A blueprint for a better railway: how innovation, devolution and competition can help Britain's railways to serve consumers better

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Office of Rail Regulation

1 November 2012

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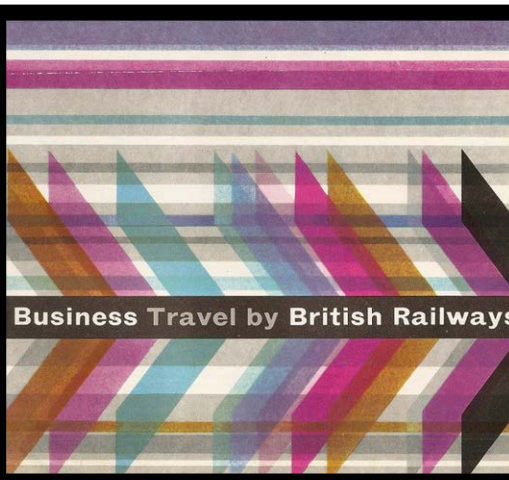

Richard Price

The Beesley lecture
1 November 2012

OFFICE OF RAIL REGULATION

A blueprint for a better railway

The Beesley lecture

Richard Price [1]

The IEA's 22nd Annual Beesley Lecture Series London, 1 November 2012

Synopsis

Britain's railways are a success story. The rail industry needs now to change to sustain the remarkable progress of the last decade. To get the best service for its customers and a good deal for the taxpayer, the industry needs the freedom to innovate, to deliver better value and to make rail more attractive for passengers and freight. For too long the rail industry, the government, and the regulator have created ever more byzantine funding and decision-making structures, and since privatisation regulator and government have been drawn into operational detail instead of being focused on what matters – ensuring the industry serves its customers at the best price for the taxpayer.

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I am grateful for the advice and comments of a number of people, including: Luisa Affuso, Michael Beswick, Dan Brown, Terry Gourvish, John Larkinson, Roger McDonald, Ian Prosser, Cathryn Ross, Jon Stern and Elise Weeder. I am particularly grateful to Ronan Devaney at the ORR for his comments and for helping to bring it all together, and to Adrian Shooter for being a first-rate discussant. Any errors or omissions are my own.

Contents

Summary

Britain's railways have made enormous progress over the last decade. They have undergone a remarkable recovery following a crisis in the early years of privatisation, with high levels of sustained growth in demand, a good recent safety record, and punctuality and customer satisfaction at near-record levels. But that has come at a cost. It has taken a decade to bring the railway's costs under control, and there remains a significant efficiency penalty, substantially funded by taxpayers. Rail now faces a huge opportunity to consolidate its position and continue to grow; but to do so it will need to move to the next level of maturity as an industry, developing its commercialism, capabilities, culture and confidence.

The support of government and other funders is an important part of shaping what the railway delivers, and always will be. Government's role is central, in assessing what the country wants from its railway, and the services and capacity which are in the interests of promoting growth, connectivity and environmental benefits but which it will never be profitable for the market to deliver. However, the dependence of rail on unfocused subsidy, as opposed to subsidy linked to clearly-specified outputs, is a significant impediment to this transformation. It undermines commercial decision-making throughout the system, with many decisions on the detail of delivery – as opposed to what society wants from the railway – taken in government. This contrasts with the potential, in the privatised railway, for rail businesses to shape solutions which reflect their expert understanding of how operations, planning, technology, innovation, customer satisfaction and growth come together.

Over a long period, the industry's confidence and capability has suffered from an unhealthy symbiosis of decisions being taken out of the hands of rail businesses; together with financial arrangements which misalign costs and revenue so that commercial decisions are blurred or distorted. Behaviours are to a fair degree driven by subsidy and intervention by government and regulator rather than commercial decisions. That drives up the costs of delivering what funders and customers want. Bureaucratic, rather than commercial, decision-making is deeply embedded in large parts of the industry.

Noone should get the impression that it is all gloom and doom. I meet committed, driven, innovative people everywhere I go on the railway, at all levels. Recent developments in the industry's leadership mean there is a growing commitment to

change. But the current arrangements for delivering subsidy and regulating the industry make it an up-hill struggle.

There is an opportunity now, and in the next decade, to transform this so that rail becomes the dynamic, mature, efficient and customer-focused industry envisaged at privatisation.

If the industry can deliver on the efficiency challenge that now faces it, it will be possible to reduce its dependence on public subsidy, and to get much greater transparency on where public money goes and what it buys. I am sure national and local funders will want to continue to support rail, but the industry needs to give them better information for making choices over how their money is used and more clarity on what they get for it – specifying what is to be delivered, and looking to the industry to develop its creativity and innovation to shape how best to deliver.

As it becomes less dependent on subsidy, beyond the specific services and capacity funders choose to buy, the industry ought to become freer to take its own decisions on how best to meet its customers' expectations and grow demand. There is further to go on customer satisfaction, and rail businesses need to focus on how they can meet rising expectations through better customer service, better information, and innovation - providing more of what people want to buy at better value – just as private businesses do in other industries. This potential is all the greater now, given the scope for major changes in the way the railway operates through electrification and transformed signalling and information systems.

This is a real challenge in an industry where finances are opaque and decision-making byzantine in its complexity. That needs to change. As efficiency improves I believe we can move towards a railway in which businesses can come together in a commercial way to deliver for their customers, potentially with less intervention from ORR and government. We can transform the way the industry operates in the next decade, and all of us need to step up to make that a reality.

Introduction

Thank you for inviting me to give this Beesley Lecture.

Michael Beesley himself had many things to say about railways and privatisation. Indeed, before these lectures were named the 'Beesleys', he presented an outstanding lecture on the role of subsidy in rail privatisation in the 1997 series.[2] It's always tempting to look back and pull out the points that support your case, but Beesley did refer to many of the themes which, 15 years later, remain at the heart of the challenge for the privatised railway.

- the need for independent assessment of required railway output, and for independent translation of that output into railway subsidy;
- the expectation that continuing subsidy will cost less because of prospective increases in efficiency;
- the proper attribution of costs to users so that decisions can be taken on what is to be delivered and how.

All of these themes raised by Michael Beesley in 1997 are themes which I will pick up this evening.

This lecture is in three parts:

- in the first part, I will explain why rail matters; and consider how events over the last decades have shaped the industry, its performance, and its regulation;

- in the second, I will talk about why we regulate the railways, and the challenges the industry faces in meeting the expectations of its customers and funders;

- in the third part, I will consider how regulation can help to create the environment in which the industry can meet those challenges.

[2] M. E. Beesley: Rail: The role of subsidy in privatisation, in M. E. Beesley (ed): Regulating Utilities: Broadening the Debate (Institute of Economic Affairs, London; 1997)

Part 1: What we want from the railways, and the evolution of the current system

1. What do we want from the railways?

The railway industry matters. Though it represents just 3 per cent of passenger journeys, or 8 per cent by distance travelled; and 9 per cent of freight movements across Britain[3], it plays an important role in facilitating sustainable economic growth, connecting people and communities and providing a means of transport for people and goods which is comparatively efficient in terms of its impact on the environment[4].

The engineering and economics of rail mean that it is particularly good at some things, and less good at others. It excels in transporting huge numbers of commuters into dense centres of employment. It has huge advantages over road on haulage of heavy bulk freight like coal, biomass and aggregates. It competes well with road and air on fast, long-distance passenger journeys; and it is competitive with road on the distribution of goods in the intermodal sector. It is less good at transporting people over very short distances – the vast majority of journeys in Britain– where the car, bikes and walking generally win hands down – accounting for rail's very small share of the total number of passenger journeys.

Rail is central to several key components of our transport demands as an economy. So, in common with other regulated sectors, such as energy or water or telecoms, the output of the rail industry matters. It matters because both economic and social activity would be constrained without it. There are substantial social benefits from the railway and given the level of ongoing public subsidy – currently at a level of £4bn of taxpayers' money a year, or one-third of its total costs – the efficient and effective operation of the railway industry is of significant public interest.

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[3] Source: Department for Transport: Rail Trends 2010-11: 3 per cent includes London Underground and main line railway.

[4] Domestic transport accounts for around 20 percent of the UK's carbon emissions. Rail contributes to these emissions but is relatively environmentally friendly, in emissions per passenger mile, compared with road and air. Electric traction means that rail can use low-carbon sources of electricity as the electricity supply industry decarbonises production

2. The origins of today's railway

I am going to argue that a significantly greater ability in the industry to understand costs and revenues, and to make commercial judgements, is key to sustaining progress in efficiency and in delivery for customers. To understand why this matters, it is worth taking a few minutes to look at how the industry developed, and what has happened since privatisation.

Britain led the world in railway technology, and the spread of the railways particularly in the period from 1840 to the end of the nineteenth century was both a driver and a facilitator of the later phases of Britain's industrial revolution, dramatically speeding up journey times, reducing the costs of transport and communications, opening up and connecting a wide range of markets in goods and services in ways which had not previously been possible.

