Responsibilities and powers of regulatory bodies and infrastructure managers: lessons from Britain

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Introduction

The focus of this note in on how regulators can combine the use of upside and downside incentives to support the infrastructure operator to achieve effective outcomes, rather than relying on traditional rules-based or contractual regulation, and our experience of this in Britain.

To start with, let me introduce the Office of Rail and Road. The ORR was set up in 1994. Today we are the combined independent economic and safety regulator of railways in Great Britain. We are also the licensing authority and the body responsible for enforcing passenger rights. Recently we have been given the responsibility for regulating and monitoring the efficiency and performance of England's strategic road network.

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Key lessons from rail regulation in Britain

An efficient railway is a safe railway

Safety and efficiency are not substitutes – there is no trade-off. The maturity of risk management of railway businesses is essential to deliver safety, efficiency and customer service. Compromising safety will undermine all other objectives, and the cost of recovering an unsafe network will exceed any short-term benefit from cutting corners. A railway which does not manage safety effectively cannot be efficient.

Excellent asset management requires excellent asset information

A thorough understanding of asset condition, unit costs and use of predictive data is critical before rail managers can deliver safety, efficiency and service reliability.

To put customers first, treat rail businesses like businesses

Set the framework of competition, challenge, transparency and incentives in the industry so that you minimise reliance on bureaucratic intervention from regulator or government, and maximise the scope for the industry to innovate, invest and think creatively on how to serve customers.

Align funding to risk, even where subsidy is applied. Make sure the infrastructure operator has to earn its revenue by delivering for train operators and their customers; and that train operators pay the costs of the infrastructure they use. That way both sides have good commercial reasons to work together to improve services and value for customers.

Empower smart, informed customers...

Unbundle/deregulate services that do not require regional/local government funding and specify USO services lightly. Encourage flexibility and competition wherever it is feasible.

...and smart, informed governments

Local or national governments need to be clear about the services that they want to buy or support, and what they cost to provide – avoid undifferentiated block subsidies to cover ill-defined costs.

Separation and subsidiarity, wherever it is possible...

Devolve decision-making to allow services to be more responsive to local needs; to allow PSO decisions to be taken closer to users; to develop comparative competition to shed more light on best practice in performance and efficiency. Risk transfer - avoid a single entity being 'too big to fail'.

...to promote competition and comparison

Separate out the natural infrastructure monopoly, and allow competition and/or contestability for train services (in and for market competition); and in the supply chain. Challenge and collaboration from train operators helps make the infrastructure operator commercial and efficient, and reduces reliance on the regulator.

Independent regulation ensures efficient, responsible outcomes

Empower an independent regulator with a strong focus on the interests of rail users/consumers and taxpayers. Structure the industry so that performance and efficiency are driven up by commercial incentives, reducing the information asymmetries and reducing reliance on the regulator as the sole source of pressure.

From Richard Price: 'Regulation of the railways: the British experience', Office of Rail and Road, November 2014.

Chart 1: A combined economic and safety regulator for the railway industry: Functions of the Office of Rail and Road

Source: Office of Rail and Road

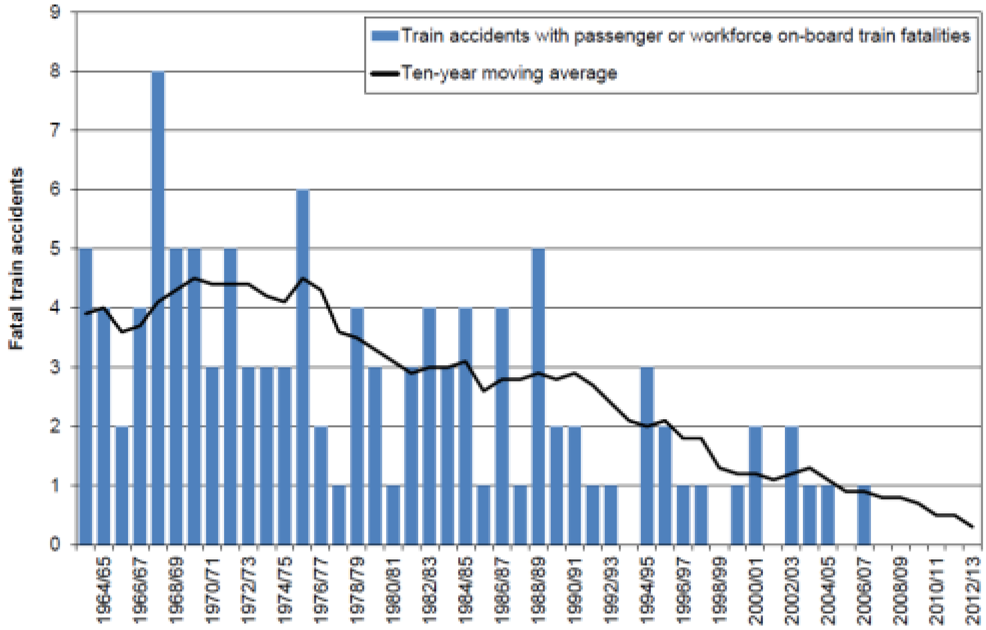
We also have one of the best safety records in Europe, although we must never be complacent.

