Options for Regional Rail

A review of ways to improve Britain's regional rail services

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transport for quality of life







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Disclaimers

Statements in this report reflect the authors' views based on the available data and should not be taken as official *pteg* policy.

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Terminology and scope

This report covers options relevant to Scotland and Wales as well as the English regions, and where the term regional rail is used it should be taken to include the rail services within the devolved nations. This terminology is rather insensitive but does accord with the Office of Rail Regulation definition of regional train services and with the European Union use of regional. Similarly, the term 'regional transport authority' is adopted to cover the different public bodies with varying degrees of authority over regional rail services, in particular the governments of the devolved nations and the passenger transport executives, but also to include similar public bodies that might arise in other regions of England in order to take on devolved responsibilities for regional rail.

The options presented for regional rail in this report are not, however, intended to extend to Northern Ireland, which has a completely separate rail system, physically unconnected to the rest of Britain's rail network, although with important rail links to Eire, and with track and trains within public ownership and already under entirely autonomous management by the Northern Ireland Executive.

Revised issue

This revision of the report, issued 10.02.2014, contains a numerical correction to Figure 5.

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1. Introduction

In recent years consensus has emerged across the political spectrum that greater involvement of regional transport authoritiesⁱ in delivery of regional rail services could deliver significant benefits. The potential benefits range from integration with the other modes of regional public transport that are overseen by regional transport authorities through to investment in development of rail to achieve regional priorities for social, economic and environmental improvements.

This consensus arises at a moment when the broader debate about how the whole railway should be run is, arguably, more wide-ranging than it ever has been. The more open debate seems to have grown out of the conjunction of two sequences of events: a highly conspicuous rise in rail costs since rail privatisation that compares badly against more integrated railways elsewhere in Europeⁱⁱ; and more critical scrutiny of corporate behaviour and profit levels within essential public services ranging from water and energy supplies to banking and internet services.

This report is intended to help widen the scope of debate about regional rail, which so far has tended to focus on incremental changes to the *status quo*, by considering whether more thoroughgoing changes that are the subject of lively discussion amongst railway experts might offer correspondingly greater benefits, and whether these benefits are worth the potential risks and costs inevitably associated with deeper reform.

We start the discussion by briefly considering some respects in which regional rail, sometimes seen as 'the poor relation' of Britain's railway system, has historically not received the backing it needs to fulfil its potential, even though the partial devolution of rail powers to Scotland and Wales is beginning to address some of that legacy. The report then estimates the quantifiable benefits potentially available from running regional railways differently, by analysing the excess costs created by the present way of running regional railways. The analysis distinguishes which of these costs could be addressed by action at regional level alone and which necessitate action at national level.

Our analysis of excess costs is followed by consideration of five UK examples of transport organisations that largely or entirely capture any surpluses generated for reinvestment. The next section then looks at lessons for organisation of regional rail from some other European countries, with an emphasis on aspects which have tended to escape attention as Europe rushes to mimic Britain's complete marketisation of rail services.

Finally, a range of governance models for regional rail is considered, focussing on the degree to which more radical options may offer benefits over the *status quo* or incremental changes to it.

¹ This term is used as a shorthand throughout this report to include the devolved national governments in Wales and Scotland.

ⁱⁱ As a result of the continual cost rises a major 'Rail Value for Money Study' was initiated by the last Labour Government and reported to its Conservative successor findings of a '40% efficiency gap' against European comparators (McNulty 2011 Realising the Potential of GB Rail: Report of the Rail Value for Money Study, Summary Report p.5).

2. The legacy of undervaluation of regional rail

In this report 'regional' rail services are considered to be all services in England, Scotland and Wales that are not fast long-distance services, with the exclusion of services in London and the Southeast ⁱⁱⁱ. This definition takes in shorter higher frequency services that could also be described as 'local' and longer services that could be termed 'inter-regional', but the broad scope is helpful for discussion of regional governance arrangements.

2.1 Why are regional rail services important?

Britain's regional rail services carry over 340 million passenger journeys every year, approaching a quarter of those on the whole rail network¹.

Regional rail plays a critical role in enabling vigorous economic activity in the regions and devolved nations. Knowledge-intensive higher-skill businesses, the sector where Britain may be able to retain competitive advantage in a globalised economy, need to draw their workers from large catchments, to which rail is particularly well suited. Correspondingly, populations situated in the hinterlands of the major regional cities where such businesses tend to cluster require rail links to access those higher-skill higher-wage jobs. Research by the Centre for Cities has highlighted the extent of economic benefits from good rail links within and between city-regions². This work also revealed that towns with poor rail links have been unable to share these 'agglomeration benefits' and have fallen behind economically. Burnley and Blackburn, for example, have shown a widening 'wealth gap' relative to Manchester and have been unable to link to the growth that city has seen in knowledge-based businesses³.

Within the city-regions represented by Passenger Transport Executives rail travel is the fastest growing mode of commuter travel and already carries around a quarter of all commuters in Birmingham and Manchester⁴.

2.2 Regional rail compared with other rail services in Britain

Data recorded for regional rail since privatisation shows a mixed picture. Between the financial years 1994-95 and 2011-12 patronage on all of Britain's rail sectors, measured as passenger kilometres, has approximately doubled. But a striking aspect of the trend for regional rail is that in recent years, growth in passenger kilometres has outpaced that on the rest of the railway, rising 61% between 2002-03 and 2011-12 compared with 43% for the railway as a whole.⁵

The number of regional train services has not come close to keeping pace with this increase in passenger numbers, however. Between 2004-05 and 2011-12 regional train kilometres

This terminology approximately matches the Office of Rail Regulation's sectoral division of the railway. ORR classifies Transpennine Express as regional except for performance statistics for which purpose it classifies it as long-distance. This report treats Transpennine as a regional service.

increased just 14% whilst passenger kilometres rose 42%^{iv}, a three-fold disparity⁶. This mismatch has led to high rates of peak hour overcrowding, with passengers standing on 50-60% of peak hour trains into Leeds, Manchester and Birmingham and passengers regularly left behind at stations midway along the routes because there is no room to get on⁷.

This capacity problem is partly due to a long-term failure to renew rolling stock, as revealed by a decade-long rise in the average age of regional rail rolling stock (Figure 1). Regional railways share this trend with other parts of the rail system, but they are operating some of the oldest stock on the network. The *average* age of regional trains is now over 20 years, so a significant proportion of the trains are very old.

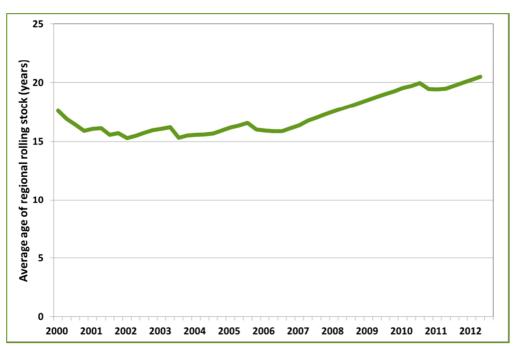


Figure 1: Rise in average age of regional rolling stock

Source: Office of Rail Regulation (2013)⁸

The capacity problem on regional railways is also linked to a lack of infrastructure investment in upgrades such as electrification for trains with faster acceleration, station extensions to take longer trains or signalling systems to enable lines to carry more tightly spaced trains.

Regional railways are, by dint of their geographical definition, inherently less visible to central government than routes serving London and the Southeast. Neither can they match the prestige of fast long-distance routes that can command higher fares and therefore, depending on the measures applied, appear to offer national government a more attractive return on its subsidy. So, for example, the Passenger Transport Executive Group *(pteg)* has observed that money for new trains has disproportionately tended to be allocated to the

iv

In recent years ORR has not reported totals of train kilometres according to regional and other 'sectors', so the train kilometre figures are based on those train companies that only operate services categorised as regional (Arriva Trains Wales, First Scotrail, First/Keolis Transpennine Express, Merseyrail Electrics, Northern Rail), whereas passenger kilometre figures are based on ORR's regional sector data which includes some additional services, but not sufficient to significantly distort the pattern.

Southeast⁹. Meanwhile, Northern Rail still operates more than 100 Pacer trains, many of which began service in 1985 and, moreover, were originally built as a budget issue to an inferior specification.

The comparatively neglected state of many parts of the regional railway is one of the reasons for the present policy consensus that the investment that regional rail passengers deserve requires greater involvement of regional authorities who recognise regional rail's importance and potential and who understand its requirements. Although, judged by its increased patronage, regional rail can be regarded as a success story, at least in some areas, it appears that this rise in patronage has happened despite a system of governance and service delivery that has generally failed to deliver investment in new rolling stock or new infrastructure or a high degree of integration with other modes of transport.

3. Potential cost savings of running regional rail differently

When the Railways Act 1993 divided up track, rolling stock and provision of train services amongst private sector providers the rationale was that competition amongst the multiple players would drive costs down, and that this would more than offset the additional costs arising from fragmentation, profit-taking and more expensive private sector financing.

But a trend of rising costs became un-ignorable, leading to official and external investigations, of which the most recent official example is the 'Rail Value for Money Study' 10 v.

These studies have not, however, given particular consideration to the way the regional railway is run and the significance of excess costs in the current system at that level. This section considers what these excess costs may amount to for regional railways, and identifies where there is greatest potential for savings. We start by examining the excess costs that might be addressed by the regions themselves, if they all had full powers over rail service provision, and then consider additional savings for regional rail that could be achieved by system-wide changes at the national level.

For the calculations that follow the regional railway is taken to comprise those companies that *only* operate services designated as regional^{vi}: Arriva Trains Wales, First Scotrail, Merseyrail Electrics, Northern Rail, First-Keolis Transpennine Express. This definition is necessary because financial information is only available at corporate level. Other TOCs do operate some services that are regional, however, and although London and Southeast services are not part of these calculations the *types* of savings calculated here are also generally applicable to London and Southeast services.

The main additional costs of the privatised system may be summarised as: leakage of money out of the system in the form of dividend payments; 'interface' costs between the many different players; and excess costs of raising finances at rates above those public authorities can obtain¹¹. Unless another reference is provided, calculations are based upon data extracted from the FAME database of corporate financial information.

3.1 Dividend leakage from regional train operators

The present regional TOCs have paid their shareholders more than half a billion pounds over the terms of their franchises. Over the nine financial years 2003/4-2011/12 dividend payments by the five regional companies under consideration amounted to £555 million, an annual average of £62 million.

^v For a recent external study see Taylor and Sloman 2012 *Rebuilding Rail* (reference 11), a review of the many analyses that have been made of excess costs which, at a conservative estimate, shows £1.2 billion is lost from the railway every year due to excess costs attributable to privatisation.

^{vi} As designated by Office of Rail Regulation for most monitoring purposes, excluding its public performance measure for which it classifies Transpennine Express as long distance.

The dividend payments are made to the parent companies that own the regional TOCs. These include Abellio, which is a subsidiary of state-owned operator of Dutch railways NS; Arriva, which is a subsidiary of state-owned operator of German railways Deutsche Bahn; and Keolis, which is a subsidiary of state-owned operator of French railways, SNCF.

An example of what regional rail could buy if it captured current dividend leakage

The accumulated dividend leakage from regional TOCs (£555 million since 2003/4) is much greater than the estimated £300 million investment Merseytravel is now planning in order to replace the entire Merseyrail Electrics fleet¹². Merseytravel will need to borrow money to accomplish this investment, even after taking into account DfT's likely contribution.

When Merseytravel first took over the Merseyrail franchise, for an expenditure of £34 million, a sum equivalent to just over half the amount of dividends leaking from the regional TOCs every year, it was able to refurbish its entire fleet ¹³.

It might be argued that dividend payments are a fair recognition of the investment that the owners of train operating companies have made and that the average pre-tax profit margin of 7.7% achieved by the five regional TOCs since the beginning of their franchises is not excessive. However, for each pound of private capital committed, the return is high.

Figure 2: Dividend payments and return on shareholder funds for regional train services

Train operating company	Total dividend payments (£ million) 2003/4-2011/12	Return on shareholder funds (as dividends / shareholders' funds) 2003/4-2011/12
Arriva Trains Wales	68	54%
First Scotrail	104	137%
Merseyrail Electrics	50	223%
Northern Rail	149	269%
First-Keolis Transpennine Express	185	159%
TOTAL	555	

Source: Analysis of FAME database of corporate financial data. Figures for First Scotrail and Northern are from 2004/5-2011/12, when the relevant companies took over the franchises, so dividend payments to the previous operators of these franchises are not included and the headline figure under-reports total dividend payments from these train operations. Return on shareholders' funds is calculated as [Total dividends in every year of operation / Total shareholders' funds in every year of operation] between 2003/4 and 2011/12 or 2004/5 and 2011/12, as appropriate.

