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Public Service or Private Profit? British Railway Policy 1825-2020

Mark Casson

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Introduction[1]

This paper considers the relation between public service and private profit on the UK railway system from the opening of the Stockton & Darlington Railway down to the present day. It argues that there is a trade-off between these objectives, and that this trade-off has varied over time. Before 1870 the pursuit of private profit drove the railway system, constrained only by state regulation. From 1870-14 political demands for public service drove the system and the need for profit was merely a constraint. Following the Grouping of 1922-3, economic depression meant that profit and public service became closely aligned. Nationalisation in 1948 prioritised public service, but unfortunately at a time when the public was taking to the roads instead. Privatisation in 1994 brought back the principle of profit-seeking constrained by regulation, but implemented regulation in a radically different way.

This paper addresses a 'big issue'. Railway history has a well-deserved reputation for factual accuracy and attention to detail, but it sometimes fails to deliver definite conclusions on big issues. Big issues were, however, addressed by a previous generation of transport historians –Jack Simmons, Theo Barker, Michael Robbins, Peter Cain and others[2]. These writers linked railways to the wider social, economic and political environment. They addressed two main types of question: 'What was the impact of the economy and society on the railway?', and 'What was the impact of railways on the economy and society?'. They assumed two-way causation: the economy and society affected the railways and the railways affected economy and society.

This paper addresses another big issue, which is also in two parts; namely 'To what extent did railway managements pursue public service as well as private profit?' and 'What was the impact of public service strategies on the service they provided?'

The aim is not pass judgement on the relative benefits of profit-seeking and public service. Public service without profit may be economically wasteful, while profit seeking without public service may simply benefit the rich at the expense of the poor. The key issue is how well they work together.

Private profit may be defined as operating surplus *net of* interest and other charges; according to basic accounting rules, this is equal to dividends paid out to shareholders *plus* retained profit. Profit may be retained to exploit new opportunities, address new challenges, or build up reserves.

It was not only profit that railway shareholders were concerned about: it was also dividends and capital gains. In the late nineteenth century many railway shareholders were pensioners who wanted a steady dividend that paid better than government bonds. Some were speculators; London was the largest capital market in the world, and railway companies were the largest companies, and so speculators were naturally attracted to railway shares.[3]

Managers liked profit too, but they preferred it to be retained. It was useful for expanding the network or building new rolling stock. It could also provide a buffer against economic recession. So there was some tension between these groups, although, judging by *Bradshaw's Railway Shareholders Manual*, the pensioners seem to have had the upper hand.

Public service is a contested concept: it includes meeting the transport needs of people and industries; providing value for money to customers; fair wages, secure employment and good working conditions to the staff; the safety of passengers and workers, and so on.

Chronology of key events

Public service did not emerge in a vacuum. It was partly a response to changing circumstances. These included rapid technological innovation; rapid industrialisation; improving living standards; population growth, urbanisation and suburbanisation; and the development of capital markets[4]. For the purposes of this paper it is necessary to add to this list: government policy changes, particularly those driven by a public service agenda.

This paper covers a long period, and so it is convenient to divide the period up into seven phases, as illustrated in the left-hand column of Table 1. Each transition corresponds to some key event: war, a change of government, a speculative mania, or re-organisation of the national system. Each phase has been named for ready reference (see the middle column). The right-hand column highlights the key factors that impacted the national system in each particular phase.

These seven phases also map into changes in attitudes to public service. Table 2 shows how the balance between private profit and public service has shifted over time. Private profit was very much the driver throughout the 'Experimental' phase and 'Boom and bust'. There was a big political change about 1870, which caused a shift towards public service, although private profit remained an important consideration too. This dual approach continued until 1939, although the economy went into recession after World War I.

Thereafter the 'partnership' – as it may be called - between private enterprise and public service disintegrated. First there was nationalisation – which was all about public service – or would have been had more funding been available. Then came the Beeching cuts; from this point on the public railway embraced some of the principles of private profit – that is, it tried to minimise its losses. Finally, there was privatisation. There was still regulation in the public interest – at least in name – but the ethos was very much based on profit-seeking.

Table 2 suggests that it is important to examine closely the 'Maturity' phase 1870-1914, before moving on to the 'Consolidation and survival' phase, 1918-39.

Public service in the age of Maturity

The legacy of Boom and bust

The legacy of the preceding period of 'Boom and bust' set the scene for what happened later. It has been argued that during this preceding period the system was over-built, with too much track, and hubs in the wrong places[5].

It is tempting to say that 'bygones are bygones' and that mistakes made earlier did not affect performance later: the consequence of excessive construction was simply that companies were burdened with excessive debt. But it was worse than this, because almost all the track was kept open. The costs of staffing stations and signal boxes, and maintaining the track, were largely independent of traffic; they had to be paid whether many trains were run or only a few. But, crucially, they depended on the mileage of track. So more miles meant more expense year after year, even if traffic was very light.

During the period of Boom and bust railways had been committed to a high fares policy. Railways were so much faster than any alternative mode of travel, such as stage-coach or canal, that they had a monopoly of elite travel. But as the network expanded, and its geographical density increased, so competing routes proliferated, particularly between major cities. This generated downward pressure on fares and rates and this, in turn, made high recurrent fixed costs a serious problem. This problem was mitigated later by price-fixing and traffic pooling arrangements, but it was never fully resolved.[6]

Political reform

Against this background, electoral reforms widened the franchise and brought a radically different government into power in 1868. By 1870 it was starting to legislate in a purposeful way. There was a massive agenda embracing trades unions, town and city government, new housing and improved working conditions. Trades unions were legalised in 1871, and skilled workers - including railway enginemen - became increasingly militant. General unions were formed somewhat later, encompassing porters and permanent way staff. Implementation of the Factory Act, 1878, led to significant increases in rates of pay, shorter working hours, and more time for holidays. The Municipal Corporations Act, 1882, empowered local boroughs to undertake large projects, paving the way for electrical power, and the expansion of urban tramway systems.[7]

Gladstone was prime minister, and he knew all about railways from his family connections and from his experiences at the Board of Trade at the time of the Mania in 1845. A spate of accidents and murders in the 1860s alerted Parliament to the potential dangers of railway travel. Better signalling, braking, and passenger communication with the guard were all

required. Technological solutions were available, but they were expensive. Government had the option of offering subsidies to encourage compliance, but it chose, not the 'carrot', but the 'stick'.