The period since 1990 - the post-privatisation era in Britain's railways – has seen substantial and sustained growth in both rail passenger and rail freight demand.

As you know, the mainline railway sector in Great Britain has been vertically separated since the 1990s. There is no state incumbent train operator, (although a subject of recent debate has been whether to re-introduce one, reflecting the success of French, Dutch and German state operators in the British market).

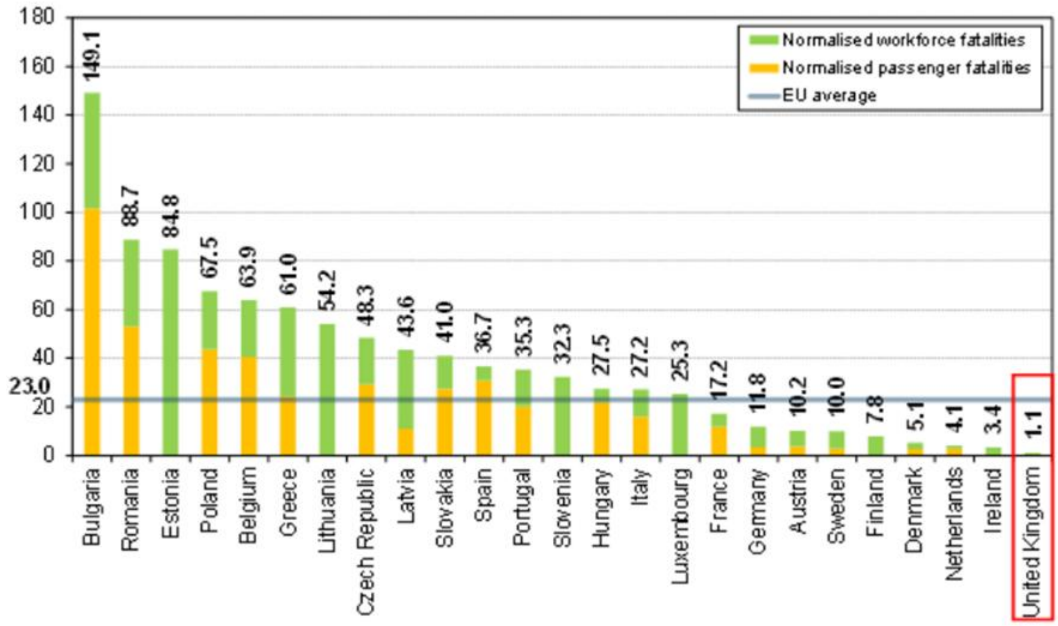
Freight services are completely open access, most passenger services are subject to public sector contracts let to private sector operators through competitive tender, and there is also a very small number of completely open access passenger operators who receive no subsidy and are not subject to the same service obligations as franchised operators.

Chart 2: Long-term decline in fatal train accidents in Britain since 1950



Source: Office of Rail Regulation, Health and safety annual report, 2013-14

Chart 3: Comparative safety across Europe fatalities per million train kilometres, 2008-2012



