

GB rail: better services, better journeys and better value

Dataset on industry finances and performance
1997-98 – 2013-14

Summary

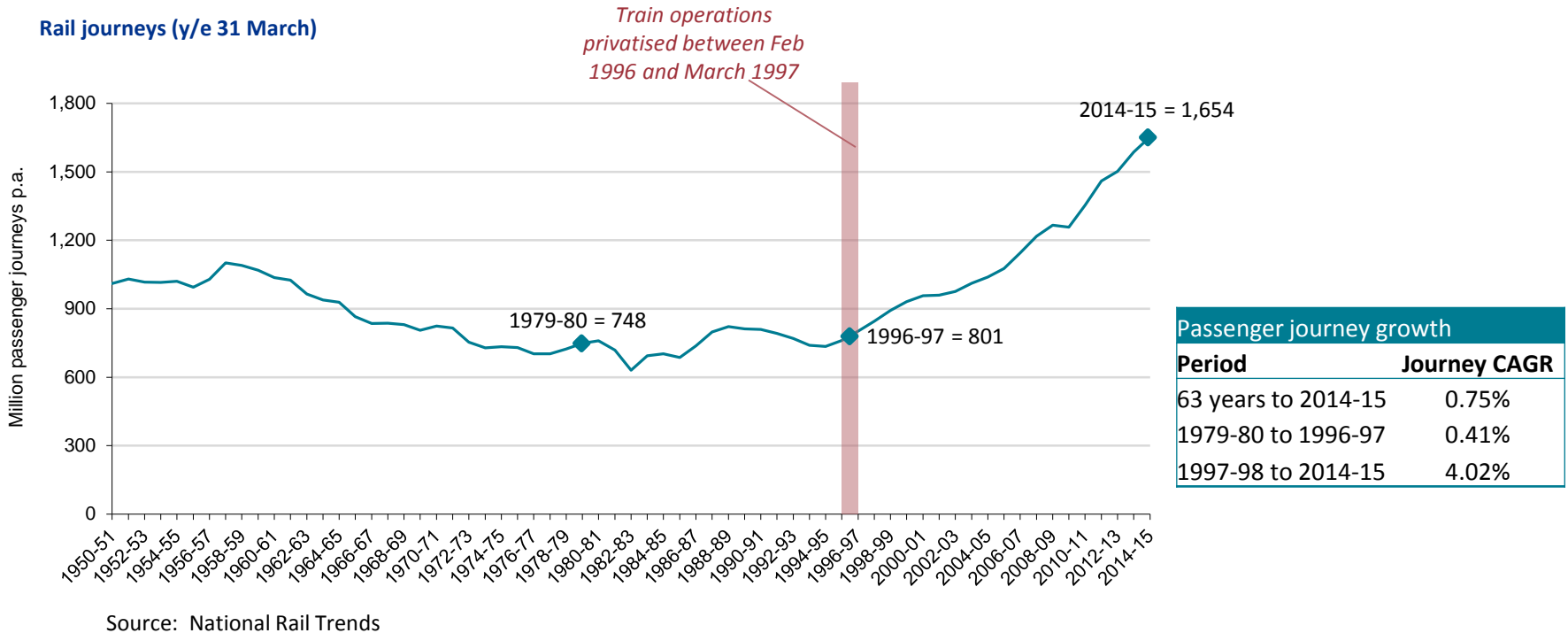
- A huge increase in passenger journeys and freight carried, combined with increasing industry efficiency and highly competitive freight and franchising markets, is transforming the finances of the railway.
- The passenger network now generates enough income (£9.5bn) to cover its day-to-day operating costs, while Government support (£3.8bn) is helping to fund Network Rail's ambitious capital programme.
- The surplus generated from train companies has more than tripled since 1997-98 in real terms (from £0.68bn to £2.51bn). The amount of this surplus returned to government has risen by £1.88bn, or almost six-fold, from £0.40bn to £2.28bn.
- At the same time, train company operating margins as a share of revenue were 2.3% in 2012-13 – compared to 3.6% in 1997-98. In real terms, train company profits have declined slightly from £0.28bn to £0.24bn. Taken together with the previous point, this shows how effective franchising has been in capturing value for the taxpayer.
- Across a range of indicators including safety, customer satisfaction, number of services and size of fleet, the railway has improved significantly since 1997-98.
- Against a backdrop of declining government funding and the price of rail travel remaining almost static in real terms, the industry is carrying more passengers punctually on one of Europe's busiest railways.

Background

- For the third year running, the rail industry has produced data on its performance and finances. In January 2013, the Association of Train Companies (ATOC) commissioned KPMG to collate the publicly-available industry data on passenger rail operations and analyse the key aspects of performance in the period since the introduction of franchising.
- ATOC published its report, *Growth and prosperity: how franchising helped transform the railway into a British success story*, in July 2013, which was based upon that dataset. In May 2014, the Rail Delivery Group (RDG) subsequently updated the data underpinning ATOC's report and extended the analysis to infrastructure and freight. Some of the data around infrastructure was provided directly by Network Rail and hence is not publicly available.
- This year, RDG commissioned KPMG again to update its 2014 work to include the latest data and to extend the analysis in certain areas. This dataset contains that updated data.
- Wherever possible data is presented from 1997/98 (the first full year of privatised rail operations) through to 2013/14. However, in a number of cases, this has not been possible
- Each graph or table is clearly labelled with its source. All prices are indexed to March 2014 unless stated otherwise

Better value for rail users – rail
industry financials

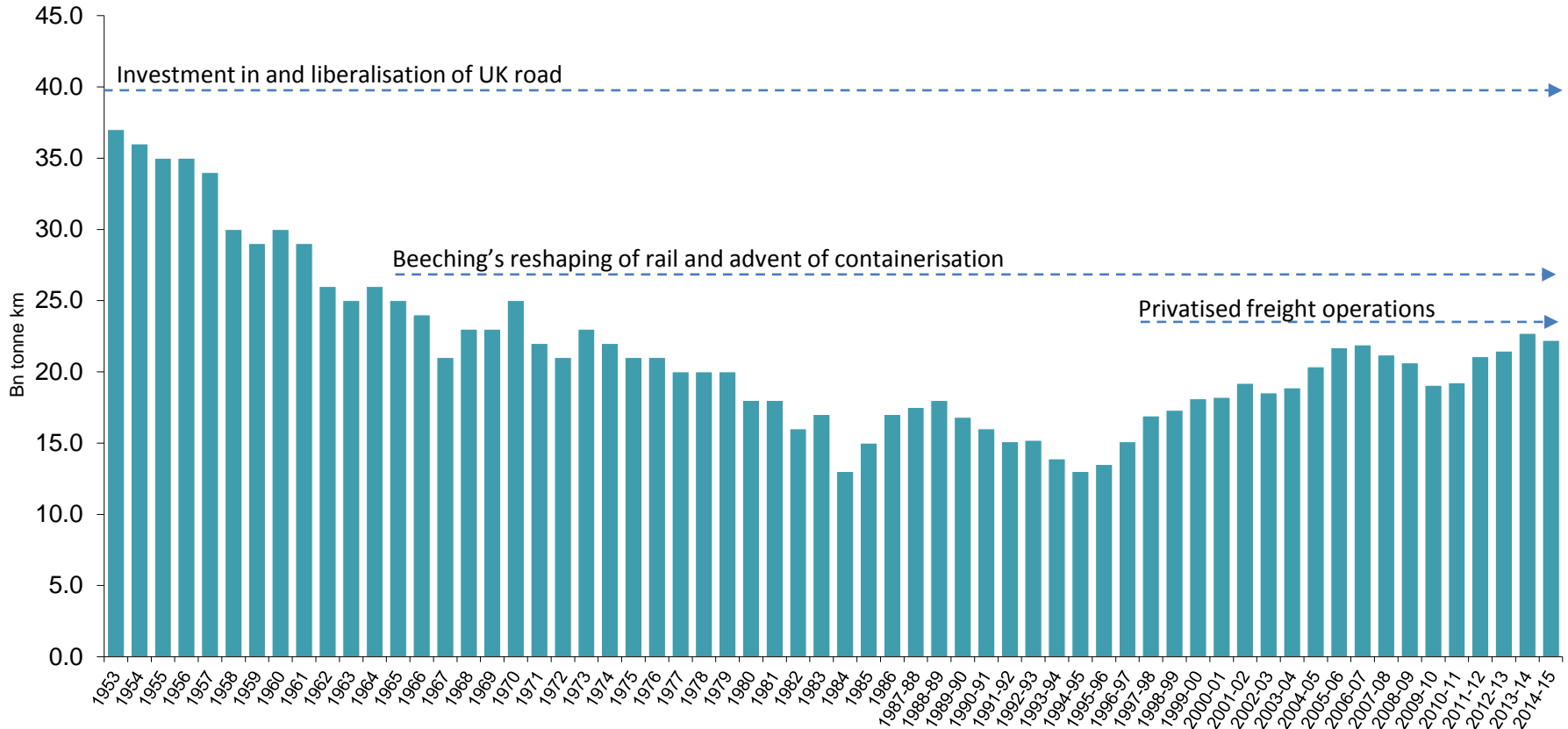
Passenger services - journey growth



Passenger numbers have more than doubled since 1996-97. Since 1997-98, annual growth in journeys has averaged 4%, compared to 0.4% in the previous 17 year period, a tenfold increase in the growth rate.

Growth - goods carried by rail freight

Before privatisation the rail freight industry was in steady decline

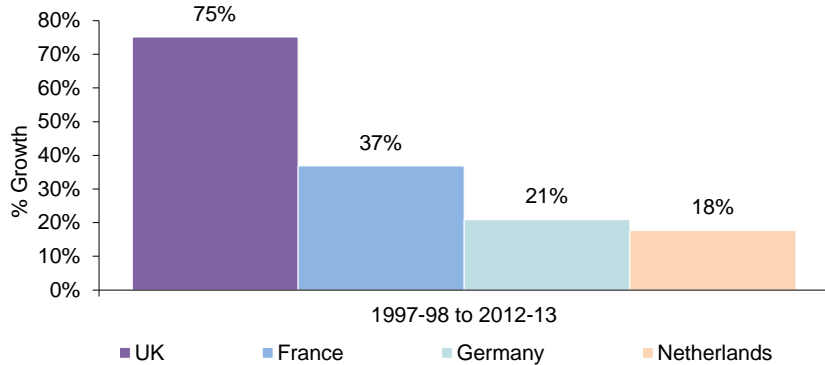


Source: National Rail Trends and Department for Transport

Privatisation and market forces have helped reverse this trend and driven growth of over 70% in freight volumes since mid-nineties.

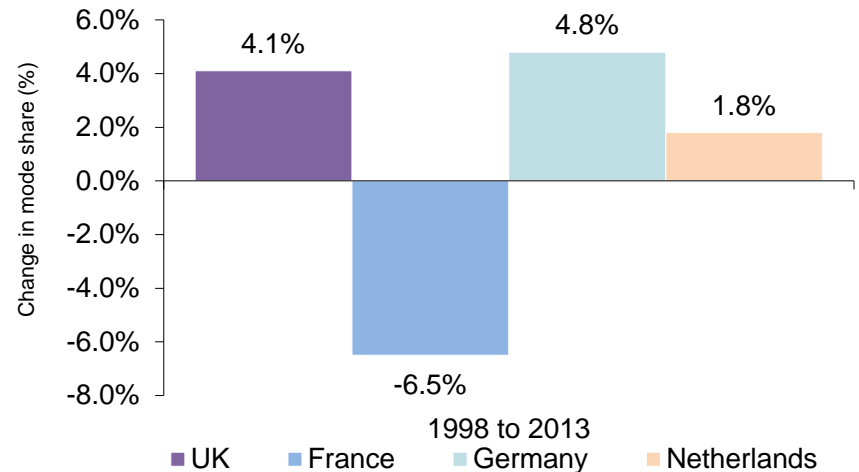
Comparison of growth with European peers

Comparative journey growth, UK and European networks



Source: UIC Rail ISA database

Comparative freight growth, UK and European networks



Source: Eurostat database

Rail journeys per head of population

	1998	2013	% Change
UK	15.4	24.7	+60%
France	14.1	17.7	+25%
Germany	20.2	24.9	+23%
Netherlands	18.8	20.6	+10%

Source: UIC Rail ISA and Eurostat databases

Since 1997-98, UK passenger growth has outstripped state-operated European comparators. Journeys per head of population in the UK has grown at more than twice the rate seen in France and Germany. UK freight has also outperformed comparators, except in Germany where the regulatory environment is more favourable (e.g. lorries are not permitted on roads on Sundays).

