Royal Automobile Club Foundation for Motoring

Rates of Return on Public Spending on Transport

Executive Summary

Prepared by:

John Dodgson June 2009

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The Royal Automobile Club Foundation has commissioned a number of external experts to write a series of think pieces and occasional papers throughout the course of 2009/10. This paper on the rates of return from transport investment is report number 09/103.

The Royal Automobile Club Foundation is an independent charity that explores the economic, mobility, safety and environmental issues relating to roads and the use of motor vehicles, and campaigns to secure a fair deal for responsible road users. Independent and authoritative research for the public benefit and informed debate are central to the RAC Foundation's standing.

Royal Automobile Club Foundation 89-91 Pall Mall London SW1Y 5HS

Tel no: 020 7747 3445 www.racfoundation.org

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This paper provides additional evidence on Benefit Cost Ratios (BCR) in light of the Eddington Transport Study findings. It aims to document in as much detail as possible, the BCR values for projects in different parts of the transport sector and highlights the difficulties in interpreting these values.

Transport interventions often provide very high returns on government spending, which makes the case for targeted transport investment compelling. Even though policy now focuses on ensuring better use of existing infrastructure, some new development projects still offer a good rate of return. This was recognised by Eddington, who suggested that schemes targeted at the worst bottlenecks and relatively small interventions such as junction improvements and walking and cycling schemes were likely to provide good returns.

The Eddington Transport Study also recommended that Government prioritise spending on transport to get the highest rates of return per £1 spent. These recommendations have since been included within the Department for Transport's objectives as set out in the Public Service Delivery Agreement. Over the Comprehensive Spending Review period 07 (CSR07), the DfT has been tasked with demonstrating the Value for Money (VfM) of projects, the success of which will be judged over three years. The Department aims to maintain the same proportion of expenditure in the high VfM category as achieved in CSR04.

Average BCRs are highest for Highways Schemes (See: Table 1). For high speed rail CBR's are much lower than is often assumed and there tends to be an over reliance on Wider Economic Benefits and particularly agglomeration economies in support of rail schemes.

Transport scheme	BCR
Highways agency roads	4.66
Local roads	4.23
Heavy rail schemes	2.83
Light rail schemes	2.14
Local public transport schemes	1.71

Table 1: Average BCR scores

Benefit Cost Ratios (BCR) have proved a very useful tool for appraising transport schemes, but there are a number of problems associated with their interpretation. One such problem is that the definition of costs changed in 2003 to include the net cost to the public sector rather than the overall cost to society.

This has meant that scheme costs to government, and indirect tax effects, have skewed the evaluations, a problem which will be rectified in 2010 when a new approach will be introduced. Currently projects that increase road traffic, which leads to an increase in fuel tax revenue increases the BCR. Many commentators say that for this reason BCR calculations are biased in favour of road schemes, although it is clear even after allowing for non-monetised environmental impacts that, on average, highways schemes still provide better value for money than public transport and railway schemes.

The other problem with BCRs is that they can vary over the time the project is planned, making comparisons between BCRs for projects at different stages more difficult. Post project BCRs can also differ from pre project estimates. The post evaluation of schemes that have been completed are encouraging, but relatively few ex post evaluations have been carried out. But from those evaluations that exist there is no evidence that projected BCRs have been consistently over or underestimated.

BCRs only include an analysis of monetarised impacts, although the non-monetarised effects are picked up as part of a wider Value for Money assessment, which does not often alter the original BCR classification. Of the 19 local public transport schemes looked at in this report when non-monetarised benefits were included, the overall category rating was increased in six out of the nineteen schemes as a result of allowance for non-monetised effects.

There is a great deal of evidence available on BCRs and, even after accounting for nonmonetarised environmental impacts, highways schemes often give better value for money than public transport schemes. More information needs to be given on how the final comparison can be made between an initial BCR and final VfM classification and case study examples provided by the DfT would be helpful. The proposed revision of the BCR from 2010 provides a better basis for analysis than is currently the case, but it will not make it easy for future comparisons to be made between project BCRs. It might therefore be useful to convert some present BCRs into the new basis to understand how much difference the new approach will make.