Source: Office of Rail Regulation, Health and safety annual report, 2013-14

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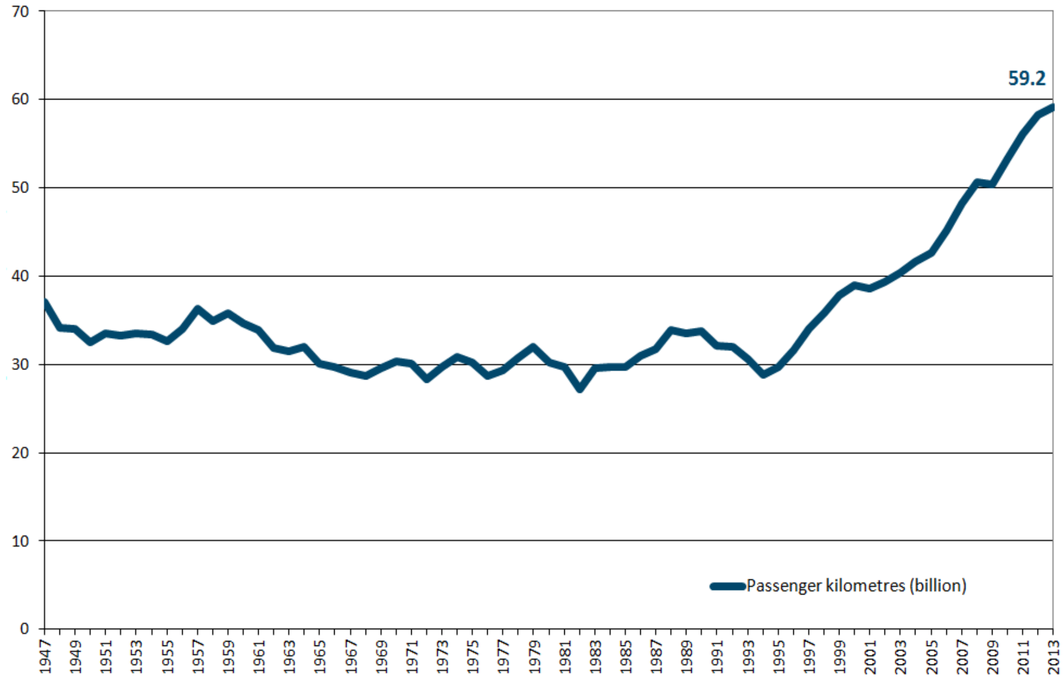
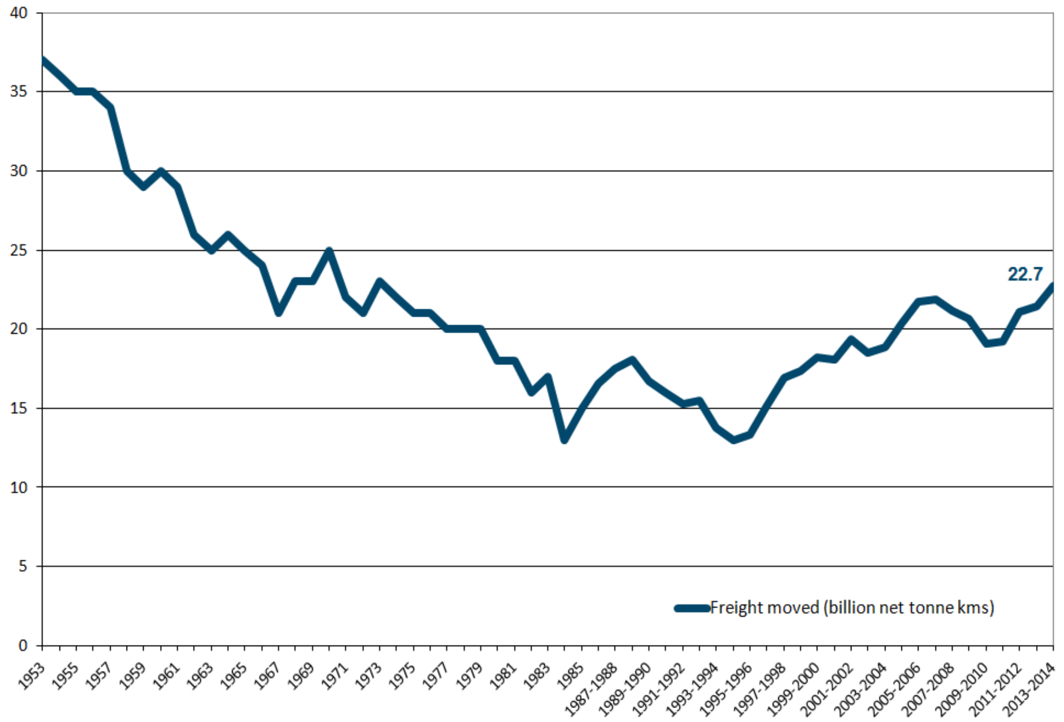
Chart 4: Rail passenger demand: since 1947:
sustained growth since the late 1990s



