National Audit Office

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Office of Rail Regulation

Regulating Network Rail's efficiency

Summary

1 The Office of Rail Regulation (the Regulator) is the independent economic and safety regulator of the rail industry in England, Scotland and Wales. The Regulator's duties include promoting economy and efficiency in the rail industry. Much of the Regulator's work focuses on Network Rail, the owner and monopoly provider of the national rail network (including track, signalling and stations). In 2009-10, Network Rail spent £6.4 billion on the network.[1] In the same year the Regulator spent £14.3 million (0.2 per cent of Network Rail's expenditure) on functions other than rail safety, including the economic regulation of Network Rail.

2 The Department for Transport (the Department) is responsible for rail policy, and secures delivery of passenger services through franchise agreements with train operators awarded through competition, and monitors operators' performance. The Department also specifies the outputs (such as capacity and reliability) that the rail industry, including Network Rail, must deliver. Network Rail differs from most companies in other regulated industries in its governance and financial structure. It is a not-for-dividend private sector company limited by guarantee, financed not by equity but by debt, guaranteed by the Government. In 2009-10, Network Rail received £3.7 billion in direct taxpayer support in addition to its charges to network users.

3 The Regulator must judge how efficient Network Rail is and can be (whether it could spend less and still deliver its required outputs), and must incentivise it to improve its efficiency. Central to the Regulator's work is determining the charges that Network Rail can levy on passenger and freight train operators for access to its network. It does this through regular Periodic Reviews, the most recent of which was published in 2008, determining charges from April 2009 to March 2014. These charges totalled £1.5 billion in 2009-10. Charges to passenger operators are ultimately borne by tax- and fare payers, via ticket prices and levels of operator subsidy.

4 In this report we focus on the Regulator's effectiveness against two key requirements:

- there must be strong incentives on the regulated company to achieve efficient and sustainable levels of cost; and
- there must be robust information for the Regulator to judge what level of cost is efficient and sustainable, and how the regulated company's performance compares with that efficient cost.

5 We consider that a regulated company is more likely to seek greater efficiency and reveal its true efficiency potential when it has strong incentives to do so from shareholders, lenders and customers. Where these incentives are weak, the Regulator must rely more on good quality information on the company's costs and its potential for improvement (**Figure 1**).

1 All monetary amounts in the report are stated in 2009-10 prices.

Figure 1

Requirements for effective regulation of cost efficiency

Incentives/information trade-off	Market structure, examples
More efficiency incentives for companies, less information needed by regulator	**Fully competitive markets or degrees of contestability** Energy supply, telecommunications networks
	Several fully integrated geographical companies Water
	National networks with equity Electricity and gas transmission networks
Fewer efficiency incentives, more information needed by regulator	**Single network provider with no equity, government guarantee** Network Rail

Source: National Audit Office

6 Our report reviews Network Rail's efficiency outcomes as reported by the Regulator (Part Two), then considers incentives (Part Three) and information (Part Four).

Key findings

The Regulator has contributed to improving Network Rail's efficiency, but reports that a substantial efficiency gap remains

7 Network Rail was established in 2002 following the collapse of the previous rail network provider, Railtrack, after the accident at Hatfield in October 2000. Maintenance and renewal expenditure on the network increased substantially immediately after the accident. By 2003-04, the first full year of Network Rail's operation, it was 137 per cent above the average in the four years preceding the accident, partly because the company addressed a backlog of work. Network Rail has since reduced expenditure, with maintenance and renewal expenditure £409 million lower in 2009-10 than in 2003-04.

8 According to the Regulator's assessments Network Rail made cumulative efficiency savings of 27 per cent in the five years to 2008-09 (equivalent to £1.8 billion in 2008-09). This was below the Regulator's assumption of 31 per cent. For operating expenditure, where some comparisons are available, Network Rail's reported efficiency gains compared favourably with other regulated industries, although caution is needed in such comparisons. Published data on reliability and safety (as measured by fatalities or serious injuries) indicate Network Rail maintained or improved performance against these measures at the same time as reporting these efficiency gains and handling increased passenger demand.