As we have seen in our own time with new technologies, investment in rail in its early decades was guided by a mix of commercial logic and heady exuberance. The shape of what later emerged as a national network was determined by a patchwork of individual decisions, with entrepreneurs and communities across Britain all wanting a piece of the action. So the geographic shape of the railway was a mix of rational and haphazard, with some lines never making a profit. Yet, in one of the most profound examples of path dependency, their effects on the distribution of economic activity and population were fundamental, and shaped the economic geography of Britain for a century, until the rise of lower-cost efficient road transport in the second half of the twentieth century.

The inability of the railway companies to make some routes pay, and the precarious financial engineering by which some routes were financed, meant that the stability of the 100 or so early rail companies was always in jeopardy. This was exacerbated by a shortage of investment both as a result of the First World War and a hiatus resulting from a government commitment made in 1914 to nationalise the railways at the war's end.

Though stopping short of nationalisation, the Lloyd George government's 1921 Railways Act forced a consolidation of the railway companies into four regional monopolies in an attempt to stabilise the situation. This allowed significant improvements in efficiency and a more commercial approach, with the new larger rail businesses marketing journeys across larger areas of the country. Nevertheless, from the 1920s rail saw the start of a decline in passenger demand, as buses began to compete with rail particularly outside larger cities. The problem of an extensive

network – parts of which could not make a profit even if they were desirable for societal reasons, was not addressed, and the Big Four companies struggled financially.

In the Second World War, the railways suffered significant damage and renewals and maintenance were cut to a minimum – so in 1947 the Atlee government decided that the state should take responsibility for managing and funding the process of restoring and modernising the national railway, nationalising the private companies to form British Railways in 1948.

With the rise of road transport for both passengers and freight, the second half of the 20th century saw a steady and substantial decline in demand for rail, with a large rise in the railway's operating losses. Richard Beeching's famous report of 1963 identified that one-third of the network carried only 1 per cent of passengers; and one-half of the network carried less than 5 per cent of passengers and freight combined.[5] This led to a very substantial reduction in the size of the network, and at the same time there was a deterioration in the ability of the railway to deliver quality and compete with road. Management in the nationalised railway remained regional and producer-led, with commercial alignment of railway outputs and what consumers wanted only at the margins.

With declining demand, the approach taken to rail generally by managers and policy makers alike was one of managed decline, within a public spending framework in which investment was constrained by operating losses. One Chairman of British Rail remarked in the 1970s that a large part of his role amounted to shoring up "the crumbling edge of quality".[6] There were nevertheless some bold commercially-led attempts to restore rail's fortunes – particularly to retain and grow market share in long-distance passenger and freight markets.

Under the Thatcher government, while other privatisations were advanced, rail remained solidly in the public sector, the complexity of the industry and level of public subsidy thought to make privatisation too difficult. Instead British Rail underwent a major change in its structure to get a more profound commercial alignment between the planning and operation of the railway and its markets.

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[5] British Railways Board: The Reshaping of British Railways (HMSO, London; 1963), Tables 1 – 3.

[6] Sir Peter Parker, British Railways Board Chairman's Report, 1976 (British Railways Board, London; 1976)

In 1982 British Rail focused its management on the key railway businesses or sectors – InterCity, Network South East, Regional, and freight businesses, with clear bottom-line accountability. This led to a focus on the individual markets, a good understanding of costs and a reduction of operating losses. But in the public sector the railways remained very much cash constrained, limiting the ability of the sectors to invest and renew in order to improve efficiency and to compete.

3. Privatisation and beyond

The 1992 White Paper "New opportunities for the Railways"[7] set out the Major Government's privatisation agenda, with a key objective defined as *"harnessing of the management skills, flair and entrepreneurial spirit of the private sector to provide better services for the public" with the "introduction of competition through greater involvement of the private sector and the ending of BR's monopoly in the operation of services".*

The White Paper pointed to a focus on the sale of the freight businesses and the franchising of all passenger services. The plan was for Railtrack, as the infrastructure manager, to stay in public sector into the "medium term". Significant growth in demand or capacity was neither envisaged nor really on the agenda in the early 1990s, and this was reflected to a degree in the way privatisation was undertaken.

In practice, the privatisation of the hundreds of railway businesses split out of British Rail between 1992 and 1997 involved the sale of several freight operating companies, the franchising of all passenger services, the floatation of Railtrack, and the sale of supply businesses. This was rather more radical than the White Paper had envisaged – with early privatisation of the infrastructure, and the separation of maintenance and renewals companies from the natural monopoly component of infrastructure management and operation. This was an attempt to separate out markets along the value chain and to identify those in which competition could operate effectively – learning from the mistakes in previous 'monolithic' privatisations in gas and telecoms where too little had been made of the potential to develop competition by changing market structure, and from electricity, where there had been structural reforms at the time of privatisation and where competition had taken hold more quickly.

[7] HM Government: "New opportunities for the Railways: White Paper" (HMSO, London; 1992)

The years following privatisation saw accelerating growth in rail usage, partly attributable to private sector innovation in marketing, yield management and service delivery; but also reflecting road congestion and changing demographics, with for example growth in commuter traffic as the service sector developed and manufacturing employment fell. Railtrack however proved not to be up to the job: it failed to get a grip on its assets, lost a large proportion of the information it held on asset condition as the industry fragmented and people left it; and consequently failed to manage its maintenance and renewal contracts effectively. It also failed to work out how to accommodate growth or to work effectively with train operators.

Though safety has continued to improve on the privatised railway, a series of accidents – including Ladbroke Grove in 1999 and Hatfield in 2000 destroyed any remaining legitimacy and credibility of Railtrack. Railtrack ran out of money and the government refused to help.

Railtrack was in administration between 2001 and 2002. During this period "the discipline of the equity of the company in relation to the control of costs was lost"[8] and costs spiralled to manage ill-understood operational risks. Network Rail was created to take charge of the infrastructure as a statutory corporation, a not-for-profit company in the private sector. In 2003-04 Network Rail brought railway maintenance (though not renewals and project delivery) in house - effectively taking full control of railway assets and operations across the network.

4. The institutional structure: regulation and government

The institutional structure of regulation and policy delivery has also developed since privatisation, typically lagging behind real world events.

The initial regulatory structure consisted of a franchising authority – the Office of Passenger Rail Franchising (or Opraf), and the Rail Regulator. The Regulator focused on access to network, and, with the privatisation of Railtrack, economic regulation of the infrastructure manager. But the Regulator also took responsibility for consumer protection, including in relation to the key consumer benefits of the railway as a network. There was quite a limited direct role for government.

[8] Tom Winsor, Office of the Rail Regulator (2004).

From 2000, the Strategic Rail Authority took on a much wider role of developing and implementing government strategy for the railways including franchising. ORR's role in economic regulation focused on Railtrack and later Network Rail. But, the SRA notwithstanding, the Regulator found it difficult to get a clear statement from government of what it wanted Network Rail to deliver and at what cost.

The experience of Railtrack in administration followed by Network Rail – a company limited by guarantee with no equity and no shareholders has been a key element in the way economic regulation has developed, and so as I will argue has the way it is funded. The status of Network Rail – and the absence of shareholders - means that the ORR now has to ensure among other things that the company's remuneration schemes incentivise its executives to deliver, a remarkable difference with economic regulation in other sectors. The lack of shareholders and equity discipline also affects the transmission mechanism for our incentives.

In 2005 the Government passed a further Railways Act, making clear government's responsibility for deciding how much money it wants to spend in the railway, and what it expects to get for it – avoiding the problem Tom Winsor had faced in which the government – facing a critical renewals backlog but also a large bill – had being unwilling to be drawn on either. Government also took direct responsibility for franchising, and increasingly got drawn into "how the railway is delivered". 2005 also saw the full devolution of rail responsibilities to Scotland, and to a lesser extent to Wales and to London. We have since seen real changes in rail priorities in Scotland, with separate guidance for our Periodic Reviews from Transport Scotland. ORR's role remained focused on economic regulation of Network Rail and access to the network, but also took on the health and safety role and fuller consumer protection responsibilities.

So the current structure of regulation in this industry has evolved from that at privatisation:

The Office of Rail Regulation – formed between 2004 and 2006 from the merger of the economic regulator and the rail section of the Health and Safety Executive[9] - is a combined economic and safety regulator:

- More than half of ORR's activity is in safety regulation.[10] We are the safety regulator for all parts of the industry – the national railway, the Underground and metros, trams and light railways, and heritage lines.

[9] HSE Rail was, in turn, the successor to HM Railway Inspectorate.

- We are the economic regulator for the national rail infrastructure – regulating outputs, access to the network and access charges for Network Rail and High Speed 1.

- We are the competition and consumer authority for the industry as a whole.

The Department for Transport is the regulator for passenger train services in England and Wales, and Transport Scotland regulates the Scottish passenger franchise - determining the specification for a large proportion of train services through the franchising process in which train operators compete for the market in 18 regional route-based franchises; and regulating a portion of the fares to be charged. The Department and Transport Scotland have an important role as funders of rail services – in other words, determining what government on behalf of society wants to buy from the railway, and how much it is prepared to spend in doing so. That funding is channelled partly through train service franchises and also as a block annual Network Grant to Network Rail.

In addition to the lead roles of the Governments in Edinburgh and Westminster, major purchasing and funding decisions are also taken for their own areas by the Welsh Government, the five English Passenger Transport Executives, Transport for London and the Strathclyde Partnership for Transport effectively topping up the funding provided by the Governments to buy more or different services.

