National Audit Office

A financial overview of the rail system in England

Department for Transport

REPORT

by the Comptroller and Auditor General

SESSION 2019–2021
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HC 1373

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This overview sets out how much it costs to run the rail system in England, how it is paid for, and the challenges and opportunities facing government as it reforms the system.

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A financial overview of the rail system in England

Department for Transport

Report by the Comptroller and Auditor General

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Gareth Davies
Comptroller and Auditor General
National Audit Office

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Contents

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About this overview

We have produced this overview to enhance financial transparency of the rail system in England.

This overview builds on existing data published by key rail industry organisations, including the cross-industry data available from the Office of Rail and Road (ORR) and Network Rail.

This overview looks at:

- how much it costs to run the rail system in England, how it is paid for and what the challenges and opportunities facing government are as it reforms the system; and
- income and expenditure over the past five financial years, ending in March 2020.

It covers England only as rail in Scotland, Wales and Northern Ireland is devolved to varying degrees. However, some of the data we used are available at a Great British level only.

It does not include the financing arrangements for building new rail infrastructure, such as High Speed Two and Crossrail, or projects to enhance the railway, such as electrifications of the Trans-Pennine Upgrade. Neither does it include costs incurred in the oversight and regulation of the railway by the Department for Transport (the Department) and the Office of Rail and Road (ORR).

Our methodology and data sources are provided on pages 34 and 35.

This overview will be of interest to:

- members of Parliament and select committees; and
- members of the public interested in how the railway is financed.

Background

The arrangements for delivering rail services in England involve complex cash flows and contractual obligations and accountabilities between a range of private and public sector bodies, on which a complete set of public data is not available. This makes it difficult for Parliament and taxpayers to understand the overall financial position of the system, and the impact of government's choices.

The privatisation of the railways on a franchising model was set up in the 1990s to promote competition between bodies outside government in a commercial framework and improve outcomes. Although the rail system was privatised, government provides significant ongoing subsidy and has a statutory obligation to put in place an 'operator of last resort' if a franchise cannot provide passenger services.

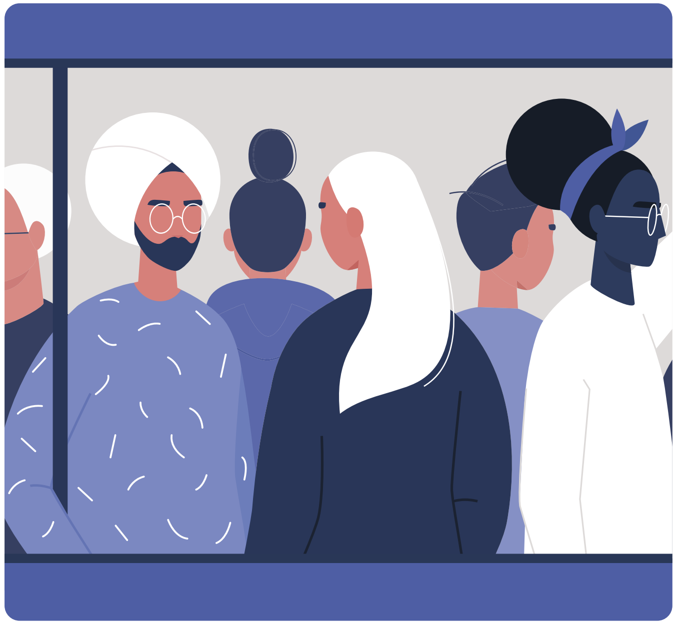
The COVID-19 pandemic made government's financial exposure to these risks more immediate because emergency agreements transferred day-to-day revenue and cost risks to the Department, and precipitated the end of the established commercial model of franchising.

This overview aims to provide clarity at a moment of significant industry change

At the time of publication, the Williams Rail Review – set up following the May 2018 timetable disruption and the collapse of the Virgin Trains East Coast franchise – has yet to be published. The review is expected to recommend significant system reforms, and to be released in the form of a white paper.

Separately, from March 2020, the COVID-19 pandemic led to a dramatic reduction in income from passenger revenue, which has seen the Department take on full revenue and cost risk from franchised operators. It has also heightened uncertainty about the shape of future demand.