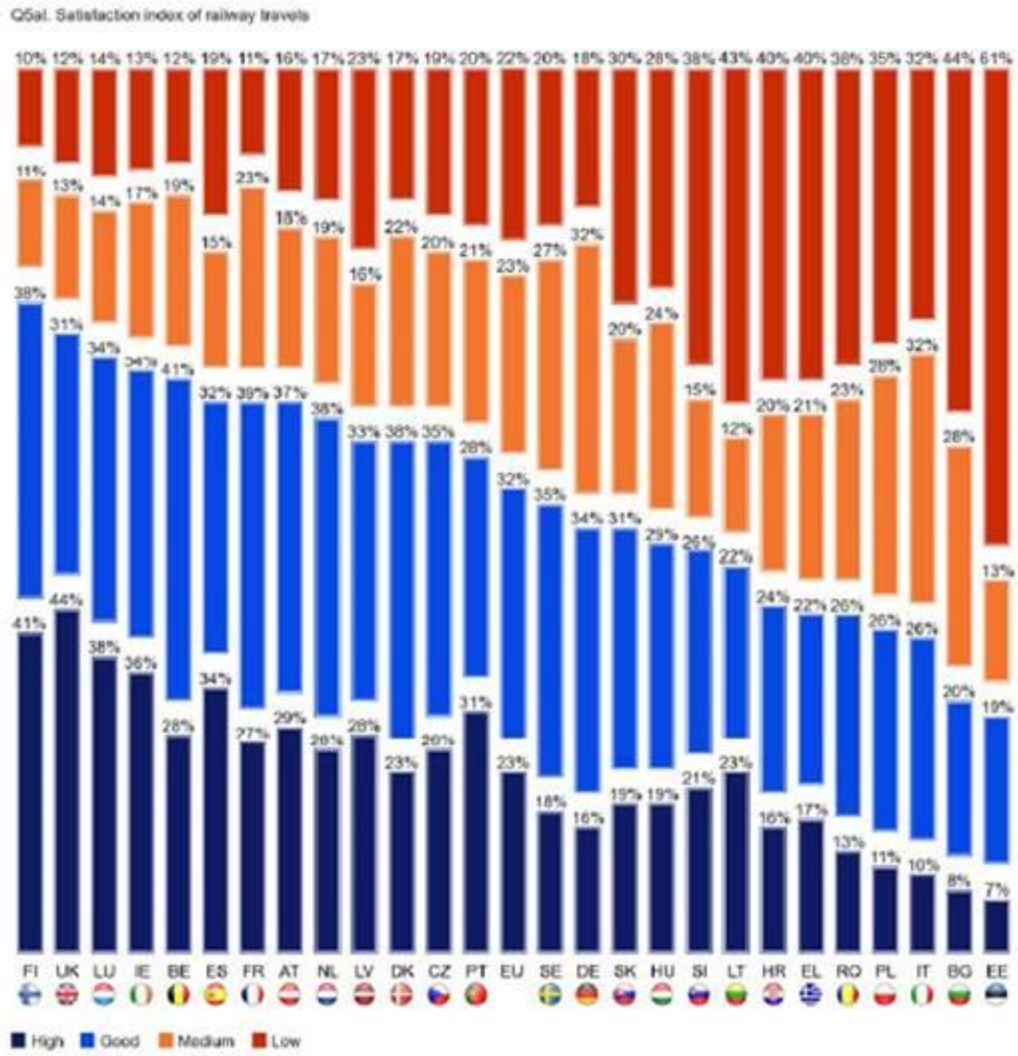
Source: Office of Rail and Road

Chart 5: Rail freight since 1953:
recovery since the mid-1990s, and renewed growth post-recession



Source: Office of Rail and Road

Chart 6 – Passenger satisfaction index – EU comparison



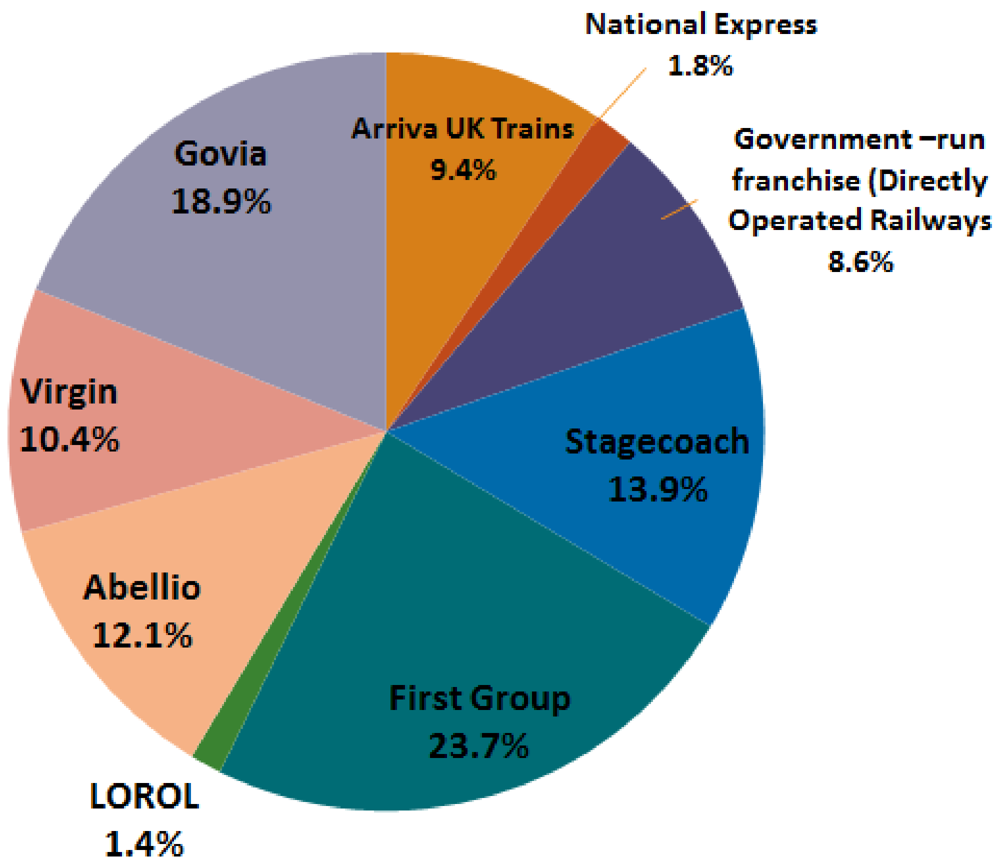
Source: EU Commission Eurobarometer survey, Dec 2013

Competition for and in the market

Competition in the passenger market in Britain is limited but where it does exist – either in the few places where franchises overlap, or where there are open access operators – there is strong quantitative evidence that passengers benefit. Satisfaction levels are often higher and ticket prices are often lower.

The following chart shows how the passenger market shares between open access and public services in Britain differ from passenger market shares in Italy. In fact they are almost opposites. In Britain, government-owned operation is reserved for the 'operator of last resort'. We currently have no government-owned operators, although politicians from different parties have opposing views about whether or not public sector operators should compete for these franchises. The market –is served by private business. Within this market, competition– open access amounts to only 1 per cent.