5. The performance and efficiency of the railway

How has all this shaped the delivery and performance of the railway? In the last decade rail has been a real success on a number of measures. Looking at the data:

- passenger numbers are up 45 per cent – and passenger revenues up 53 per cent – higher growth in the last decade than in any country in Europe, and the longest period of sustained growth since the 1920s (see chart 1, at the end of this section);

- freight has held up and is growing, 17 per cent up on 2000-01, having endured a difficult recession: we have a highly competitive freight market,

[10] Office of Rail Regulation: A great deal from Britain's railways: safe, reliable, efficient. Our business plan for 2012-13. (Office of Rail Regulation, London; 2012), page 11.

which has made huge strides in productivity and is an exemplar to the rest of the industry (chart 2);

- on a network which is more intensively used and closer to capacity than ever, passenger satisfaction is at record levels; and punctuality and reliability of the service, while not quite as good as what we've paid for, is also close to record levels (charts 3 and 4);

- the industry's recent safety record is good and underlying risks are reducing - though we can't be complacent, the industry is now among the safest in Europe (charts 5 and 6);

- compared to other countries, we have a highly competitive and increasingly globalised rail supply market;

- the market for passenger franchises is reasonably competitive and importantly, albeit at the margins, there is open access competition, which we continue to encourage wherever it is in the interests of customers and taxpayers.

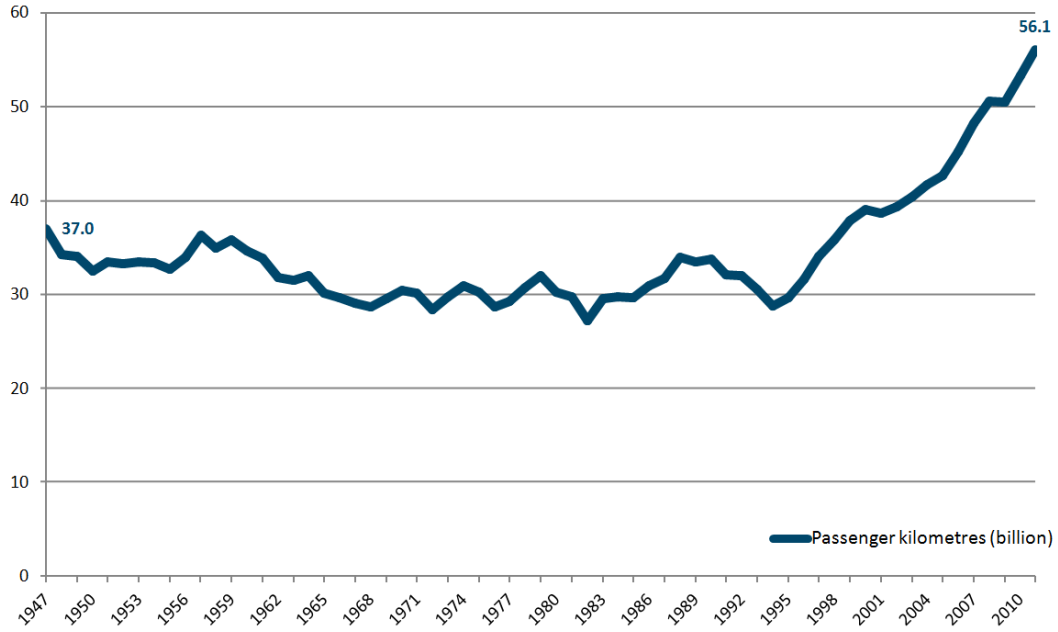
Cost, however, is the industry's Achilles heel (see chart 7). The cost of the railway to taxpayers increased markedly post-Hatfield, as the need to remedy the backlog of renewals and maintenance had to be funded, and in administration Railtrack's costs ran out of control. As a result of Network Rail's meeting its cost-reduction targets, these costs have since returned gradually to more normal levels overall. Maintenance costs, in particular, have reduced considerably, though the cost and volume of renewals remains higher than before Hatfield – the volume is at something more like a sustainable level.

As highlighted by Sir Roy McNulty's rail value for money study, the unit costs of providing services have not fallen: indeed, the overall end result is that costs per passenger-km in 2009-10 were similar to those nearly 15 years earlier (see chart 8)[11].

You can see that both the challenges in operating and funding the railway, and approaches to its regulation, have changed over the period since privatisation. I'm now going to step back and look at the current structure of the industry and its regulation. I'll then look at the respects in which the industry and regulation can step up to deliver better for customers and taxpayers in the next decade.

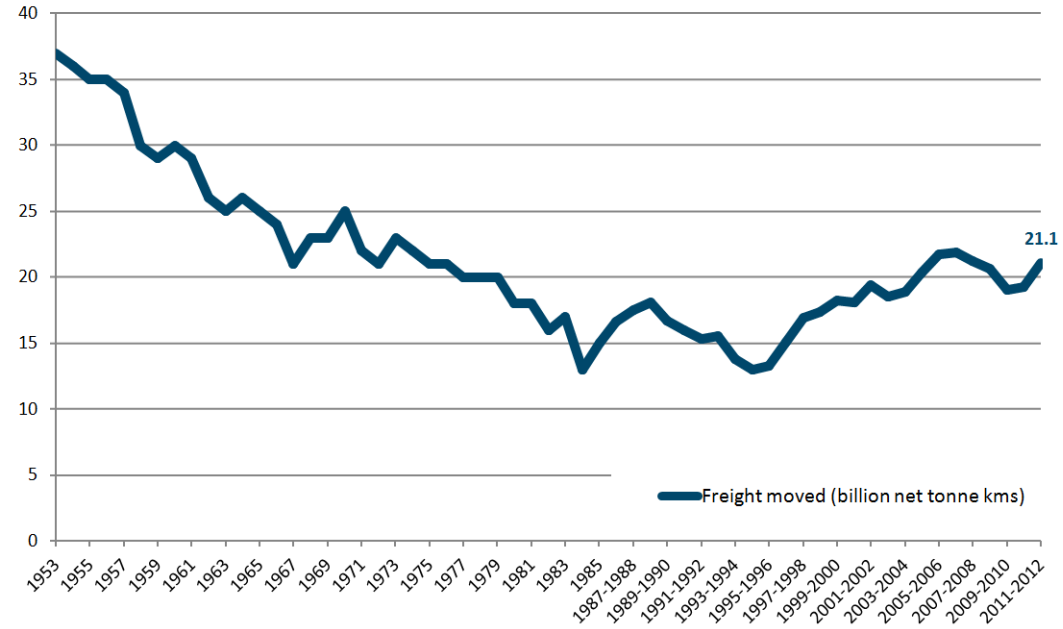
[11] McNulty (2011)

Chart 1: Rail passenger demand: since 1947:
sustained growth since the late 1990s



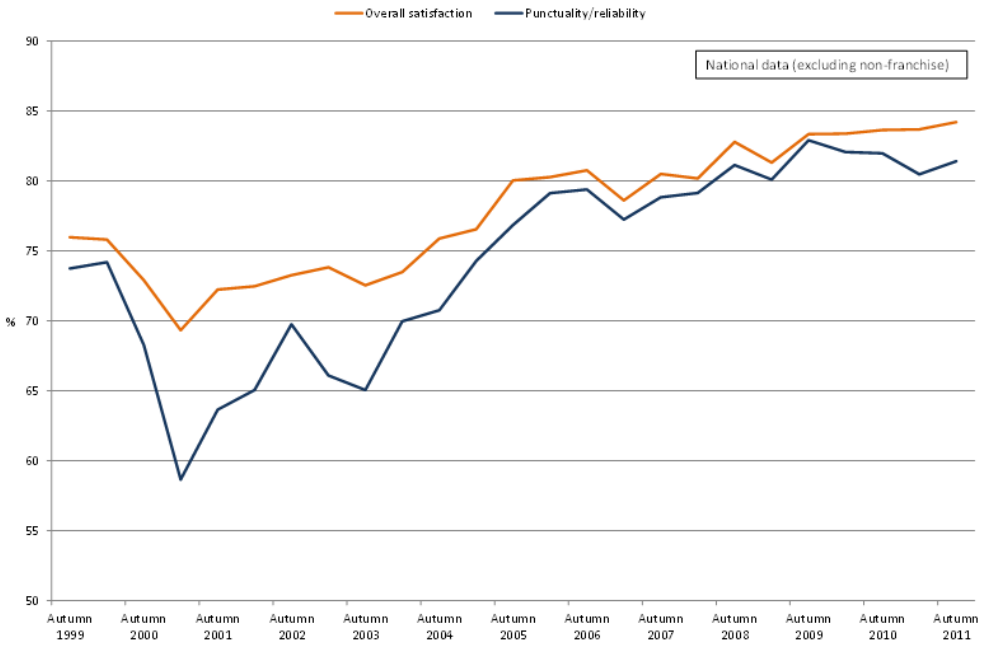
Source: Department for Transport and Office of Rail Regulation

Chart 2: Rail freight since 1953:
recovery since the mid-1990s, and renewed growth post-recession