The negative public image of the railways at this time encouraged Parliament to take a tough line. MPs believed that competition between companies was not sufficiently strong to drive improvement. While railway companies recognised that accidents were bad for the reputation of the system as a whole, they seem to have believed that the reputation of the company responsible for an accident would not be damaged as well. Since the effects of competition and reputation were weak, MPs believed that regulation was required. Furthermore, they believed that railway companies should pay for the improvements themselves. There was no subsidy, although the companies were allowed considerable time to complete the work.

So far as costs were concerned, therefore, railway companies faced a 'double whammy': generic impacts from increased wages, shorter hours, etc, and specific impacts from railway legislation on safety.

Emergence of new markets

There was an upside, however. Generic legislation gave workers more income and more leisure time. They could afford to take a holiday. Here was an enormous potential market.[8] The Midland Railway was quick off the mark. It served large industrial towns somewhat remote from the coast, and had a ready-made excursion market.

This new market was more price-sensitive than the traditional one, which had comprised a relatively small group of wealthy people. As noted above, companies traditionally catered for first class travel and charged the maximum permitted fares. The new customers were different. They were price-sensitive, but they didn't expect to be treated like cattle (or ordinary third-class passengers, in other words). Hence second class was abolished, and third-class upgraded, giving 'second class travel for third class fares'.

Market segmentation was implemented. In principle, it was nothing new, because that is what 'class of travel' had always been. But it was now more sophisticated. It was not just about deterring first class passengers from travelling second class; it was about developing a new passenger market from scratch.

Two other new markets merged about this time. One was suburban commuting. This was also a product of the new social agenda. London and the big industrial cities were becoming congested and polluted, and it was desired on grounds of health and welfare to move working people to the countryside. But most of their jobs would remain in the city. Commuting services were therefore required. Tramway companies responded quickly, and the railways did their best to keep up. New fare structures were introduced for daily short-distance travellers.[9]

Another new market was for perishable goods traffic, taking milk, fish and fresh produce from the countryside to the cities and suburbs. To some extent, this was a spin-off from the other two markets.

Marketing strategies, 1870-1914.

The emergence of new markets meant the emergence of new fields of competition[10]. To avoid fares being driven too low, companies tacitly agreed to compete on quality of service rather than price. The companies had already learned that a price war between two companies could drive down fares below average cost, so that both competitors lost money. They failed to anticipate, however, that competition on quality can be very expensive, because premium quality must often be delivered at a premium cost.

The companies targeted five main types of traffic. Two were traditional, namely express passenger and heavy freight (coal and mineral). Three were new: holiday; commuter; and perishables (cattle, milk, fish, etc.). Tradition passenger traffic was targeted because business travel was increasing as the economy continued to grow. The boom in coal and minerals was caused initially by the expansion of the iron and steel industries, which was driven in turn by the growth of shipbuilding, bridge-building and other heavy engineering industries. In the 1890s the coal export trade expanded, especially in Welsh steam coal for the bunkering of ships.

Consumer brands were developed, later supported by poster advertising, which exploited advances in colour printing. Each form of traffic was marketed in a slightly different way. Companies maintained their high fares policy on traditional passenger traffic, and promoted affordable fares for third class travel. Commuting was encouraged using season tickets.

There was less emphasis on the development of general passenger and freight, newspapers, parcels and post. While there was significant growth in these areas, e.g. through the growth of national newspapers and mail-order retailing, it was largely the business customers themselves that drove the growth in traffic.

The traditional market for elite tourism was not overlooked, however. Table 3 examines tourism in detail, showing that different types of tourist headed for different destinations. This aspect of tourism is easy to research from the imagery used on railway travel posters.[11]

Improvements in first class travel

Investing in third class travel is all very well, but if social distinctions are eroded then first-class travellers may trade down to third-class, and revenue will be lost. Considerable investment therefore went into enhancing first class travel. These investments are the most dramatic and noteworthy features of the late-Victorian and Edwardian period so far as rail travel is concerned. Table 4 goes into the details.

For elite travellers, network coverage was an important aspect of a company's brand. It was enhanced using jointly-owned cross-country lines and through-working arrangements ('cooperation in order to compete', as a modern business strategist would say).

Speed and reliability were improved by new construction: doubling tracks, building new flying junctions and avoiding lines, etc. Speed posed issues for comfort and safety, however: comfort was improved with corridor bogie coaches and safety with the realignment of curves and better interlocking.

Through carriages on multi-portion express trains avoided passengers changing trains at busy junction stations. However, the shunting of carriages at busy hubs could cause delays, with knock-on effects at stations further down the line. Restaurant cars and sleeping cars were provided on long journeys; also special luggage facilities, such as additional porters at major stations and a 'luggage in advance' service.

Express traffic was concentrated on long-distance primary routes. The 'turnpike principle' was used to minimise journey times to secondary destinations: the faster route was preferred to the shorter route. From 1890 onwards there was heavy infrastructure investment in competing primary routes, to enhance line speeds and capacity. Improvements to stations and facilities were focused on primary rather than secondary lines, and on city termini and ports.

Many of the luxury trains were open to third class travellers, but with restrictions on specific facilities. The third-class traveller therefore derived incidental benefits from the quality of service supplied to first-class travellers. The most loyal first-class travellers were probably those who were most class-conscious, and therefore concerned about the status of their fellow-passengers; there was, in effect, a premium charge for being a snob.

