result in reduced demand for highways, as illustrated in Figure 3. In Figure 4, the effect of increased congestion as a result of higher demand is included.

Whilst the formulae lead to a straightforward estimation of the total change in generalised cost, there are dangers in attempting to attribute gains and losses to individuals. The problem arises in particular where there are more than two travel choices and more than one change in generalised cost is present. The changes in individuals' travel patterns and modal choices as a result of the changes in generalised cost are considered to be too complex to attribute with any reliability in such complex situations. The principal cause of this difficulty is the lack of knowledge of each individual's travel behaviour before the change took place, which prevents attribution of benefits to them individually. The benefits to those changing their travel mode were defined as path dependent, which is formalised as follows:

$$1/2 (g \text{ [before choice]} + g \text{ [after choice]})$$

It was, however, considered valid to attribute generalised cost changes by source, i.e. for highway, bus or train, for example. In any case, the total benefit of the change was not in doubt, even though its apportionment between beneficiaries could not readily be calculated.

The type of scheme for which the methodology outlined was suitable includes both capital and non-capital schemes. Conclusions reached as a result of applying the methodology are forms of benefit. For example, user and non-user benefits can be differently weighted. The benefits can also be disaggregated into, for example, time and money gains and losses.

Bates concluded that, whilst the specification and calibration of the models used was capable of variation, the most important criterion was that the evaluation should be consistent for multi-modal applications. He quoted optimistically from the DTp's statement on Transport in London (1989):

"It is important that broadly comparable criteria are used to maintain an appropriate balance in investment between different modes."

He disagreed, however, with the Department's desire for public transport to operate as far as possible without subsidies, except perhaps capital subsidies that would produce external benefits, and with its conclusion that this was "unlikely to distort the choice between investment in roads and public transport in the generality of cases".

Report by Martin Higginson

LOCAL GOVERNMENT FINANCE AND TRANSPORT INVESTMENT

Tony Travers, London School of Economics

For anyone who - like me - panics at the very words 'local government finance', the opportunity to hear a clear exposition of the changes that are underway and of their likely implications for the transport sector was a very welcome feature of this seminar. Tony Travers began by explaining the sources of funds available to

local government under the new regime, and proceeded to discuss some of the implications of these changes.

There will be three main sources of income available, of which two - revenue support grant and the national non-domestic rate - will be determined by central government and the third - the community charge - will be determined locally. Broadly, it is expected that the community charge will account for only around a quarter of total income, but - because the income from the first two sources will be determined by central government in advance - at the margin, changes in local government spending will be totally reflected in changes in the community charge. The national non-domestic rate will have a revalued base (the first since 1973) and be distributed in proportion to adult population. The revenue support grant will seek to equalise for spending needs, in which process highway maintenance costs and section 20 payments to British Rail will be allowed for explicitly, but other transport needs will be subsumed in an 'other' category.

The most obvious result of these changes will be to reduce the tax raising capacity of local authorities. This will happen in general because of a shift of the burden from existing ratepayers to all adults, who are on average poorer. It will be reinforced by a geographical redistribution of the burden such that in general people in inner London and the north will have to pay much more, whilst those in the Home Counties, East Anglia and the South West pay less. In some cases, the implied redistributions are so large that the speaker commented that he found it inconceivable that such a large change could actually come about. In the short run, it is possible that local authorities might actually seek to increase spending whilst blaming central government for the resulting community charge levels; however, the Treasury still has reserve powers to cap the community charge.

A second consequence of the changes may be to influence land-use patterns. In the first place, the national non-domestic rate and the revaluation will tend to greatly increase the rates paid by businesses (and especially shops and offices) in the prosperous areas of the south, and to reduce those paid by businesses in the

north. Secondly, the complete severing of the link between business development and local authority income will reduce the incentive for local authorities to encourage - or provide facilities for - business development in their area, particularly if they do not have a problem of unemployment. Conversely, attracting extra adult population will increase their income.

In the discussion, it was pointed out that these changes removed all possibility of local government recouping any of its transport investments from increased rate income from businesses. Reference was also made to the revised arrangements for PTE's, whereby they will have to raise all their money by a levy on districts, based purely on population. By greatly increasing the apparent cost of the PTE's activities, this could further constrain their expenditure, and also encourage districts to opt out.

Report by Chris Nash, Institute for Transport Studies, University of Leeds

SUMMING UP

Phil Goodwin, Director, Transport Studies Unit, University of Oxford

Phil Goodwin began by asking what we expect from a formal appraisal system, which distinguishes between good schemes and bad ones, and gives rules for testing benefits and costs. Its implementation should lead to good decisions about transport infrastructure and operations, without major distortions.

Summarising the earlier papers and discussions, he saw the following schemes emerge.

1. Are the Section 56 rules consistent with social cost-benefit rules (such as COBA) used for roads? Some of the

concepts applied would be in common, such as 'user benefits', 'externalities' and 'willingness to pay'.