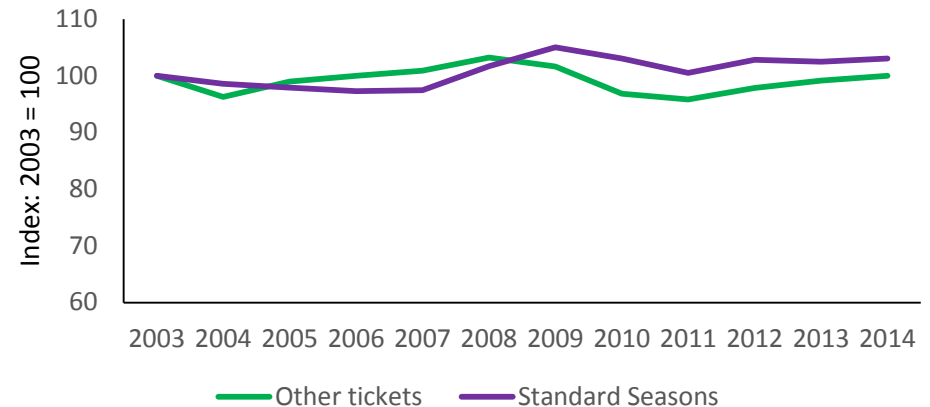
Price - average price per passenger mile

Average price per passenger mile

Average price paid per passenger mile			
2014 prices	1997-98	2013-14	% Change
Pence per mile	20.7p	22.1p	6.7%

Source: National Rail Trends

Average price paid per passenger mile , Standard Seasons & other tickets (y/e Dec 2014, March 2014 prices)



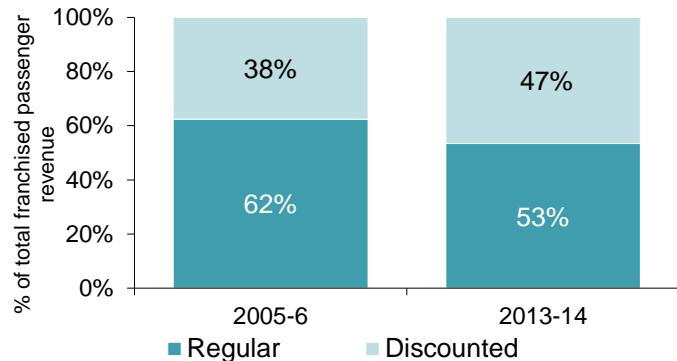
Source: Lennon data

In real terms, the average price paid per passenger mile (yield) has increased by 6.7% since 1997-98. This is significantly lower than reported headline increases in fares and reflects passengers purchasing more discounted tickets. Whilst Standard Season yields have increased slightly in real terms over the period as a result of government fares policy, yields from other ticket types in 2014 were at the same level as in 2003 in real terms.

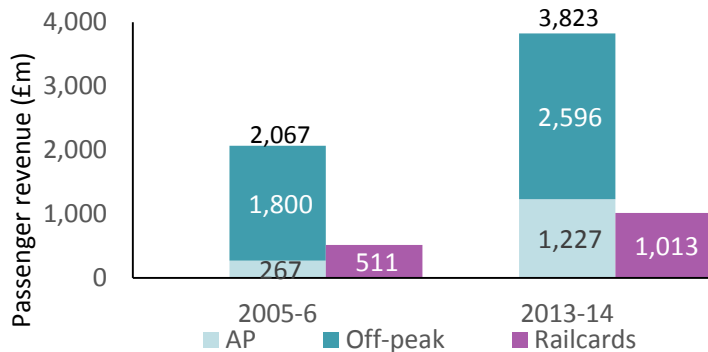
Sales - fares revenue and volume of tickets

REVENUE

Passenger revenue split by regular and discounted fares

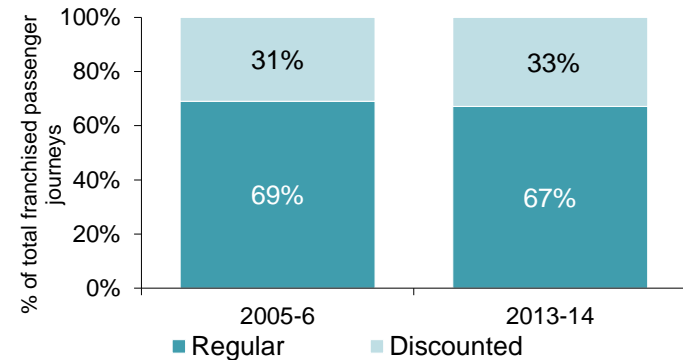


Revenue from Advance Purchase and Off-peak tickets and from journeys using a Railcard (2014 prices)

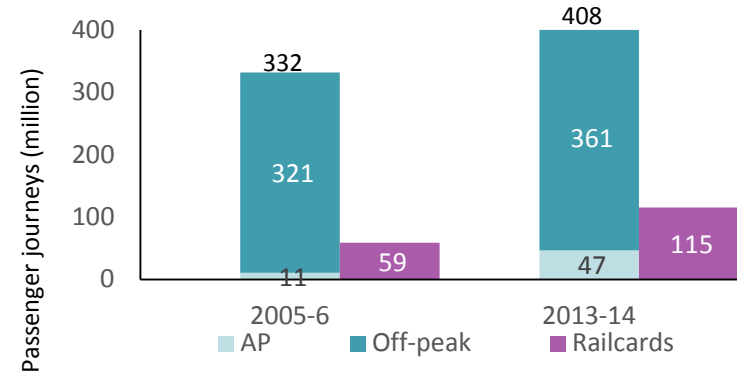


JOURNEYS

Passenger journeys split by regular and discounted fares



Passenger journeys made from Advance Purchase and Off-peak tickets and from journeys using a Railcard



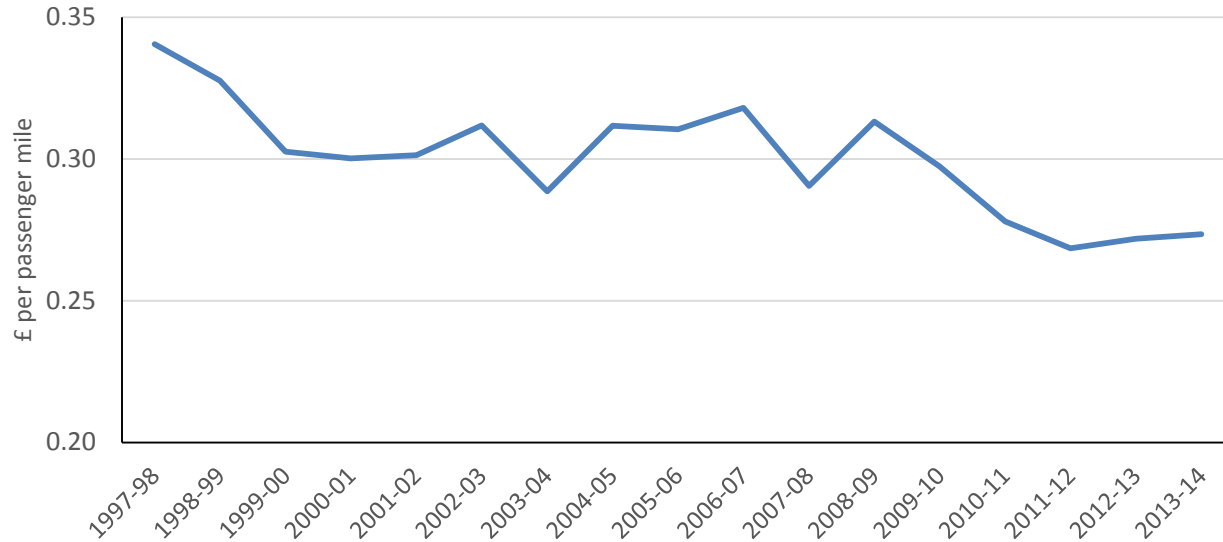
Source: Lennon data

Note: Regular defined as Anytime and Seasons. Other revenue, e.g. car parking and railcards, together with refunds, has been excluded

Nearly half of all passenger revenue comes from discounted tickets, up from 38% eight years ago, whilst the proportion of passenger journeys on discounted tickets has also increased. The revenue from, and number of journeys made, using Advance Purchase and Off-peak tickets has increased significantly.

Costs - train company unit costs

Train company operating costs (£) per passenger mile (2013-14 prices)



Source: Passenger km from National Rail Trends, train company operating costs from Rail Industry Monitor / analysis of train company accounts for 1997/98 to 2010/11 and GB rail industry financials for 2011/12 to 2013/14

Productivity of train company employees

Ratio of employees to passenger journeys			
	1997-98	2013-14	% Change
Ratio	1: 21,290	1: 30,523	+43%

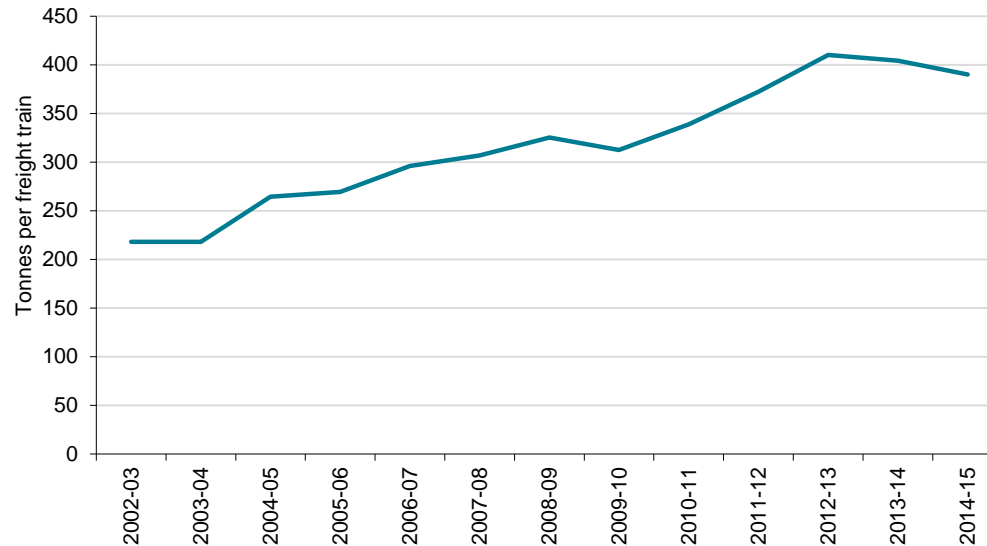
Source: Journeys from National Rail Trends, staff from train company accounts

Since 1997-98, the first full year of passenger rail franchising, train company operating costs per passenger mile have declined by 20% in real terms whilst the number of passenger journeys made per train company employee has increased by 43%.

Freight companies efficiency

Privatisation of rail freight has also helped drive improvements in freight efficiency.

Improved productivity of freight services



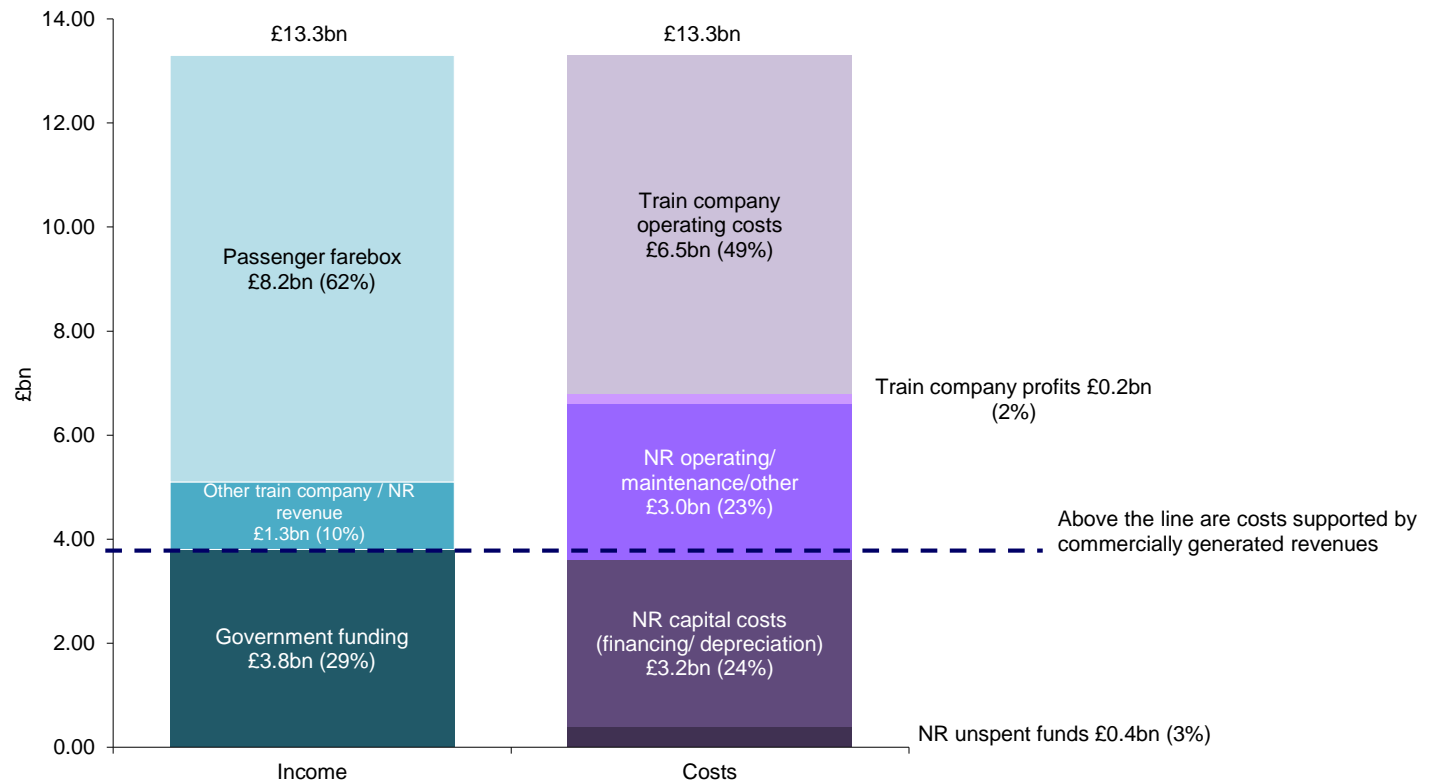
Source: National Rail Trends

Freight efficiency has improved due to a move towards longer and heavier trains. The number of freight trains run has fallen by approximately a third since 2002-3 but tonne miles have increased by 20% over the same period, a net increase of 79% in tonnes per train.