The table also highlights the importance of investment at ports. A scaled–down version of this investment also occurred at domestic ferry ports, such as those serving the Clyde estuary and the Isle of Wight

The zenith of the system

Dating the zenith

It is natural to pause at this point, and ask: 'Is this, then, the zenith of the railway system? The answer is a qualified 'yes'. It was not earlier, because the trunk system was not then fully complete. It was not 1939 because after World War I and the great depression, the 'Big Four' companies (and the LNER in particular) were in poor financial shape. The speed records achieved at this time were not representative of everyday travel experience. They were publicity stunts achieved by special trains that ignored normal safety procedures (including speed restrictions); e.g. when Mallard set a new world speed record there were no fare-paying passengers on the train.

Although there was already road competition, the railways themselves were carrying road traffic too. Indeed, charabanc services to local beauty spots were a major feature of the railways' holiday offerings at this time.

According to Michael Harris, there never was a zenith[12]. It is certainly true that performance fell short of the ideal. Some timetables were aspirational rather than realistic, so punctuality was often poor[13]. The traffic division tended to over-estimate the speeds that could be attained with a heavy load; one solution was double-heading, but this was expensive in both locomotives and manpower, as the Midland, with its small engine policy, knew only too well.

Some cross-country expresses relied on secondary lines. The Great Central, for example, used the single-track Banbury and Cheltenham line of the Great Western Railway for its trains to Barry and Weston-super-Mare. Some of its trains to Southampton used the single-track Didcot Newbury & Southampton line, although others used the Reading-Basingstoke line instead. The Midland & Great Northern Joint line from Bourne and Peterborough to Melton Constable was effectively single-track throughout.

So just how good were railways services at this time? Three short case studies are presented here, focusing on timetabled passenger services[14].

Great Central Railway services in 1910

Originally an east-west line from Manchester to Cleethorpes via Sheffield and Retford, the company expanded into the East Midlands and then further south. It attacked the Midland Railway's main line traffic by building its London extension to Marylebone in 1899, and attacked the North Eastern Railway's near monopoly of ports on the Humber by developing Immingham for the export of Yorkshire coal. Much of its expansion was driven by Sir Edward Watkin, who also had interests in the Metropolitan Railway.

Its network was structured around a Sheffield-Nottingham-Leicester-Woodford spine, with arms from Sheffield to Manchester and Cleethorpes, a neck to Doncaster, and legs from Woodford to London and to Banbury, where its connected with the Great Western main line through the Cherwell valley. Sheffield was the main hub; Leicester and Nottingham had few connections.

The passenger capacity of the new routes was well-used. Seven up & down restaurant car expresses per weekday ran from London via Sheffield to Godley Junction, east of Manchester, where services to Manchester and Liverpool divided, the latter using the Cheshire Lines Committee route through Stockport and Warrington. Cross-country traffic potential was also exploited, as noted above: six expresses per weekday ran from the south, south-west and South Wales, conveying portions for the North east (York and Newcastle) and Manchester.

Partnership was key on cross-country routes: as a partner in the Cheshire Lines Committee the company collaborated with its arch-rivals for London traffic, the Midland and Great Northern, to fight the common enemy, the London & North Western, which dominated the lucrative traffic in the Manchester area.

Midland Railway services in 1910

The structure of the Midland Railway was similar in some respects to the Great Central, but because it was built earlier, it pre-empted the best routes. Created in the 1840s through a controversial merger brokered by the entrepreneur George Hudson, the Midland was a pioneer of popular railway travel, as noted above. It is also provided luxury with its fleet of Pullman cars. Initially a land-locked company with competitors to east and west, it expanded in all directions.

It attacked the London & North Western's Scottish traffic with its Settle & Carlisle line, the Great Northern's London traffic and the Great Eastern's monopoly of holiday traffic on the Norfolk coast. It also vigorously defended its coal trade in the East Midlands and South Yorkshire. It ran regular expresses at two-hourly intervals from London to Glasgow and Edinburgh via Leeds and Carlisle; to Manchester and Liverpool, and to Leeds and Bradford. It ran the only cross-country primary route in England, from Bristol to York via Birmingham, Derby, Sheffield and Normanton. Derby and Leicester were its main hubs. At Derby trains from Bristol to York connected with trains from London to Manchester, and at Leicester trains from London divided for Derby, Sheffield via the Erewash valley and for Nottingham (the latter was also served via Melton Mowbray). By-passes were provided for several busy traffic centres, though some were used mainly for freight, e.g. Sheffield, Worcester and Birmingham.

The company was very versatile. For example, it operated major suburban systems in Birmingham, Leeds, Bradford and Manchester, and it extended its London system by acquiring the London Tilbury & Southend Railway in 1912. Like the London & North Western Railway, it operated detached lines to access mineral traffic in South Wales.

Lancashire & Yorkshire Railway services in 1910.

The Manchester & Leeds Railway ('Eleven Towns Railway' or 'Calder Valley main line') was engineered by George Stephenson and opened in 1841. It quickly built branches to neighbouring towns and became the Lancashire & Yorkshire in 1846. It subsequently absorbed several other regional and local lines[15]. Its access to Leeds, York and Hull depended on running powers, although it controlled the port of Goole near the Humber estuary.

It served the prosperous Lancashire cotton and Yorkshire woollen industries. Rather than invade new territory it fought to keep other companies out. It saturated its territory with lines, but nevertheless failed to deter rival companies. Invasion was most severe in West

Yorkshire where the Great Northern exploited local dissatisfaction with the Manchester-headquartered company to create an impressive suburban system of its own.

In 1910 it ran an hourly express service over its main line from Liverpool to Bradford via Wigan, Manchester, Todmorden and Sowerby Bridge. Eight trains a day continued from Sowerby Bridge to Wakefield, and then on to either York, Goole, Hull, or even to Harwich via Lincoln. Another main line ran east from the coastal towns of Blackpool and Fleetwood to Sowerby Bridge via Preston, Blackburn and Todmorden. Trains from Liverpool connected with this service at Todd Lane Junction, south of Preston.