2. However, as discussed today, the rules clearly are different. In what ways was this true? Should they be different? What were the consequences?

The earlier statements from the DTp (Tom Worsley) and the PTE Group (Bill Tyson) were both very useful. However, they indicated different objectives from each other. The PTEs were concerned with economic criteria, while the basic DTp objective seemed to be "to avoid public sector payments except in certain strictly limited conditions".

The thrust of Tom Worsley's contribution seemed to be that the increase in public expenditure in general, and subsidy in particular, had caused inefficiency. Market forces, exercised through competition with commercial criteria, should decide. The government would like to see new rail developments, but didn't want the taxpayers to pay. In principle, companies should finance their own expansion from customers who are willing to pay for them. If this were not enough, then contributions from landowners and others could provide funds. If this were still not enough, then the government could be asked to assist, at which point rules were needed to make 'yes or no' decisions.

The thrust of Bill Tyson's presentation was that light rail schemes could help to solve existing transport problems, where benefits exceeded costs. We already had rules for road schemes, which should be used for rail also.

So, the government wanted an evaluation system that reduced public expenditure, whilst the other 'lobby' wanted a system to make improvements on the ground.

So what was the nature of the differences?

First, with roads 'willingness to pay' is used as a measure of benefit, but payment does not occur in fact. Under Section 56,

payment is actually made by users. This was not a trivial difference in terms of the numbers of people actually travelling.

Second, quite different definitions of 'external cost' was that imposed (or relieved) on users of another mode which was provided free at the point of travel (roads).

Third, as a result of these two points, it was necessary to make arrangements to actually recover the money. The rule is "as much as possible but not more than the value of the benefit they receive". Considerable discussion had taken place about this, raising the old question of who was the 'user'. This sounded straightforward, but in practice was not. In theory we were talking about individuals, but in practice had to take classes of user. As he understood it, the Department first of all needed to define a group of people whose external costs or benefits did not count in justifying public expenditure. This appeared to include all public transport passengers.

Costs were to be recovered from this group in proportion to costs and demand elasticities. Was 'willingness to pay' the same as the 'possibility of capturing revenue', and/or 'the value of benefit to the users'? In practice, scope for price discrimination might be limited, and raised the practical problem that low elasticities for public transport were found in the peak, when the greatest potential benefits from road user diversion also arose. Confusion seemed to have arisen in earlier discussion about monopolistic pricing, since, by definition, one cannot charge fares that exceed consumer surplus. There was always some consumer surplus, whatever the level of price.

The next question was: should the rules for roads and public transport be different, and if so what would be the effect of that difference? The reason for using COBA for road traffic was the absence of a price system to recover user benefits. If the rules were the same (for road and rail), then from central government's point of view, 'too much' public expenditure might be justified.

He saw the main argument for comparability being that if differences were applied, then distortion would occur, with the wrong balance of expenditure, e.g. too much on roads, not enough on rail. It was necessary to define the distribution. For example, a shift in resources from road to rail might increase the total benefit. The danger was that such opportunities would be missed. Moving toward optimality in only one part of a system might make matters worse overall. It was necessary to use evaluation criteria which give the same effect.

A number of technical questions also arose. About a dozen anomalies had been mentioned. For example, if existing rail users were lost to road transport, but then subsequently regained following a rail service improvement, their 'benefits' would be counted.' However, if they remained rail users throughout, this was not so. It was curious that regeneration of one area at the expense of others, leading to gains in land values (resulting from job relocation) were counted, although normally these are regarded as transfer payments, not economic gains as such.

To really follow the rules, a radically different forecasting model for road traffic would be needed. We would need to follow through the behaviour of individuals over time to identify 'users' and those shifting modes. These did exist, but usually the inappropriate four-stage model was used. Traffic growth on roads, following diversion of some users to rail could be seen to 'eat up' benefits (although the new road users could benefit, their marginal benefit was presumably lower than that of previous users). Costs and benefits to other road users should also be examined - what about taxis, cyclists or pedestrians? The DTp rules seemed to imply that they counted if potential public transport users, but not otherwise.

In the case of bus lanes, very interesting problems arose with such assumptions. Benefits to existing bus users would not be counted, but those to users diverted would be.

In conclusion, he suggested that rules should be simple, clear and consistent. The government should set the total amount of expenditure, and then use one social cost-benefit framework to

allocate it, until the budget was used up, i.e. we would not use different rules to determine the budget for each mode, but use the total budget itself. Then we could maximise the overall benefit thereby produced.

Report by Peter White, Transport Studies Group, Polytechnic of Central London

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From this year we will be reverting to three editions each year following our experiment with a quarterly issue. This generally did not fit into our speakers' programme as naturally as three editions a year.

The Editor and the Committee also hopes this will enable the issue dates to be achieved as promised. I'm sorry we haven't been able to achieve the published deadlines and I hope you haven't missed the TEG too much.

Stuart Cole
EDITOR