Better value for taxpayers – rail industry financials

Financial performance – analysis of industry revenues and costs

Industry financials £bn financial year ending March 2014



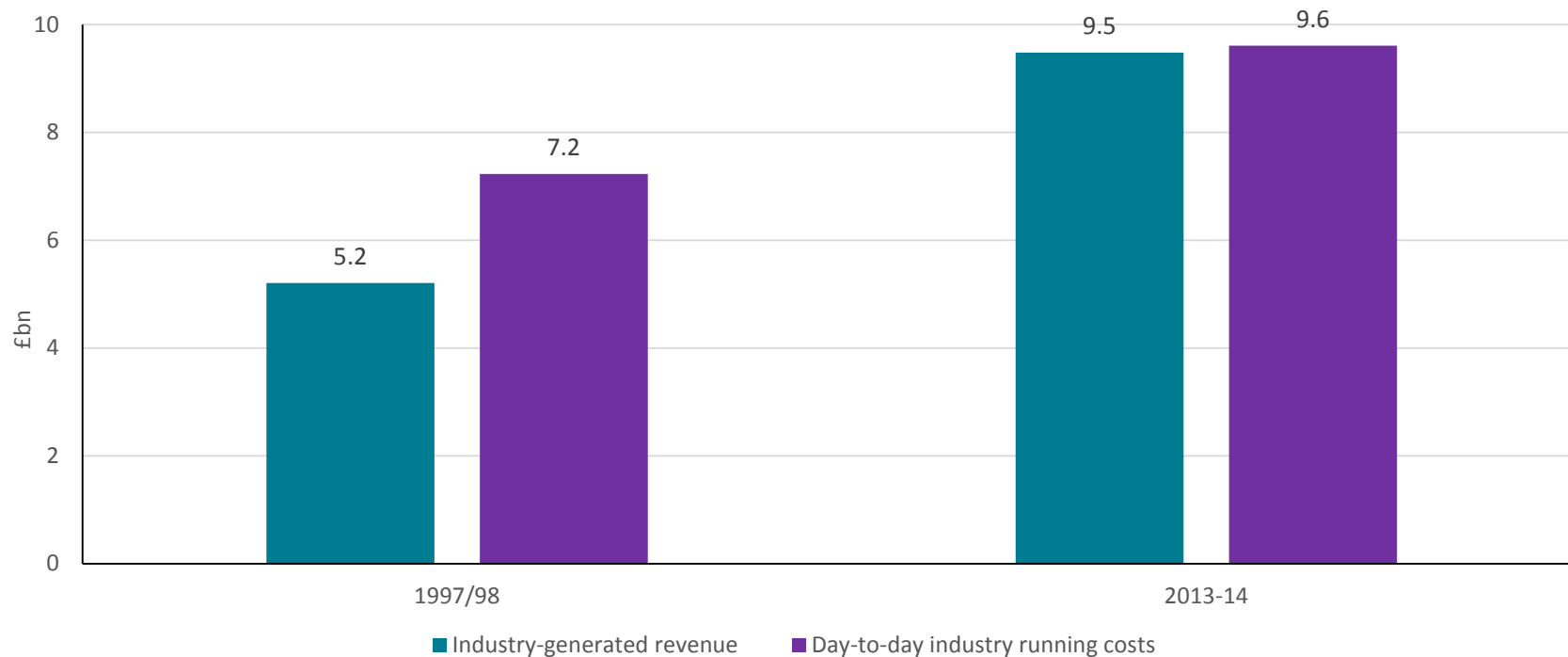
Source: ORR GB Rail Financial Information 2013-14 and National Rail Trends

Notes: NR revenue includes income from track access charges, traction electricity and stations, less charges paid to NR by train companies
 Network Rail unspent funds is money allocated to NR but not yet spent. All income and costs are pre tax.

£9.5bn of revenue from passenger fares, other train company and NR commercial activity almost covers the day-to-day running of the railway. Government funding of £3.8bn to Network Rail supports its capital programme to enhance the rail infrastructure. This is the same level of Government support for the railway as in 1994-95 in real terms.

Net direct government support to train companies has been transformed. In 2001-02, this support was £1.5bn. In 2013-14 net government support was £140m.

Financial performance - coverage of network running costs by industry generated revenues



Source: ORR GB Rail Industry financials, analysis of train company accounts, NR Regulatory accounts and Railtrack 1997/98 annual accounts

Note that Industry-generated revenue = Passenger farebox + other train company revenue + NR single till income

Day-to-day industry running costs = train company costs (excluding track access charges and franchise premium) + NR operating and maintenance costs + train company profits

Since 1997-98, day-to-day industry costs have increasingly been covered by non-government revenues. Industry-generated revenue covered 99% of industry running costs in 2013-14 compared with 72% in 1997-98.

Financial performance - train companies

Aggregate train company-controlled costs and revenue – 2014 prices				
£bn	1997-98	2013-14	Change	% Change
Passenger revenue	4.3	8.2	+3.8	+88%
Other train company revenue	0.6	0.8	+0.2	+29%
Total train company revenue	4.9	8.9	+4.0	+81%
Staff costs ¹	1.4	2.5	+1.1	+78%
Rolling stock leasing	1.3	1.3	+0.0	0%
Other operating costs ²	1.6	2.7	+1.1	+70%
Total train company-owned costs	4.3	6.4	+2.2	+51%
Surplus generated by train operations	0.68	2.51	+1.83	+269%

¹ Since 1997-98, the aggregate number of staff employed by train companies has increased by 31% from 39,721 to 51,975, this is in response to passenger growth and the increase in services operated.

² These include fuel, train maintenance, HQ costs among others.

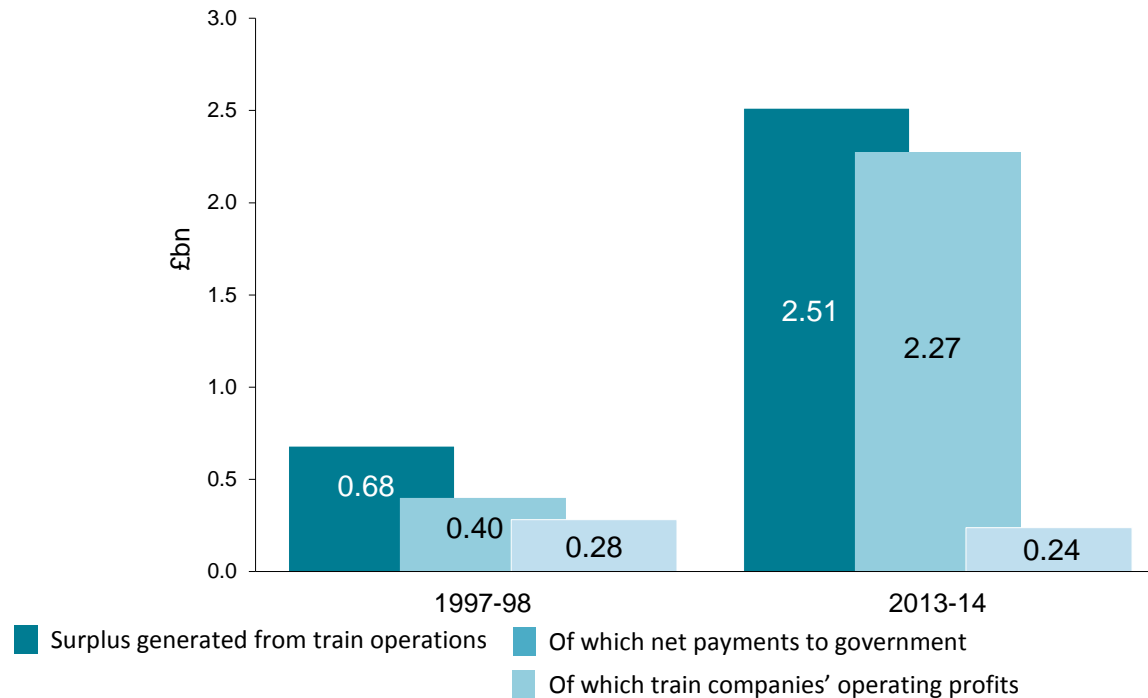
Surplus generated by train operations comprises revenues generated by the train operators less those cost lines they can control (staff, rolling stock and other operating costs). It has been calculated to show the value generated by the train companies before payments are made either towards the network's infrastructure costs, their own shareholders or to/from Government. The analysis covers all train companies and concessions, including those managed by DfT, Merseytravel, Scottish Ministers, the Mayor of London and the Welsh Government.

Source: RDG analysis of train company accounts (1997-98), ORR and GB Rail Financial Information 2013-14

Note: These figures are before access charges are taken into account

The surplus generated by train operators has increased by £1.8bn since 1997-98, from £0.7bn to £2.5bn. 93% of the growth in revenue over this period has come from more passenger journeys, with just 7% the result of increased yield (i.e. increased revenue per journey). Slide 16 explains where this surplus goes.

Financial performance – train company surpluses

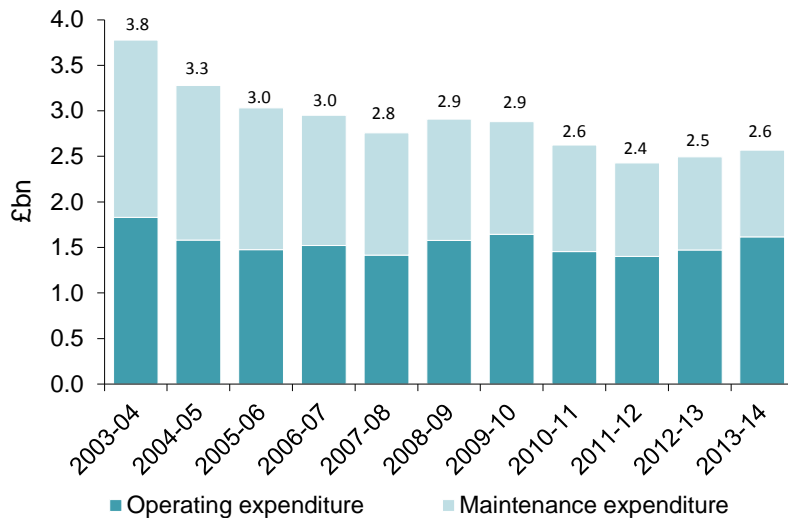


Source: RDG analysis of train company accounts, ORR and GB Rail Financials 2013-14

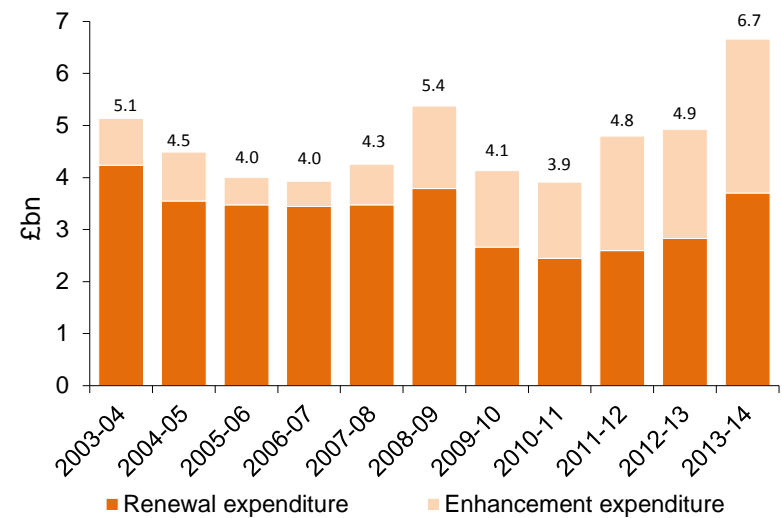
In 2013-14, £2.28bn from train operations went back to government, 470% more than the £0.4bn in 1997-98. Successive governments have chosen to reinvest these payments into the industry via Network Rail.