There were two routes to Scotland, one via the London & North Western main line from Preston and the other via the Midland's Settle & Carlisle line. Midland trains ran over the Lancashire & Yorkshire system from Liverpool to Hellifield via Blackburn, to connect with Scottish expresses to Carlisle. Blackburn was a major hub, where five major routes converged; it had through trains to London by two alternative routes.

Population and industry were densely distributed over almost its entire area region. Frequent stopping trains ran on most of the lines. Timetabling was efficient, with good connections, but the company invested little in improvements.

Summary

All three companies offered an impressive service with good connections. Major cities had an express service to London at least every two hours. This level of service was not replicated by every company across the country, however, and services were much less frequent in rural areas.

Inter-company co-operation

A feature of these case studies is the high degree of co-operation between neighbouring companies. This compares favourably with the situation before the zenith, even as late as 1890.

Table 5 refers to leading English companies c.1890. It classifies bilateral arrangements between these companies as either enemies, *N*; rivals who competed with mutual respect, *R*; friends, who formed alliances with each other, *F*; or ambiguous, where the companies co-operated on some fronts whilst competing on others, *A*.

Until 1890 inter-company rivalry was the norm. Companies serving adjoining regions invaded each other's territory. They did not always intend this, but when an independent promoter obtained a bill to connect their regions, each perceived a threat from the other and fought to gain control of the invasion line. The invader would try to get access to their rival's hub, so they could divert as much traffic as possible onto their own line. Conversely the rival would do their best to obstruct the line and break connections wherever possible.

When the two companies operated trunk lines radiating out from London, these rivalries obstructed cross-country travel in the provinces.

Rivalry between the Midland and the Great Western went back as far as 1845, when the Midland acquired control of the Bristol & Gloucester Railway. The companies remained enemies for many years after; their antagonism impeded traffic from Birmingham to the south-west and created the infamous break-of-gauge at Gloucester.

The Great Central, by contrast, was a more conciliatory railway than its midlands rival. It co-operated with the Great Western and the Metropolitan to gain access to London, and with the Midland and the Great Northern in the north-west, as noted above. This more conciliatory attitude may reflect the fact that it was late on the scene with its London extension and its cross-country routes.

By 1910, however, enemies were becoming friends. Co-operation was the new norm. The Midland and the London & North Western were talking to each other, and even deadly enemies such as the Great Western and London & South Western had become friends. They agreed to put an end to their wasteful competition for the boat traffic at Plymouth, and commenced a joint service between Birkenhead and Southampton[16]. Again, conflict between the Great Eastern on the one side and the Midland and Great Northern companies was resolved following the completion of the North Norfolk branch line system.

The Lancashire and Yorkshire was a particularly friendly company, as illustrated above. It was, however, a junior partner with its bigger allies, like the London & North Western. Although both companies competed in the Liverpool and Manchester area, they co-operated in serving Blackpool; in Yorkshire they avoided direct conflict: the Lancashire & Yorkshire served Bradford, while the London & North Western served Leeds. To avoid excessive dependence on the North Western however, the Lancashire and Yorkshire made friends with the Midland too. It was also friendly with the North-Eastern, which handled a lot of its north-bound traffic.

Consolidation and survival

Financial constraints

The post-war period can be discussed relatively briefly. In contrast to the pre-war period of consistent progress, the inter-war was a period of stasis. Stasis, however, was not a bad outcome, given the difficulties that the railways faced.

From 1922-36 the economy was in depression. Industrial exports declined, reducing freight traffic to and from ports; the main reasons for the depression are listed in Table 6.

The creation of the Big Four in 1923 reduced competition, but only on certain routes, e.g. between London and Manchester (former London & North Western and Midland routes), but not between London and Birmingham or London and Exeter. Standardisation of rolling

stock provided savings too. But intensifying road and air competition added to the railways' problems. They did not have the money to invest on a large scale. The little they had was spent mainly on publicity, such as staging locomotive races, and introducing cinema coaches on the east coast main line. They strove for an image of speed and modernity, and promoted on-train activities like dining at speed, or styling your hair - things that were difficult do in a bus or a car.

The brutal reality was that, with freight revenues declining and passenger revenues stagnating, reducing costs was key[17]. But even reducing costs involved some investment. Rationalisation was limited mainly to freight-handling. The railways lobbied successfully for licensing controls on buses and lorries, and for restrictions on the use of lorries for long-distance journeys. But they could not prevent larger firms from investing in their own fleets of lorries, especially for the distribution of their products to wholesalers and retailers; many private sidings were closed as large firms reviewed their logistics strategies.

Rationalisation

The railways response was to concentrate freight traffic on a small number of major hubs, with larger marshalling yards to minimise trip-working. However, they had only limited success in expediting the transfer of freight to and from road vehicles. Experiments were made with various designs of container, but it was not until after nationalisation that a fully satisfactory solution was found. Although railway managers recognised the advantages of road over short distances, they were adamant that rail must form some part of longer journeys, however difficult inter-modal transfer may have been. The regional structure of the system, coupled with this self-imposed constraint, restricted the railways' viability as an intermodal national system. Some companies, however, such as the Southern, developed successful integrated local and regional bus services.[18]

Passenger traffic was also concentrated on primary routes. Some main lines were downgraded to secondary status as an economy measure (e.g. the Great Central London extension which, though 'state of the art' in technical terms, carried relatively light passenger traffic). But secondary lines were not closed. They were kept open - it was the railway's contribution to addressing the unemployment problem.

Quality of management

But was the obstacle to investment solely lack of funds? Was bad management also to blame? There were internal disputes, certainly, particularly on the LMS where London & North Western and Midland men disputed locomotive policy. Under Sir Josiah Stamp, the LMS imported 'scientific management' from the US. Everything had to be measured and analysed so that costs could be reduced. This seems to have been, in part, a theatrical performance; it captured the spirit of the times. It made management appear professional.

But nothing substantial seems to have happened. Even subsidised loans offered by the government were largely ignored; only the Great Western made much use of them [19].