As shown in Figure 2, shareholders of Arriva Trains Wales have benefitted from an average 54% return on shareholders' funds since 2003/4, First Keolis Transpennine and First Scotrail show average returns on shareholder funds running at about 150%, whilst Merseyrail

Electrics and Northern Rail show average returns in excess of 200%. Investors might reasonably expect such rates of return from Virgin Galactic's experiment with space travel, but the risk faced by operators of train services is not in any way comparable, especially given that the history since privatisation has been that the government steps in when train operators' revenues fail to meet their expectations^{vii}. It is also notable that when downside revenue risk does not materialise companies stand to gain windfall profits, achieving profit margins that are high by any measure. Amongst the regional train companies the most striking example is First-Keolis Transpennine, whose profit margin has been rising throughout the term of its franchise and hit 24% in 2011/12, a profit of £68 million.

There is further dividend leakage from regional railway operators through the private sector companies they subcontract to supply goods and services¹⁴. We estimate that the cost of subcontractors' profit margins^{viii} to the five regional railway companies is £16 million per year^{ix}.

3.2 Dividend leakage from rolling stock companies

The market failure in the rolling stock market has been the subject of repeated criticism. Over the past decade two of the big three ROSCOs have averaged profit levels above 30% and the third has averaged over 10%.

It is not a straightforward matter to estimate the excess costs to regional railways from the market failure in rolling stock. The rolling stock companies do not divulge what the train operating companies pay them for train rental and they include commercial confidentiality clauses in their contracts with the TOCs to ensure that those companies will not release the figures. These profits ultimately derive either from higher fares paid by the travelling public or from higher taxpayer subsidy so this seems an unsatisfactory state of affairs, particularly since the average profit margins of the ROSCOs have been consistently high.

An indication of the scale of present ROSCO dividend leakage from the rail system *as a whole* can be seen from the total dividend payments for the big three rolling stock companies, which for the eight years 2004/5-2011/12 amounted to £1.6 billion, an average of £200 million per year. Allocation of a portion of this leakage to regional rail according to its 21% share of the total TOC cost base would give a figure of £42 million per year. This however is not the whole picture, as discussed in the following section.

vii Loss-making operators have been able to walk away from contracts at minimal expense leaving the public purse to pay for the consequences (e.g. sequential abandonments of the East Coast Main Line franchises by GNER then National Express) or use the threat to do so as a means to extract additional subsidy from DfT (e.g. the £58 million bill to bail out Connex South Eastern or the £55 million paid to Arriva to rescue MTL's Regional Railways NE franchise in 2000). (See Shaoul J 2006 *The cost of operating Britain's privatised railways* Public money and management 26(3) pp151-158 and McCartney S and Stittle J 2011 *Carry on up the East Coast – a case study in railway franchising* Public money and management 31(2) pp123-130.)

viii Over a period of time post-tax profits and dividend payments are likely to be comparable. For all British TOCs, FAME data from 2003/4-2011/12 shows that over that period profits and dividends were approximately equal at £1.6 billion.

Working to the reasonable premise that these costs are proportional to TOCs' total cost bases. Analysis of FAME database shows 2011/12 turnover of all TOCs at £9 billion and that the five regional TOCs account for 21% of that at £1.9 billion. Just Economics 2011 (see reference 14) estimated that profits of sub-contractors to all the TOCs amount to £76 million per year.

^x Angel Trains 34% average profit margin over the 9 years 2003/4-2011/12; HSBC Trains 31% average profit over the 8 years 2002/3-2009/10 after which it became Eversholt; Porterbrook 12% average over the 9 years 2004/5-2012/13.

3.3 Cost of future rolling stock procurement to replace life-expired stock

Regional transport authorities are seeking to renew a large proportion of regional rolling stock, much of which is nearing the end of its life and is unfit to support their ambitions to improve rail services in their regions. Obtaining new stock under the present system will entail much higher rental payments, perhaps doubling payments in cases where there is a step-change in specification.

Here we consider further the costs that regional transport authorities would face if procurement were via the ROSCOs, and compare these with direct purchase by government or by the regional transport authorities. For this purpose we consider both the rolling stock in need of replacement for existing services, and also regional transport authorities' plans for additional rolling stock to address rising demand.

Potential savings through direct purchase as opposed to leasing are summarised in Figure 3 and explained below.

Figure 3: Potential annual savings from purchase of future regional rolling stock via direct public authority-backed loan, compared to leasing

	Number of cars	Annual cost per car if procured via leasing*	Annual cost per car if purchased by public authority-backed loan	Annual saving
Replacement of life-expired DMUs and EMUs requiring imminent renewal	951	£176,000	£49,000	£121 million
Orders in pipeline (Merseyrail and Caledonian Sleeper)	73 cars + 70 sleeper carriages	As above	As above	£18 million
Sustainable rolling stock renewal programme (replacing 1/30 th of the fleet each year)	68 cars	As above	As above	£45 million after five years~
Annual total after five years				£184 million

^{*} Maintenance costs have been netted out of the procurement option via leasing, to enable comparability with the procurement option via direct purchase with government-backed loan. See box and main texts for basis of calculations. ~ Savings from sustainable rolling stock renewal programme will increase by £9 million each year.

The regional railways operate a large number of diesel and electric multiple unit trains that are 24 or more years old, comprising in total 951 cars^{xi}. For all of these the process of

xi A 'car' in this context is the portion of a self-propelled train (a 'unit') that a passenger would call a carriage. The regional railways own very little locomotive hauled stock, with the exception of the Caledonian Sleepers for which the 75 carriages are 40 years old but are not included in this total.

procuring replacements needs to start imminently. At a conservative estimate (see box for details of calculations) a public authority can save £127,000 per new car if it raises finances itself rather than leasing from ROSCOs, whose financing is uncompetitive because their bond-holders demand higher profits than apply to bonds underwritten by public bodies. Considering the regions' 951 cars that are in need of replacement this would represent a saving of £121 million per year.

The full potential saving is greater, however, because regional transport authorities are planning to add rolling stock to address rising patronage. Two additions are known to be in the pipeline, for which orders have not yet been placed: Merseyrail are looking to add 73 cars when they renew their fleet and the Caledonian Sleeper renewal will require about 70 sleeper carriages (which work out to be very similar in cost to cars of multiple units). Bringing these into consideration adds a further saving of £18 million per year.

Working out savings of switching from leasing to purchasing trains

Our calculations assume a £1.4 million purchase cost for a new rail car. This is the price of new trains that entered service for Scotrail in 2010^{15 16 17} and is within the range of more recent estimated prices for rolling stock under order for Thameslink (£1.2 million)¹⁸ and Crossrail (£1.7 million)¹⁹. The Scotrail purchase is an unusual instance where both the leasing costs and the purchase costs have become public due to a complaint to the Advertising Standards Agency about misleading statements about the procurement cost²⁰. The Scottish Government allocated £430 million over 16 years for a lease covering 130 cars²¹. On this basis we use a lease cost per car per year of £200,000 after rounding downwards to make a conservative estimate on the basis of some lack of clarity whether these funds also covered a £24 million upgrade for the Glasgow Shields depot.

To work out the relative costs of leasing and direct purchase it is necessary to know how much maintenance is included in a lease. Scotrail engaged 30 staff²² to maintain this fleet of trains at their Glasgow Shields depot that has been upgraded for that purpose, and state that "ScotRail are responsible for carrying out the maintenance on this fleet, with Siemens supplying technical support and stores supply"²³. It therefore appears that the lease does not contain a large fee for maintenance (i.e. the lease is comparatively 'dry' in the jargon). As a first order estimate, over the 30 year lifetime of this sort of rolling stock it would be expected that the accrued maintenance costs would be comparable to the capital cost²⁴. Dividing the capital cost of £1.4 million by 30 gives an average of £47,000 per car per year, ignoring the complication that younger trains are liable to be cheaper to maintain. However, for the purposes of an ultraconservative estimate we assume that the lease covers 50% of the maintenance responsibilities (a 'soggy' lease) that would amount to some £24,000. That leaves a lease payment with maintenance netted out of £176,000 per car per year as the portion of the lease payment that Scotrail is making purely to have use of the train with no maintenance included.

If, instead of leasing, a train purchase such as this was made directly by the UK Government or by a regional transport authority, it would need to raise finances. Regional transport authorities can presently raise 30-year finance at rates of about 3.5% ²⁵. At this rate, each £1.4 million car would require an **interest repayment of £49,000 per car per year**. Compared with the ROSCO fee to provide the train with no maintenance this represents a **saving of £127,000 per car per year**. The difference with the ROSCO fee results from elimination of the ROSCO profit margin and use of the public sector's ability to access lower interest rates than ROSCOs. By way of comparison, bonds for maturity in 22.02.2035 from Eversholt, who own Scotrail's 380 trains, are giving yields of 6.697% ²⁶.

The above rolling stock acquisitions would begin to bring the regional railway stock up to scratch, but it is also sensible to consider the rate of purchase required to keep the age of

the regional fleet stable, rather than gradually ageing, which is obviously unsustainable over any extended period. If a rolling stock lifetime of 30 years is assumed then $1/30^{th}$ of the fleet should be replaced every year, some 68 of the 2048 cars presently used by regional rail operators. The difference between purchasing these outright and leasing them is an ongoing saving of £9 million per year, so after 5 years the additional saving for regional transport authorities' revenue budgets would amount to £45 million per year.

3.4 Interface costs for regional rail operators

So far we have considered excess costs that a region with appropriate powers might address on its own. The regions do, however, also stand to gain significant savings from systemwide reform at the national level to reduce the present level of interface costs.

Fragmentation of the railway system causes excess costs in a number of ways. These include duplication of management and administrative functions between competing companies, extra staff required to deal with issues like delay attribution that arise as a direct result of interfaces, and extra staff required to give sufficient cover because pools of operational staff like drivers or guards are not shared between companies. Research by Oxera for the McNulty review of rail value-for-money concluded that the cost of interfaces amongst different train operators and with Network Rail was 'substantial', and estimated that it could be 5% of TOC costs²⁷.

For the five regional operators under consideration here the total cost base in 2011/12 was approaching £1.9 billion. This implies that interface costs, calculated at 5%, could be of the order of £95 million per year. Carrying out the same calculation for the past nine years (2003/4-2011/12) gives a total sum for interface costs of £630 million.

An example of what regional rail could save if regional TOC interface costs were removed

The estimated yearly total of all regional rail operators' interface costs is significant in comparison to levels of public expenditure on regional rail services. For example Northern Rail received £97 million²⁸ in public subsidy in 2011-12, a very similar total to estimated annual regional TOC interface costs of £95 million.

3.5 Excess infrastructure costs for regional rail

The system of rail infrastructure management is another source of excess costs that impacts on the regions but that requires action at the national level.

Excess costs arise as a result of outsourcing of infrastructure work by Network Rail, and comprise a dividend leakage element and a fragmentation element. Excess costs are incurred both because of contract profit margins and because the sheer complexity of

organising many tiers of contractors and sub-contractors leads to inadequate cost control and wasted expenditure^{xii 29}. Only the first of these has been quantified.

Network Rail calculated that it saved £264 million per year when it brought maintenance back in house³⁰. Renewals and enhancements are still outsourced by Network Rail, however. It has been estimated that if renewals and enhancements were also brought back in house Network Rail would save a further £200 million as a result of the elimination of contract profit margins³¹. If this saving were allocated according to the 40% share of fixed track access charges paid by regional train operating companies³² the regional companies' payments to Network Rail (and Network Rail's costs) would fall by £80 million per year.

An example of what excess infrastructure costs could be worth to regional rail

For a project cost of £22 million, just over a quarter of the estimated Network Rail outsourcing costs across regional railways, infrastructure was improved that enabled doubling of the train service from Merthyr Tydfil to Cardiff, from hourly to half-hourly. This investment, part-funded by the Welsh Assembly and thereby enabling access to matching European funds, improved services to a series of settlements in the valley with high levels of unemployment, for which a better rail connection to jobs in Cardiff is a critical pathway for regeneration of their local economies and communities.³³

Controlling future losses resulting from inefficient infrastructure management will be particularly important to regional transport authorities, who are developing ambitious expenditure plans to achieve significant improvements to the networks in their areas. In Scotland for example, network enhancements are being planned for the 2014-19 period with an estimated cost of £1.4 billion.³⁴

3.6 Summary of potential savings

Figure 4: Summary of potential efficiency savings from regional rail reform

£62 million
£16 million
£184 million
after five years
£95 million
£80 million
£437 million

vii One study for the Office of Rail Regulation found that of 798 renewal projects, only just over 60% were fully justified.