9 The Regulator has determined that substantial scope remains for Network Rail to improve its efficiency. The Regulator estimates that Network Rail's maintenance and renewal activities were 34 to 40 per cent less efficient in 2008 than the most efficient level attained by European rail infrastructure managers. According to the Regulator's assessment this was the same relative gap as in 2003, despite the absolute efficiency improvements reported for Network Rail between 2003 and 2008. The Regulator determined that Network Rail could improve its efficiency by 21 per cent in the five years to March 2014 – equivalent to a saving of £940 million in forecast spending for that year. Network Rail questions the comparability of the data used in the Regulator's estimate of its relative efficiency, but has accepted that it can deliver the outcomes specified by the Department within the financial settlement determined by the Regulator.

Incentives for Network Rail to find efficiency savings are weaker than those facing other regulated companies

10 The Regulator adopts the same incentive-based approach that other UK economic regulators use. The Regulator's assumptions set a benchmark against which Network Rail is measured, and have helped to drive the savings that the company has achieved.

11 The Regulator is, however, unable to rely on many of the incentives that drive efficiency savings in other regulated industries. In most sectors shareholder and lender pressure, and regulators' comparisons of the relative efficiency of different companies, provide strong incentives to outperform efficiency assumptions. Network Rail, however, has no shareholders. It is financed by debt guaranteed by the Government; and it holds a national monopoly over the rail network.

12 Network Rail's main incentives to find greater efficiency are the reputational incentives on management to demonstrate that the company is efficient, and the component of Directors' remuneration relating to efficiency performance. The Regulator can specify objectives for the management incentive plan. The Regulator has in the past expressed surprise at, or a need for further justification of, the levels of executive bonuses awarded by Network Rail. Network Rail is currently reviewing its management incentive plan.

13 The Regulator and the Department have commissioned a wide ranging Rail Value for Money Study led by Sir Roy McNulty, former chairman of the Civil Aviation Authority. The Study's interim report highlighted the need to better align incentives in the rail industry to improve efficiency.

14 We judge that the skills and capabilities available to the Regulator to set efficiency assumptions and measure performance against them are broadly fit for its current purposes, and can also add value if deployed on projects subject to direct agreements between Network Rail and funders. The Regulator needs to be prepared to adapt to any changes in its role in the light of possible changes to industry and regulatory frameworks.

The Regulator has performed innovative benchmarking analysis but there are gaps in its information on Network Rail's own unit costs

15 The Regulator collects and uses information from Network Rail (audited by Independent Reporters) and other sources to assess the company's spending requirements at current levels of efficiency, its potential for efficiency gains, and its achievement of efficiency gains. For its latest Periodic Review the Regulator used a wide and expanded range of analyses, including innovative work on international efficiency benchmarking, to judge the potential for efficiency gains.

16 The Regulator needs good unit cost information to:

- have confidence in the unit cost assumptions underpinning the baseline spending (spending before efficiency gains) assumed in its settlement;
- judge the potential for further efficiency gains in future, and how quickly they can be realised; and
- measure the efficiency gains achieved during a control period.

17 Given the size of the estimated efficiency gap by comparison with international operators, information on Network Rail's internal unit costs was not critical to the Regulator's judgement on the percentage figure for potential efficiency improvement in the five years to March 2014. If Network Rail's efficiency improves, it should move closer to the most efficient overseas operators. Its own unit costs can then make a greater contribution to judging efficiency potential, for example, by comparing costs for similar activities in the more autonomous regional units proposed by the company.

18 Network Rail, with the Regulator's encouragement, has worked to improve the quality of its unit cost information from the poor position it inherited from Railtrack. But limitations in the coverage and reliability of Network Rail's unit cost information have restricted its contribution to the Regulator's assessment of efficiency potential and the gains actually achieved. The Regulator added these limitations to its list of matters to escalate with Network Rail for the first time in July 2010.

The Regulator has identified an efficiency gap but this is not yet fully explained

19 The Regulator considers that it is Network Rail's responsibility to lead on understanding the efficiency gap, in order to find the efficiency savings it has signed up to. It has, however, undertaken and commissioned its own work which has identified and quantified a number of reasons for the gap. However, a significant proportion remains to be understood or quantified.