Costs - infrastructure expenditure

Network Rail operating and maintenance expenditure, 2014 prices



Network Rail renewal and enhancement expenditure, 2014 prices



Source: Network Rail Regulatory Accounts

The cost of running the railway (the amount NR spend on operations and maintenance) has, over the past ten years, been reduced by 32% through innovation, the introduction of new technology and in-sourcing some key activities. Investment by the government in the network on renewal and enhancement has on the other hand increased by 31% to respond to growth and demand.

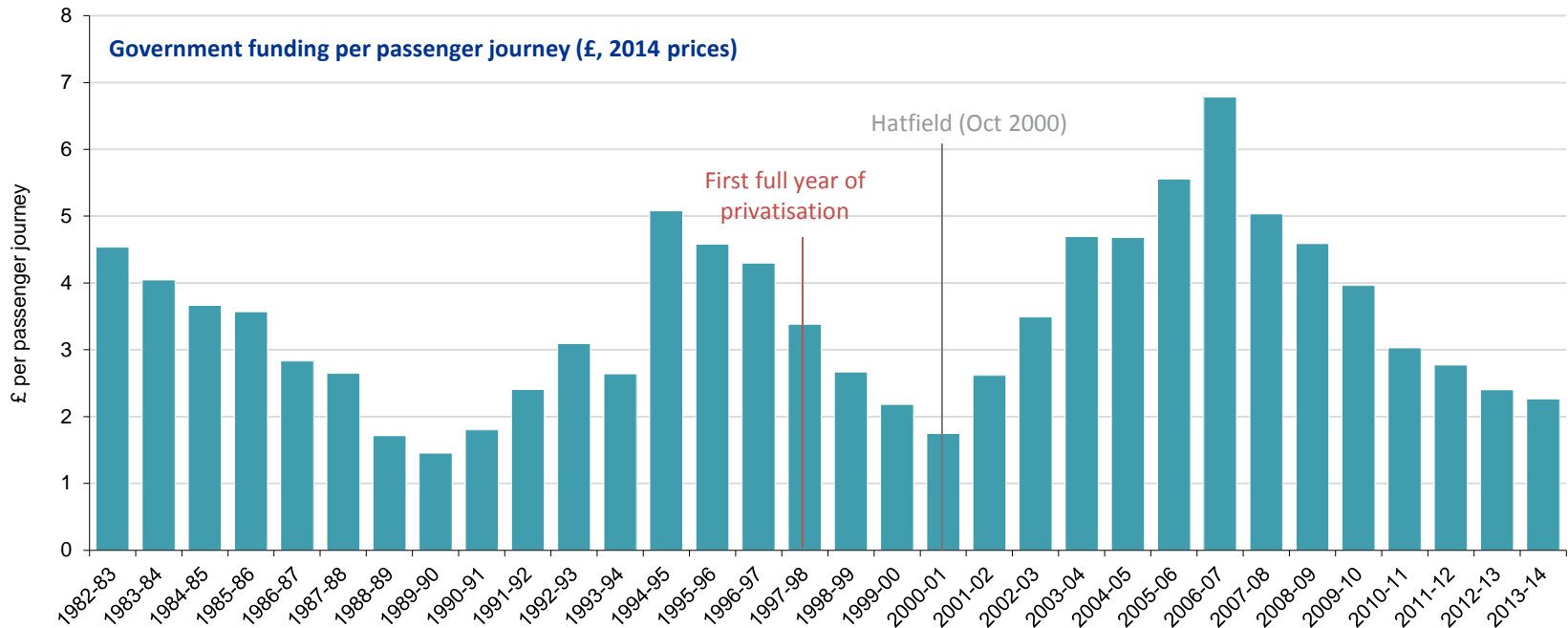
Costs – infrastructure per train mile



Source: Network Rail

Controllable operating costs have fallen 46% since 2003-04. Network Rail attributes this reduction primarily to the introduction of new technology, innovation and in-sourcing some key activities.

Financial performance - government funding per passenger journey

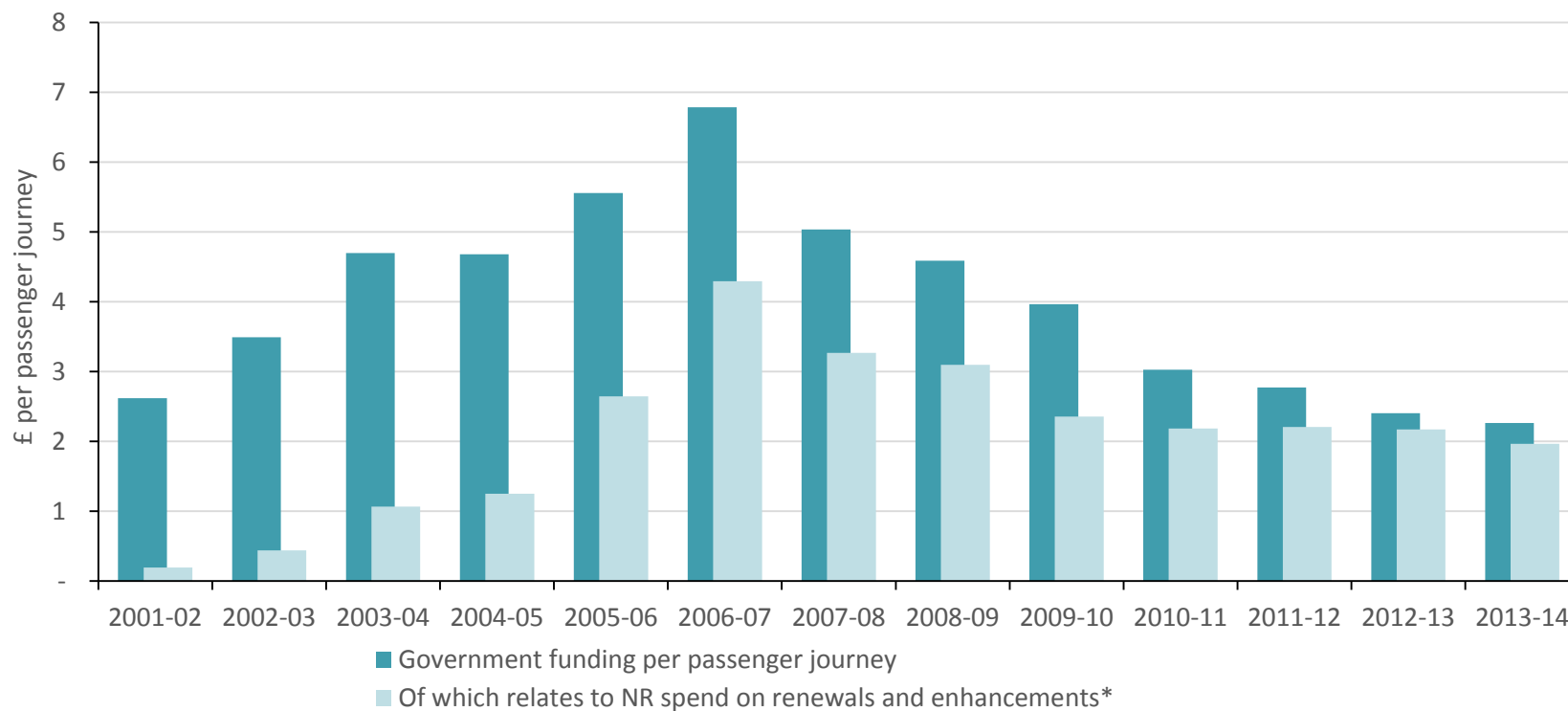


Source: National Rail Trends

Note: This chart excludes government expenditure on and receipts from major projects (e.g. Crossrail); a grant to British Rail to finance its residual activities; proceeds from the sales of ROSCOs and British Rail non-passenger business in 1995-96 and 1996-97.

Government funding per journey fell between 1994-95 and 2000-01. Support increased post-Hatfield, peaking in 2006-07. Support has declined since to £2.27 per journey in 2013-14, 33% lower than in 1997-98 (£3.38).

Financial performance – analysis of Government funding per passenger journey



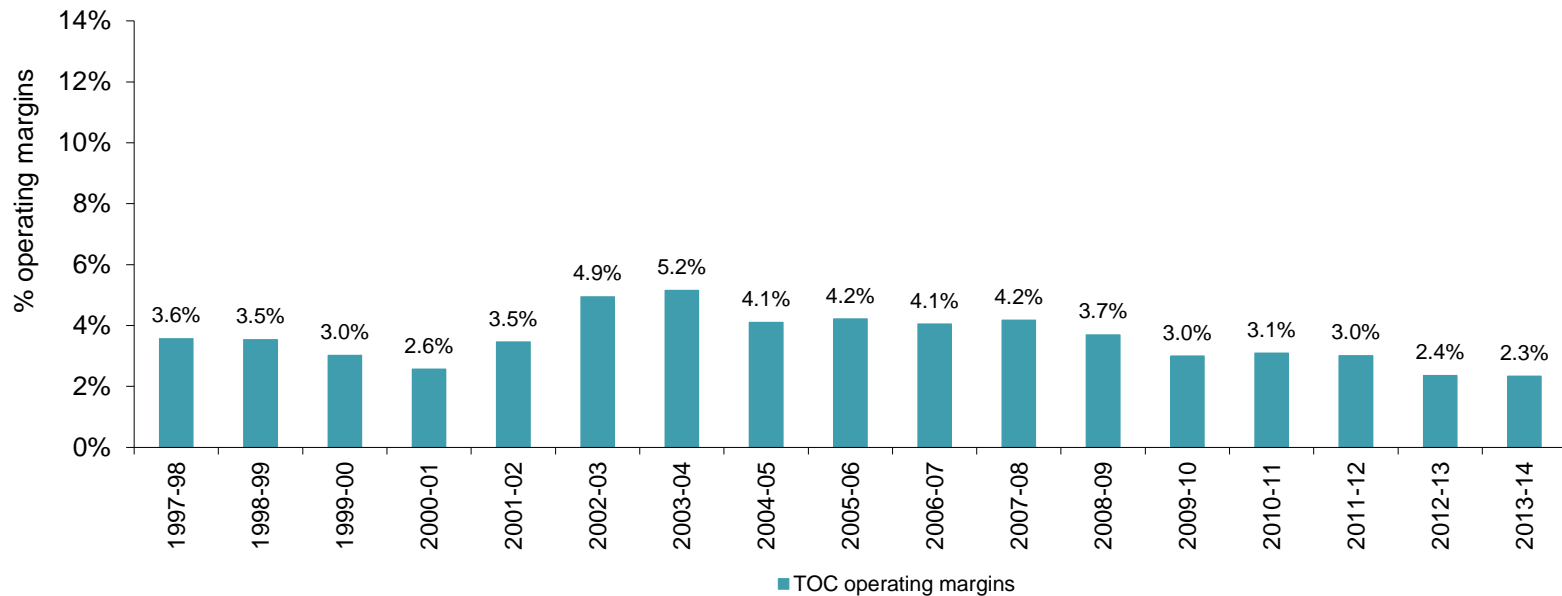
Source: NR Regulatory accounts and National Rail Trends

**Note: This is calculated as the sum of total government support to NR and track access charges paid to NR less NR's operating and maintenance spend*

In the early 2000s, most of government's funding was to address the maintenance backlog on the "steady state" network inherited by Network Rail. Since 2006-07, the majority of the funding has been used to renew and expand the network.