The potential cost benefits available from reforming the way regional railways are run are summarised in Figure 4. The level of achieved savings would depend on which of various options for reform were to be adopted, and this is discussed further in Section 6.

3.7 What savings could an individual region achieve?

What might these savings amount to at the level of a single region? In order to give a sense of the potential cost benefits that a region might achieve through a radical change to its governance of rail services, Figure 5 applies some of the savings discussed in the previous sections to a regional rail operation on the scale of Merseyrail. The operation is assumed to have an annual turnover of about £100 million and a rolling stock comprising 50 four-car electric multiple units in need of imminent replacement.

Figure 5: Illustrative cost comparison - private sector TOC versus public sector equivalent

	Private sector TOC hiring trains via a commercial rolling stock company	Public sector TOC purchasing rolling stock by raising money at public sector rates
Cost base of train operator	£100 million	
Number of individual cars	200	
Purchase cost of entire train fleet	£280 million	
Post-tax profit margin*	5%	
Dividends paid to shareholders** £5 million nil		nil
Total fleet rental cost per year	£40 million	nil
Yearly interest on debt to purchase fleet [‡]	nil	£10 million
Additional fleet maintenance cost per year	nil	£5 million
Totals	£45 million	£15 million

Total cost benefit of public sector TOC: £30 million = 30% of total cost base

- * 5% represents a conservative figure for post-tax profit margin. 5% after tax equates to about 6.5% pre-tax. Analysis using data available on the 'FAME' database for pre-tax profits (as a percentage of total turnover) for the regional train operations Arriva Trains Wales, First Scotrail, First/Keolis Transpennine Express and Northern Rail shows an average pre-tax profit margin of more than 7.7% over the period 2004/5 2011/12. Some regional TOCs are making much higher profits than this average: 24% in the case of Transpennine in 2011. Post-tax figures are used so that the calculated savings represent the saved cost to the public purse.
- ** Analysis of all franchised train operating companies using data available on the 'FAME' database for 2003/4 2012/13 shows that £1.6 billion was paid out in dividends, equalling the total post-tax profit over this 9-year period i.e. none of the declared post-tax profit was reinvested in the railway by these companies.
- ‡ Calculated at 3.5%, a rate presently obtainable by public authorities, see discussion in Section 3.5.

This illustrative comparison only considers savings that a region could achieve itself by avoiding TOC dividend payments and ROSCO hire charges, both of which would arise by switching to a publicly-owned train operator. These savings could be obtained by a region that set up its own train operator or by a region that contracted its train services from a nation-wide public sector rail operator, if one were available.

Similar savings through elimination of dividend payments could also be achieved by contracting train services from a third sector not-for-profit operator, but in this case realising the full potential level of rolling stock savings would also require the regional transport authority's competitive advantage of access to low interest rates, by a mechanism whereby the authority buys the trains then makes them available to the not-for-profit operator as part of the service contract.

The amounts in question are a high proportion of the cost base and are obviously at a level that can make a fundamental difference to whether a region's train services appear affordable and financially sustainable or whether they become vulnerable to calls for cutbacks and higher fares, imperilling revenue growth and leading to the sort of downward spiral that has plagued Britain's regional railway in the past.

4. Examples of UK transport operations that capture surpluses for reinvestment

The financial analysis in the previous section reveals that regional rail could benefit from an annual saving of about £342 million per year through removal of profits extracted by shareholders and bond holders and charged to the railway via TOCs, ROSCOs and subcontractors to them and Network Rail. Considering just the train services and rolling stock, both of which might be under direct regional control, there is potential for regions to gain £262 million by removal of this profit leakage. This is a significant amount relative to the costs of sought-after regional rail improvements and relative to regional rail subsidies, which, if they appear excessive, create pressure for cuts to services.

Over the last thirty years in Britain, public services have increasingly come to be delivered by the private sector, and examples of public services being delivered by organisations that do not extract a profit have almost sunk from view. However, such examples do exist, and they are able to demonstrate strong management discipline, innovation and high service quality that is as good as, or better than, that seen in the private sector. The present levels of profit leakage indicate that the debate about the future of regional rail merits a wider frame of discussion.

This section therefore offers a broader overview, by providing a range of examples of UK public transport organisations that avoid leakages in the form of private profits. The emphasis is on larger organisations at a scale applicable to rail, but includes some transport companies that do not at present operate rail services. In each case the discussion considers the organisation's financial performance and the extent to which its governance and ownership structures enable that performance to be held to public account.

The following examples are drawn from both the public sector and the third sector. For the purposes of this discussion the term 'third sector' is taken as synonymous with 'not-for-profit', which is used throughout this report as a widely-understood term in preference to the more precise but less widely-used term 'not-for-dividend'.

4.1 HCT

Operations	Operates bus and community transport services in London and across the UK carrying 12 million passengers per year
Turnover	£28 million (2010/2011)
Organisational type	Asset-locked company and charity
Governance structure	HCT Group is legally constituted as both a charity and a company limited by guarantee. It is the parent company of a group with over a dozen subsidiaries, most of which are also constituted to lock in profits and assets, either in the same way as the parent company or through other legal forms including an Industrial and Provident Society and several Community Interest Companies. Primary governance is by a chief executive and three other chief officers that form the core of a senior management team. Secondary governance is by a board of ten trustees of the charity who are also directors of the company. HCT trustees cannot financially benefit from their role and receive expenses only ³⁵ .
Ownership	Technically owned by the members that provide the guarantee for the company, who underwrite it for a nominal amount defined in the company's articles, but these members cannot sell the company or otherwise financially benefit from their membership.

HCT is Britain's largest not-for-profit bus operator and provides an example of a thriving transport organisation entirely within the third sector, neither in direct public ownership nor in the ownership of private shareholders. HCT originated as Hackney Community Transport in 1982, when some 30 local community groups teamed up and pooled their vehicles to run the transport services they needed. Provision of services was initially to voluntary groups, clubs, community organisations and charities in Hackney. By 2006 operations had extended right across London and to other parts of the UK so the name was changed to HCT Group. Growth has been very rapid and continues to average 20-25% per year. It now employs 700 people.

HCT is founded on not-for-profit (not-for-dividend) principles: 'Our profits [i.e. HCT's surpluses] are not distributed to shareholders, but are instead applied to create community value...[as] further transport services or projects in the local communities we serve...training services for people who are long-term unemployed...employment opportunities for people in deprived communities' These principles are written into HCT's charitable objectives³⁹.

HCT's governance arrangements include a 'governance committee' which makes recommendations to the board of trustee-directors regarding who they should appoint as replacement fixed-term trustee-directors in order to ensure appropriate skills and experience at board level. The board also receives recommendations on the future direction of the organisation and its 'social investments' from three newly-formed regional advisory committees. Regional advisory committee members cannot be HCT staff and are elected on the basis of a set of selection criteria that define appropriate interest groups⁴⁰.

HCT calculates that in the financial year 2011-2012 it spent over £200,000, 35% of its operating surplus, on 'social investment', defined as direct expenditure on services for the

benefit of the communities in which HCT operates. In addition, HCT has built up reserves of over £2 million⁴¹. Although HCT's success at winning competitive tenders has enabled its social investments, it has experienced tensions reconciling its competitive pricing with staff pay and conditions, and has received union criticism that its drivers are some of the lowest paid in London⁴², with a number of strikes, most recently when HCT took over bus services in Jersey⁴³. It would be fair to note, however, that similar industrial relations issues apply equally to private sector bus operators.

4.2 Network Rail

Operations	Owns and manages rail infrastructure in Britain
Turnover	£5.9 billion
Organisational type	Mutual (but with narrower representation than usually implied by that term)
Governance structure	Legally constituted as a company limited by guarantee. Primary governance by a company board of five executive directors and nine non-executive directors. Limited secondary governance powers of oversight vested in a body of 42 members.
Ownership	Technically owned by its members, but these are not permitted to benefit financially from their ownership, and one of the members is the Government, which holds special powers ⁴⁴ .

Network Rail is the highest profile not-for-profit organisation within the British railway network. Its website prominently proclaims 'We are run like a listed company'⁴⁵ and it is a powerful example in so far as it demonstrates how a third sector organisation that is not privately or publicly owned in the normal sense can operate on a very large scale, overseeing a huge budget and asset base. Nevertheless, it is not purely third sector in that the Government retains powers and responsibilities normally associated with ownership. Network Rail's debt is entirely underwritten by the UK Government, and the Department of Transport holds 'Special Member' status that enables it to dismiss all other members if there is 'Fundamental Financial Failure'⁴⁶.

One of the major potential advantages of mutually-owned structures is not so well-illustrated by Network Rail. Mutuals offer a means to represent a wide range of legitimate interest groups but Network Rail's structure was designed primarily with the aim of keeping its debts off the public balance sheet rather than to ensure public accountability. Criticism of lack of accountability led Network Rail to reform its membership rules in 2012. These rules now disallow rail industry commercial interests, although they do not as yet specify that relevant groups such as regional transport authorities, passengers, or railway employees should be represented as members or as non-executive directors, and the Network Rail board retains rights to veto the appointment of any member for any reason it wishes. Regardless of the membership structure, in view of its £30 billion debts it might be argued that Network Rail's greatest accountability is to its bond-holders (creditors) to whom two thirds of its asset base is mortgaged and who charge it over £1 billion per year in interest payments⁴⁷.

These issues should not, however, be taken as flaws inherent in mutual structures, but rather as symptoms of using a mutual structure to enable acquisition of publicly underwritten debt without commensurate political responsibility.

4.3 Lothian Buses

Operations	Operates 70 bus services (650 vehicles) in Edinburgh and surrounding areas ⁴⁸
Turnover	£118 million (2011)
Organisational type	Publicly owned company
Governance structure	Legally constituted as a public limited company (plc) with a number of subsidiary limited companies. Primary governance by a board of executive and non-executive directors. Secondary governance by Edinburgh City councillors. 49
Ownership	Owned jointly by the four Lothian local authorities: City of Edinburgh Council (91%), East Lothian Council, Midlothian Council, West Lothian Council.

Lothian Buses describes itself as 'The UK's largest publicly-owned bus company'⁵⁰ and is relevant as a high-performing example of a transport company directly owned by local government. Lothian Buses originated in 1919 as Edinburgh Corporation Transport.

Lothian Buses refers to its governance arrangements as 'an independent board [with] directors [appointed] by the City of Edinburgh Council'. The board comprises four executive directors and eight non-executive directors, one of whom is an employee representative from the trade union. Employee representation at board level is the result of a deliberate policy to involve staff: 'The group recognises that employee involvement is fundamental to its success...The board of directors includes a worker-director nominated by company employees'⁵¹. Edinburgh councillors form a tier of secondary governance that provides a degree of public accountability. In particular, the council's Policy and Strategy Committee work in association with the council's chief executive to appoint directors and to appoint a delegate to represent the council's majority shareholding at the AGM⁵².

In 2012 Lothian Buses achieved a net profit (surplus) of £8 million, from which it paid its majority shareholder, City of Edinburgh Council, a dividend of £3 million. Lothian Buses therefore provide a net flow of income to Edinburgh Council, who in addition charge Lothian Buses slightly more for rents and related costs than they pay to Lothian Buses in route support⁵³.

Lothian Buses has won many awards for the quality of its operations, including 'UK Bus Operator of the Year'⁵⁴. Publicly owned bus operators appear to punch above their weight in this competition, winning this top prize in most recent years⁵⁵.

4.4 Directly Operated Railways

Operations	Operates East Coast Main Line passenger rail services
Turnover	£666 million (2011-2012)
Organisational type	Publicly owned company
Governance structure	Legally constituted as a limited company, with one wholly-owned subsidiary East Coast Mainline Company Ltd. Primary governance by a board of three executive and three non-executive directors. Secondary governance by the Secretary of State for Transport and DfT officials on his/her behalf ⁵⁶
Ownership	Technically owned by the Secretary of State for Transport

Directly Operated Railways (DOR) is Britain's largest publicly owned passenger train operator. It provides an illuminating example of a train operator under the direct ownership of a body comprising elected public representatives and their officials, in this case the Department of Transport. DOR was set up hastily in 2009 in order to run the franchise for the East Coast Main Line, following National Express's decision to exit the franchise rather than make the 'premium' payments to Government that it had promised in its franchise bid⁵⁸.