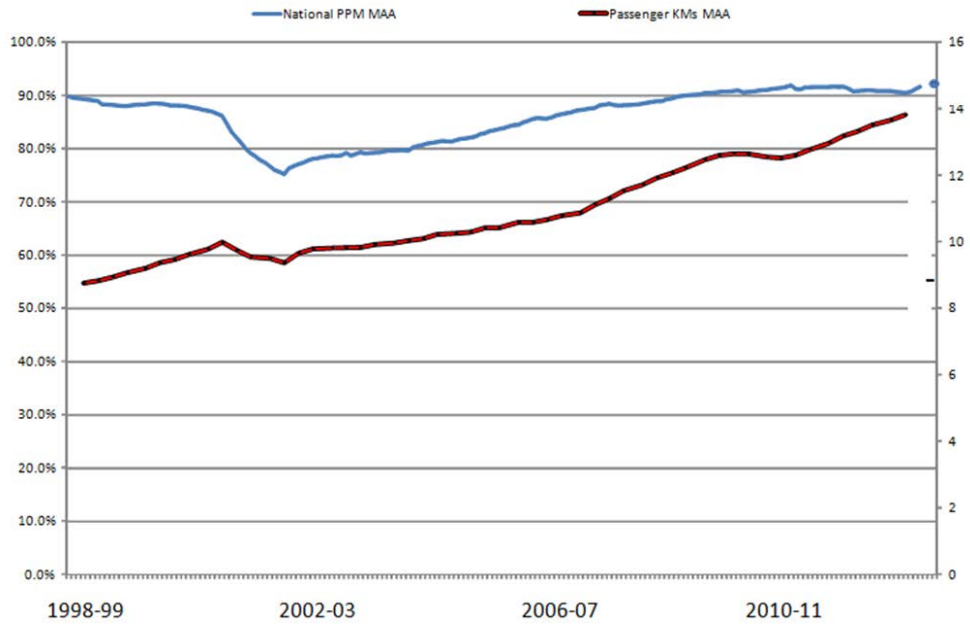
Source: Department for Transport and Office of Rail Regulation

Chart 3: Passenger satisfaction, 1999-2011



Source: Passenger Focus's National Passenger Survey.

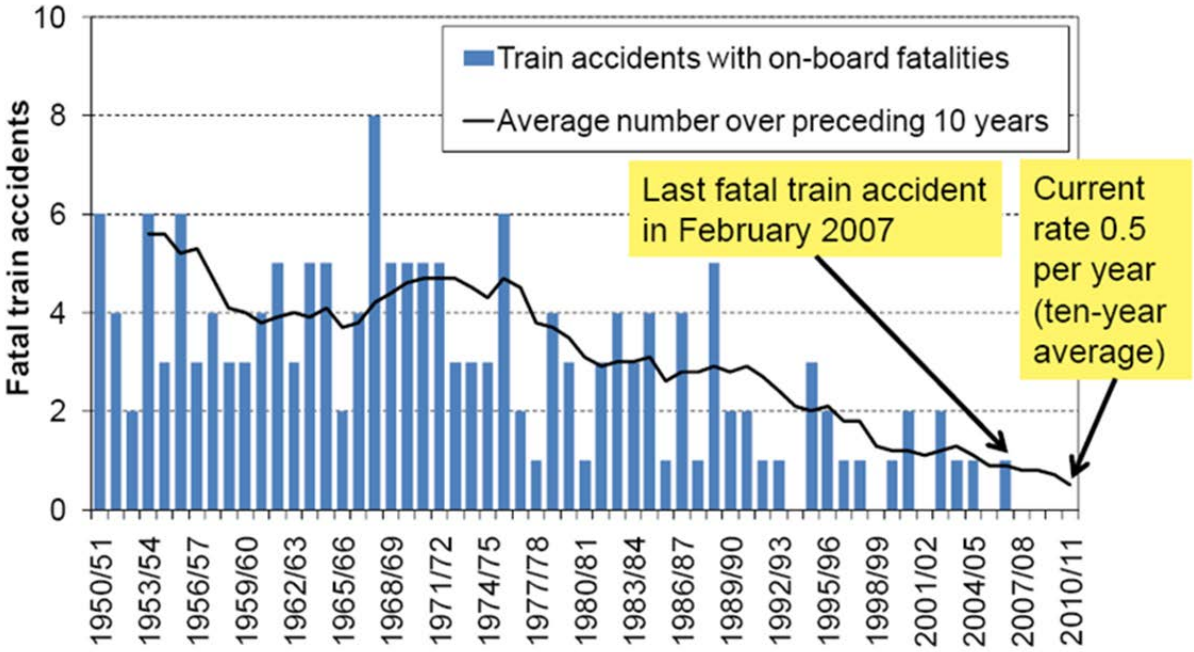
Chart 4: Passenger service reliability and punctuality since 1998



The chart shows the monthly annual average for the Public Performance Measure, the proportion of trains arriving at their destination within 5 minutes (10 minutes for long-distance trains) of the scheduled time.

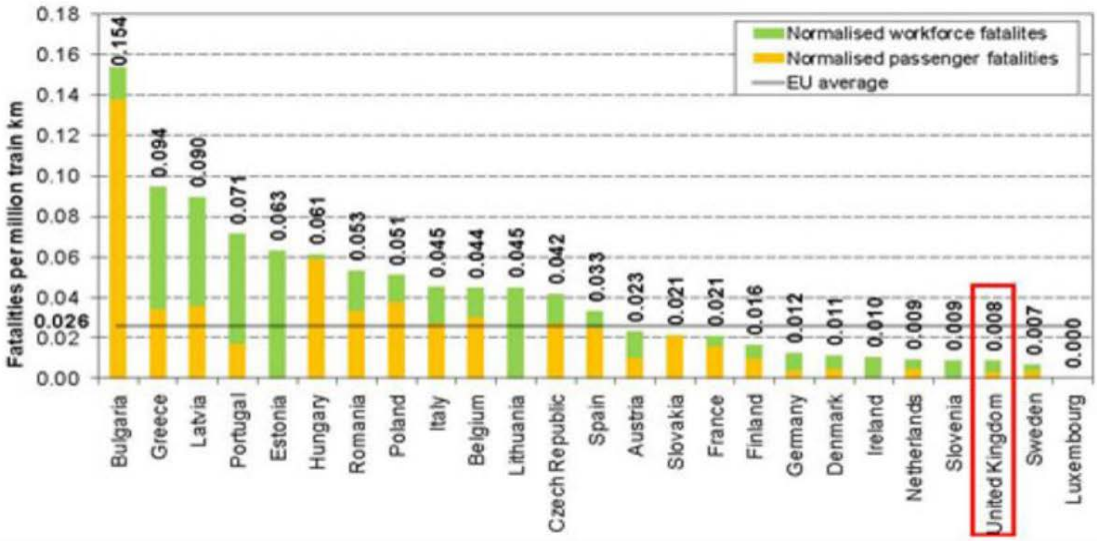
Source: Office of Rail Regulation and Network Rail

Chart 5: Long-term decline in fatal train accidents in Britain since 1950



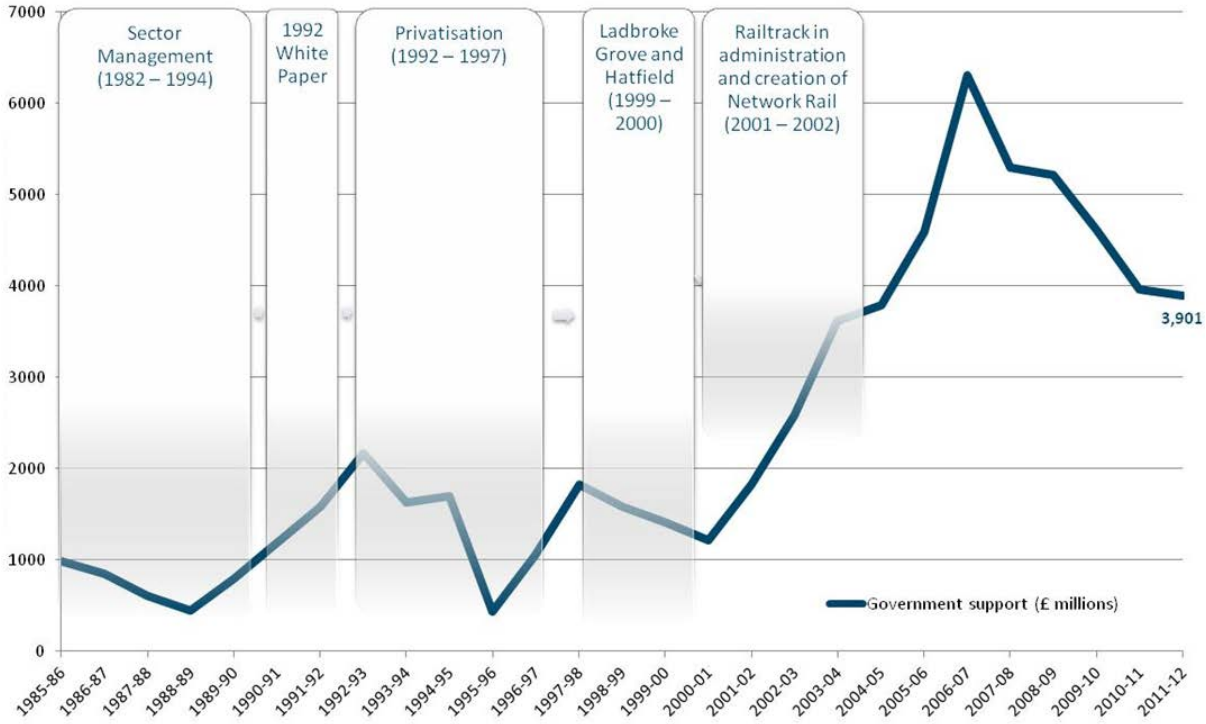
Source: Office of Rail Regulation

Chart 6: Comparative safety across Europe fatalities per million train kilometres, 2004-2009