Electrification continued steadily on the Southern, under the guidance of Sir Herbert Walker.[20] The LNER failed to take up the opportunity to electrify suburban lines around Finsbury Park; the tube companies finally took over instead. Plans for a north-south underground link from the Great Northern lines of the LNER to the South Eastern lines of the Southern also came to nothing[21].

A lot of time and energy went into investigating mainline electrification, and some very thorough technical reports were produced. It was agreed that long stretches of a line must be electrified, for otherwise the savings would be neutralised by the cost and delay of changing locomotives. But given this constraint, everyone must have known that the money simply wasn't there, so what was the point of the investigations? The only definite outcome was that plans to electrify the North Eastern main line were abandoned.

Dieselisation was also considered. The Great Western was the most progressive company, and built a substantial fleet of railcars, some of which ran over primary routes as multiple units with buffet facilities[22]. On the LMS dieselisation was limited mainly to shunting engines and experimental locomotives. Dieselisation raised contentious labour issues regarding single manning, and the retraining of employees in railway workshops, which may have discouraged managers from pursuing it too vigorously.

The railways continued as a public service. The main beneficiaries seem to have been the railway workers, who kept their jobs, and the managers, who still had workers to manage. Shareholders got poor returns, especially on the LNER. Rural communities still retained their railways, even if many local residents actually preferred to travel by bus.

Nationalisation

It might be expected that nationalisation in 1948 would have re-ignited the sense of public service. But some trades unionists regarded nationalisation as meaning 'worker's control'. Similarly some members of the public may have thought that fares would be reduced. Both were disappointed. It was largely 'business as usual' for management. Apart from Scotland and the North-east, the regional structure of British Railways mapped reasonably well into the 'Big Four'.[23]

A post-war boom in holidays and in post-war reconstruction distracted attention from long-term problems. Private car ownership took off in the late 1950s and early 1960s, and jet travel and budget foreign holidays soon afterwards. As a result, the boom in railway holiday traffic ended almost as abruptly as it had begun. As roll-on roll-off ferries developed, freight traffic to Irish and continental ports diminished as well.

Budgets were dictated by politicians. Government policies and ministers changed quickly. It was crucial for railway managers to spend funds as soon as they were received. But hasty project planning could lead to cost over-runs later. One scheme rapidly succeeded another, often reversing the policy of its predecessor.

There were experiments with standard steam locomotives, diesel locomotives built by inexperienced British firms, battery-operated railcars, and then mainline electrification. The system was in constant flux. In 1962 trains into Liverpool Lime Street were using all three modes of traction at the same time. Some steam locomotives built under the Modernisation Programme had a working life of less than eight years.

The flag-ship modernisation of the West Coast main line from London to Glasgow was never completed; Crewe and Stockport, for example, were never fully modernised. Cost over-runs on the overhead wiring were partly caused by ignoring lessons from European experience. The legacy of the West Coast failure was loss of political goodwill. As a result, there was little mainline electrification until the East Coast scheme was completed in 1991, apart from the extension of the Southern third-rail system in Kent. Three major suburban electrification schemes were completed under nationalisation, however: the Great Northern line from Kings Cross to Hitchin, the Midland line from St Pancras to Bedford, and the Glasgow suburban system, which was an early and highly successful scheme.

The Beeching cuts of 1963-4 were overdue, but the specific lines chosen for closure are debatable. Beeching examined the way that a line was used at the time, rather than the way that it could have been used in a network of the future. Beeching also failed to recognise where lines were over-staffed, and where costs were inflated as a result. The main tragedy was that after closure public rights of way were sold off for nominal sums, partly to discourage agitation for re-opening[24]. Eliminating future options to re-open has proved to be a costly mistake.

After the Beeching report new initiatives were launched including Freightliner, the roll-out of merry-go-round trains, and the highly successful high-speed passenger trains. Management structures were reformed in the 1980s using the principle of sectorisation to give greater transparency and accountability and to facilitate innovation. These successes, however, did not generate sufficient political goodwill to avoid future privatisation[25].

Privatisation

Political context: designing the franchising system

Privatisation in 1994 was a fall-out from John Major's confrontation with Euro-sceptic members of his own political party. It was not part of Margaret Thatcher's vision of a 'shareholder society'.

Proposals for a single integrated privatised system were quickly dismissed, as were plans for 'privatising' existing regions or sectors. A more radical approach was favoured.

The Treasury believed that competition, combined with private sector marketing expertise, was the key. It would cut costs while at the same time improving customer service. Following a European Commission directive (91/440/EC), they created separate accounting units for 'wheel' (operators) and 'rail' (infrastructure). But unlike most other countries they separated them as ownership and management units too.

They devised their arrangements by using analogies with other 'network industries' (e.g. airlines, telecommunications). Under their system train operating companies (TOCs) competed for franchises. Franchises of any kind normally offer the franchisee some sort of local monopoly. Many TOCs, however, could expect to face competition from other operators on the same route (e.g. a suburban operator facing competition from a mainline operator). This led to unanticipated consequences.

Faced with the prospect of operating in a competitive environment, many franchise bidders demanded a subsidy. Other things being equal, therefore, the successful bidder was the one that required the smallest subsidy. When the value of these subsidies was aggregated, it could be seen that the system initially ran at a greater loss than it had done under nationalisation[26]. As a result the government was eventually forced to offer franchisees a near-monopoly of traffic on their routes in order to reduce the levels of subsidy.

Competition issues were further complicated by provision for 'open access operators', who provided additional services over tracks already used by regular franchisees. These operators typically provided direct services to and from branches that fed into a mainline system. They claimed to create additional customers, but the main line franchisees alleged that they were simply 'abstracting' existing traffic to which they were entitled. Most open access operators were therefore prevented from serving intermediate stations on their main lines, and this reduced the quality of service they provided. This issue has never been fully resolved[27].

There were also problems with quality of service. The Treasury had anticipated that the operators would develop powerful consumer brands and would offer high quality services to maintain the value of those brands. But most operators realised that, as they did not control the infrastructure, or the operation of connecting services, they could not guarantee their quality of service, and therefore did not use their established brands. There were two exceptions; one ceased operation recently on the West coast main line, and the other changed its name. Two of the leading 'brands' are currently named after a 'Big Four' companies!