DOR's structure as a holding company is designed to facilitate running of several train operations should the Government require it, but at the moment its only subsidiary is that operating the East Coast Main Line franchise⁵⁹. The Department for Transport has signed a service agreement with DOR laying out requirements for the East Coast Main Line Services, and expects the DOR board to manage the company so as to meet that agreement in the same way as a private sector management team. In addition the Government retains special powers. The Department for Transport ratifies all board appointments and is empowered 'to propose variations to DOR's corporate governance at any time'. 'DOR will report to the Department on a regular basis ... [to] allow the Department to satisfy itself that... resources are adequately and appropriately deployed. In the event that the Department identifies a serious deficiency ...[it may] intervene and devise appropriate remedial solutions. [If] the Secretary of State's rights under the services agreement prove not to be sufficient... the Department will rely upon the Secretary of State's powers as sole shareholder of DOR to take the necessary action.'

In the event, the Government's powers of secondary governance over DOR have not been required because it appears to have been very well managed. In 2012 its punctuality reached the highest level recorded on the line since records began in 1999, and its customer satisfaction was better than average for long-distance operators ⁶⁰ ⁶¹. DOR's service payments to DfT (equivalent to the 'premium payments' made by some private sector train operators) have amounted to over £600 million since it took over in 2009, in addition to which it made a pre-tax profit in 2012-13 (perhaps better termed a surplus in this context) of £6 million ⁶² ⁶³. Comparison with other train companies' payments to DfT in conjunction with consideration of franchisees' shares of the infrastructure subsidy paid to Network Rail shows that DOR is receiving the lowest net subsidy of any train company ⁶⁴ (Figure 5).

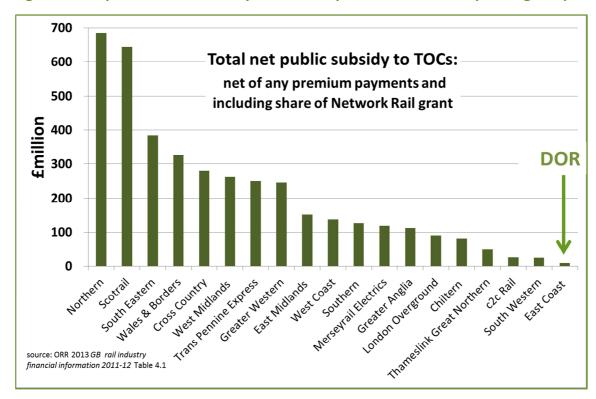


Figure 5: Comparison of net subsidy to DOR and private sector train operating companies

Source: Office of Rail Regulation 2013 GB rail industry financial information 2011-12 Table 4.1⁶⁵. In addition to direct subsidies from DfT to train operators the ORR calculation allocates each train operator their share of the infrastructure subsidy and subtracts any payments made by train operators to DfT (franchise premium payments).

4.5 Translink (Northern Ireland Transport Holding Company)

Operations	Operates Northern Ireland's rail and bus services, including railway infrastructure, carrying 12 million rail passengers per year and 67 million bus passengers per year ⁶⁶
Turnover	£203 million (2012-2013)
Organisational type	In effect a publicly owned company (but some ambiguity as to ownership status)
Governance structure	Legally constituted as a statutory public corporation, according to the definition of the Northern Ireland Department of Finance and Personnel ⁶⁷ , but, perhaps uniquely, not a company in the sense of the Companies Act but instead a direct 'creation of statute' with the 1967 Transport Act (NI) defining its constitution, equivalent to other companies' articles of association ⁶⁸ . Primary governance by a board of eight non-executive and executive directors who are also the directors of all the other companies within the group ⁶⁹ . Secondary governance by the Department for Regional Development for Northern Ireland.
Ownership	Ownership may technically reside in the company directors if, as the 1967 Transport Act (Northern Ireland) implies, they are also the 'members' of the company.

Translink is the only UK example of a model more often encountered in continental Europe: a company within public ownership that runs an entire network of integrated bus and train services on a regional scale, including management of railway infrastructure as well as train services. Translink's *ilink* smartcard ticket enables passengers to easily use both trains and

buses within Northern Ireland's five travel zones, reflecting its corporate vision that 'We will provide integrated travel solutions that are attractive, sustainable and good value'⁷⁰. Seasons and other train tickets are available as *mlink* downloads to mobile phones. The name Translink acts as the public brand name for The Northern Ireland Transport Holding Company (NITHC), which is the parent company for three subsidiaries NI Railways, Ulsterbus and Citybus (which trades as Metro), all of which are constituted as limited companies⁷¹.

Primary governance is provided by a board of eight non-executive and executive directors⁷². Secondary governance is by the Minister and Department for Regional Development, who as the sponsoring department for NITHC appoints the company directors⁷³, can issue binding directions to the company and can reclaim any surpluses in the company⁷⁴. Although the Northern Ireland government therefore appears to hold these key powers associated with ownership, the 1967 Transport Act (Northern Ireland) that established the company specifies that directors 'shall be members'⁷⁵ which may imply that the company is technically owned by its Directors on a mutual basis, albeit a very restricted instance of mutualism. This may explain why Translink's chairman has insisted to a committee of the Northern Ireland Assembly that 'Translink land and other assets are its own and cannot accurately be said to be in state or public ownership'⁷⁶ and also may partly explain why the same committee was frustrated that the company seemed insufficiently transparent.

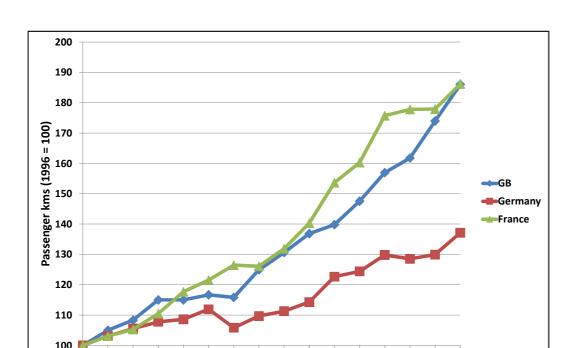
Translink returned a pre-tax profit (surplus) of £9 million in 2012-2013. Translink's latest annual report claims that 'It is accepted now that public funding for passenger transport is lower in Northern Ireland than elsewhere. Despite this, a comparison of bus and rail services in Northern Ireland with Great Britain and the Republic of Ireland shows we have higher service levels and lower fares. This demonstrates that we operate our services efficiently.' Translink is meeting or exceeding quantitative targets for passenger numbers and renewal of infrastructure, trains and buses set by the Department for Regional Development in its Regional Transportation Strategy and Belfast Metropolitan Transport Plan⁷⁷.

Insights from how regions run rail services in other parts of Europe

Many countries in continental Europe have devolved powers for planning and managing rail services to regional governments, including France, Germany, Italy, the Netherlands, Poland, Spain, Sweden and Switzerland, resulting in a corresponding range of governance arrangements⁷⁸. This section discusses lessons that emerge for governance of Britain's regional rail operations. Germany and France are used as case studies of rail systems that are quite different to Britain and to each other, and which represent different ends of the spectrum of approaches taken by countries in mainland Europe. Sweden is also discussed since it was first to give regions powers to buy in rail services from private contractors.

5.1 Overview of growth of regional rail in Britain, France and Germany

From the late 1990s regional rail use, viewed as percentage growth in passenger kilometres, grew most steeply in France, until the 2008 Euro zone crisis knocked growth back to the same levels as Britain (Figure 6).



1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011

Figure 6: Rise in regional rail use in Britain, Germany, France

Data for Germany from Link and Merkert (2011)⁷⁹ for period to 2003 and from Statistisches Bundesamt (2013)⁸⁰ for 2004-2011. Data for France from Ministry of Ecology, Sustainable Development and Energy (2012 and 2013)⁸¹. Data for Britain from Office of Rail Regulation (2006 and 2013)⁸². Indexing is necessary because Britain and France are more highly centralised countries that treat their regional services separately from those that serve their capital city-regions. In terms of absolute passenger kilometres, Germany's regional rail system is some four times larger than services defined as regional in Britain and France. Including Paris/ Ile-de-France and London/ Southeast would largely remove this disparity (inclusion of London/ Southeast in 'regional' would bring the British figure to about three-quarters Germany's figure).

This picture is rather unexpected, showing one of Europe's least marketised rail systems neck-and-neck with the most liberalised system of all, and Germany's semi-marketised system trailing both.

An obvious question arising is whether the growth under the different systems has been achieved for comparable outlay. Our calculations in the following two sections reveal that regional rail unit costs standardised per passenger kilometre have fallen at comparable rates in France and Germany. This too is somewhat surprising given the prevailing assumptions in the debate around European rail liberalisation.

Although the trends of French and German costs can legitimately be compared, caution is required when comparing the figures for the absolute level of unit costs. Comparisons across international borders should make allowance for the different levels of rail infrastructure subsidy and the resulting wide variations in track access charges, as well as differences in rolling stock, route geography and other operational factors, but data to account for these variables is not readily available. As a result it is not possible to determine whether the figures calculated indicate that absolute unit costs in Germany and France are significantly different, although it may be noted that *prima facie* the costs appear broadly comparable.

Perhaps more fundamentally, the following case studies should be read in light of the general European historical trend. Under-valued regional networks that were starved of investment, where patronage was stagnant or falling, have in most countries been renewed by injection of investment to become resurgent regional railways with rapidly rising patronage. This trend means it is not possible, either in the German semi-privatised system or in the French publicly-owned system, to distinguish the extent to which falling unit costs may be attributed to tighter oversight of train service provision by regional authorities or should be attributed to patronage increase due to renewed investment and rejuvenation of regional railways. Rising patronage does, of itself, reduce unit costs and would be expected to allow lower contract prices from train operators on the basis of forecasts of continued revenue growth from rising patronage.

This historical context is also important because it shows a need for caution in interpreting previous claims by advocates of competitive tendering that its introduction in Germany and elsewhere has caused cost cuts of about 20% compared with preceding operational expenditure. It is notable that such studies compare with the *status quo ante*, not with side-by-side examples of ongoing comparable public and private operations. Moreover, as documented in the Swedish case study that follows, some apparent cost reductions have been driven by unsustainable activities such as predatory pricing or degradations in service quality.

5.2 Case study: France - a neglected example of cost-effective regional management

The story of rejuvenation of regional rail in France challenges the idea that the only way to force unified publicly-owned national operators to be efficient is to fragment the railway system and expose them to competition. If Britain were to choose to reintroduce a national rail operator, the ways that the French regions have controlled SNCF's unit charges could become a valuable example. However, the situation in France also carries a warning in regard to the moves towards greater rail devolution in Britain: national government may find it convenient to devolve responsibility for improvement of regional rail without providing commensurate financial support.

In 1997, as a result of decline in regional rail use, seven French regions began piloting management of regional TER^{xiii} rail passenger services, followed by the remaining regions five years later. By 2008 TER passenger-kilometres were double their level at the beginning of the 1990s. The pioneer regions have been the subject of analysis to consider how they have succeeded in driving growth and how well they have been able to constrain costs⁸³.

The state-owned French rail operator, SNCF, is sole contractor to the regional councils for rail passenger services^{xiv}. The organisational changes made by SNCF to work with its new regional clients have been described as a 'cultural revolution'. Regional TER directors were created to interact with the regional authorities. Managers of particular lines also play a critical role, supported by line committees that include regional officials, elected regional politicians and passengers. The regional authorities have also had to build capacity⁸⁴.

A key question is whether regional authorities have been able to get a good deal from the monopoly public sector national operator. The net payments of the pioneer regions to SNCF per train-kilometre show flat or declining trends, as shown in Figure 7⁸⁵. It might have been expected, given initial asymmetry between SNCF and the regions, that the operator would have been able to extract higher charges, but so far as any trend is evident it shows the regions winning somewhat lower prices for services from SNCF, particularly since 2004.

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xiii Transport Express Regional

xiv For some years there has been debate about also letting regions contract with private sector operators. But since the election of President Hollande this agenda appears to have received less attention.

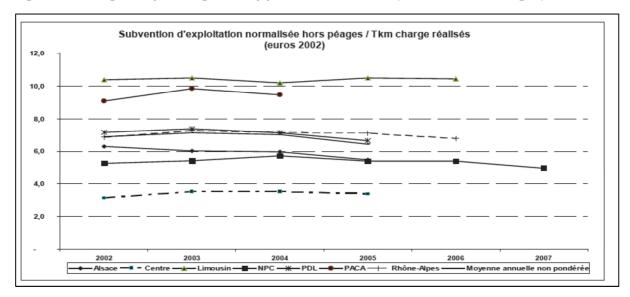


Figure 7: Change in operating subsidy per train kilometre (net of access charges)

Reproduced from Crozet and Demaris (2011). Track access charge increases have been stripped out and penalty payments from SNCF to the regions have been added in. Figures are 2002 prices.