Source: Office of Rail Regulation, Safety Report 2011

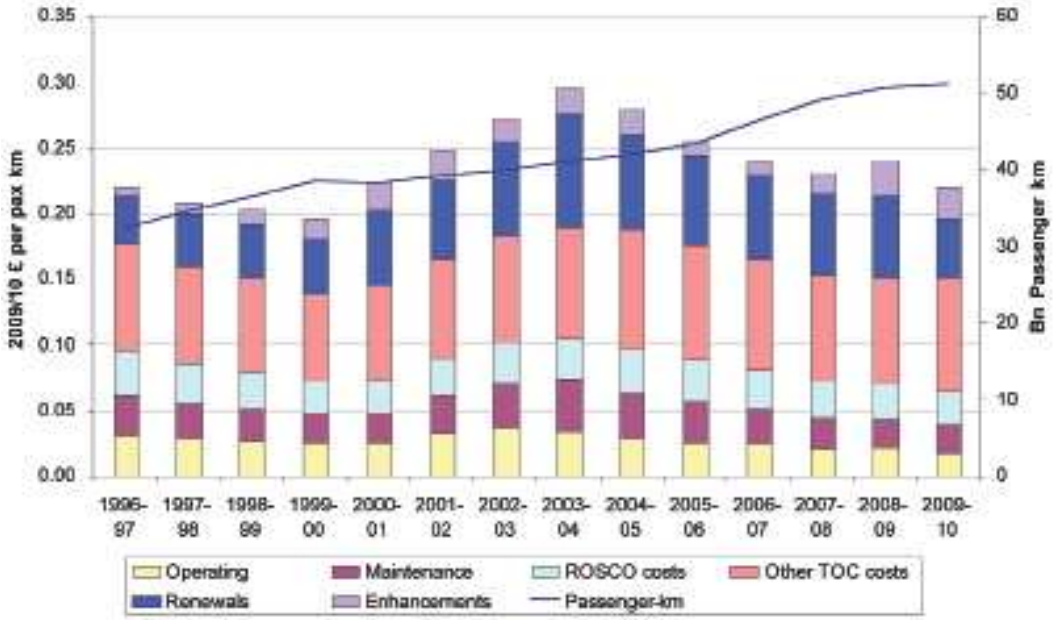
Chart 7: Total government support to the rail industry (£ millions), including Passenger Transport Executive grants, 1985-86 to 2011-12



Source: Department for Transport and Office of Rail Regulation

Chart 8: Whole-system unit costs, 1996-97 to 2009-10

Industry spend per passenger kilometre



Source: McNulty (2011)

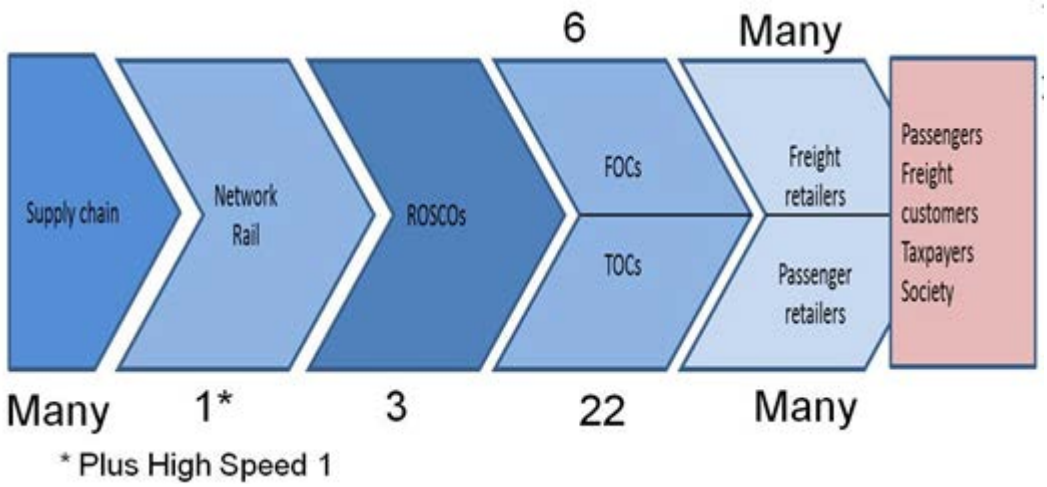
Part 2: Today's railway and regulation

6. Why do we regulate the railways?

Market structure

Why do we regulate the railway industry? To answer this, let us first consider the industry's key characteristics. The rail industry value chain is highly fragmented - partly as a result of the way British Rail was subdivided at privatisation, structuring the industry so as to encourage the development of competitive markets where possible.

Table 1: The rail industry's supply chain



There are multiple markets and companies serving them – many with multi-million pound turnovers – all along the value chain. As table 1 shows, the number of suppliers and the level of competition varies hugely across the value chain. Network Rail has no competitors. We have three businesses leasing rolling stock. There are numerous train operating companies, though they are consolidated into a smaller number of groups such as First Group and Go Ahead - and during the course of their franchise contracts, there is very little competition between them. But there is very limited competition between passenger operators except through franchising, and we continue to champion open access entrants to the market – where it is in the interests of customers and taxpayers. There is significant competition in other parts

of the value chain: there are many players in the globalised supply chain, as there are too in retail to passengers and freight customers.

The rationale for regulation

The need for regulation in the railway industry is easy to express.

First, regulation is needed to ensure that the industry is safely managed and operated, and that the safety and health of its employees is safeguarded. Of course this is primarily the responsibility of the businesses operating in the industry, the 'duty-holders'. But regulation is there to ensure compliance and to make sure that the industry continues to manage risks downward in an industry with numerous complex interfaces between businesses and which faces substantial change.[12]

Second, the railway has significant monopolistic activities (for example providing track, signalling and stations) and many train service providers are also near-monopolies – that is, having competed for the right to run a franchise, operators face very little on-rail competition for the duration of their contract, and in some cases face weak competition from other modes. So the sector is regulated in the public interest:

- to protect consumers and businesses against monopolistic behaviours which can result in inefficiency and lead to higher prices and worse service, including by making markets work better and empowering consumers; and

- to safeguard the basic interests and expectations of consumers – for example to ensure that they get the information they need to make choices, and get the benefits of the railway as a network.

Third, as Michael Beesley discussed in 1997, there is a particular, defining characteristic of this industry, compared with other industries which are subject to economic regulation. Substantial amounts of public money are invested in the railway. There will always be a strong case for subsidy to secure services which deliver wider social, environmental and economic benefits but which would not be commercially viable without taxpayer support. So in the rail context, regulation also

[12] We recently published our revised health and safety strategy, explaining how we regulate proportionate to risk and focus on management excellence as the key approach to ensuring rail businesses are in the best possible position to comply with the law and manage risk, while also getting better at other aspects of management which improve their overall business performance. Office of Rail Regulation: ORR's strategy for regulation of health and safety risks (Office of Rail Regulation, London, 2012)

ensures that taxpayers are getting value for their money; and provides transparency on what that money is buying and where it is going.

Fourthly, as in many other regulated industries, rail is a long term business. Investments are large and lumpy, and long-lived. This means that in assessing what the industry needs to spend in each five-year control period, judgements need to be made about the capacity, quality and cost of the network decades ahead; and the regulator needs to create a framework in which long-term investments can be properly remunerated, notwithstanding that in Network Rail at least, they are currently financed through public rather than private investment.

How do we regulate?

It is not surprising given the differences between the markets across the rail value chain that they are regulated differently – though general competition law applies at all stages of the value chain.

Table 2: The rail industry's value chain: a variety of approaches to regulation

	Approach to regulation
Supply chain	No ex ante regulation although have to comply with safety regulations
Network Rail	Economic regulation on the basis of a licence
HS1	Economic regulation on basis of a concession agreement and statute
ROSCOs	Small amount of pro-market regulation via the code of practice put in place following CC reference
FOCs	No ex ante regulation
TOCs	Regulation by contract (franchise agreement)

As table 2 shows, this has led to a diversity of regulatory approaches across the industry, reflecting the different market structures in different parts of the value chain. In particular two of the largest parts of the industry, with the closest interfaces, are regulated in different ways – franchised train operating companies by contract, and Network Rail by licence. So in rail not only do we have real, operational interfaces to deal with, and the usual interfaces between regulation and the market, we have made life more complex for ourselves by creating an interface

between two fundamentally different modes of regulation.[13] This is a real issue where decisions need to be coordinated – for example on infrastructure capacity and train capacity; on electrification and signalling, which require interdependent decisions on and investments in infrastructure and rolling stock, and the skills and training of staff across the industry.

