The National Audit Office’s value for money assessment of transport investments

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About the NAO

• The National Audit Office (NAO) scrutinises public spending for Parliament.

• We help to hold government departments and the bodies we audit to account for how they use public money. Our work helps public service managers to improve performance and service delivery, nationally and locally.

• Our value-for-money work is not strictly ex-post assessment in the usual sense of assessing a programme once it has been in operation for some time.

• We often carry out an assessment of a project before its completion and focus on how the programme is being delivered.
Our audit approach to capture project and programme benefits

Programme review

- How well are benefits outlined?
- Do they fit with the organisational objectives?

Concept

- Has the vision of success been specified?
- Are success criteria articulated and measurable?
- Do stakeholders agree what success looks like and how benefits will be delivered?

Delivery

- Is it clear how benefits are being delivered?
- Are benefit plans regularly reviewed and change responded to?
- Is transformation work being done to deliver behaviour change?

Definition

- How are outcomes being measured against baseline?
- What are the results of evaluations?
Ex-post evaluation in government

In 2013, the NAO published a report examining evaluation in government. We found:

- Ex-post evaluation requirements are not followed by all departments. Only two departments claim to always follow their own guidance.
- NAO reports have regularly criticised absent / poor evaluation.
- Few impact/cost-effectiveness evaluations on government websites.
- Most departments do not publish a list of the evaluations that they intend to prioritise.
- Few departments have plans to evaluate their major projects.
Ex-post evaluation in the Department for transport

- The Department is generally considered to be strong at ex-ante option appraisal, which we note in our report on *reducing costs in Department for Transport*.

- However, in our 2013 *Evaluation in government* report, we identified references to ex-post evaluation evidence only in the areas of sustainable transport, cycling, bus subsidy and road safety. Those evaluations underpinned around 5 per cent of DfT’s proposed budgets submitted to HM Treasury during the 2010 Spending Review.

- In 2013, the Department developed a monitoring and evaluation programme. Notable projects include:
  - High Speed 2
  - Intercity Express Programme
  - Crossrail
  - Rail franchising programme

- The Department is placing increasing emphasis on monitoring and evaluation.
High speed 1

- Of our recent work, our third report on the Channel Tunnel Rail Link, now known as High Speed 1, published in March 2012, most resembles a classic ex-post assessment of transport investment.
- High Speed 1 is a project to build a high speed railway between London and the Channel Tunnel for international and domestic railway services.

Project chronology

1996: LCR awarded the high speed rail link contract to finance, build and operate the new high speed railway.

1998: Construction starts on section one. Contract restructured to:
- split construction into two sections;
- Railtrack to manage construction, purchase section one and take an option to build and buy section two; and
- provide taxpayer guarantees to enable LCR to raise funding.

2000-2002

2002: Contract restructured:
- LCR buys section one back from Railtrack, following its collapse; and
- sections one and two to be owned by LCR.

June 2009:
- The Department takes LCR and its subsidiaries into public ownership.
- Full domestic high speed services commence.
- HS1 Limited granted a concession to operate the high speed line.

2001 Construction of section two begins.

NAO report in 2001: Focused on the financing of the project. Reported that the taxpayer was exposed to the financial consequences of international passenger numbers being below forecast.

NAO report in 2005: reviewed the progress in construction and revised expectations for public funding. We reported that Eurostar UK's revenues grew by 11 per cent in 2004 when it opened the first part of the line but international passenger numbers were below forecasts made in 1998.

2009-2011

2010: Sale of HS1 Limited.

NAO report in 2012: report on the completion of the programme and the sale of the operating company, High Speed One Limited.
The NAO’s examination of the project

In our third report, we reassessed the costs and journey time saving benefits of the project. Using the information available, we carried out a cost benefit analysis to identify the likely benefits and costs to the taxpayer. This involved re-assessing the costs and journey time saving benefits of the project. This enabled us to conclude:

- The original business case in 1998 was based on benefits to transport users, from faster journey times and increased rail capacity, and regeneration benefits. The data available only allows us to estimate that the value of journey time savings benefits, over a 60-year appraisal period to 2070, would be £7,000 million. We estimate that the net costs to the taxpayer to 2070 would be £10,200 million. On these measures we would conclude that the project is not value for money.

- When including other impacts from the project, some of which are unmeasurable, we accept that such a clear conclusion is not possible. The Department, however, would need to demonstrate that these benefits are going to be at least £8,300 million, giving a higher contribution than originally expected, to achieve the benefit-cost ratio of 1.5 to 1 estimated in 1998.

The Department’s evaluation of the project

- The Department was developing a plan to evaluate the project in 2012, following the completion of the project.

- We believed and stated that the Department should already have had an evaluation plan in place which identified the data it needed to collect and monitor to measure project benefits.

- We are concerned that there is a risk that the Department would not be able to measure robustly the impact of the project because it was not able to demonstrate that it had collected the information it would need.

- The Department is currently carrying out its evaluation of the project, and a report is expected to be published in 2015.
Measuring wider economic impacts

- Measuring wider economic impacts is challenging in both ex-ante and ex-post assessments of transport projects.
- However it is cited as a reason for proceeding with major projects such as High Speed rail.
  - The Department’s approach for projects such as Thameslink, Crossrail and High Speed 2 has been to base the initial benefit cost ratio on the transport benefits and to then produce an additional benefit cost ratio which includes an assessment of wider economic impacts.
- On HS1 we did not attempt to quantify the wider economic impact ourselves, but used our reworking of the cost benefit analysis to show the scale of benefit needed if the project was to deliver value for money.
- The Department told us, for its High Speed 1 project, wider benefits are not as easy to isolate as the impact on transport benefits, where it already collects data. A specific study would be required to assess the wider economic and regeneration benefits of the project.

- Increasing interest in the UK in ex-post assessments and making investment decisions using benefit-cost ratios which capture the full benefits of the project.
  - In July 2014, the Public Accounts Committee’s report on Crossrail recommended the Department should improve its understanding of wider economic benefits and include this in its investment decisions.
  - The Department told the Committee that it agreed it needed to do more work on understanding the wider economic benefits, such as changing land use, since these could not currently be quantified in the benefit-cost ratio.
Summary

- Benefits are an issue that the NAO considers in its audit approach throughout a project and programme lifecycle.
- There is a mismatch in the balance of effort and resources between ex-ante and ex-post evaluation, with too little focus on the latter.
- We see too much emphasis on the outputs rather than outcomes and benefits, particularly in delivery and evaluation.
- Increasing interest in the UK in ex-post assessments and making investment decisions using benefit-cost ratios which capture the full benefits of the project.