This positive outcome appears to stem from several vital components of the regions' contracts with SNCF: index-linking of SNCF operational charges; revenue-sharing arrangements that share risk; and incentive-penalty provisions for SNCF to achieve specified standards of service. When standards have fallen short, SNCF has incurred severe penalties that have, in some years, been greater than its profit on all its TER operations⁸⁶.

Regions have also been demanding that, to enable them to negotiate a fair deal, SNCF financial procedures must be more visible, and in particular that SNCF should separate out and make available distinct financial records for the different lines under negotiation. Some regional contracts now require this condition and the French Court of Auditors has stepped in to insist that SNCF provide such financial information⁸⁷.

Central government subsidy per TER passenger kilometre has fallen from about €0.17 to €0.13^{xv} ⁸⁸ ⁸⁹ over the period 2002-2009 (all at 2005 prices), a rate of decrease of 3.8% per year. This fall would be greater if a substantial increase in track access charges in 2004 were stripped out. Total spend on TER has gone up however, because the number of passenger kilometres has increased hugely and because there has been considerable investment in trains and infrastructure, which has drawn heavily on the regions' own sources of funding.

The regions have driven a major programme of investment into higher levels of service and better infrastructure. The initial emphasis was on making the TER more attractive by renewing the majority of the rolling stock (bought directly by SNCF from French manufacturer Alstom⁹⁰) at substantial cost. In recent years the regions have also increasingly financed infrastructure improvements, both of track and stations⁹¹.

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xv Our calculations based on data in the references given. Some 12% of these subsidies are the central government's contribution to rolling stock purchases, although the great majority of those purchases has come from the regions' own funds.

The French association of regional transport authorities⁹² has complained that the regional expenditure since devolution has not been supported by a proportionate increase in funding from central government. So the regional authorities are in a financial squeeze between the Government, as the source of most of their finances, and their ambitions for better regional rail services and infrastructure and available finances.

One French region's innovative contracting strategy with the national operator xvi

The Rhône-Alpes region, centred on Lyons, is the largest of the TER regions with 135,000 daily TER trips^{xvii} and a budget of €394 million^{xviii}. The Rhône-Alpes approach to TER has focussed on rapid modernisation of rolling stock, region-wide unification of tariffs and restructuring of services to provide good train-train or intermodal connections.

Rhône-Alpes chose not to increase TER service levels as much as some other regions. Trainkilometres increased by 13% between 2001 and 2007, compared with 17% across the regions on average. However, TER patronage, measured as passenger kilometres, increased 39% between 2001 and 2007, compared with a regional average of 31%. This success is attributed to imaginative use of special discount cards and brand new trains.

Unlike most regions, whose contracts simply reduced SNCF charges in real terms, Rhône-Alpes structured the contract so that the price per train-kilometre increased in the early years by 8%, then levelled off and finally decreased over the last three years of the contract. This allowed the contract to include a suite of special 20% discounts, with subsidy increase in the first years to cover the immediate revenue loss, later offset by patronage and revenue increase in response to the more attractive fares.

This approach might be summed up as 'loss-leader subsidy contracting' xix. Results show that Rhône-Alpes does appear to have successfully produced the intended virtuous circle: cheaper fares – more passengers – lower average costs – scope to reduce fares further. The contract spans a significant hike in track access charges in 2004, but if this is discounted the region's net payments per train kilometre (after receipts from penalty payments) show a slight decline in real terms over the period of the contract. Whether Rhône-Alpes can pursue this win-win equation through a further cycle is yet to be seen.

5.3 Case study: Germany - regionalisation at the expense of fragmentation

Germany provides an example of partial rail privatisation, where at national level fragmentation is much less than Britain but where at regional level fragmentation of rail services is in some respects much greater. The regions have led the experiment with rail privatisation and in order to facilitate competitive tendering have split regional services into many bite-size chunks. Despite this fragmentation of regional rail, a notable contrast with Britain is that the regions have the ability to prescribe the terms and conditions of

xvi Translated and abbreviated from material in Crozet et Demaris 2011 (reference 40) with additional remarks and clarifications.

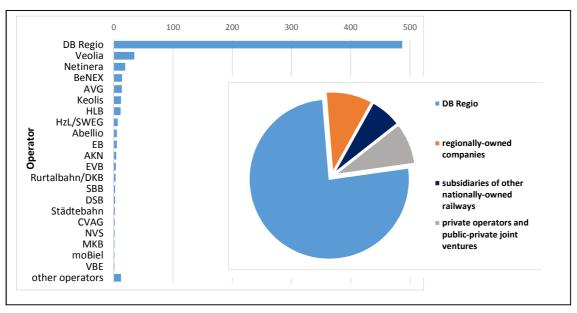
xvii 2009 figure

xix Our term, not a term used by Rhône-Alpes region itself or by those who have studied its approach.

the market across all modes of transport so as to ensure integrated regional transport networks, with buses and trams that meet local trains and local trains that meet long-distance trains, and with integrated ticketing to make the whole system easy to use^{xx}.

Since 1996 the German government has provided 'regionalisation funds' to the federal states to enable them to buy rail services from operators. 27 regional passenger rail authorities govern regional passenger rail services at the level of a whole federal state or a local authority⁹³. Initially almost all contracts were awarded to Deutsche Bahn subsidiary DB Regio^{94 xxi} but competitive tendering has increased and became obligatory in 2011⁹⁵.

Figure 8: Scale of operation of train companies providing German regional rail services, and proportion of train kilometres provided by different types of operator



Data recalculated from Mofair (2011) Wettbewerber-Report Eisenbahn 2010/2011.

DB Regio operates 76% of train kilometres⁹⁶. The remaining services are fairly equally split between regionally-owned companies (9%); private operators and public-private joint ventures (8%); and subsidiaries of other nationally-owned railways (6%)⁹⁷. There are some 49 different train operating companies in all⁹⁸. Only 8% of regional rail services are being operated by companies which are wholly or partly in the private sector. The main picture is competition between domestic or foreign publicly-owned operators (Figure 8).

A typical contract is much smaller than a franchise in Britain, with each region split across separate contracts. The mean contract size is 2.4 million train kilometres per year⁹⁹, just one-eighth the size of Transpennine Express¹⁰⁰. Between 2005 and 2011 a total of 144 contracts for regional rail services were let by German regional passenger rail authorities (104 through competitive tender, and 40 through direct award).

xx Transport for London holds unique powers to specify bus services, but its powers over train services only extend to London Overground.

^{xoi} Deutsche Bahn is 100% owned by the federal government and has a series of subsidiary companies including DB Regio which is responsible for its regional rail operations.

Each contract competition entails substantial outlay for bidders, and tenders are becoming increasingly complex as each regional transport authority has its own contract structure and minimum conditions. Deutsche Bahn has commented that this increases the overall cost of operating regional rail services and that the savings of competitive contracting are proving less than anticipated. Deutsche Bahn hold a vested interest, but their remarks are supported by three recent instances where competitions were discontinued because all bids exceeded the anticipated contract budget¹⁰¹.

Contracts take a variety of forms: 'gross' (fare revenue taken by the passenger rail authority); 'net' (revenue retained by the operator); and 'incentive contracts' (revenue is shared, typically 50:50)¹⁰². There has been a trend towards gross contracts with strong incentive components, which make integrated ticketing more straightforward. Contracts tend to be very tightly specified. Almost all include penalties for failure to achieve certain quality measures and around half include a bonus system to encourage the operator to increase patronage¹⁰³. Train frequencies and timings must fit coordinated timetables for bus services and intercity train services. The type of rolling stock that must be used is also generally specified. In many regions there is obligatory integrated ticketing between regional train and bus services, coordinated by regional public transport associations that include both service purchasers and providers^{xxii}. These public transport associations also take on marketing to give a unified branding¹⁰⁴.

Patronage of regional rail services in Germany rose 41% between 1996 and 2012¹⁰⁵ ¹⁰⁶. The German Association of Regional Passenger Rail Authorities, BAG-SPNV, attributes the growth to quantitative and qualitative service improvements achieved with the increased funding for regional railways that followed regionalisation¹⁰⁷.

As with France, a key question is whether regional authorities have achieved a good deal from the regionalisation reforms. Between 1996 and 2008 German government subsidy for provision of regional train services per passenger kilometre fell from about €0.16 to €0.10 (all at 2005 prices), a rate of decrease of 3.5% per year¹⁰⁸. Unfortunately it is not clear how much of this reduction in unit costs may be attributed to greater competitive pressures on DB Regio, and how much is attributable to the success of the regional passenger rail authorities in increasing patronage and thereby reducing subsidy requirement^{xxiii}.

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xxii Verkehrsverbünde

reducing unit costs. However, it seems difficult to sustain an argument that competition has been the dominant factor in the fall in real-terms unit costs. Less than a third of the German regional rail network had been put out to competitive tender by 2009, and average cost savings for contracts let for the first time have been reported by the association of private transport operators (Mofair 2009 Wettbewerber-Report Eisenbahn 2008/09) to be 26% (compared with pre-regionalisation unit costs of DB). This suggests that at best, competitive effects could have delivered around a 9% real-terms reductions in unit costs averaged across all regions – considerably less than the observed figure of around 30%. There seems to be no impartial source of evidence that enables a robust analysis to be made of the reasons for the fall in unit subsidy, possibly because of issues of commercial confidentiality arising from the competitive regime.

Since regionalisation, the federal government has transferred substantial funding to the federal states to procure regional rail services. Payments rose from 1997 to 2006, but then fell slightly until 2009. Regional passenger rail authorities were generally able to expand service provision in the period up to 2006, but this growth stalled when funding levels fell. It appears now to have picked up again following agreement of funding increases for the period 2009-2014¹⁰⁹ 110 111. BAG-SPNV is concerned, however that the agreed increases are insufficient to cover forecast growth in passenger numbers and underlying cost increases¹¹².

German regions that provide regional rail services through their own operators

A significant proportion of the companies operating regional rail services are in regional public ownership, owned by federal states, counties or cities, or combinations of these.

In the federal state of Baden Württemberg there are at least three separate train operating companies under regional public ownership. SWEG is wholly owned by the state. AVG is owned by the city of Karlsruhe. HzL is an example of a state-county partnership with two counties owning minority shareholdings.

An example of a state-city partnership is provided by AKN, which operates services between Hamburg and southern part of the state of Schleswig-Holstein, with 50% ownership by the city of Hamburg and 49.89% owned by the state.

Some regional publicly-owned operators run services outside their own region as well as within it. This is the case with HLB, a company entirely owned by the state of Hesse, which operates both in Hesse and in other federal states. One of HLB's operations, Cantus Verkehrsgesellschaft, is a joint venture with a private company.

It is difficult to compare the success of publicly-owned regional transport companies with that of services operated by DB Regio or by private operators, because figures for investment and for passenger growth are not published in a standardised form at the level of individual operators. However, the regionally-owned operators are innovative and have been successful at increasing passenger numbers. AVG reports growth from 54 million to 70 million passengers between 2002 and 2011¹¹³. AKN reports growth from approximately 6 million to 13.5 million passengers per year between 1992 and 2006/7¹¹⁴.

5.4 Case study: Sweden - regional privatisation with problems like Britain

Sweden was the pioneer of rail privatisation in Europe and has been held up as an example to support calls for other countries to follow suit, especially after the British model of privatisation threw up severe cost and safety issues. The Swedish model is a different form of privatisation to Britain's which is less thorough-going and more regionalised. However, its regions' experiences in contracting private sector services reveal some problems that almost exactly mirror those experienced in Britain.

Since 1990 Sweden's 23 county or regional public transport authorities (PTAs) have procured all unprofitable intra-regional rail services on a competitive basis 115 116. Inter-

regional long-distance services that are not profitable are procured by government agency Rikstrafiken. Profitable long-distance services are not subject to competitive tendering, and are provided by the Swedish state rail operator SJ.

Contracts for regional rail services are generally gross-cost¹¹⁷. They typically include a system of penalty payments for under-performance, although the magnitude of fines and bonuses is small compared to operating costs¹¹⁸. In some cases the operator receives a share of revenues¹¹⁹. Contracts are generally of short duration (3-5 years) but with an option for extension of 1-3 years¹²⁰. Contract size tends to be small, typically between about one and five million train kilometres per year¹²¹.