7. A normal industry?

By any standards, rail is not a normal industry. This is clear by comparison with other regulated markets such as energy and water. In particular

- the challenges of value for money and financing in rail are greater than and different from other regulated industries. Across the industry as a whole, commercial revenues are much lower than costs (see chart 9);

- there is consequently a large funding gap - £4 bn in 2011-12 – which is funded by taxpayers; this funds the level and quality of service, finances investment, and subsidises fares;

- the mismatch of revenues and costs means that the industry is heavily dependent on public investment – at least in the infrastructure;

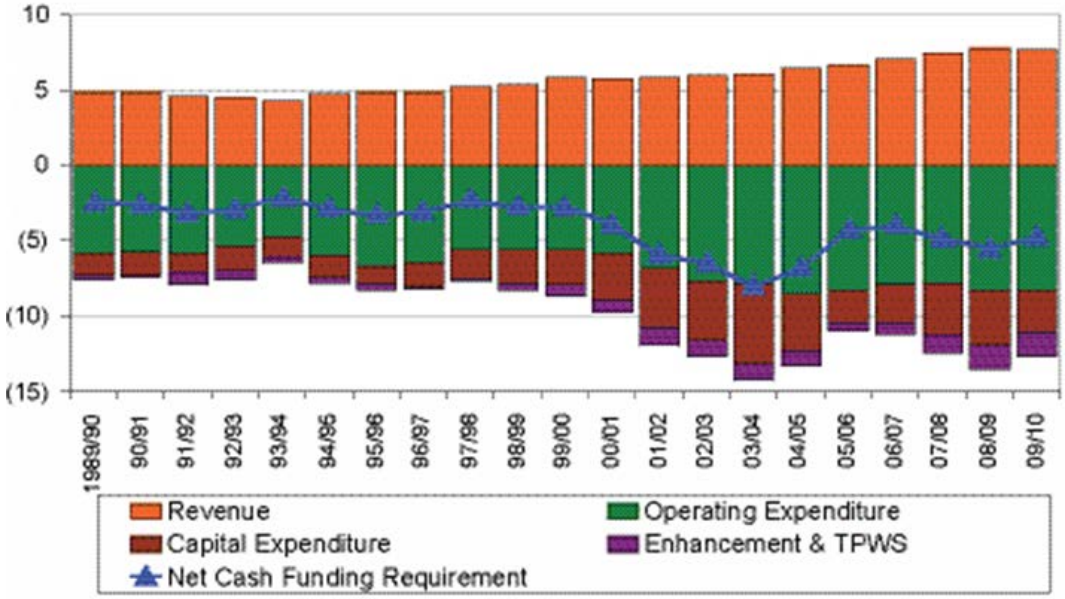
- the combination of public subsidy and public investment has led to high levels of government involvement and intervention;

- behaviours in the industry are thus to an unhealthy degree driven or conditioned by subsidy and intervention by government and the regulator, rather than commercial decisions;

- there are significant monopoly elements in the sector – especially the ownership of the bulk of Britain's national rail infrastructure by a single company, Network Rail; and franchised train companies which operate as near-monopolists during the period of their franchise;

[13] Stern (2012) sets out the difference and relative merits of regulation through contract and regulation though licence and agency.

Chart 9: Industry real net cash position, 1989-90 to 2009-10
£bn, 2009-10 prices



Source: McNulty (2011)

- retail competition is limited by the structure of franchised passenger services, judged at the time of privatisation to be the most efficient way – *in the short term*[14] - of procuring a socially-desirable level of train services which the market would not provide. Franchisees are regulated by the Department for Transport, acting as both economic regulator and procurement agency;

- the passenger railway has been increasingly subject to "political" regulation with the breakdown of the clear separation of franchise letting and management from government in the initial model. Ministers have become much more involved in very detailed decision making. Detailed government specification, which can act as a barrier to change, inevitably increases the overall cost of the railway, at any level of outputs government (quite legitimately) chooses;

- the infrastructure is provided and managed by a monopoly business, which is complex, cumbersome in its delivery though striving to do better;

- there have also been concerns about the structure of the rolling-stock market and the behaviour of the rolling stock companies, which the ORR referred to

[14] Swift (2000), p220, is particularly entertaining on this point.

the Competition Commission, and with informational remedies being put in place following a market investigation which concluded in 2009.[15]

All of this means that over the last decade, the rail industry has been missing, for the most part, the commercial relationships and drivers which are present in most regulated utilities; it has been prone to detailed decision-making and intervention by government, by which I mean both civil servants and ministers; and it has been susceptible to over-detailed regulation – from both the ORR and the Department for Transport. As a consequence of these factors, much of the industry has been subject to bureaucratic rather than commercial management and decision-making.

As I have set out, I believe that the industry has been a remarkable success through the last decade, but the factors I have described above now jeopardise the next leap forward in quality, capacity, customer service and value for money, and need to be addressed.

[15] Competition Commission (2009)

Part 3: Meeting the challenges of the next decade

8. What are the challenges for the next decade?

What are the next steps that are expected of the railway – by its customers and funders? I will now consider what needs to be achieved in the next decade.

Recent successes notwithstanding, there is a growing sense that the industry is reaching the limits of what can be achieved with current approaches and capabilities – the strains are starting to show. It is well documented I do not accept that the system's existing achievement of punctuality and reliability cannot be improved at current levels of investment: there is much that the industry can do before it reaches the frontier of what is reasonably practical. It is nevertheless true that the next substantial advances in the quality and efficiency of the industry will be very hard to achieve without

- a stronger focus on delivering for customers;
- significant advances in asset management and information;
- greater transparency on how public money is being used , and what the railway is delivering with it;
- greater simplification of the standards and rules which in many cases are so bureaucratic and prescriptive that they undermine the management of the risks they are supposedly there to support;
- improvements in maintenance and renewals productivity;
- a move away from the traditional one-size-fits all approach to delivering infrastructure regardless of user needs;
- tackling barriers which inhibit collaboration between the infrastructure provider and train operators to improve whole-system performance and efficiency for customers.

A number of challenges face the industry over the next 5 to 10 years, and the industry itself needs to develop a clear sense of how it is going to meet them. In summary the key challenges, set out by various bodies tasked with defining railway outputs[16], are:

[16] Broadly speaking this means the Department for Transport, Transport Scotland, the Welsh Assembly Government, the English Passenger Transport Executives, the Strathclyde

- tackling the value for money challenge set out by Sir Roy McNulty[17];
- getting more out of the railway's existing capacity;
- building on the good recent safety record, as the industry goes through a period of change, and ensuring the industry moves closer to excellence in health and safety management as its management maturity improves;
- enhancing the network without inconveniencing today's customers;
- improving customer satisfaction: meeting rising expectations on the quality of the passenger experience and better information; better responsiveness and accountability to customers, and better accessibility to stations and trains;
- serving the changing demands of freight to help the economy to grow;
- improving the reliability of assets so that customers experience better reliability; and
- raising rail's environmental performance.

That is a long list of expectations, and there is much to achieve. We recently consulted on the framework of outputs which we will expect Network Rail to deliver as part of our regulatory determination for the period 2014 to 2019, and will set out our decisions in our draft determination in June.[18]

Partnership for Transport, Transport for London, the ORR and Passenger Focus; as well as customers themselves and their representative bodies, in both passenger and freight markets.

[17] McNulty (2011)

[18] Office of Rail Regulation: Network Rail's output framework for 2014-19 (Office of Rail Regulation, London, 2012)

9. The challenges of efficiency and delivery

Efficiency is the key to so much else, so I am going to focus on it. Serious amounts of public money are going into the industry. This is in itself a signal of confidence in the railway's ability to deliver. And at a time when fiscal consolidation means that public spending is under massive pressure across all budgets, Government's commitment to rail is rising, not falling. As a hardened public spending watcher, I find this level of commitment genuinely remarkable. Politicians are convinced that the railways have a big contribution to make to economic growth and social wellbeing, and they are backing that conviction with cash.[19]

A key question, and one highlighted by Roy McNulty, is whether this level of public subsidy is sustainable and whether future governments will continue to invest in rail infrastructure. That is why value for money really matters. Value for money is the industry's licence to grow.

Let us consider this in terms of productive, allocative and dynamic efficiency.

Productive efficiency

Firstly, productive efficiency. The costs of delivering the railway's current outputs are too high across the industry. Sir Roy McNulty's Rail Value for Money study identified potential industry-wide annual cost savings on a 2008-09 base of between £2.7bn and £3.8bn by 2018-19, using a combination of top-down and bottom-up cost comparator approaches to estimate what the railway would cost if it was operating efficiently.[20] McNulty estimated that around 70 per cent of these savings could come from Network Rail, with the other 30 per cent coming from the rest of the industry. This included, for example, estimates of productivity improvements in maintenance and renewals, gains from better procurement, and collaboration to reduce the costs that Network Rail and the train operators impose on each other. ORR's determination of 2008 is set to close at least half of the efficiency gap identified for Network Rail by 2014, with the remainder achievable in the following five years by 2019. Indeed Network Rail has already identified how it will address the bulk of the remaining gap in the Initial Industry Plan for 2014 to 2019.