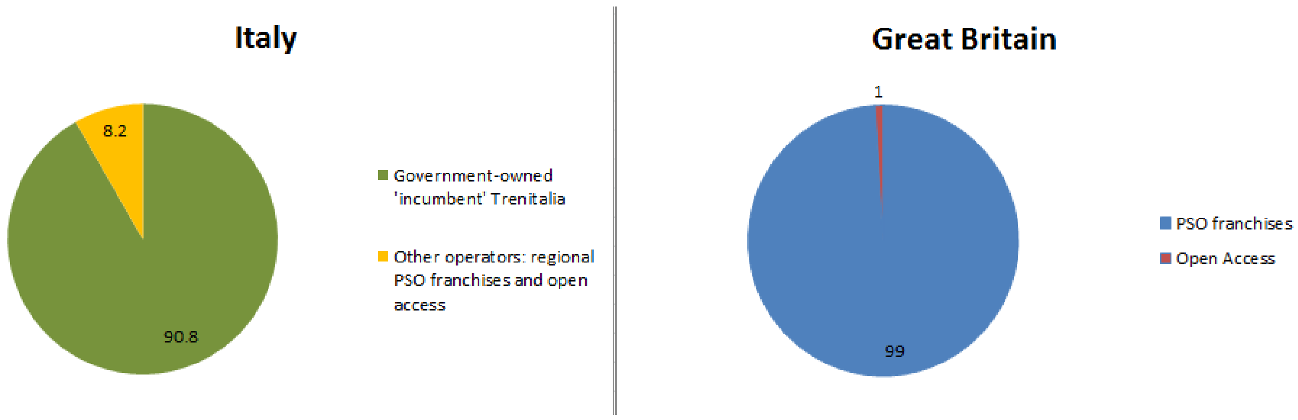
Chart 7: Rail passenger market shares in Great Britain by owner group.
Shares of passenger kilometres, 2013-14.



Source: Office of Rail and Road

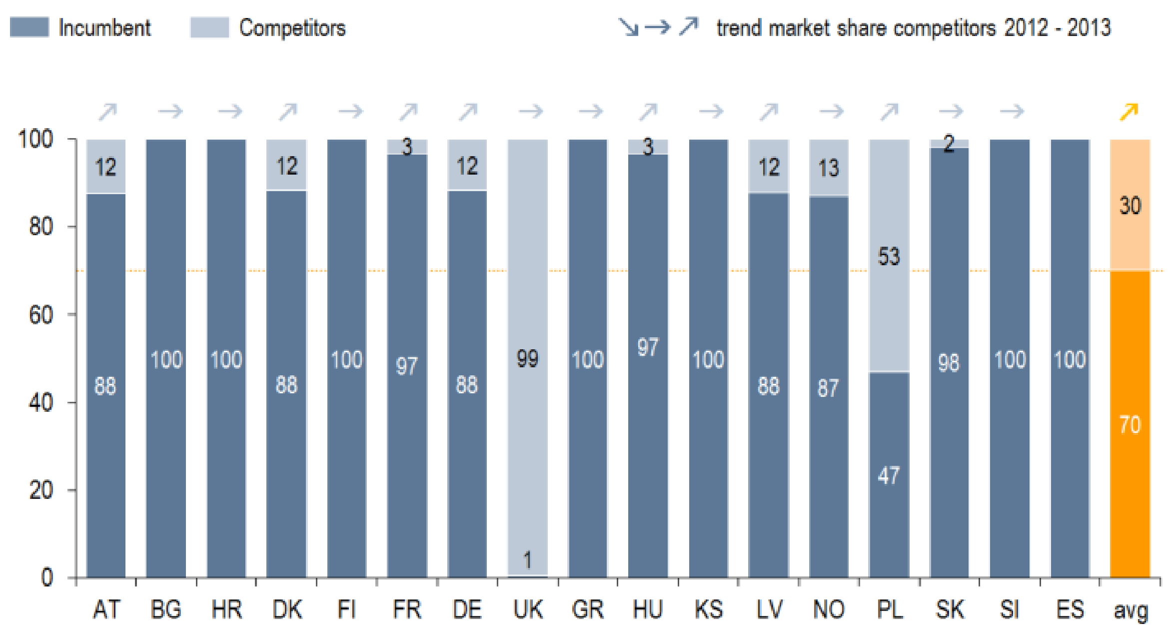
In Italy, this position is nearly reversed. Trenitalia represents 91 per cent of the passenger market, with just 9 per cent taken up by other operators – mainly regional franchises and much smaller proportion of open access. Chart 9 shows that the position in Italy is not unusual in Europe.

Chart 8: Rail passenger market shares in 2013-14 (Great Britain) and 2011 (Italy)



Source: ORR and Autorità di Regolazione dei Trasporti.