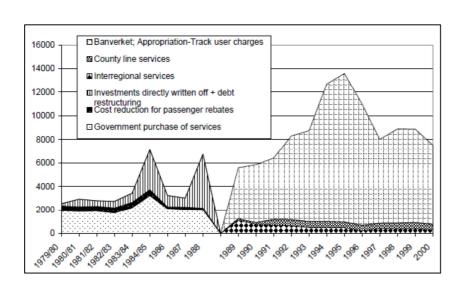


Figure 9: Total railway subsidy in Sweden at constant 2001 prices

Reproduced from Nielsson 2002 (Figure 2 "Real burden on public budgets from railway subsidies, price level mid-2001") who notes that subsidy levels in the 1980s show spikes due to debt write-offs prior to privatisation

As with France and Germany a key question is the extent to which regional authorities have been able to obtain a good deal. It is evident is that, as in Britain, after privatisation overall public subsidy to the railway increased greatly (Figure 9). Much of this is described as investment, but it is unclear how much of this money is effectively a subsidy to train services^{xxiv}. Even so, the average price of fares has risen in real terms¹²² 123.

The picture of passenger service contracting is mixed. The number of bidders for contracts has historically been small, with PTA tenders on average attracting two to three bidders and Rikstrafiken's tenders typically attracting only one or two bids. A 2007 study¹²⁴ reported

further problem is that distinctions between maintenance, renewals and genuine enhancement can be unclear, with consequent ambiguity as to what 'investment' expenditure might be taken to cover.

basis is lacking. After restructuring a large portion of public subsidy was directed to the publicly-owned infrastructure manager Banverket. But Banverket track charges only recover 18% of its maintenance costs, which impacts on whether train services appear to require subsidy (as with grant to Network Rail in the UK). A further problem is that distinctions between maintenance costs, and gapuing appearance contains the contains the contains the contains and gapuing appearance contains and gapuing appearan

only one bid was received for six out of 37 PTA tenders and 26 out of 54 Rikstrafiken tenders.

The market for rail services in Sweden has thrown up a number of other problems, some of which echo difficulties experienced in Britain. There have been several instances where companies have placed unrealistically low bids, leading to problems of abrupt exit from the contract and disruption to services, and in some cases to the operator becoming bankrupt.

Two studies 125 126 have collated a series of examples. Citypendeln's bid to operate Stockholm's commuter services was supposed to save SEK 300 million, but it was based on unrealistic assumptions about changes to drivers' working conditions which resulted in considerable service disruptions for over a year. Sydvästen won the West Coast Line tender with a zero subsidy bid, but its assumption that it could increase fare revenue proved wrong and the company went bankrupt after four months. SJ won the contract to operate a package of lines in Bergslagen, but their bid underestimated costs to the extent of annual losses of SEK 100 million, following which SJ threatened to terminate the contract unless it was modified to pay more. Connex won a contract let by Rikstrafiken to operate night trains to northern Sweden with a bid 42% lower than that of the incumbent operator, of which analysts commented that it appeared 'predatory by intention', with the resulting underfunded services receiving heavy criticism for poor punctuality, poor cleaning, and use of old run-down trains, leading to falls in patronage and national political debate. The bankruptcy of BK Tåg in 2005 also caused significant upheaval, including changes to the interregional network in eastern Småland and replacement of one rail line by buses.

Similar problems appear to have continued since these examples were documented in 2007. The Öresundståg services in southern Sweden are currently being managed on a short-term two-year contract by Veolia in order to stabilise operations after DSB First ran into financial problems in 2011¹²⁷. Danish State Railways DSB pulled out of a DKr 2 billion eight year contract to operate Göteborg local and regional services in 2012, six years early, because it was facing annual losses of DKr 84 million, so the state-owned operator SJ has taken over the services on a three-year interim basis whilst the local transport authority works out how to award a replacement contract¹²⁸.

Some of these problems might be thought to indicate the workings of a highly competitive market, but as indicated above, the paucity of bids shows that this is not generally the case.

Other problems caused by competition amongst operators have included unwillingness on the part of SJ to coordinate its ticket booking system with timetables and tickets for other operators' services, so that passengers were unable to buy through-tickets; and SJ changing its timetable so that interregional trains operated by competitors had poorer connections to the rest of the network¹²⁹.

Direct rolling stock procurement by Swedish regional authorities

When competitive tendering was introduced for regional rail services in Sweden, various options were considered for provision of rolling stock. Requiring train operators to procure

their own trains was considered undesirable because it would have necessitated very long contract periods. Instead, county public transport authorities generally purchase and manage rolling stock. In order to do this, a joint rolling stock company, Transitio, was established in 1999¹³⁰. Transitio is owned by 20 county and regional public authorities. It specifies and procures new (and used) trains, which are then leased to the public transport authorities or to the rail operators that have been awarded a contract. Transitio also manages train maintenance, monitors reliability, and procures contracts for heavy maintenance, upgrades and modifications.

6. Better options for governance of British regional rail

This section looks at options for reform of the governance and structural arrangements for regional railways. In the light of experience in continental Europe and the UK, it considers which of these offer greatest potential for cost savings compared to the current governance and structure, and which offer most opportunities to improve regional rail services.

6.1 Principles of rail governance

What are the defining characteristics of a well-run railway? Foremost amongst them must be that it is highly efficient. However, achieving 'efficiency' for the system as a whole requires governance arrangements that reconcile the different interests of the various groups involved in railways, each of which are liable to take a different view of 'efficiency'. Regional transport authorities, national transport authorities, train operators, passengers, railway staff and elected public representatives bring different perspectives, all of which are legitimate and important.

A rail service that a region or devolved nation sees as an efficient investment to achieve its social and economic priorities may be regarded by national authorities as an unimportant cost-inefficient branch line. A train operator may think it cost-efficient to ignore connections with local bus services, or might treat buses as competitors, whereas regional transport authorities and passengers will see integrated timetables and tickets as a means to achieve time-efficiencies and cost-efficiencies. Similarly, shareholders of a private train operator will appreciate efficient dividend generation, but this represents cost inefficiency viewed from the perspective of rail passengers. Balance is also required between professional railway managers who may find it operationally efficient to isolate themselves from public demands, and public representatives who might think they can efficiently achieve outcomes for their constituencies by direct interference in rail management. And weight needs to be given to the perspective of railway staff, because, although some train operators may be tempted to equate efficiency with minimal wages, an efficient railway requires staff who are well-trained and well-motivated with fair wages and working conditions.

These considerations are summed up in the box below as a suggested set of principles for good governance of regional railways.

Seven principles for good railway governance

- **1.** A national 'guiding mind': with powers over the railway *as a whole* to provide strategic direction so that the entire railway functions in a unified way.
- **2. Cost-control:** to efficiently deliver the services policymakers seek from the railway on behalf of the public, including due consideration of minimisation of profit-taking
- **3. Public accountability:** to reflect the role of rail as a vital public service and the significant amounts of public money the railway receives
- **4. Regional powers**: to give regions and devolved nations the ability to achieve rail services to meet regional needs, development possibilities and integration of rail services with other elements of the transport network
- **5. Arms-length managerial separation:** to distinguish the role of railway professionals with day-to-day responsibility for managing rail operations from elected public representatives with a strategic responsibility for holding railway staff accountable
- **6. Responsiveness to passengers:** to react to passenger perspectives on what would improve their train services, including affordability of fares
- **7. Collaboration with staff:** to draw on the experience and expertise of staff and to maintain a body of high-quality high-performing railway employees

6.2 Key decisions for regional rail governance

The policymakers and practitioners who will determine the future of Britain's regional rail services are faced with a series of choices. These decisions inevitably involve some compromises between the different principles of good railway governance listed above, for example balancing the relative cost savings and operational gains from regional powers against those from a national guiding mind. This involves reconciling legitimately different perspectives from differently positioned groups and individuals.

With such a dynamic the final direction is liable to be determined as much through lively debate as through detailed analysis. This section will, nevertheless, seek to highlight some of the key issues that the discussion should address, and illuminate the likely consequences of different choices. We consider four questions relevant to any regional transport authority that is seeking powers to commission regional rail services (or already has such powers). We then discuss one issue where a national government decision about the rail system as a whole might create entirely new options for a regional transport authority.

- **Q1:** Could extraction of surpluses by regional train operators be reduced, while staying broadly within the current policy framework?
- **Q2:** How could extraction of surpluses by regional train operators be removed altogether, if there were greater appetite for reform?
- **Q3:** How can regional transport authorities ensure accountability to taxpaying public, passengers and staff?

Q4: How could regional transport authorities reduce the costs of rolling stock procurement?

Q5: Could a national 'guiding mind' secure additional financial savings for regional rail services, while still allowing a high degree of regional control of services?

6.3 Could extraction of surpluses by private regional train operators be reduced?

Even under the privatised railway structure, there is potential for reform to achieve some modest reduction in costs by adoption of 'gross' contracts for regional rail services, whereby the regional transport authority retains fare revenue and with it takes the revenue risk.

At present, all rail contracts let by the Department for Transport (in the parlance of the 1993 Railways Act, 'franchises') are in broad terms 'net' contracts – that is, the operator retains fare revenue and takes most of the revenue risk. Franchises let by the Scottish Government in Scotland, and jointly let by DfT and the Welsh Government in Wales, are also net contracts.

Although franchises incorporate a degree of risk-sharing (e.g. 'cap-and-collar' limits which specify upper and lower revenue levels beyond which DfT becomes liable to provide more subsidy or entitled to receive a share of the revenue), bidders for franchises perceive that they carry a risk that revenue may fall below forecasts for reasons out of their own control. This risk is factored into their bids.

There are two exceptions to the present arrangements which provide insights into alternative approaches. These are Merseyrail Electrics and London Overground.

Merseyside has retained net contractual arrangements^{xxv} but runs these under local management to provide a higher level of scrutiny than could be possible under centralised arrangements with DfT. The devolution of power has been markedly successful in triggering investment in refurbishment of the rolling stock and appears to have raised the contractor's performance. However, if just considered against the criterion of the extent to which the stronger regional governance under this option has reduced profit-taking, there is, at least as yet, no sign of a significant gain. Merseyrail Electrics' average post-tax profit margin is 5.5%, which is identical to the average post-tax profit margin for regional operators^{xxvi}.

In London, Transport for London lets a 'gross' contract for London Overground services, meaning that TfL retains the fare revenue en and with it takes the revenue risk. In theory, covering the operator's risk in this way should be reflected as a lower profit margin on the contract price. After just four years it is much too early to be definitive, but so far the results lend some support to the idea that the gross contract did attract a lower-profit bid.

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The contract is not purely net since Merseytravel contracts Merseyrail Electrics on a 50:50 profit-sharing arrangement.

xxvi Over all complete financial years of present franchisees' operations

xxvii The contract incorporates rewards if the operator meets performance targets and so is not a pure gross contract.

LOROL's average post-tax profit margin is 3%, as compared with an average for the five net-contracted regional operators of 5.5% xxviii.

This level of reduced profit margin is in line with expectations. Where the transport authority does not shoulder the revenue risk in this way, even for lines with a substantial proportion of commuter services with comparatively robust demand, an additional profit margin of some 2-3% of overall turnover would probably be factored into a bid. Thus, a small regional rail operation turning over about £100 million might cost the regional transport authority about £2-3 million less if it were let as a gross contract than if it were let as a net contract.

In addition, a second source of savings may arise under a gross contract, because the regional transport authority captures any windfall profits if revenue exceeds forecasts, as has commonly been the case in recent years. For example, First-Keolis Transpennine's profit margin has been rising rapidly throughout the term of its franchise and hit 24% in 2011, amounting to £68 million.

Moreover, because gross contracts can be very tightly specified (the rationale of net contracts is that they require looseness to give operators scope to innovate to acquire greater profits) they may achieve better cost control through intelligent contract specification, including incentive-penalty clauses that reflect a regional transport authority's priorities and knowledge of the local operational opportunities and problems. For example, prior to the transfer of London Overground to a gross contract at regional level, neither the operator nor any other body stood to gain enough financial benefit to justify gating of stations or employing staff to cut the very high levels of fare evasion. The train operator's short-term perspective meant that, given the level of investment required to gate stations, it had little to gain from the supposed incentive provided by the fare revenue in the net contract. After capturing the fare revenue in a gross contract it was in Transport for London's longer-term interest to gate the stations and to provide specific incentives to LOROL to put on enough staff to collect a higher proportion of fares^{xxix}.

6.4 How could extraction of surpluses by regional train operators be removed altogether, if there were greater appetite for reform?

We saw in section 3 that the present franchise system has resulted in large sums flowing out of the railways. In particular, the surpluses extracted as profit by regional train operators are of a magnitude that could fund substantial service improvements.

Before rail privatisation, its supporters argued that competition would result in cost-lean operations, innovation, effective risk transfer, and private sector investment, and that the overall impact on the public purse would be to drive costs down. If these effects had materialised, the dividend payments made by private operators to their shareholders might

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xxviii Averages over all complete financial years of present franchisees' operations. It should be noted, however, that year-to-year variability is large and that in 2011, the last financial year for which FAME data is available, LOROL post-tax profit rose to 5.4%.

xxix This is an example of a governance change that resolved a 'misaligned incentive'.

be a price worth paying. However, twenty years' experience of the franchising system has amassed evidence to the contrary. Privatisation has delivered big cost increases rather than reductions; investment and innovation by private train operators have been minimal; and failing contractors have used their role as a vital service provider to repeatedly lever further subsidy rather than be sacked, so that the risk has remained with the government.