Allocative efficiency

[19] HM Government (2012)

[20] McNulty (2011). Values expressed in 2011-12 prices.

Secondly, allocative efficiency. Is the industry using the scarce resources available to it, to produce what its customers and society value most? Of course priorities for the railway come from a number of sources, including its customers and importantly its funders. Government has a particular role on behalf of society in making sure that the railway delivers outputs which the market would not provide.

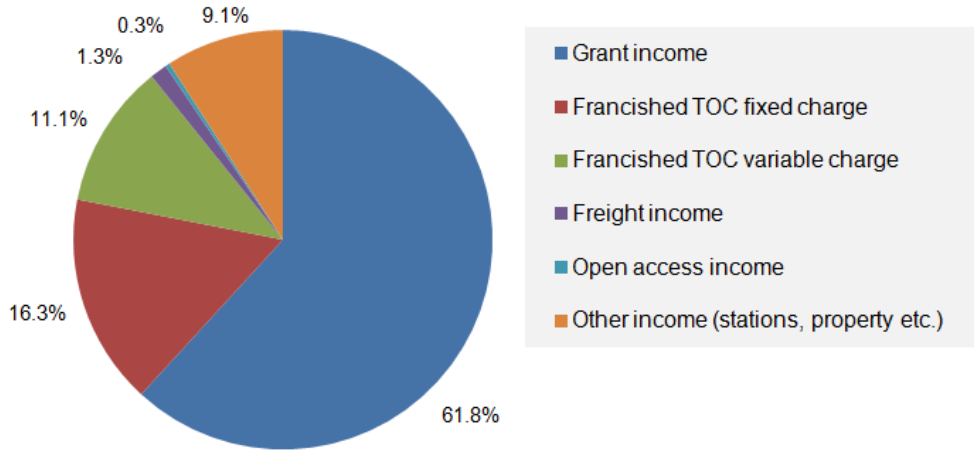
But even a cursory examination of what would need to be in place to facilitate allocative efficiency gives cause for concern. On a railway which is carrying as many people as in the 1920s, but on a much smaller network, it is not surprising that parts of the network are getting very close to capacity. So one of the scarcest resources of all is network capacity. And yet it is not priced! The Variable Usage Charge which Network Rail is currently allowed to charge operators reflects short-run marginal cost, but has no element to reflect the scarcity of the capacity or its value in competing uses. Of course it is always hard to reconcile short-run network use incentives with long-run investment incentives: but I am convinced that we can do it better.

Chart 10 shows the current position in terms of Network Rail's revenue. User charges earned by running trains account for a small proportion – around a quarter – of Network rail's revenues. The bulk of the rest – the large blue segment - is made up by a block payment to Network Rail from the government known as Network Grant. A part of Network Grant finances investment. But in practice a significant part simply makes up the shortfall between costs and revenue from charges without differentiating what Government and other funders want to buy.

Chart 11 illustrates the incentive effects of the current structure of funding. It shows how Network Rail's efforts to accommodate more trains on its crowded network over the last few years have generated more revenue for the business over the last few years. The unfortunate truth is – they haven't! Though it has allowed more trains to run, the chart shows that as the number of train miles run and scarce capacity used rises, there has been almost no impact on revenue. The gain from running 10 per cent more trains is the tiny red sliver on the small variable income block for each year.

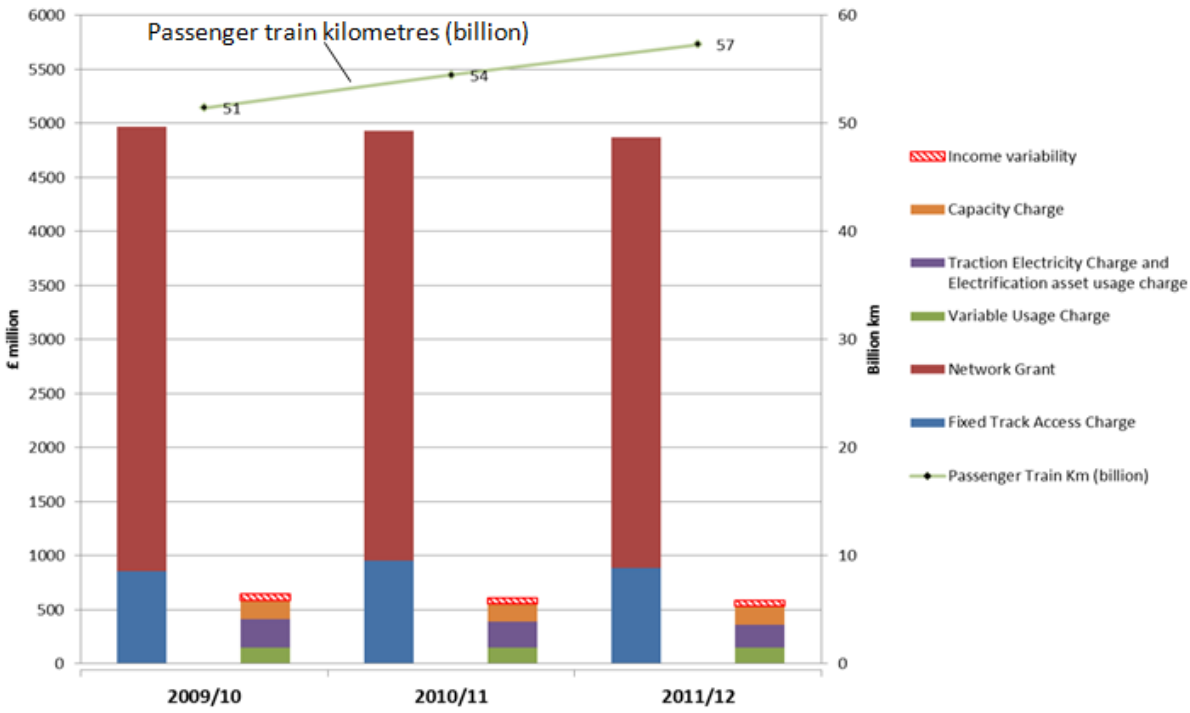
Not surprisingly, therefore, price signals are very weak and play almost no role in decisions on allocating, planning or expanding capacity.

Chart 10: Network Rail's sources of revenue: Network Rail's revenue requirement for CP4 (2008-09 to 2013-14) is £31.7bn (in 2011-12 prices).



Source: Office of Rail Regulation

Chart 11: What happens to Network Rail's income as volume increases? (Answer: almost nothing). Network Rail's income in respect of passenger trains, 2009-10 to 2011-12, at 2011-12 prices.



Source: Office of Rail Regulation

The franchising system determines a large part of what the industry delivers, both in train services and in the infrastructure to support them. Government is therefore a large and important customer of the railway industry. But I would like to see much more direct accountability of the industry to its actual customers – passengers in particular. We see this already in freight, where operators are wholly driven by the needs of their customers, competing for many of them with road.

Network Grant exists for good reasons. As Tom Winsor noted in his final report as Rail Regulator,

> *"simply raising access charges by [£7bn over the 5 years to 2009, in the wake of Hatfield] would have caused very significant difficulties for the public finances... Accordingly, whilst maintaining the integrity of the settlement and therefore the overall amounts which Network Rail is entitled to receive... I accepted a proposal from Network Rail, supported by government, that a higher proportion of Network Rail's income should come in the form of [government] grants ... and that the money should not have to be passed through the passenger train operators."*[21]

My view is that Network Rail's ability to rely on Network Grant since 2004, and the correspondingly small portion of its revenue earned directly from its customers in the train operating companies, has undermined its incentives to respond to train operators and to think commercially. That in turn has weakened the whole industry's ability to focus on its final customers – passengers and freight users.

Network Rail is doing many of the right things to get closer to its customers – the devolution of decision-making to directors for each of its ten routes being a major step in the right direction (see chart 12). Devolution is potentially a major step forward, allowing route directors much more discretion in how they provide infrastructure services to the train companies; to assess how best to raise performance and improve efficiency. Importantly it creates a kind of market for management within Network Rail, with the opportunity to draw comparisons and lessons from different approaches, and ultimately to benchmark.

[21] Tom Winsor, in Office of the Rail Regulator (2004).

Chart 12: Devolution: Network Rail's route structure

Source: Network Rail

We already have in place separate regulatory accounts at the route level and we will be looking to refine these over the next control period to 2019 and to build on them with route level performance data, and potentially in due course, disaggregated revenues reflecting disaggregated charges. In this way it will become clear what customers and taxpayers are paying for the different parts of the network and what they are getting in return.

Network Rail and the UK Government have both shown an interest in varying degrees of extra freedom for the routes – including developing infrastructure concessions, which could help to bring equity and private investment into the rail infrastructure market. And Network Rail and train operators are exploring the scope for further formal allowancing – the first alliance between South West Trains and the Wessex Route of Network Rail is already resulting in different approaches to working and prioritising to improve efficiency, performance and revenue growth. In our Periodic Review, we are considering incentives to encourage further route-level collaboration.