Chart 9: Rail passenger market shares in 2012-13: comparisons across Europe

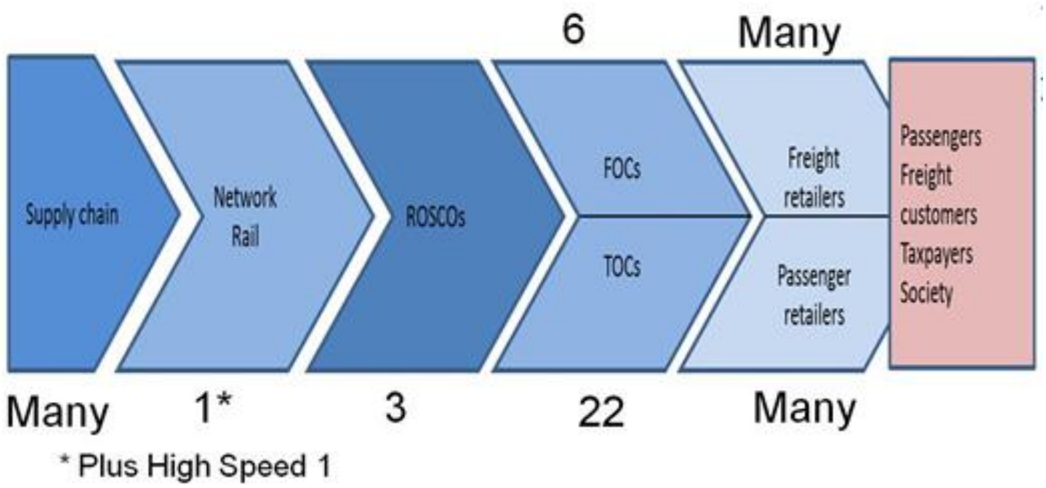


Source: IRG-Rail monitoring report, Commission RMMS report

Our experience in Britain has been that a framework where new entrants are able to offer train services, whether on the basis of periodically-competed franchises with public service obligation components, or through open access, has real benefits for customers and for industry performance.

Nevertheless, the British rail industry has a complicated structure, which bares limited resemblance to a normal market. There has always been a risk that different players would face different and potentially contradictory incentives which might pull them in different directions – with wasteful consequences.

Chart 10: The rail industry's supply chain



A main aim of the regulatory framework in Britain is to ensure that the incentives facing the different parts of the sector are coherent and aligned in the interests of the railway's customers and funders, so that they incentivise **efficient behaviour and better performance** from the infrastructure manager and train operators.

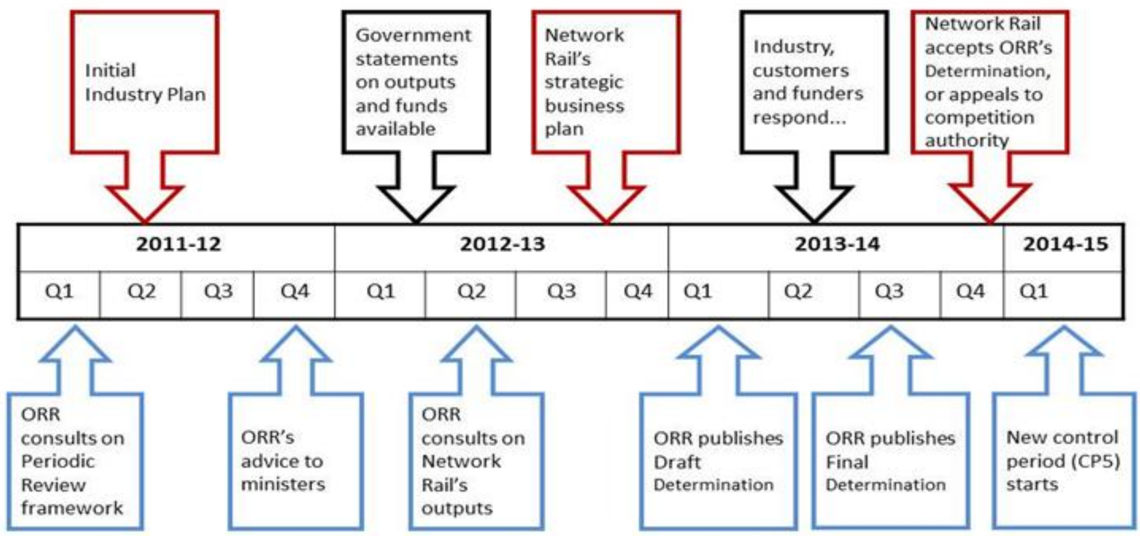
The charging review that is conducted every five years establishes a regulatory mechanism with a number of financial incentives to ensure that the infrastructure manager, whilst not facing competition, is incentivised to control costs, increase its efficiency and improve performance.

The Periodic Review process

We are constantly encouraging the industry to work together to improve productivity, reduce costs and deliver better value to customers. We are doing this by strengthening and developing incentives to align better the interests of Network Rail and its customers, the train operators, and to make Network Rail more commercially responsive to the needs of its customers.

As economic regulator, one of our principal tasks is to determine what the infrastructure manager must achieve within the 5 years covered by each periodic review, and create incentives to encourage them to achieve this.