Some early franchises were held by teams of experienced railway managers, who strove to maintain traditional standards of service, but bus, ship and air operators gradually took

over. They were skilled in competitive bidding and lobbying. In one case railway managers who had secured a competitive bid were later bought out by a bus operator who improved financial performance by cost savings that reduced the quality of service.

Fragmentation and conflicts of interest

Regulation of the system was fragmented between the Department for Transport, the Strategic Rail Authority and the Office of the Rail Regulator (ORR). Operations were further fragmented between the franchisees, rolling stock owners and the owner of the infrastructure, Railtrack, not to mention their numerous subcontractors. Railtrack later went bankrupt, following a spate of accidents and its failure to upgrade the West Coast main line. Network Rail, the company that replaced it, is effectively state-owned, though legally independent.

Customer protection was the responsibility of the same department of government that let the franchises. Ministers faced a conflict of interest: the more rigorously they enforced customer protection, the lower the payment they could expect to extract from franchisees. Several rail-user pressure groups emerged to represent the customer interest, but they had little influence. A particular problem arose when a winner of a franchise realised that they had over-bid; they economised on service quality (e.g. Northern Rail) or simply handed back the franchise (e.g. GNER). To discourage this attitude the regulator began to require performance bonds, but these practices have still continued on certain routes. Overall the regulators did little to protect the customers.

Perverse incentives

Customer service standards were often low because of the absence of a powerful brand. Standards were therefore upheld mainly by regulation – e.g. penalties for running late and for cancelling trains. These penalties were set by the regulator and not by the threat of customer-switching, When the regulator set the wrong level of fines perverse incentives were created. Setting the penalty for cancellation too low caused late running trains to be cancelled, so that they could start their next journey on time. Low cancellation penalties created other problems too. Some operators trained too few train drivers to operate a full service, and relied on their drivers working overtime. When they refused, trains were cancelled. It took the regulator a very long time to 'learn the job'. Meanwhile customer dissatisfaction increased dramatically, particularly in the north-west.

There were disputes over *revenue attribution.* Franchisee revenues were not directly collected (as originally planned) but imputed to operators using the ORCATS system, which was a legacy of the former British Rail operations research division. This system allocated revenue from operators sharing the same route using a statistical model in which passengers arrived at random at each station and caught the train that would get them earliest to their destination (i.e. not necessarily the first or the fastest train). This system

ignored some key factors, such as the number of seats available on different types of train. Open access operators operating short trains were regularly accused of 'gaming' the ORCATS system by established franchisees operating longer trains[28].

There were very costly disputes over *delay attribution.* Separation of 'wheel and rail' between the train operators and Railtrack created an administrative burden of delay attribution, involving signal boxes, franchisee headquarters, and the ORR. A typical problem would arise over congestion at a station, with the operator blaming Railtrack for signalling delays and platform congestion and Railtrack blaming the operator for slow running or excessive 'dwell time'. Both parties invested heavily in demanding compensation from the other, as they regarded compensation as part of their revenue stream. The ultimate burden was paid mainly by the passenger, as lack of co-operation between the rival parties reduced the quality of service.

Some unregulated fares were increased to very high levels. More recently road congestion and rising parking charges have made rail the only way to travel for some passengers on particular routes. But due to capacity limitations, over-crowding has resulted; this has provided operators with a justification for 'pricing people off the train' by setting unregulated fares at high levels. The 'founding father' of economics, Adam Smith, observed that when people had no alternative but to travel by road, a private road operator might find that the most profitable strategy was to provide poor quality roads and charge very high tolls[29]. The same effect can be observed on the rail system. High fares do not necessarily represent a premium for luxury travel; they simply indicate what the operators believe 'the market will bear' for basic travel.

High fares have deterred people from switching from road to rail. In some cases it has meant the peak-hour passengers are priced off an environmentally friendly electrified railway onto polluting roads that pass through densely populated residential areas.

Benefits of privatisation

Rail passenger traffic grew dramatically in the twenty-first century. Road congestion and city-centre parking restrictions increased demand for inter-city business travel. University expansion increased student demand for weekend travel, while rising population and increasing affluence increased the demand for leisure travel. The growth of cities, notably London, increased suburban commuting by office workers.

To meet this increased demand, new trains were introduced on many mainline and suburban routes, particularly in London and the South-east, allowing older rolling stock to be cascaded down to secondary and provincial routes. While this increased passenger capacity overall, the design of the new trains did little to increase customer comfort (see above). On-train catering on long-distance trains is now increasingly provided from a trolley rather than a buffet car, many dining facilities have been withdrawn, and luggage space is

inadequate. On the other hand, free wi-fi has become standard on many services. Standard fares are high compared to other countries; advance purchase off-peak tickets are relatively cheap, however, although seat reservation is often compulsory.

Several bottlenecks on the network have been successfully removed, e.g. by the Allington chord north of Grantham. There has also been further main line electrification, although some schemes (e.g. the Great Western line from Didcot to Oxford) have been delayed or only partially completed. In addition, some secondary lines have been re-opened (e.g. the Ebbw Vale line) although often with financial assistance from local authorities. Community groups also bear some of the expenses incurred on rural lines.

Freight traffic to container ports has increased significantly and there has been additional investment in freight-handling facilities. Mineral traffic has continued to fall as coal-fired power-stations have been phased out, although some quarry traffic still remains.

It is premature to evaluate privatisation from a public service perspective. It is fair to say, however, that it has been an ideological experiment carried out at passengers' expense. The exceptional degree of fragmentation introduced at the outset reflected a view that markets specially created within the industry would work exactly as intended, and that any market failure could be corrected by smart regulation. It was intended as a model for other countries to follow, and ignored familiar precedents, such as the Big Four companies or the six British Rail regions. It also ignored the problems experienced by other countries operating private systems. Its advocates believe that eventually the regulators will get it right; its critics say that the experiment has run for long enough and the time is ripe to return to an alternative tried and tested model.