There is certainly the potential for the routes to be powerfully incentivised to strike commercial deals with their customers, and in the process to make sure they make the best returns from the scarce network capacity they have at their disposal by providing what customers want and improving their own efficiency. This also gives the train companies the incentive to act more commercially with Network Rail, brokering different options for the delivery and use of infrastructure services, pressing the routes to improve efficiency, and considering their own use of the network to identify ways in which they can reduce the infrastructure costs they end up paying.

But as long as the bulk of its income is received by Network Rail as a block, without bearing any direct relationship with the infrastructure service the routes provide to their customers, the routes will essentially remain cost centres, rather than profit centres. And it will be harder to achieve the cultural shift within Network Rail and in its relationships with its customers, from the bureaucratic and towards the commercial. This in my view is at the heart of the change we need to see to unlock the potential of the railway for the next decade.

There is a solution to this. We are looking, alongside the Periodic Review, at the scope for adjusting variable charges to reflect capacity and scarcity; and to better reflect the structure of costs, including at a route level. If Network Rail can improve its efficiency between now and 2019, in the way we and McNulty envisage, there is the opportunity for a substantial rebalancing in the sources of the company's revenue, from block grant to usage- and capacity-related prices for the infrastructure services it provides. That will allow the governments' Network Grant to be focussed on the finance of network enhancements (as opposed to more general capex and other spending). It will also help to align costs and revenues within Network Rail at route level, so that route directors are able to make genuinely commercial propositions to their customers, in full knowledge of what their different options cost and what they will earn from them, and with bottom line accountability. This would, in other words, help Network Rail and its routes to become much more like a real business.

We are consulting on this in preparation for the Periodic Review, and without pre-judging the outcome, a move in this direction seems to me to have huge advantages for the railway and its funders and customers.

Dynamic efficiency

In principle, if we can get these incentives right, then the third element of efficiency - dynamic efficiency - ought to follow. But things are never so simple. Dynamic efficiency is always difficult to measure. There is a great temptation to say that innovation is good and so more of it must be better. The railway has innovated but there appears to be more that could be done, in the application of technology to improve costs and performance, but also in developing the offer to the customer, and in developing the use of scarce capacity. Our efficiency challenge in the Periodic Review will help to drive dynamic efficiency in Network Rail, and to an extent through the value chain.

Most of what I have said so far focuses on Network Rail's efficiency. Indeed in recent years most of the pressure has been on Network Rail to reduce its own costs. But McNulty showed that if the industry is to achieve its full efficiency potential, it will need to look across the railway as a system. McNulty estimated that around 30 per cent of the industry-wide efficiency he identified was to come from the rest of the industry, that's £0.8bn-£1.3bn a year - including from the train operators.

Decisions made now on franchising are critical to driving efficiencies from passenger service provision. For example our benchmarking analysis of train operating company costs[22] shows that the savings identified by McNulty are to some extent locked-in by the relatively detailed specification of the current franchise agreements.

Ensuring value for money may also mean that it makes sense to look at different models to reflect the different rail passenger markets – long-distance, London & South East commuter and regional – each of which has very different characteristics in terms of patterns of demand, operation and risks, as well as infrastructure requirements. Richard Brown's current independent review of franchising is considering the best way to secure passenger rail services with respect to consumer satisfaction, national and local needs, value for money for users and taxpayers: it is therefore very important in the context of achieving the whole-industry savings McNulty identified.

[22] Office of Rail Regulation: Costs and Revenues of Franchised Passenger Train Operators in the UK (Office of Rail Regulation, London; 2012, forthcoming)

Efficiency – productive, allocative and dynamic – together with the need for a more commercial culture in the industry, are at the heart of the problem we are trying to solve. How, then, can we make best use of the array of regulatory tools we have to solve them? Perhaps counter-intuitively, I suspect that the answer, at least in the medium to long term, lies in less regulation rather than more. In the final part of this lecture, I want to develop that theme.

10. Releasing the railway's potential

I was asked to address the question of the railway's efficiency. I'm conscious that I've gone rather wider than that. Because I think the real question is – how can the industry make the next strides forward, in delivering for its customers, efficiency, quality and capacity, and do so in a way which keeps both private and public investors willing to invest?

My view is that commercial incentives are a key way in which this will be delivered – and this is true incidentally regardless of the ownership model chosen. As efficiency improves, so the industry will become less dependent on generalised subsidy. The transparency of the industry's costs is improving, and we want to get to the point where government and other funders are able to focus the subsidy they choose to put in, on the specific services and capacity they are buying for society that the market will not deliver, rather than the current approach which is simply to keep topping up a bucket labelled 'aggregate costs minus aggregate revenues'. That should mean government can step back from its detailed involvement right across the railway. Notwithstanding the fact that I have worked in and around government for a long time, I have been genuinely amazed in my time in the railways at the amount of detailed government involvement in specifying and managing what the industry delivers. Of course government is free to intervene as it chooses wherever it is paying – and as we have seen, it is committing very substantial resources to rail. But excessive specification and intervention drives up the cost of delivering what it wants, and more widely undermines the ability of the industry's leaders and managers to take a commercial approach.

Having made some early progress on the McNulty agenda, the industry, led by the Rail Delivery Group, has a key role in achieving change. Firstly, it needs to demonstrate that the costs of the railway can be reduced. We see big opportunities in the next Control Period to 2019, and beyond, but they increasingly require the industry to work together across business (and regulatory) boundaries – including but not limited to collaboration across track and train. Secondly the industry needs to demonstrate to government that it is on top of how the railway is delivered. It's

up to government and users to say what they want from the railway; it's up to the industry to have a credible story about how it will deliver. The more the industry can show it is able to do that, the more likely it is that government will give it more space.

Independent regulation can and should play a significant role in this. A first major step is our Periodic Review where we want to set the right targets and encourage the industry to work together. We're coming to some key decisions on that, ahead of our draft determination for Network Rail in June. Those decisions will include - as I have described – options for creating the framework of better aligned incentives, cost transparency and better aligned costs and charges to support the industry to move towards an approach led by commercial propositions which deliver better efficiency and customer service.

ORR is exploring with people across the railway how we best create a climate that genuinely aligns incentives across the industry, and encourages the further development of alliances and partnerships.

Beyond all that, we should increasingly think of rail becoming more of a "normal" sector. Greater efficiency will reduce the railway's dependence on subsidy, and whatever levels of subsidy funders choose to provide in the future, their funds can be more focused on the specific things they want to buy. With the railway less dependent on subsidy, government can be less involved in the detail, leaving how the railway is delivered to the industry. And if – as I have suggested, the industry can operate increasingly on the basis of proper, transparent and grown-up commercial arrangements, then I believe that the role of regulation should become less interventionist too.

Government will still want assurance that it is getting value for money, that longer term objectives will be delivered and that market failures be addressed. In other sectors this is the role of the independent regulator. Effective economic regulation allows a reduction in the amount of detailed intervention, and helps to create an environment in which businesses can plan ahead, invest, innovate and grow.

This industry could be much more business-led, and much less driven by government and regulation. The Government paper[23] published in March makes clear that the Westminster Government sees rail moving that way too; alongside

[23] HM Government: Reforming our railways - Putting the customer first. Command paper. March 2012.

greater transparency to users and taxpayers of what the industry is delivering and how much it costs, which is a central part of the industry's legitimacy with its funders and users.

That does not mean undermining the franchising business model, though there is much that needs to change to make sure that franchising delivers both value for money and what customers want. I can well see alternative methods of provision being introduced in time for some types of services - including through open access competition, as envisaged at the time of privatisation. But it does mean that independent regulation, working to a defined set of rules, can help separate more clearly the political decisions that are for government and the delivery decisions that are for the industry – a confusion that currently bedevils the railway.

Other sectors have shown that, properly targeted, independent regulation can be of value to companies in the sector, as well as to users and government. We could move in this industry to a very different type of regulation, which gives more flexibility and freedom to rail businesses. If commercial relationships and the market are working well the role of regulation can and should be significantly reduced. This is our approach on both safety and economic regulation. On safety we take a risk-based approach, which assesses the management competencies of businesses in the industry to manage safety and other risks, and we intervene less where businesses can show that their own systems and staff have risks well understood and managed.

11. Conclusion

If the industry can deliver on efficiency between now and 2019, it will be possible to reduce its dependence on public subsidy, and to get much greater transparency on where public money goes and what it buys. National and local funders should have better choices over how their money is used and what they get for it. The industry ought then to become freer to take its own decisions on how best to meet its customers' expectations and grow demand.

There is further to go on customer satisfaction, and rail businesses need to focus on how they can meet rising expectations through better customer service, better information, improved services and value, and innovation – just as they do in other sectors. This potential is all the greater given the scope for major changes in the way the railway operates through electrification and transformed signalling and information systems, as well as more devolved decision-making. It requires a much stronger focus on the industry's customers, a whole-system approach to delivery and efficiency, and ultimately, proper bottom-line accountability.

This is a real challenge in an industry where finances are opaque and decision-making byzantine in its complexity. That needs to change. As efficiency improves, and costs, revenues and incentives become better aligned, I believe we can move towards a railway in which businesses can shape business propositions and come together in a commercial way to deliver for their customers, with less intervention from ORR and government. We can transform the way the industry operates in the next decade, and all of us need to step up to make that a reality.

Richard Price
Office of Rail Regulation
November 2012

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