Financial performance - train company operating margins

Average train company operating margins



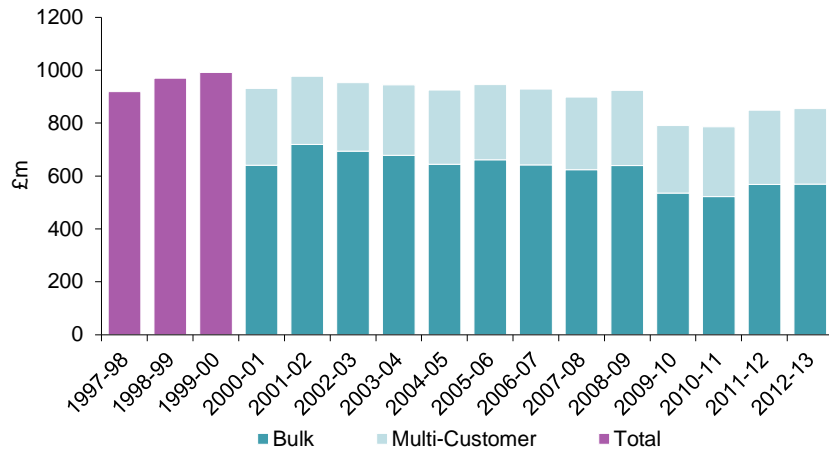
Note: From 1997/98 to 2010/11 margins quoted are per statutory accounts. Where necessary reported results are pro-rata to meet a 31 March y/e. Due to different year ends, 2012-13 is the latest year where accounts are available for all train companies

Source: Rail Industry Monitor / analysis of train company accounts for 1997/98 to 2010/11 and GB rail industry financials for 2011/12 to 2013/14

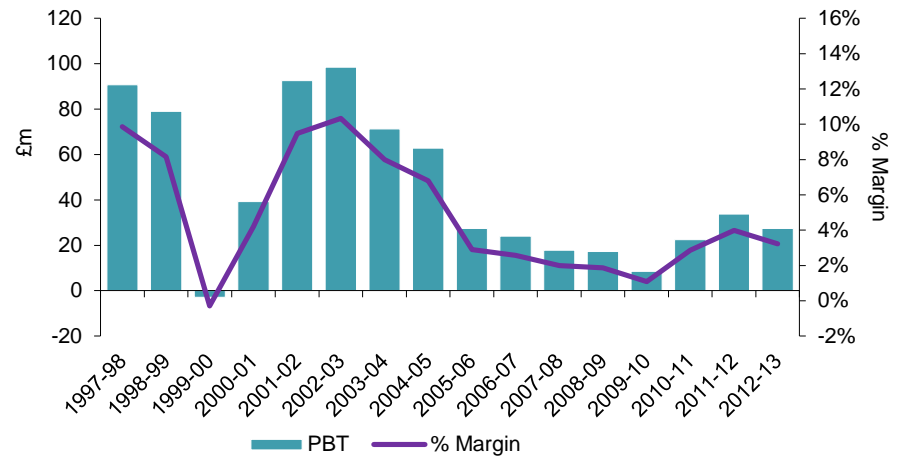
Operating margins as a share of revenue are at their lowest since franchising was introduced and are 36% lower now than they were in 1997-98. The combination of competitive bidding and the prolonged impact of the recession means that margins since 2009-10 are lower than in 1997-98.

Financial performance - freight companies revenue & operating margins

Rail freight revenue by market segment (2013 prices)



Rail freight profit (2013 prices)



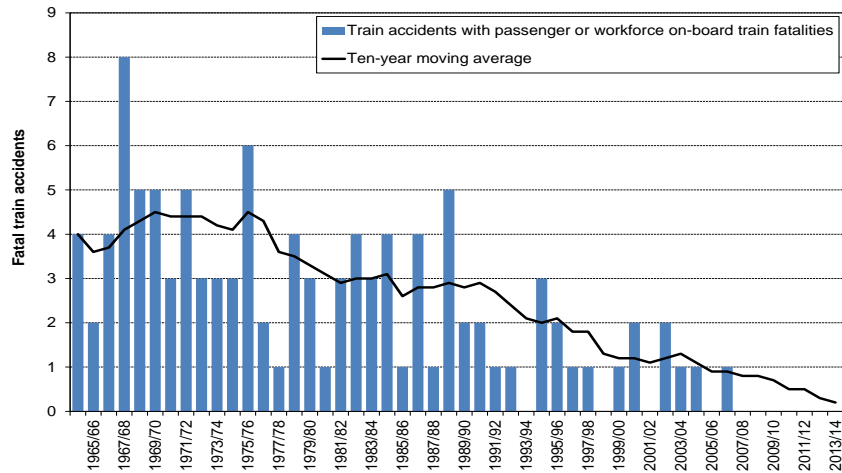
Source: RDG report “Keeping the lights on and the traffic moving” May 2014

Rail freight operators have an annual turnover of over £850m. Intense competition, both from roads and within the rail freight industry, has squeezed profits over recent years. The industry recorded profits before tax of £27m in 2012-13.

Better services

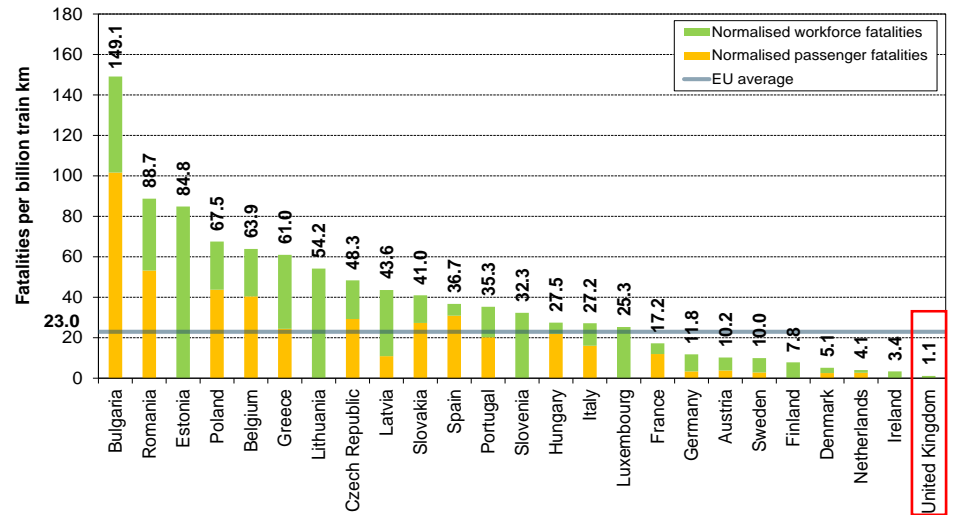
Safety

Train accidents with passenger or workforce on-board fatalities since 1965-66



Source: ORR for historical data and RSSB Safety Management Information System (SMIS) for recent statistics

European comparison – workforce and passenger fatalities



Source: Eurostat. The data covers the five-year period 2007-2012. Figures are normalised by train kilometres. Only accidents relating to railway vehicles in motion are included. The chart covers 25 members of the EU; the other two member states, Malta and Cyprus, no longer have railways.

Safety has continued to improve. The UK now has the safest railway in Europe for passengers and the fewest train accidents or workforce on-board fatalities.

Frequency and crowding of passenger services

Inter-city frequencies				
	Trains per day		Off-peak hourly frequency	
	1994	2014	1994	2014
Manchester to London	17	47	1	3
Leeds to Edinburgh	2	15	0	1
London to Norwich	19	36	1	2
Leeds to London ⁽¹⁾	17	32	1	2
Birmingham New St. to London ⁽²⁾	31	48	2	3
London to Sheffield	15	31	1	2
Bristol to London ⁽³⁾	23	33	1	2
Glasgow Queen Street to Edinburgh ⁽⁴⁾	37	62	2	4
Leeds to Huddersfield to Manchester ⁽⁵⁾	48	80	3	5
Cardiff to London	22	29	1	2

Source: Network Rail

Note:

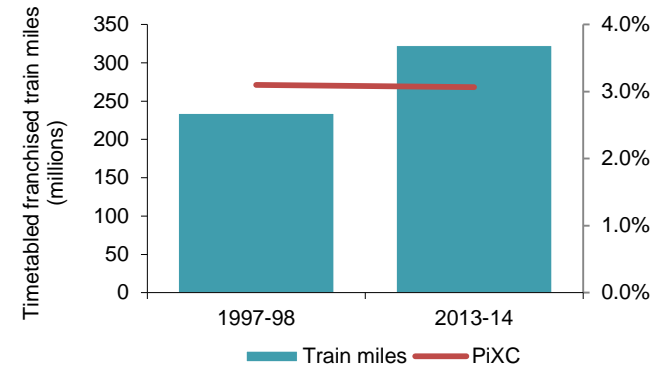
- (1) Virgin East Coast only; excludes East Midlands Trains
- (2) Virgin West Coast only; excludes London Midland
- (3) Bristol Temple Meads only; excludes Bristol Parkway
- (4) Express services via Falkirk only; excludes other routes
- (5) Includes services to Manchester Victoria

Number of planned services per year			
	1997-98	2014-15	% Change
Services	5.69m	7.29m	+28%

Source: Network Rail

The rail network is being used much more intensively with a 28% increase in the number of services. This enabled significant journey growth to be delivered without an increase in the official measure of crowding.

Train miles up 39% since privatisation, PiXC maintained at 1997-98 levels



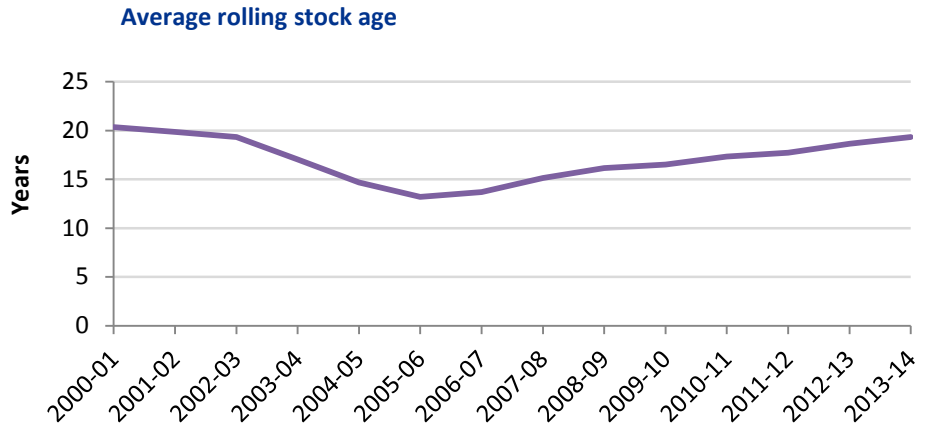
Source: National Rail Trends, Department for Transport statistics

Note: Passengers in excess of capacity (PiXC) is the difference between the planned capacity of each national rail service arriving in London against the actual number of passengers (excluding first class) on the service at its most crowded point on the journey. PiXC applies to all London and South East operators' weekday train services arriving at a London terminus during the 3-hour AM peak (07:00 and 09:59), and those departing during the 3-hour PM peak (16:00 and 18:59). The overall PiXC is derived by combining both peaks.

Rolling stock - passenger services

Change in total fleet size			
	1996-97	2014-15	Growth
Total vehicles in passenger use	10,400	12,647	21.6%

Source: OPRAF Passenger Rail Industry Overview; NR/ ROSCO/ ATOC Long Term Passenger Rolling Stock Strategy for the Rail Industry



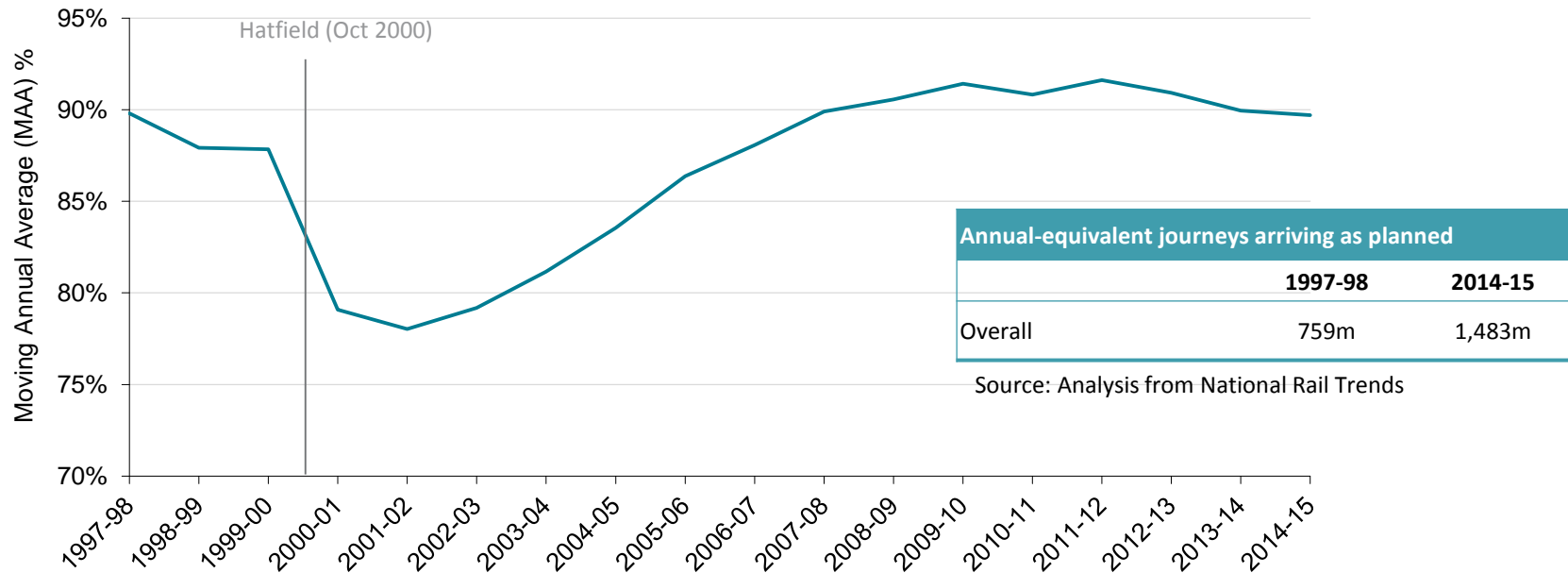
Source: National Rail Trends; RDG analysis

Note: Data series only available from the year 2000-01

Rolling stock procurements have significantly increased fleet size. While the average age of rolling stock has increased since 2005-06 this trend will reverse during CP5 because of the c3,000 new electric vehicles due to be delivered including 2,250 by the Intercity Express, Thameslink and Crossrail programmes. This will both increase fleet size and decrease average rolling stock age.