20 It will be important for the Regulator to maintain a well informed understanding of the reasons for the gap as it narrows. The Regulator needs this understanding to have confidence in the amount of the gap which is within Network Rail's control, and the time period within which that control can reasonably be exercised.

21 Infrastructure costs in the UK are generally higher than elsewhere in Europe, and the Regulator's analysis has helped inform this understanding within government. There is a risk that allowances for input price inflation above general inflation, made by the Regulator (and by other economic regulators) when setting efficiency assumptions, may contribute to these high costs.

Conclusion on value for money

22 The Regulator has significantly developed the range and quality of analyses used in regulatory settlements and the methods it uses to judge efficiency, for example, through innovative work on international benchmarking. It has required substantial efficiency improvements from Network Rail, and reports that the company has come close to achieving them. There are, however, weaknesses in the Regulator's information on Network Rail's unit costs, and it needs to develop a better understanding of the reasons for the efficiency gap relative to more efficient operators. We judge that these limitations have not been critical to the pursuit of value for money to date, because of the scale of the efficiency potential revealed by the Regulator's external benchmarking. We believe that these weaknesses must be addressed promptly, however, in order to improve confidence that:

- efficiency targets for the next control period reflect Network Rail's true potential to secure value for money as the efficiency gap narrows; and
- reported efficiency gains correctly reflect Network Rail's actual performance.

Recommendations

23 The rail industry is currently subject to a wider Rail Value for Money Study. Our own recommendations therefore focus on actions by the Regulator which could improve confidence in value for money, taking account of the broad thrust of that wider review without pre-judging its outcomes.

a **Network Rail's unit cost information has improved but weaknesses in quality and coverage remain.** The Regulator should:

- require Network Rail to improve the quality, coverage and geographic breakdown of its unit cost and work volume information to the point where it can be a more valuable component of both Network Rail's own plans and internal benchmarking, and the Regulator's efficiency judgements in the next Periodic Review;
- work with Network Rail to improve its confidence in the breakdown of reported cost reductions between unit cost efficiencies, scope efficiencies and deferrals, and satisfy itself that the latter do not compromise short- or long-term delivery of required outputs; and
- adjust for levels of input price inflation different to those assumed in settlements, when reporting efficiency savings made by Network Rail.

b **The reasons for the evident efficiency gap relative to other rail infrastructure operators have not been fully quantified, and civil engineering costs generally are higher in the UK than in most of Europe.** The Regulator should work with Network Rail to understand better the reasons for the evident efficiency gap relative to the most efficient European operators, and the opportunities to bridge it. It should also work with other regulators and Infrastructure UK to understand the reasons for the generally high level of UK infrastructure costs, and to address any aspects of regulatory frameworks that may contribute to it.

c **The Regulator has found it difficult to reconcile the levels of management bonuses with its own assessment of Network Rail's performance.** The Regulator should amend Network Rail's licence conditions to require it to have regard to the Regulator's assessment of performance when setting management bonuses, as well as (as currently) stating how it has reflected that assessment in its decisions. The Regulator should also ensure that measures of efficiency used within the management incentive plan align well with its own measures of progress towards improved efficiency.

d **The interim report of the Rail Value for Money Study highlighted the need to better align incentives in the rail industry to improve efficiency.** Whatever new structures or realignment of incentives emerge from the Study, the Regulator should ensure that progress made in improving understanding of Network Rail's costs and reporting efficiency gains is protected and built upon within the regulatory regime.

e **Direct agreements between Network Rail and funders have covered the major Thameslink and CrossRail schemes and may continue to feature in the rail investment programme.** If direct agreements between Network Rail and funders for infrastructure provision are necessary, the Regulator should nevertheless have the opportunity to engage with their development, to satisfy itself that they represent efficient cost and do not expose tax- and fare payers to excessive risk.

f **Any substantial change to the Regulator's role could present resource challenges.** The Regulator should be prepared to undertake or commission a capability review in these circumstances.