Chart 11: The process for the 2013 Periodic Review of Network Rail



Source: Office of Rail and Road

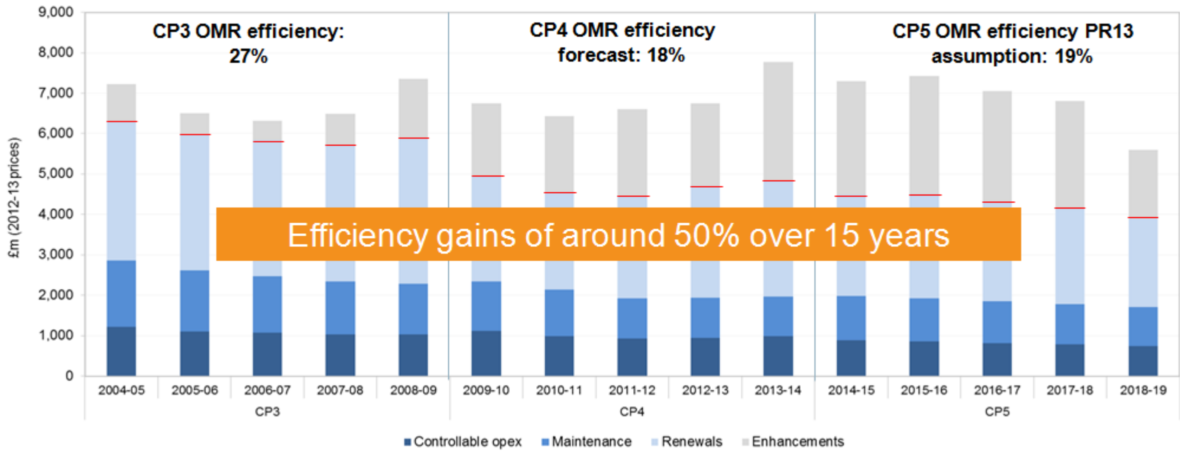
A critical element of this process is that it is collaborative and inclusive. The process is initiated by the ORR but the first step is an industry-led one, in which the businesses set out commercial proposals and options for the development of the network. As the major investor in the network, government is required to set out what it wants from the railway, and what it is prepared to pay, as part of this process.

We formally set out the outputs and funding requirements, as well as a challenging efficiency target bearing in mind our duty not to make it unduly difficult for NR to finance its activities. For this periodic review, ORR has set a

21% efficiency improvement target to NR (compared to the 13% the company assumed.

Chart 14 at the end of this paper summarises the full set of outputs and efficiency gains we expect Network Rail to deliver in the five years to 2019.

Chart 12 -Network Rail operating, maintenance and renewals costs; and enhancement spending, 2004-5 to 2018-19:
Improving efficiency frees up funding for network growth and improvement



The overall impact of our framework and incentives over the last two control periods has been to reduce the day-to-day costs of Britain's rail industry by 40% over the last decade, and a further 20% in the next five years; which covers the gap with the most efficient in Europe, and frees up funding to invest in a bigger, better and safer network.

Our system contains a **mixture of incentives**. We have contractual, financial and more general incentives. These are reviewed every five years as part of the periodic review and are described in our determination document. It's worth noting that the contractual and some of the financial incentives I am going to describe are put in place through changes that we make to the framework agreements between Network Rail and all of the train operators as part of the Periodic Review. That is one of the reasons that we all (Network Rail, train operators and ORR) see those framework agreements as a key piece of the regulatory jigsaw.

Contractual incentives

The model of regulation in Great Britain relies heavily on contractual relationships which include some key contractual incentives. There are well established mechanisms through which important aspects of network management are undertaken.

I will talk about each element of the incentives framework in a little more detail.

Firstly, the **possessions regime** is the part of the framework through which compensation is paid to operators when they are unable to use parts of the network, due to planned restrictions of use, such as those needed to carry out engineering/construction works

Secondly, there is a **performance regime** through which the infrastructure manager and train operators either pay compensation for poor performance or receive bonuses for good performance.

These incentive schemes encourage both Network Rail and train operators to improve their performance, by reducing average minutes lateness and cancellations. Details of the regime are incorporated into the track access contracts (framework agreement) of each railway undertaking, and enforced where necessary by ORR. Compensation is paid by either party if train or network performance fails to meet set benchmarks, which are set in line with regulated output targets. Positive incentive payments are received if either party delivers better performance than the benchmark.

The system is certainly complicated, and the costs of operating it are substantial, but there is evidence to show that it has been effective in driving continuous improvement in performance of the railway in Britain over the last two decades.

Financial incentives

Moving on, in addition to these contractual frameworks between Network Rail and operating companies, we have introduced several top-level financial incentives on the infrastructure operator.