Punctuality of passenger services

Public Performance Measure (PPM, y/e March)



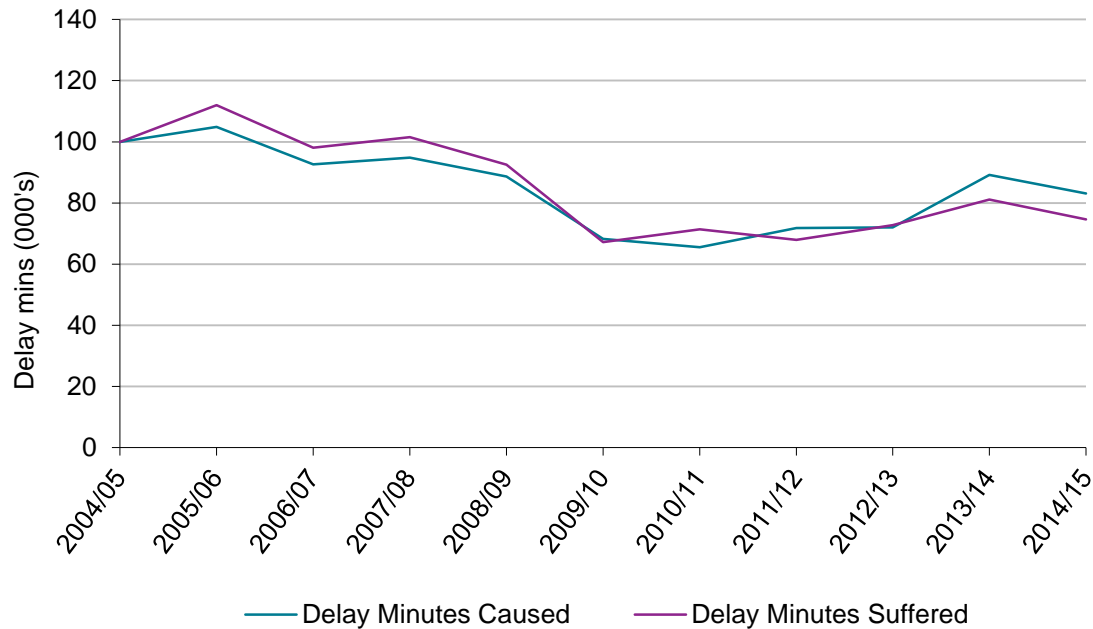
Source: National Rail Trends (PPM was first published in June 2000, but was calculated back to 1997-98)

In 2014-15, 89.7% of trains arrived as planned (short distance services within 5 minutes of scheduled arrival time; long distances within 10 minutes). Over 700m more passenger journeys arrived as planned in 2014-15 compared to 1997-98.

Freight delays

Investment by freight companies, Network Rail, Government and train companies has improved the performance of the rail network.

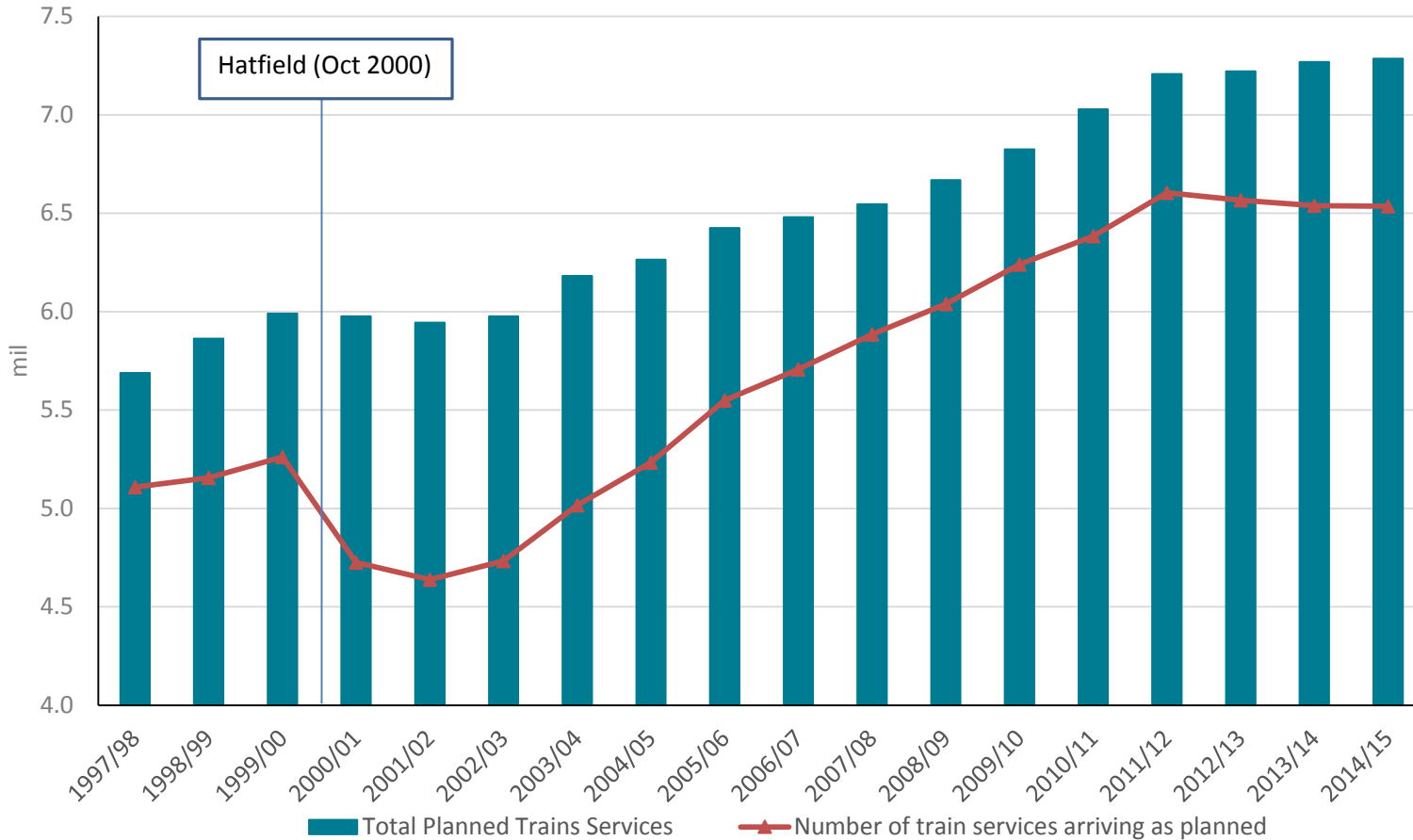
Delay minutes caused and suffered



Source: Network Rail

Delay minutes suffered by freight companies has reduced by 25.4% since 2004-05 against a backdrop of a busier network (driven by the increase in passenger services). Similarly, delay caused by freight companies has reduced 16.9%, in turn contributing to the improved performance by train companies.

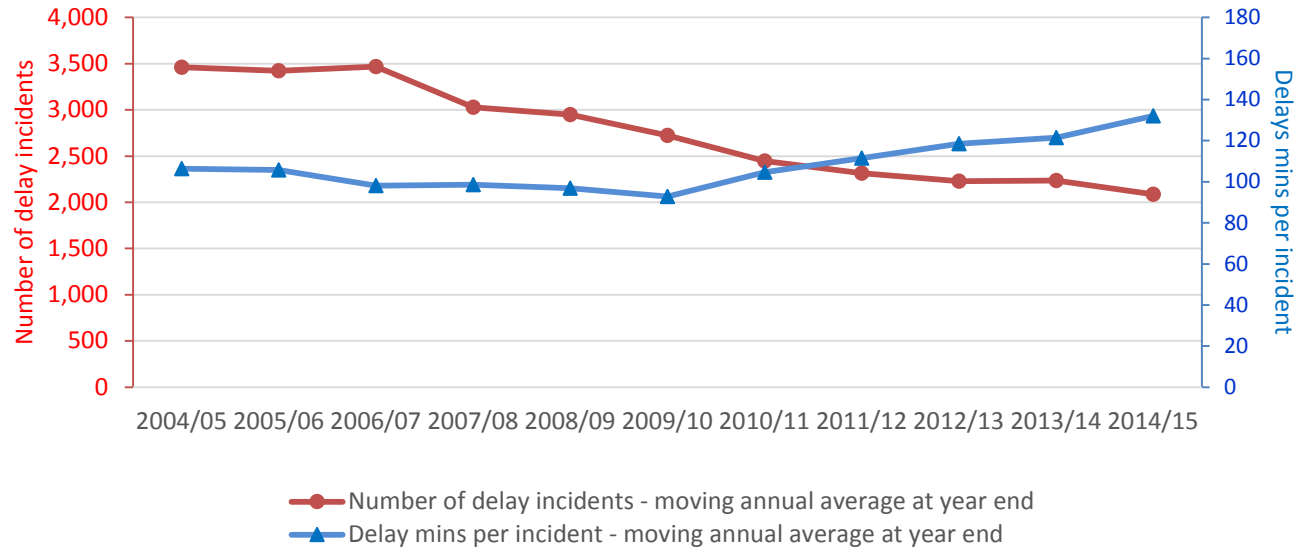
Capacity challenge - intensity of rail network usage



Source: Network Rail and National Rail Trends

The network is being used much more intensely with the number of planned train services increasing by 28% since 1997/98. These additional services have, until recently, been accommodated without impacting performance. In 2014/15, 1.4m more trains arrived as planned compared to 1997/98.

Capacity challenge - number of incidents and delay minutes per incidents

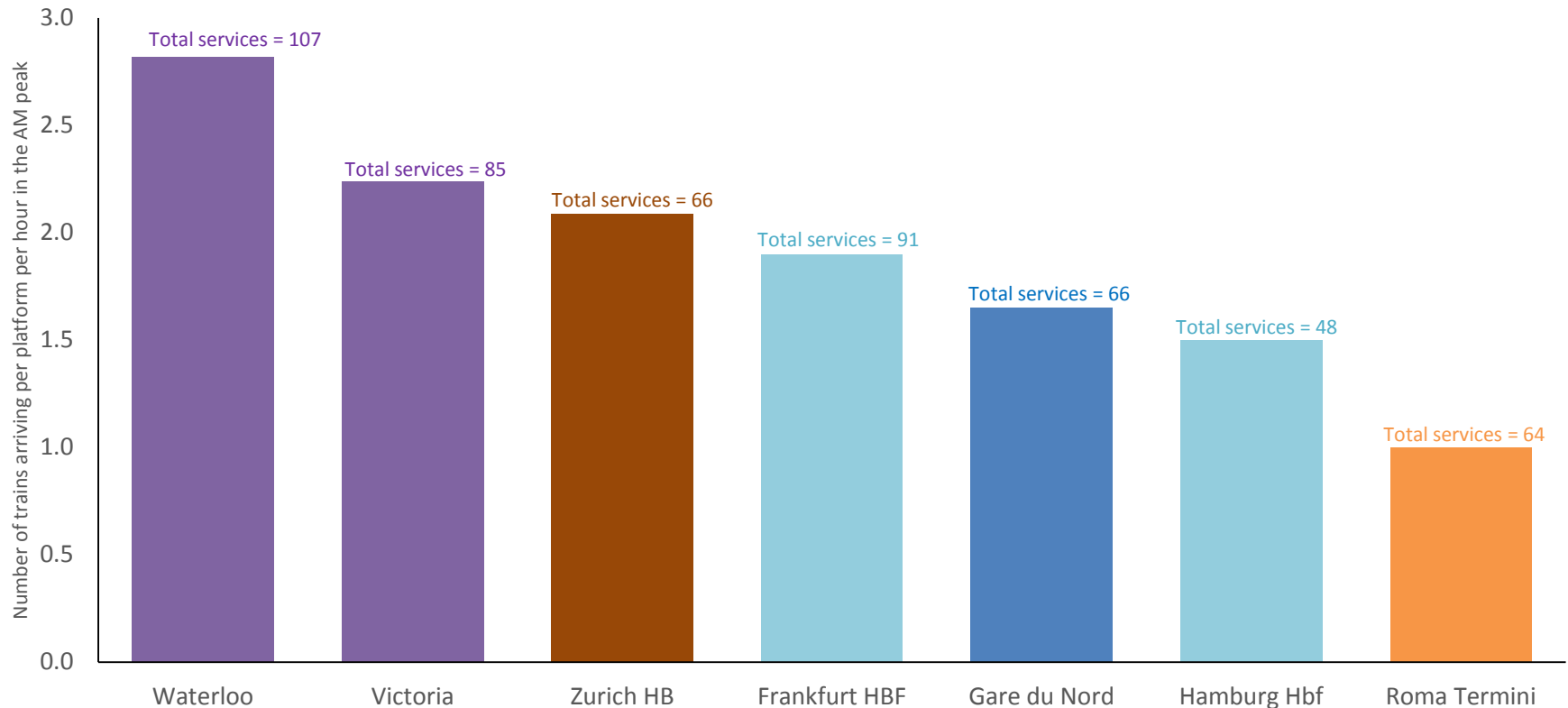


Source: Network Rail

The number of incidents of delay has been consistently falling and are now, on average, 40% fewer than in 2006/07. However, delay minutes per incident is increasing as the knock-on impacts of incidents are exacerbated by congestion on a network that is being used more intensely than before.