It therefore becomes relevant to examine whether alternative structures could eliminate the leakage of public money out of the railway in the form of dividend payments by private operators. Both publicly owned companies and third sector organisations offer structures that could achieve this. In both cases the potential for cost savings is significantly greater than under the gross contract approach with commercial operators described above. The calculations in Section 3 indicate a potential annual saving for the regional railways of £62-£78 million by removing profit leakage.

In addition both publicly owned companies and third sector organisations can be implemented so as to gain all the advantages previously discussed in the context of gross contracts with a commercial operator: potential benefits from close oversight and contracting drawing upon local knowledge; capture of any windfall profits if patronage increases; ability to retain fare revenues in order to facilitate integrated ticketing and use revenues from profitable services to support unprofitable socially valuable services.

We examine below some factors which would need to be considered if regional or national government were interested in establishing publicly owned or third sector operators for regional rail services.

Publicly owned companies

Ownership of railway operators by public authorities is presently forbidden in the UK under the Railways Act 1993, except for allowing the Department for Transport to temporarily intervene with a publicly owned operator-of-last-resort. However, if UK law were to change, European law^{xxx} explicitly allows regions to award their regional services without tender to operators that they own or control, a position that looks set to continue even if the Fourth Railway Package now under discussion becomes law. This could give public transport authorities access to additional savings from avoiding onerous tendering procedures and from continuity under the same operator.

As well as capturing surpluses for reinvestment, a company under direct public ownership is in a position to access finance for rolling stock at more competitive rates than private sector companies. Creation of a regionally-owned rail operator may also open up opportunities to access finance from regionally-based financial organisations.

In Section 4 we provided examples of a variety of high-performing publicly owned transport companies. Of the railway examples amongst these, Government-owned Directly Operated

xxx European Regulations 1370/2007 Article 5(2)

Railways costs the government less than any other franchise, consistently outperforming private sector predecessors on the East Coast Main Line, and Northern Ireland's Translink appears to be delivering cost-effective rail services as part of an integrated package with its bus services. Beyond the UK, national and regional authorities in various European Union countries and Switzerland own rail operators with excellent reputations.

Commercial train operators in the UK have very few assets and all operational and administrative staff transfer to a new operator upon termination of the franchise. So it is not such a daunting task as might be assumed for a region to set up its own train operator with sufficient capacity to pick up those senior management positions which are liable to change when an operator is replaced. If a region wished to do this, Directly Operated Railways would presently offer a useful publicly-owned resource that could be used to select and train up a management team for a regional operation, although this resource may cease to be available if the Government returns East Coast operations to the private sector, as presently scheduled for 2015.

Third sector organisations

Some commentators have argued for regional rail services to be provided by third sector operators with cooperative or mutual structures^{xxxi}, on the grounds that this would enable wider input to railway governance. There is now abundant evidence that public input to local railways through Community Rail Partnerships has re-energised branch lines, demonstrating the potential value of stakeholder involvement.

However, there are as yet no train operator examples that are run as cooperatives or mutuals, and questions arise as to the legal structure; the scale of operation that would be feasible; who would 'own' the train operator; and how the transport authority funding it would exercise effective control.

Cooperatives and mutuals might take a variety of legal forms, including limited company, community interest company^{xxxii}, charitable company, industrial and provident society, or partnership. In order to guarantee that profits would be retained rather than distributed, companies could be limited by guarantee instead of by shares; industrial and provident societies could be in the legal form of community benefit societies; and partnerships could preclude profit distribution amongst partners by a legally-binding and immutable partnership agreement.

Section 4 discussed HCT Group's bus services as a successful example in the transport sector, now turning over £28 million and employing 700 people within a group of companies that spans nearly all the legal forms described above¹³¹. Network Rail was also described as a railway example of a not-for-profit company limited by guarantee that operates on a very

Neither cooperatives nor mutual are defined as legal entities in the UK. The basis for the following discussion is that either term implies a degree of democratic control and ownership by a membership that can be drawn from a small group or designed to represent a broad

section of the community. For a fuller discussion see Davies S (2011) *Mutual Benefit?*xoxii Community Interest Companies, which have their own regulatory body, are a form of limited company that must include an 'asset lock' to ensure assets are retained for the purposes of the company's stated community benefit.

large scale, although it is a only an example of mutualism in the narrowest sense with limited accountability to wider stakeholders. However, there is no reason that Network Rail's articles could not be further altered to give greater powers to regional transport authorities, passengers and staff, with strengthening of the Government's 'special member' status¹³² to provide fuller accountability to the taxpaying public.

The question of 'ownership' in mutual situations may be complex. So, for example, John Lewis describes its structure as 'shared employee ownership' but its employees cannot sell their shares because they are all held in a trust, all they can receive financially is a yearly bonus payment linked to their shares "xxxiii". Network Rail and HCT Group members may technically be 'owners' but they are precluded from receiving any share of profit or any assets if the company is wound up. For NITHC, as discussed in Section 3, it is not even clear whether the organisation recognises that its ownership lies with its company's Directors, who the founding legislation defines as members without defining what powers membership carries¹³³.

Cooperatives UK provide helpful clarity in thinking about the ownership status of mutuals when they point out:

"We find it difficult to understand how we can own something that we cannot sell, but that is the case with mutuals. The members collectively 'own' their mutual. They own it for themselves whilst they continue to be members accessing its services and for future generations." 134

If the membership base is sufficiently broad, it can be argued that cooperatives or mutuals can be viewed as forms of public ownership xxxiv. If this is the intent, then it is also important that the articles for the organisation clearly define its purpose in terms of public benefit and ensure that at least that element of its constitution cannot be changed by the members. If the intent is to be accountable to the entire public of a region or the nation then it is also arguable that regional or national public authorities need to be accorded 'special member' powers that can over-rule other members for certain decisions under defined circumstances.

Special member powers would also be crucial if a regional transport authority were to wish to set up a third sector organisation to run its rail services with the intention of avoiding competitive tendering process. European legislation¹³⁵ dictates that in order to make a single tender award for regional rail services the regional transport authority must have powers of control over the delivery organisation that are equivalent to its powers over its own departments. Special member powers for the sponsoring public authority appear

xxxxiiv See for example, Salveson (2012) *Rail Cymru a people's railway for Wales*, which considers a 'publicly-owned, mutually controlled and accountable railway for Wales' and develops the idea at length.

xoodii For the purposes of the discussion that follows it is assumed that the mutuals in question are strictly not-for-dividend and do not extend the cooperative concept to sharing of actual monetary benefits with rail users or staff. Dividend or bonus distribution is built into some mutuals and cooperatives which make a profit (e.g. Co-op supermarket's 'divi' or John Lewis's staff bonus) so such structures could in theory combine with railway staff receiving an incentivising bonus or rail season ticket holders receiving a 'divi', but, given that the railway as a whole *consumes* public money, such concepts would face some obstacles.

entirely justified in the case of too-important-to-fail services like rail, because if the organisational governance is inadequate and there are severe operational or financial failures then the public purse will have to pick up the bill in the end.

Pros and cons: publicly owned or third sector?

There is a live debate as to which of third sector provision or direct public ownership is the preferable structure. The debate is confused by the fact that, like any other structures, mutuals or cooperatives can be turned to different purposes. For the railway they might represent a step away from privatisation that gives greater accountability. In other sectors such as healthcare they can represent a step towards privatisation and less public accountability. The experience of 'spinning out' healthcare services to mutuals is not altogether happy, with some examples offering no greater accountability than the commercial terms of the service contract and falling far short of the democratic management and ownership that the term implies. Because the services are essential, the NHS has had to pick up the pieces and take the services back in house in at least one case of a not-for-dividend provider going bust¹³⁶.

Investigation of these options for the railway should also recognise that turning public services such as rail into mutuals could bring the same complexity and fragmentation as contracts with private sector providers. However, these issues come down to a question of what the intention is behind the use of the third sector and there is no apparent reason that a well-designed mutual cannot provide a satisfactory widely-accountable governance option for rail services.

The detailed legal nature of the ownership structure for the cooperative might also prove to be a critical determining factor in whether a regional transport authority would feel it could legitimately purchase rolling stock for it directly so as to avoid leasing costs, but *prima facie* this would appear to be possible at least where the cooperative adopts an 'asset locked' structure. Another way to realise rolling stock savings for third sector train operators would be to operate a publicly-owned rolling stock pool (see section 6.6).

6.5 How can regional transport authorities ensure accountability to taxpaying public, passengers and staff?

The railway serves a wide variety of interests and its benefits act far beyond its passengers to include businesses that benefit from the access to employees, property owners whose property values are increased, and entire regions that gain an economic boost from their rail connections. This broad benefit is the justification for railways receiving support from the public purse, but this comes with the *quid pro quo* that a potentially wide range of persons and institutions can claim legitimate and valuable contributions to railway governance.

We consider that the long-term health of the railway requires some form of representation in railway governance for three principal groups of stakeholders: rail passengers, railway

staff and the broader taxpaying public, with the latter being represented via bodies whose authority derives from their accountability to democratically elected politicians.

The present systems of governance for the railway fall short in many respects. The private train operators' primary responsibilities are to their shareholders and their corporate structures do not include any provision for ongoing input by public transport authorities after the franchise contracts have been signed. Even if a contract is written with extreme care, this is a feeble form of public accountability.

Gaming of the system has led to repeated unsuccessful attempts to tighten up contractual terms to prevent misuse of public money. Companies have extracted subsidies in the early years of contracts and exited abruptly before the premium payments promised to DfT in later years fall due, with DfT finding it has no means to extract significant penalties. As providers of services that are 'too important to fail' such companies have also used their position to lever out more public subsidy when their revenue predictions were incorrect. According to market theory, contractual underperformance should be remedied at the end of the contract by the competition amongst service providers, but in practice companies that have delivered low standards on past franchises have repeatedly been awarded further contracts. The public accountability of operators is weakened further because public information regarding the contractual conditions of the commercial organisations is severely limited by undue insistence on commercial confidentiality.

Passengers are supposed to look to Passenger Focus acts as a 'watchdog' for their interests at the national level, but it has no formal role in strategic decision-making about the railways. Its board members are appointed by government (the Secretary of State for Transport, Scottish Executive, Welsh Assembly Government and Greater London Authority), rather than being directly accountable to passengers. The accountability deficit extends more widely both inside and outside the railway. Railway employees have no formal structure within which to contribute their experience and expertise to strategic decision-making and the general public have seen Network Rail to be oblivious to calls by their elected representatives that it should show restraint on its levels of executive pay.

These deficiencies lead to two conclusions. Firstly, it is not wise to restrict accountability for services as important as the railway to the limited controls available in a purely contractual relationship. Secondly, the typical private sector company structure that gives overwhelming precedence to shareholder interests militates against accountability to the public for the receipt of their money.

Both of these issues could be resolved by using a publicly-owned company or third sector organisation with an appropriate structure.

The third sector is more usually associated with situations where there are a range of stakeholders to be represented but in fact the range of legal structures available to third sector organisations includes limited company structures of the same kind that might apply to a publicly-owned company. Any particular legal structure for governance can be flexed to

give wider or narrower representation to different groups, so the important point for railway governance is that the structure as defined in its legal articles should facilitate representation of the required range of public, passenger and staff interests – as well as those of the transport authority itself.

For large organisations with big budgets, such as those involved with railways, we would propose that it is useful to recognise two requirements. These reflect the need for hierarchical decision-making structures for efficient management, and the need for broader-based accountability to set the right priorities for the long term:

- Day-to-day primary governance functions need to be in the hands of a relatively compact board comprising an organisation's executive directors (e.g. 6 members).
- Strategic secondary governance oversight should reside in a separate non-executive representative 'supervisory board' which might be somewhat larger (e.g. 12 members, but no more than required to represent the required range of interests).

This is not the normal company structure in the UK, but is of the same form of companies in some other European companies, including Germany's Deutsche Bahn. This form is also of a similar nature to many large third sector organisations in the UK, whether these are legally defined as companies, charities or industrial and provident societies Cooperatives UK has proposed a structure along similar lines as part of a mutual model for operating the Post Office within the third sector, but the idea of splitting out a separate representative supervisory board could equally be applied to a publicly-owned company.