Summary and conclusions

The conclusions may be summarised using a question and answer format. The two main questions asked at the outset can be resolved into ten specific questions, as set out below.

Did the railways pursue a public service agenda? Yes. Public service was a major feature of railway operations, but it was much more important at some times than at others.

Why did they do that? To begin with, because government regulation compelled it. Regulations became increasingly strict during the Maturity phase, 1870-1914. Later, accepting public service obligations helped the railways to win government support when they needed it, e.g. to obtain restrictions on road competition after World War I.

Did public service obligations reduce profitability? Yes, definitely. Public service obligations could be very costly. Some, such a safety improvements, were intended to benefit everyone, both passengers and workers. Other investments were made for the benefit of first-class passengers, and some of these indirectly benefited third-class passengers too. But there was a trade-off. Pursuing public service objectives diverted scarce funds from other

forms of railway investment that would probably have been more profitable for shareholders.

When, if at all, was public service on the railways at its zenith? In 1914. Before this date the network was still under development, with several major projects in hand (e.g. the Great Central London extension, Great Western cut-offs, quadrupling primary routes, and early suburban electrification). After this date came the war, followed by economic recession. The railway races of the 1930s were publicity stunts and did not reflect the daily experiences of railway passengers. The Maturity period, 1870-1914, witnessed a long period of sustained government intervention with railway policy. It was this period of consistent policy, rigorously applied, that was mainly responsible for the zenith of public service in 1914.

How good was the public service provided by the railways? Quite good at the zenith, but it could have been even better. Passenger timetables show that express trains on trunk routes ran throughout the day, often using clock face departures; connections were provided at specialised hubs; and through coaches reduced the inconvenience of changing trains. High-frequency suburban services operated in large urban areas. There was a good range of cross-country services; but these were often slow because the routes were indirect and relied on the use of secondary lines. The quality of service delivered to the passenger depended heavily on powerful locomotives and punctuality to maintain connections.

Did the speculative nature of construction in the Mania period impede the subsequent delivery of public service? Yes. It burdened the railways with high fixed operating costs and left them with a limited set of cross–country primary routes. High fixed costs absorbed income that could have been used to finance major investments, such as mainline electrification, which was deferred for more than thirty years because of capital constraints.

Did public service requirements have differential impacts? Yes: the impact was greater for passenger traffic than freight traffic; it was also greater for rural traffic than inter-city traffic. Public service obligations kept open many rural lines from the 1930s to the 1960s, when they were closed in the Beeching cuts. These lines provided local employment, a service to local businesses (e.g. coal merchants) and a skeleton passenger service for those unable to travel by bus.

Were public service obligations discharged in an efficient way? Not always. Safety systems, including signalling and braking, were not standardised across companies, and this complicated the operation of through services. Over-staffing and restrictive trades union practices did little to improve the quality of services during inter-war recession, but were tolerated as a form of job-preservation. Opportunities to develop an integrated regional or national multi-modal freight service were hampered both by indecisive government transport policy and the railways' reluctance to contemplate road-only services on long-distance routes.

Who benefited most from public service obligations; workers, managers, or shareholders? Managers probably benefitted most. Workers in general gained a lot from the legalisation of trade unions and improved working conditions; railway workers in particular benefitted from the safeguarding of their jobs. Managers gained from the fact that they still had a lot of workers to manage, and a lot of trains to timetable, even when some trains ran almost empty. Shareholders gained because, although dividends declined from 1870 onwards, they benefitted financially from the grouping in 1923, and the government eventually bought them out in 1948 on generous terms.

Overall, what were the main factors that drove the development of the public service railway? There were four main factors, as illustrated in Table 7.

Economic prosperity. Without prosperity passengers cannot afford the fares and freight revenue declines; there are no funds for the companies to invest

A substantial modal share of traffic. When they had a high modal share, railways became part of the culture of the country. But when most people travelled by road, few people cared about a public service railway.

Co-operation, not competition, between companies. Experience suggests that competition between railway companies drives down price only temporarily before the competitors come to terms; co-operation, on the other hand, drives up the quality of service, attracts new customers, and encourages the companies to adopt a long-term low-fares policy.

Social conscience. There was something distinctive about the culture of the period leading to the zenith of the system. It was not social cohesion – there has been class conflict throughout British history – but rather social conscience. In the heyday of the public service railway the social elite wanted to heal class divisions, and they believed that they had the knowledge and skills – and the sympathy – to do it. The working class, the elite believed, were asking 'What has the British empire ever done for us?' Their answer was 'It's given you higher wages, longer holidays and a first-class railway system'.

In a country that founded the railway system, Britain's railways were, a century ago, a part of the national identity. At a time when the country was becoming divided on issues of worker's rights and women's rights, a shared pride in the railways, it could be said, was something that held people together. The national railway system of today seems to have lost that role, though heritage railways still preserve the memory of it. It may yet return, but it will probably take a major shift in ideology and culture to bring that about.

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Table 1. Changes in the railway operating environment: seven key phases

Period	Phase	Key factors affecting the national railway system
1825-45	Experimental phase	Improved technologies (locomotives, track, etc.) increased productivity and quality of service. Superior speed and reliability eliminated most road and canal competition
1845-70	Boom and bust	The period was dominated by two 'railway manias' (1845, 1860-6) with an intervening recession. Access to finance dictated which lines were built. Mergers generated regional companies, with boundaries contested by neighbouring companies.
1870-1914	Maturity	An era of major social and political change. Increased government regulation. Rise of trade union power. Some competition from trams and coastal shipping.
1918-1939	Consolidation and survival	Inter-modal competition intensifies due to the growth of bus, lorry and air transport (domestic and continental). Inter-company competition becomes relatively superficial
1945-1964	Nationalisation	Rail passengers switch to cars for both business and leisure travel. Wagon-load and parcels traffic switches to the road Labour shortages encourage a switch from steam to diesel power.
1964-94	Rationalisation	Motorways speed up inter-city travel by car and facilitate long-distance lorry traffic. International jet travel undermines domestic holiday traffic
1994-2020	Privatisation	Road congestion and parking charges stimulate passenger traffic and the building of 'parkway' stations. Growth of London as a 'world city'