Capacity challenge - network usage at major commuter termini

2014/15 network usage



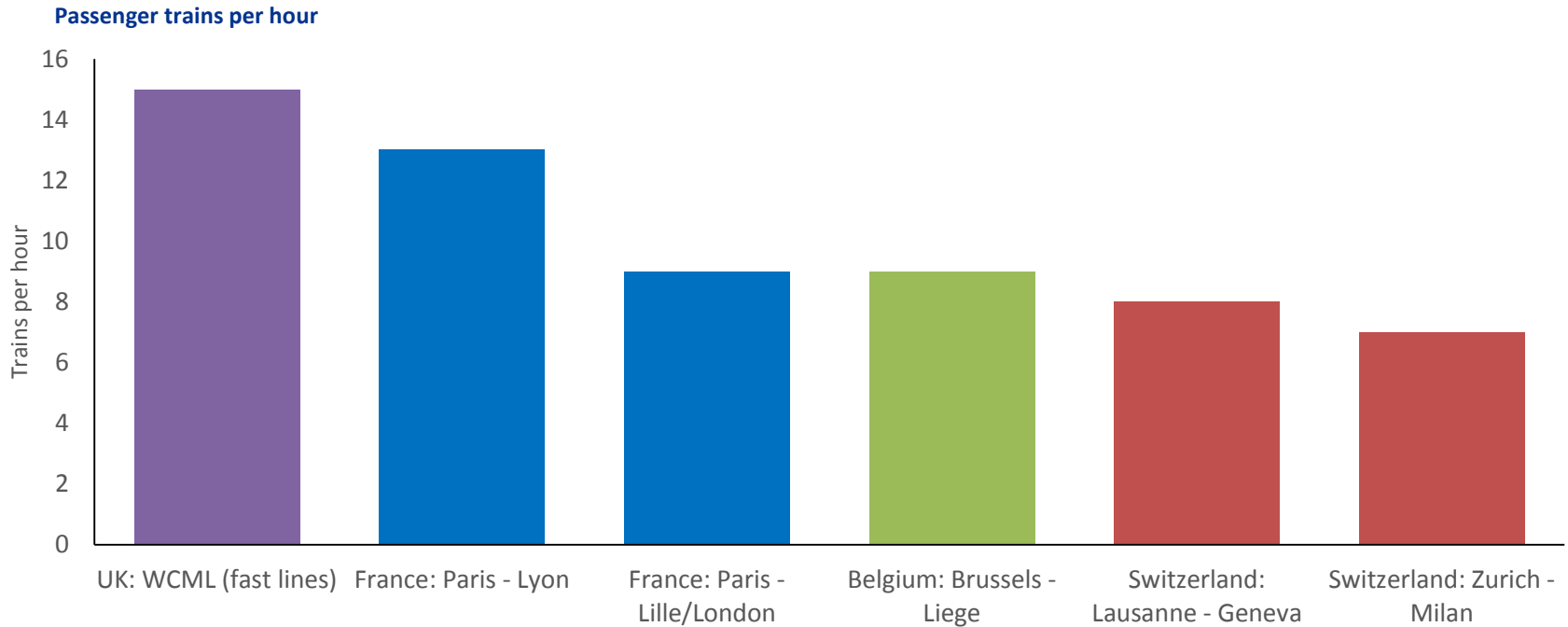
Source: www.bahn.de and www.realtimes.com

Note:

- 1) AM peak defined as 07:30 – 09:29 inclusive on a typical weekday
- 2) Only trains arriving at terminating platforms are included, with the exception of Hamburg Hbf where all platforms are through ones.
- 3) All S-Bahn trains and three AKN trains (a 'private operator') which use the S-Bahn platforms have been excluded for Hamburg
- 4) In the case of Zurich, trains arriving at the through platforms below ground and SZU railway (which is not operationally connected to the SBB station) have been excluded.
- 5) In the case of Frankfurt and Paris, trains using the through platforms underground and the 'Magenta' station which is not operationally connected and Eurostar arrivals have been excluded.

Compared to key stations in Italy, Germany, France and Switzerland, there are typically more trains arriving into key London commuter termini in the peak and the platforms are used more intensively

Capacity challenge - intensity of usage on intercity routes



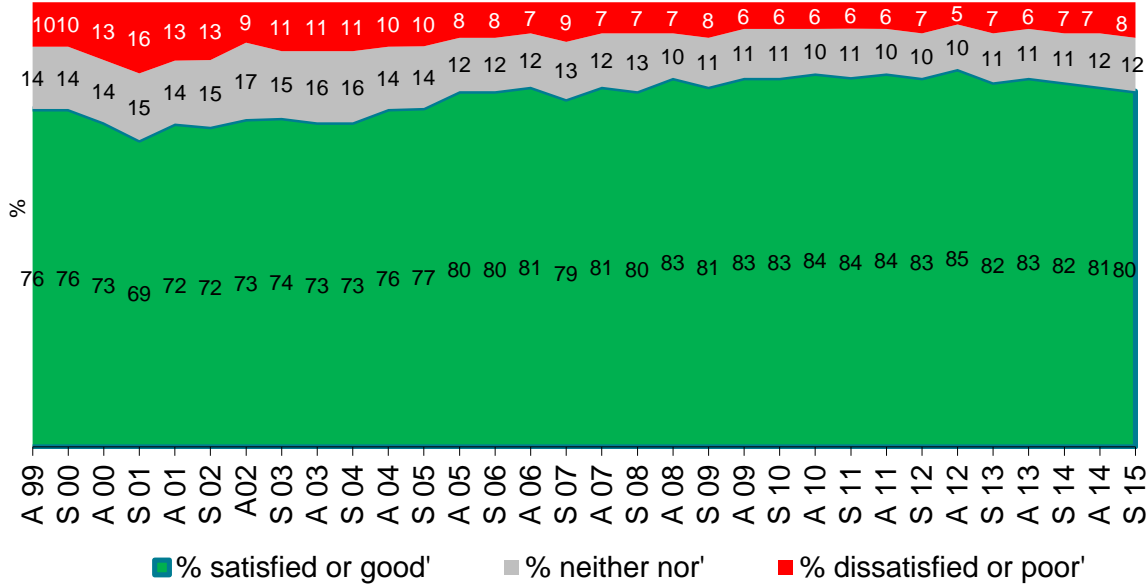
Source: GB working timetable, www.bahn.de and the Thomas Cook European timetable, summer 2014. Does not include freight traffic.
Note that routes selected are only high speed services with speed above 140kph.

More passenger trains per hour (tph) operate on the WCML than comparable European railways, including purpose built high speed railways.

Better journeys

Industry indicators - passenger satisfaction

Trends in National Passenger Survey results



Annual-equivalent journeys rated 'satisfied' or 'good'		
	1999-2000	2014-15
Overall	708m	1,340m

Source: Analysis of National Rail Trends and National Passenger Survey

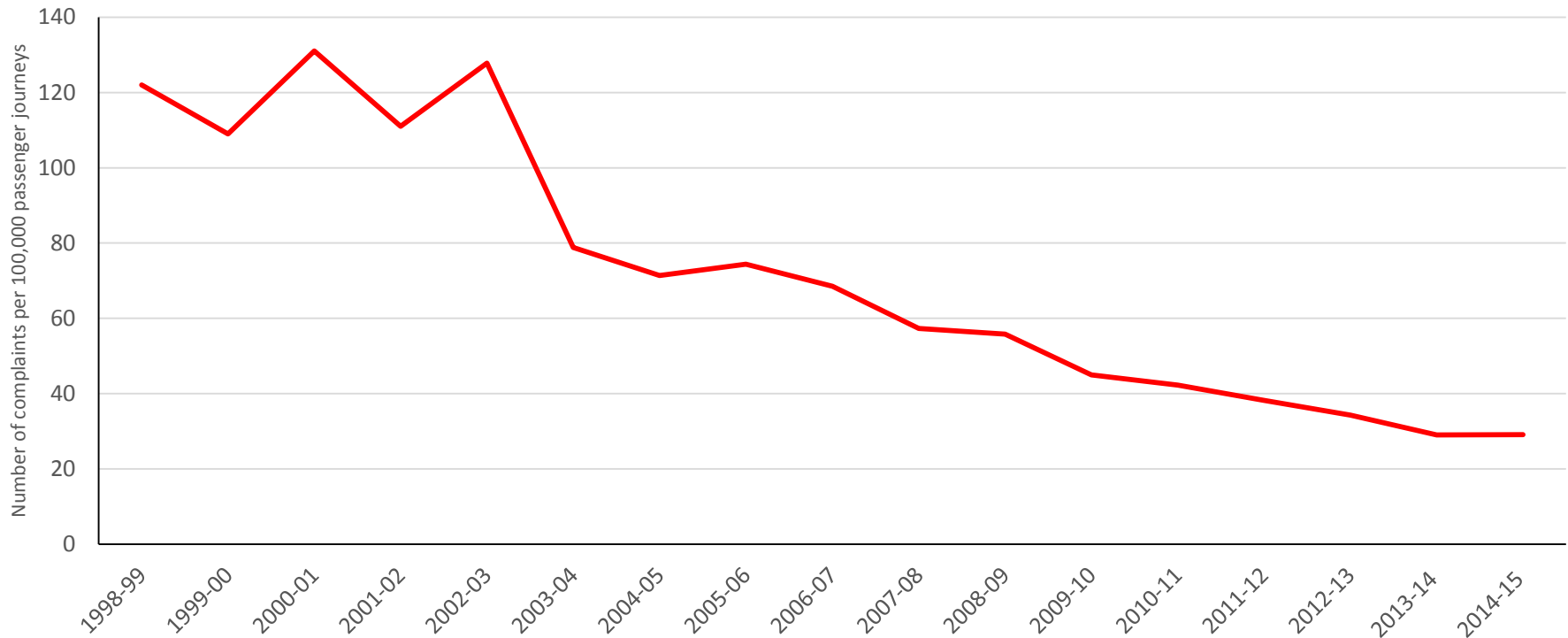
Source: National Rail Passenger Survey (started in Autumn 1999)

Customer satisfaction with ticket price value for money is greater outside the London commuter area where a smaller proportion of rail users are annual season ticket holders.

Spring 2015 NPS scores for Value for Money were 58% for Regional and 59% for Long Distance train companies, compared to 40% for LSE operators.

Passengers rated 600 million more journeys as 'satisfactory' or 'good' in 2014-15 compared to 1999-2000. The percentage of dissatisfied passengers has halved from a 16% peak in 2001 to 8% in 2015.