6.6 How could regional transport authorities reduce the costs of rolling stock procurement?

The calculations in Section 3 reveal levels of financial wastage through rolling stock leasing that appear indefensible. There are a number of routes whereby this could be avoided, all of which combine the removal of profit leakage with public authorities' large competitive advantage over the private sector regarding access to finance at low interest rates. Direct purchase of rolling stock by regional transport authorities or central government could save £184 million per year after five years.

The process whereby directly-purchased rolling stock would be deployed depends on the choice of governance system for train operators. If a regional train operator were under direct public ownership, rolling stock assets purchased by the regional transport authority could simply be transferred to the operator. This might also be acceptable if a train operator were under third sector ownership, if there were an 'asset-locked' structure that ensured it could not sell off the rolling stock and if its governance structure ensured effective control by the public and by regional transport authorities on their behalf.

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The terminology for the two governing bodies differs between organisations and there may be some mixing of non-executives and executives.

If however, regional train operators remain in the private sector, a different solution is required. Under these circumstances one option is to operate a rolling stock pool, at regional, multi-region or national level. Each regional transport authority could purchase its own rolling stock for operators to use, following the example of some German states such as Lower Saxony. The passenger rail authority for Lower Saxony, LNVG, has calculated that in the period from 1996 to 2005, its direct purchase of rolling stock achieved savings of the order of several hundred million euros, compared to the alternative procurement options, such as conventional leasing ¹³⁸. An alternative approach would be to establish a joint regional authority rolling stock pool, of the sort that operates in Sweden, or for the national transport authority to operate a rolling stock pool at the national level.

Cost savings from rolling stock procurement would be larger if a rolling stock procurement programme were nationally coordinated. This would reduce manufacturing costs for several reasons. Production line efficiency can be maximised over larger production runs, a 'learning curve' effect that could cut costs by $10\%^{139}$. Coordinated procurement also avoids 'feast-famine' patterns that cause train manufacturers major problems in maintaining manufacturing capacity. A national rolling stock procurement programme can also achieve economies over multiple bespoke orders by standardising rolling stock specifications around a small set of designs that span the needs of the system. Coordination of this kind also ensures that there would be maximum potential to 'cascade' used trains to other routes after their initial deployment. There is in addition a big financial benefit from planning rolling stock orders in conjunction with infrastructure plans such as electrification that fundamentally alter rolling stock requirements, as compared with the uncoordinated approach post-privatisation which has led to highly expensive dual-capability train specifications.

All of these benefits relate to the requirement for a 'guiding mind' for the railway, which we consider next.

6.7 Could a national 'guiding mind' secure additional financial savings for regional rail, while still allowing regional control of services?

So far, we have mainly looked at regional rail reform from the perspective of regional transport authorities, who are concerned to deliver the greatest possible improvement in rail services in their own regions, within whatever framework may be set by national government.

We now consider the implications for regional rail services if there were to be more farreaching national reform, involving the creation of a national 'guiding mind' for the railways. We look first at the reasons that such reform is being advocated, and then ask how strong regional control of services could sit alongside a national guiding mind.

Arguments for a national 'guiding mind' organisation

At the time of privatisation, the railway was split up into multiple organisations. This created considerable costs at the interfaces between the many organisations, and destroyed the overall strategic planning function that had existed in the previously-unified railway organisation. The calculations in Section 3 estimated that elimination of these unnecessary interfaces could result in a potential annual saving for the regional railways of £95 million.

Fragmentation is not just a cost issue. It causes frustration and difficulties for passengers. For example, Manchester Piccadilly station takes train services from six operators, each of which has its own rules regarding peak and off-peak ticket times, so complicated that staff in the station's passenger information booth are forced to refer passengers with queries about ticket validity to queue at the busy ticket office xxxxvi.

A glaring problem under the current fragmented system has been the inability to operate a national rolling stock procurement strategy, resulting in a feast-and-famine procurement pattern that has added costs to rolling stock purchases and undermined Britain's train manufacturing industry. The potential benefits from having a guiding mind that could manage a nationally coordinated rolling stock procurement policy have already been described in section 6.6.

The strategic 'guiding mind' management function has proved impossible to reproduce under the privatised system, because it is predicated upon commercial freedoms for various commercial organisations. Under the current system, to the extent that such a function is present at all it is provided by an unwieldy combination of the Department for Transport, the Office of Rail Regulation, the infrastructure provider Network Rail, and the Association of Train Operating Companies, with other companies and bodies also holding powerful positions that tend to preclude strategic overall action.

Could strong regional control sit alongside a national 'guiding mind'?

From a regional perspective, there appears to be a tension between realising the benefits of national coordination (fewer interface costs, a simple unified ticketing system for passengers, and better rolling stock procurement), and realising the benefits of regional control (less 'meddling' by national government, less bureaucracy, and rail providers which are closer to the communities they serve).

We have made the case elsewhere for a unified publicly-owned railway organisation (which we termed 'GB Rail') that could provide the benefits of a national guiding mind, while at the same time enabling strong regional control and accountability. Possible governance arrangements for such a company are described in some detail in the report *Rebuilding Rail*¹⁴⁰.

xxxvi Direct experience of one of the authors in 2012 with respect to an enquiry about return portion of a Wales-Manchester ticket.

If such an organisation were to be created, there are three key ingredients to ensure that the benefits of strong regional control are realised. These are regional representation on GB Rail's supervisory board; routing of funding for regional rail services via regional transport authorities; and specific legally-enshrined powers to enable regional authorities to negotiate a fair deal.

Rebuilding Rail proposed a representative supervisory board structure for GB Rail, of the kind described in section 6.5 above. In this case the supervisory board would include representatives of regional transport authorities as well as representation of the relevant national government departments and staff and passengers. It would be non-executive, but would oversee a management board of executive directors. This would be similar to the model adopted by Deutsche Bahn.

If the Deutsche Bahn model were to be followed, the company would be expected to operate to commercial disciplines despite being in public ownership, and would be structured so that half the board, including the chair with casting vote, represented the interest of the company (the 'management') and the government as sole shareholder. Two corporate subsidiaries would report to the executive management board and hence to the supervisory board: GB Rail Network and Operations (managing both infrastructure and train services), and GB Rail Access (separately managing track charges and track access agreements so as to meet EU rules).

Going beyond the proposal as set out in *Rebuilding Rail*, regional transport authorities would be able to use their representation on the supervisory board to ensure that GB Rail Network and Operations was structured with appropriate corporate sub-divisions to give it a strong local focus within specific regions. In France and Germany, SNCF and Deutsche Bahn have separate divisions or subsidiary companies for their overall regional rail operations, but there are also instances, such as the Usedomer Bäderbahn in Germany, of wholly-owned subsidiaries of the national railway (in this case DB) established to operate regional services in a particular area.

In the GB Rail model it is proposed that regional transport authorities would receive funding from national government to enable them to procure services from GB Rail Network and Operations. This would be similar to the current system in France. Regional transport authorities would specify the service they wanted, and negotiate a contract with GB Rail for the delivery of that service.

Because GB Rail and the regional transport authorities would be committed to contract with each other, this option must be backed by legislation that ensures a fair deal to both parties. In light of the lessons from France, where regions have succeeded in driving down SNCF costs, this should include the following kinds of measures:

• **disclosure duties:** legal duties on GB Rail to distinguish, record and disclose the finances of the rail services under negotiation

- **tightly-specified contracts:** powers for regional authorities to obtain reasonable penalty-incentive, revenue-sharing and index-linking clauses in the contracts
- appellate body: appointment of an appellate body to resolve any disputes, a role that could be undertaken by the Office of Rail Regulation.

The French experience shows that, equipped with such powers, regions contracting with a single operator can obtain a good deal whilst avoiding tendering competition costs and profit leakage.

Some commentators have argued that a single national operator would be vulnerable to interference from government or arbitrary reductions in its budget (as suffered by British Rail). To avoid this, a legally-binding rolling five-year funding plan (akin to the present HLOS, but for operations as well as infrastructure) would be important.

Various types of contract could be used by regional transport authorities. National governments who own railway operators are not usually concerned to receive fare revenue, which will anyway be retained within their national railway. But regions may judge that a gross agreement allowing closer specification of services is more appropriate to the network under contract and moreover gives them the means to capture any windfall increase in revenue to spend within the region. Regions would, nevertheless, be concerned to strike a balance between these requirements and the need to include performance incentive and penalty clauses to ensure acute business management and operational efficiency, so a satisfactory agreement is unlikely to be purely gross either. French regional contracts with nationally-owned SNCF are net, as are most German regional contracts with nationally-owned Deutsche Bahn, but some contracts in both countries feature revenue-sharing incentives.

Some regional voices might argue for the ability, as in Germany, to buy rail services from any other operator so as to keep GB Rail 'on its toes'. This could not occur widely without imperilling the cost and user advantages of a unified railway system. However, it might take place on a monitored trial basis if a region felt that, having exercised its powers and exhausted the appeal process outlined above, the national operator was failing to deliver a high quality of services. However, DOR has proved itself more cost-efficient in the open market than all the private sector TOCs, and there is no reason that a national public operator should not achieve the same standard. There would need for strict rules that staff pay and conditions were not undermined in any such trials of private sector operators.

A unified national operator functioning as described here could reconcile a key potential conflict between two of the principles of good railway governance: a national guiding mind and regional powers. The GB Rail supervisory board, including its regional representatives, would be responsible for ensuring that the entire railway functioned strategically in a unified way so as to maximise economies of scale and minimise fragmentation costs. Regional authorities would control funding for train services in their areas and would be able to exert control over costs through their legally-enshrined powers to see financial

management data for their region, and through their powers to impose penalty-incentive and revenue-sharing contracts on GB Rail.

In addition to the cost savings already discussed, a unified rail operator would be in a strong position to bring infrastructure renewal and enhancement programmes in house. If these operations were brought in-house by GB Rail Network and Operations, regional railway infrastructure management could cost £80 million less per year. This saving is, in theory, available to Network Rail now, but on present evidence it appears that it may require the more far-reaching national reforms described here.

6. Conclusions

It is a critical moment for Britain's regional rail networks. There is a spirit of optimism in the regions, because for the first time there is cross-party consensus for greater local oversight of regional rail. But there is also awareness in this austere era that the gift to the regions of greater powers over their subsidised rail services may, at best, come with constrained finance, or at worst could be a way for national authorities to absolve themselves from responsibility for the most costly portions of the rail network and 'devolve the cuts'.

At the least, as the regions rise to the challenge of improving their rail systems they are faced with finding significant efficiency improvements. This appears a daunting prospect if consideration of potential improvements is limited to further modifications to the present system of railway governance. This system, despite multiple alterations over a twenty year period, has seen real-terms costs increase at a rate that has far outstripped the growth in rail services. However, the prospect appears much brighter if the discussion can be widened to include the more radical options that, as this report has shown, offer substantially greater opportunities to reduce the cost of running regional rail.

It is apparent from the analysis in this report that a number of large cost efficiencies would stem from reduction or removal of profits that presently leak from the railway. Grasping these opportunities presents a challenge to the policymaking community, which for the past three decades has tended to consider the profit motive as the only possible driver of efficiency. There is, however, an increasing interest across the political spectrum in the idea of 'not-for-profit' and greater understanding that professionals who are motivated by the social value of the services they run can produce highly efficient cost-conscious management in both the third sector and the public sector.

The regional railways, even more than railways in general, require public support to finance their broader economic, social, and environmental benefits, which extend far beyond direct benefits to passengers and logically should therefore be funded by broader taxation as well as the farebox. Sustaining this argument requires the public to know their money is being well-spent, and there are signs of a dawning realisation, across a broader political spectrum than might be expected, that the future of the railway is in danger if it depends on persuading the public to continue to support the railway with several billion pounds per year when approaching a billion pounds of that is taken out again as profit.

This report has sought to present the options in a way that invites consideration from a range of political viewpoints, so as to broaden a debate that tends to get jammed within fixed ideological perspectives. We hope that in light of the evidence in this report most readers will agree with our central points that there is excessive extraction of profit under present governance systems for rail and that there is a range of viable alternatives that could capture that leakage for reinvestment in the railway.

A number of the cost-efficient alternatives described in this report would be entirely achievable through a regional authority's own actions, although some enabling changes to national laws and regional powers would be needed.

Other efficiencies, most notably those of a nationally unified railway, can only be achieved by action at the national level. Public ownership of the whole railway may not feel like a comfortable option for some readers, but we would argue that the accumulated evidence from Britain and abroad is such that it would be unwise to exclude this option from the frame of the debate. In particular it offers potential to simultaneously satisfy two fundamental requirements for good governance of the railway: clear public accountability and a balance between the benefits of a nationally unified railway and the benefits of local control.

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