Table 2. Phases of public service provision

Period	Balance	Remarks
1825-45	Private profit with limited public service constraints	Maximum fares per mile. Parliamentary approval of new construction. Board of Trade regulation of operations
1845-70	Private profit with public service obligations	Parliamentary trains (1844). Common carriage of goods (1854)
1870-1914	Private profit from delivery of a public service	Safety regulations (signalling, braking, etc.); workmen's trains, shorter working hours, etc.
1918-1939	Public service provision with profit incentives	Bureaucratic professional management Uneconomic lines retained
1945-1964	Public service with limited budget constraints	Nationalisation with six regions. Standard steam locomotives. Dieselisation (1955). Beeching cuts (1963-4)
1964-94	Public service with tight budget constraints	Targeted innovations: Freightliner (1965-8), HST (1976) Sectorisation (1982)
1994-2020	Private profit with public regulation	Franchising, revenue attribution, separation of track and train. A move towards subcontracting

Table 3. Tourism: market segments

Activity	Journey	UK destinations
Seaside: sunshine & entertainment	Workers' day trips or holiday weeks	Blackpool, Brighton, Llandudno, Scarborough
Seaside; exclusive resort	White collar and elite; weekly stay	Bournemouth, Torbay
Spa: recuperation	Elderly elite; long stay	Bath, Buxton, Harrogate, Llandrindod Wells
Sporting: golf, shooting, walking	Business & aristocratic elite; variable stay	Gleneagles, Aviemore
Landscape appreciation	White collar and elite variable stay	Lakes, Cornwall, Norfolk, Peak district
Domestic pilgrimage	Day-trip or short stay	Canterbury, York
International: business trips and cultural appreciation	Elite long-stay	Continental ports

Table 4. Elite travel: dimensions of quality of service

Issue	Passenger requirements	Solutions
Travel to station	Convenient access to station; easy to purchase ticket	Stations in convenient locations
Luggage assistance	Luggage in advance delivered to hotel	Porters, luggage vans
Convenient schedule	After-breakfast departure; long journeys may be overnight	Dining cars and sleeping cars
Relaxing journey	Comfortable facing window seat; smooth ride; scenery	Advance seat reservation system; corridor stock with toilets
Refreshments	Meals and bar facilities	Dining car, station buffets
Ferry services	Luxury shipping vessels	Integration of station, transit lounges and harbour/pier
Access to destination	Smooth transfer to residential accommodation	Station hotel or associated hotel
Resort activities	Golf course; lake cruise	Concessionary rates for passengers; ownership or co-ownership of facilities

Table 5 Inter-company relations c.1890

	LNWR	MR	GWR	LSWR	GNR	GER	L&YR	NER	GCR
LNWR		N	R		R		A		R
MR	N		N	F	R	N	F	F	R
GWR	R	N		N					F
LSWR		F	N						
GNR	R	R				R	R	F	A
GER		N			R				
L&YR	A	F			R			F	
NER		F			F		F		F
GCR	R	R	F		A		F	F	

Key: *F*: Friend; *R*: Rival; *N*: Enemy; *A*: Ambiguous. *Note*: For simplicity this table excludes smaller companies and companies based mainly in Scotland and the south-east.

Table 6: Factors causing the decline of industrial exports in inter-war Britain

Cause	Explanation
Wartime interruption of supplies, 1914-8	Factories were diverted to the production of munitions. Imports of raw materials were disrupted by a shortage of shipping and by the war at sea. Railways lost commercial traffic both to and from ports, but gained traffic from the movement of troops. After the war the freight traffic did not return for reasons explained below
Import-substitution by overseas countries, 1918-39	During the war overseas counties, including colonies and dominions, established domestic factories to produce goods that they could no longer import from Britain. When the war ended they kept open these factories to retain the new jobs, and so no further imports were required from Britain
Return to the Gold Standard at pre-war parity, 1925	When Britain returned to the gold standard at the pre-war parity against the dollar in 1925 it was at least 15 per cent over-valued. The government assumed that money wages would fall across the board by 15 per cent to compensate for this. The trades unions resisted wage cuts and the General Strike ensued. The railway workers were part of the militant Triple Alliance, which included the miners, with whom they made common cause. Exports and imports were disrupted again.
Wall Street crash, 1929	The US economy boomed 1919-29, but speculation brought ruin to many in the ensuing Crash. The Crash destroyed business confidence world-wide and discouraged new investment. This reduced the demand for ships and heavy engineering equipment produced in Britain. Demand did not return until rearmament commenced c.1935.
Cheap coal exports from Germany and exhaustion of some Welsh mines, 1922-	The post-war settlement at Versailles imposed heavy reparations on Germany at the insistence of France. The deutschemark depreciated and German wages fell, making coal from the Ruhr very cheap. Meanwhile exhaustion of mines was making British coal more expensive. Foreign countries switched to German coal instead.

Table 7. Conclusion: Factors influencing the provision of public service

Phase	Prosperity	Modal share of traffic	Internal co-operation	Social conscience	Overall rating	Public service rating
1825-45	L	L	L	L	L	L
1845-70	H	L	L	L	M	L
1870-1914	H	H	H	H	VH	H
1918-39	L	H	H	L	M	H
1945-64	L	L	A	H	M	H
1964-94	L	L	A	L	L	L
1994-2020	H	L	L	L	L	L

Note: Prosperity: Rate of growth of GDP; Modal share: Estimated percentage of total traffic carried by rail; Internal cooperation: cooperation between companies or between divisions in the nationalised system. Social conscience: the attitude and ideology of regulators and policy-makers. Overall rating: An average of the previous four ratings, rounded to the nearest category. Public service rating: rating of public service as described in the main text. Ratings categories: VH: very high; H: High; M: medium; L: Low.