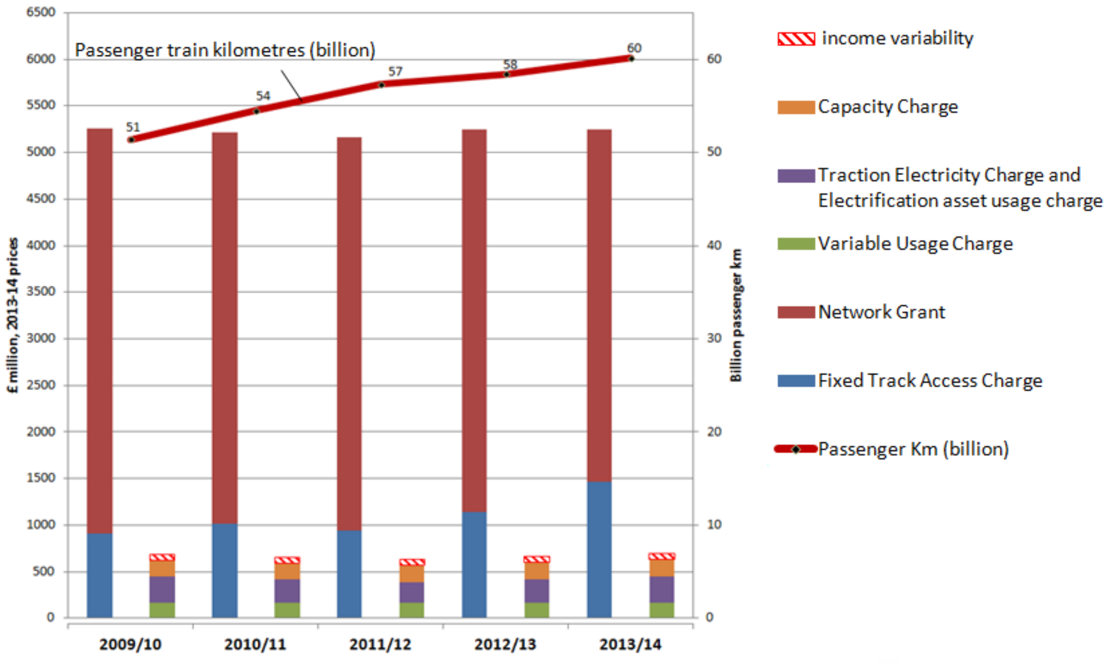
We start from the principle that if Network Rail's income is set at a level which is equal to its costs and since it does not face competition, it has limited incentives to improve its productivity and control its costs. We have therefore developed incentives to align better the interests of Network Rail and its customers and to make it more commercially responsive to the needs of its customers.

The financial incentives that act on the industry include:

- Firstly, an **efficiency** sharing mechanism that encourages Network Rail and the operators to work together and allows train operators to share in the efficiency gains and or losses of the infrastructure manager on an annual basis.

- Secondly, a **volume incentive** that is paid to NR for accommodating additional traffic and encourages it to be more responsive to unexpected demand for use of network capacity over and above an agreed level.

Chart 13: What happens to Network Rail's income as volume increases?
Network Rail's income in respect of passenger trains, 2009-10 to 2013-14, at 2013-14 prices.



Source: Office of Rail and Road, and Network Rail Regulatory Accounts

The volume incentive is important because it acts as a counterbalance to the service reliability and punctuality targets which Network Rail faces which might lead it to limit provision of network capacity to improve its chance of meeting them.

Reputational incentives and earned autonomy

In an imperfect market like rail, positive incentives alone are insufficient. They need to be regulated with reference to minimum standards and required outputs. When we make decisions as part of the periodic review, we also decide what outputs Network Rail should deliver over the next five years. Once we have set these outputs, if Network Rail fails to deliver them, we can investigate whether it has breached its network licence and, if so, what should be done to put that breach right. Depending on the seriousness of the breach, we can also impose a financial penalty.

If we decide that Network Rail has breached its licence, bonus payments for mangers are also reduced. Therefore, any failure to achieve those outputs is seen as a matter of shame and loss of reputation for the company and its senior employees.

Moreover, where ORR sees greater risks of non-delivery, we monitor the business much more closely, not to micro-manage Network Rail's decisions, but to seek assurance from the business that it understands the risks it faces and has coherent plans for managing them so that funders and fare-payers get the services and outputs they paid for.

Correspondingly, we will monitor and scrutinise less detail where the company is on track to deliver the outputs it promised: earned autonomy in return for greater assurance and an improved record of dependable delivery. This is in itself a powerful incentive.

It therefore follows that Network Rail tries very hard to meet these regulatory requirements.

Conclusion

So, to summarise, our general approach to the periodic review is consistent with the concept of incentive regulation and an RPI-X format. This involves setting clear outputs for the regulated company and including financial rewards not just for meeting, but for exceeding these outputs and outperforming our assessment of the efficient level of spending.

Importantly, we do not decide how Network Rail should meet the periodic review requirements – that is their job, applying their expertise and commercial judgement. Our role as regulator focuses not on specifying the detail of how Network Rail should deliver, but on output-based incentive regulation, with the company incentivised effectively to deliver and outperform output and efficiency targets, which are stretching and achievable, and meet the interest of funders and customers.

Richard Price

Office of Rail and Road
May 2015

Chart 14: An overview of the output, finance and efficiency requirements established in ORR's 2013 Periodic Review