Industry Indicators - passenger complaints

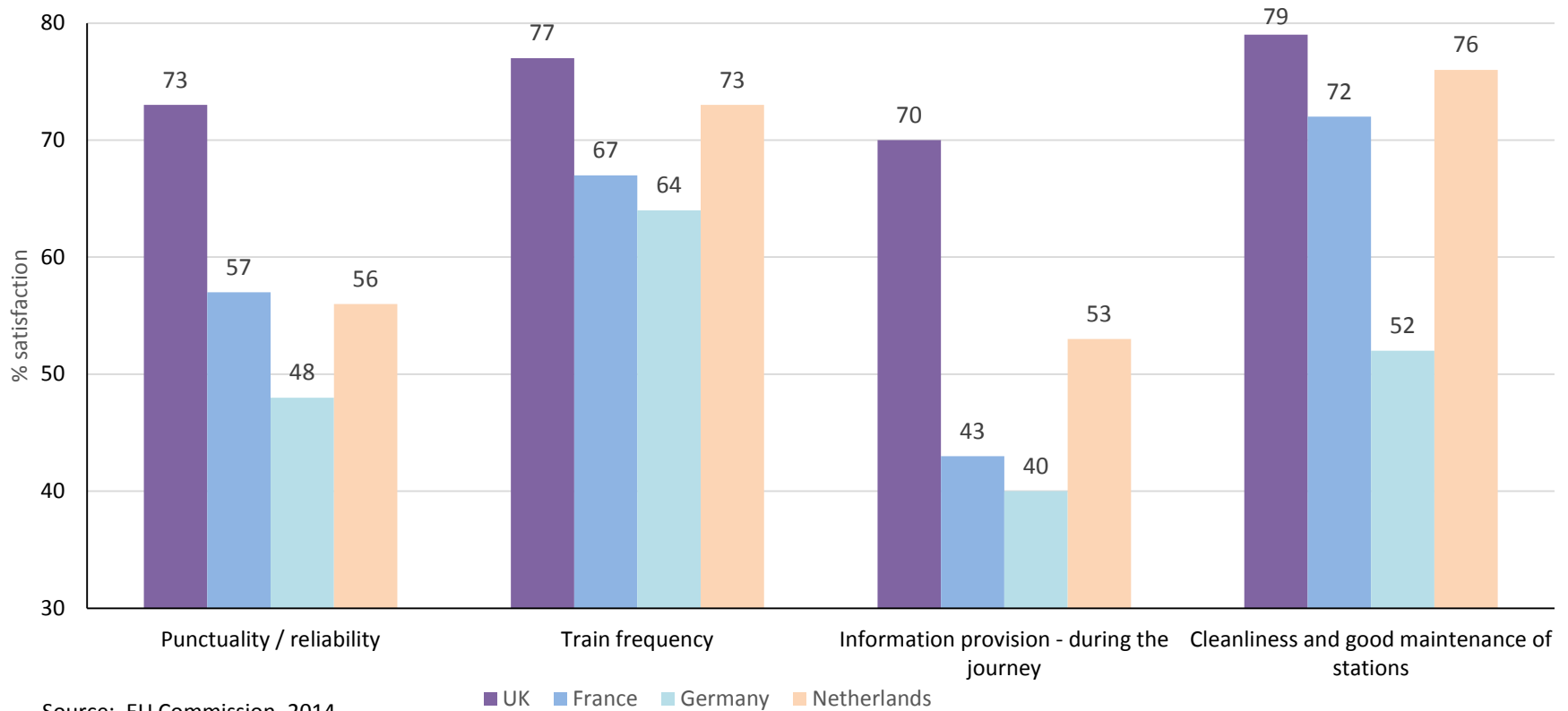


Note that in 2001-02, a change in methodology by 3 regional operators caused an increase in complaints. A new method of recording telephone enquiries has been introduced by one of the regional operators post 2003-04

Source: Rail Complaints Bulletin, Report Number 3 published by ORR for 1998-99 and National Rail Trends for rest of the years

As passenger satisfaction increased over the decade to 2012, the rate of complaints fell significantly. Increased use of social media (e.g. Twitter) as an alternative mode of passenger complaints may have suppressed figures in recent years, but there is a trend of a continued decline in the rate of complaints.

Service quality - customer satisfaction across Europe 2013

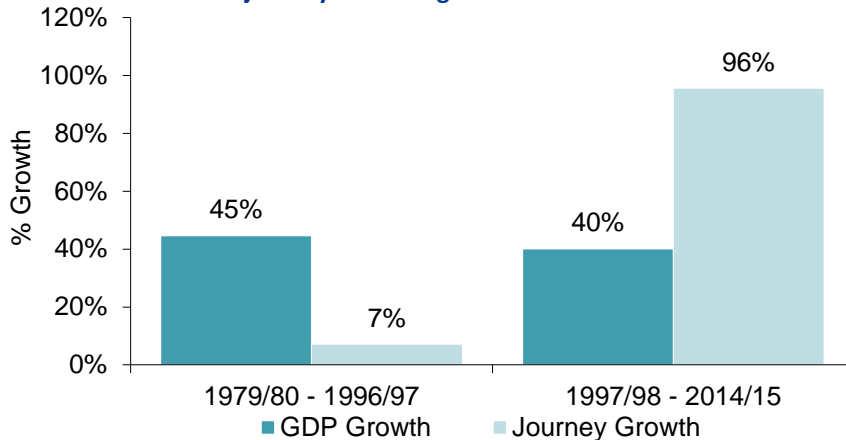


Compared to passengers in Germany, France and Netherlands, passengers in the UK are more satisfied with their rail journeys and stations.

Passenger Services - analysis of demand drivers

The growth in journeys has out-performed key external demand drivers

Rail journey and GDP growth



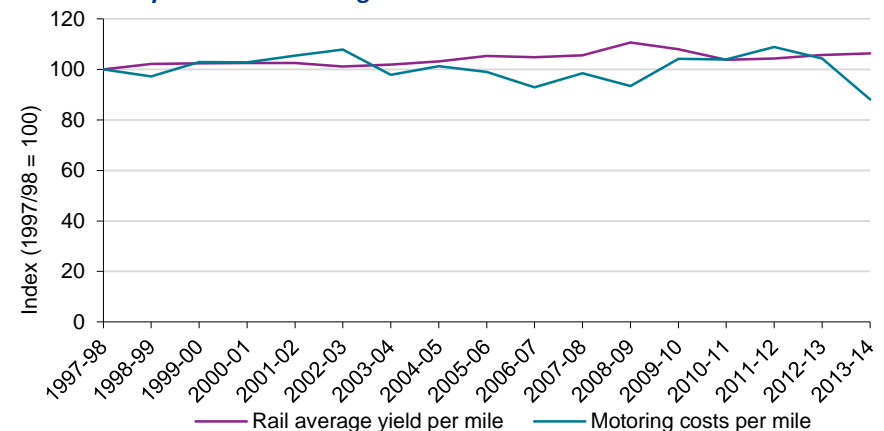
Source: National Rail Trends; ONS - GDP, Q1 2015 Dataset

Rail journeys per head of population

Year	Annual journeys per capita
1981-82	13.12
1997-98	14.93
2013-14	25.47

Source: National Rail Trends; ONS Mid-year population estimates

Rail yields and motoring costs



Source: National Rail Trends; AA motoring annual motoring cost reports (data represents a petrol car of 1,101-1,401cc price of £13-£18k)

Rail market share

Year	Rail journeys (billion passenger miles)	Market share
1981-82	18.5	6.0%
1997-98	21.6	4.7%
2013-14	37.3	7.8%

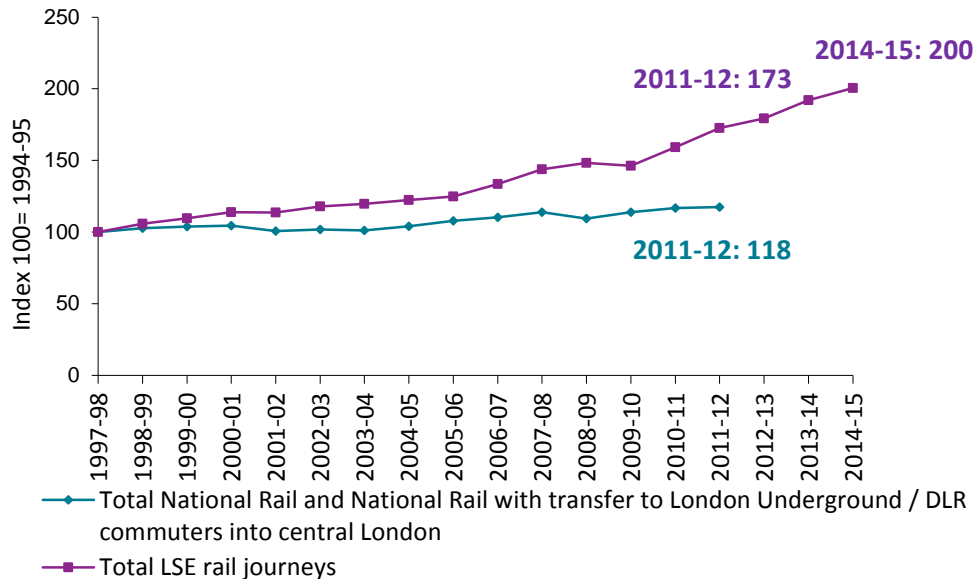
Sources: RDG analysis, based on TSGB, NRT and BRB Annual Reports

Since 1997-98, journey growth has been more than double GDP growth and rail use per capita has increased 70%. The change in price paid for rail travel and motoring costs over the time period is broadly similar across modes, notwithstanding divergences in the two trends at times and the 2013-14 dip in motoring costs.

Passenger Services - growth in London / South East

Rail usage in London and the South East has increased at a quicker rate than both the general growth in commuter numbers and the growth in journeys on the publicly operated London Underground.

Growth in rail journeys versus growth in commuter numbers



Rail versus London Underground

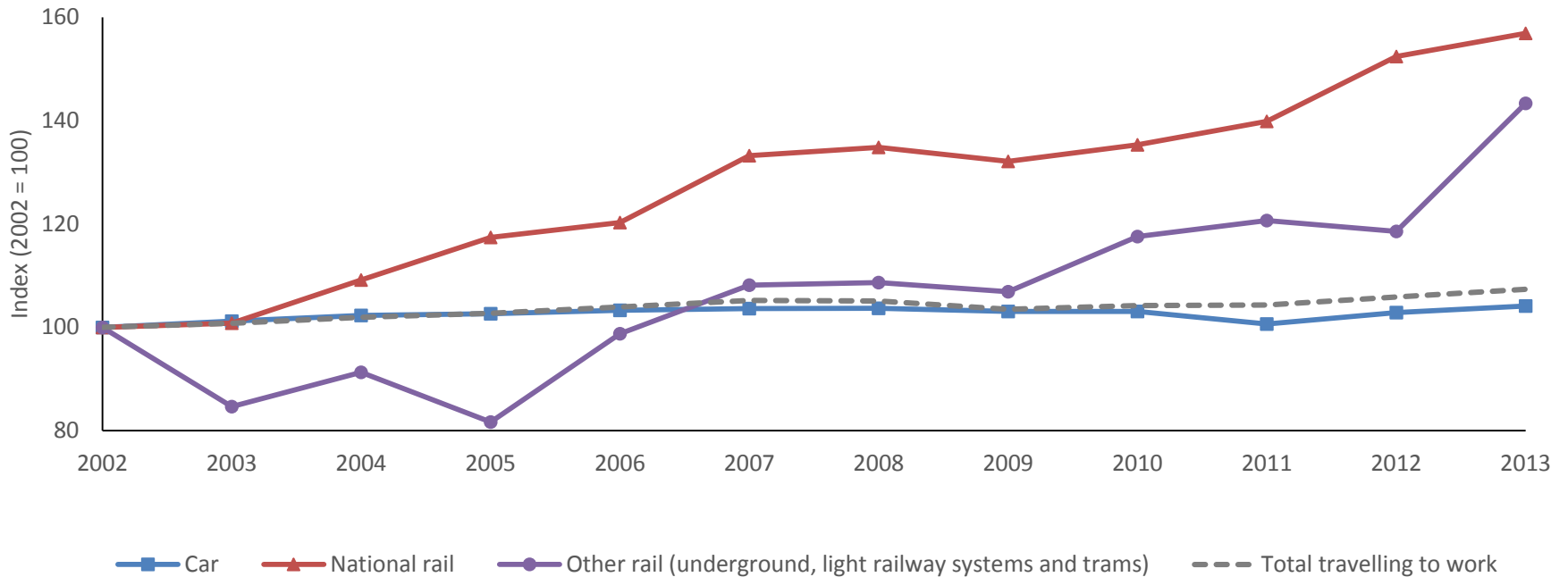
Journey growth	
1997-98 to 2013-14	Journey growth
London Underground	52%
London and South East rail	92%

Source: National Rail Trends; LUL Statutory Accounts

Source: TfL, Travel in London Report 5 – Central London Peak Count (CAPC) Supplementary Report, Supporting Workbook

Note: Data on total rail commuters into central London is only available to 2011-12

Passenger Services - mode of transport to work



Source: Department for Transport Statistics , National Rail Trends

Use of national rail as the usual mode of travel to work has increased by 57% since 2002, against a 61% increase in total passenger journeys. Over the same period, car commuting remained broadly flat.