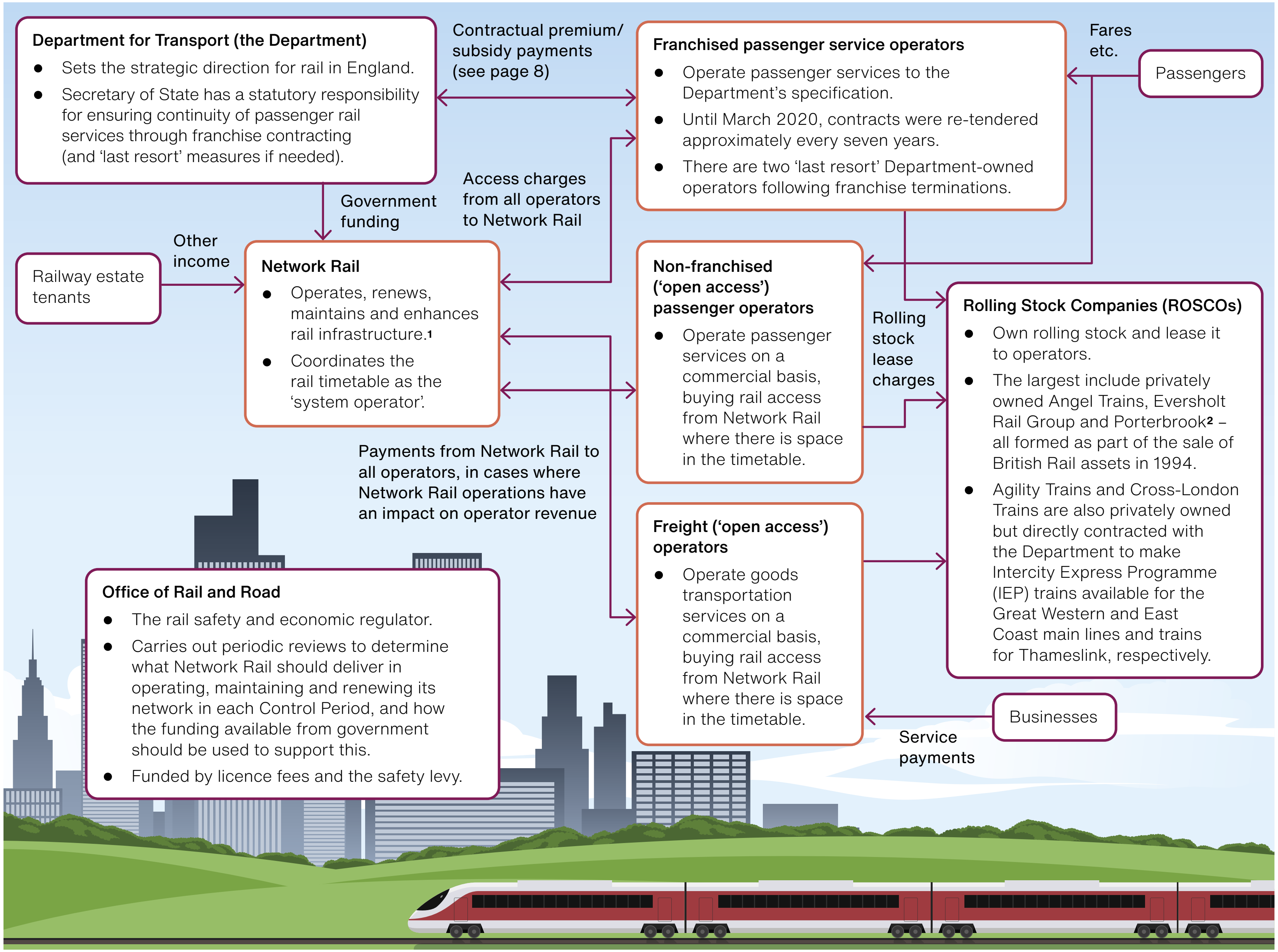
In response to the COVID-19 pandemic, the Department, Network Rail and operators worked quickly and collaboratively to support the industry and keep franchised passenger and freight services and infrastructure operational. We outline actions in response to the COVID-19 pandemic in detail in later sections.



The rail system

How rail services are delivered in England

The rail system involves public bodies, passenger operators under government contract, and private sector bodies.



- Bodies included in our income and expenditure analysis
- Bodies in the system excluded from our analysis
- → Major financial flows

Notes

1 Rail network enhancements are large-scale projects which deliver new infrastructure. We do not include such projects in this overview.

2 These are the largest ROSCOs only and not an exhaustive list.

Source: National Audit Office

Overview of rail system income and expenditure

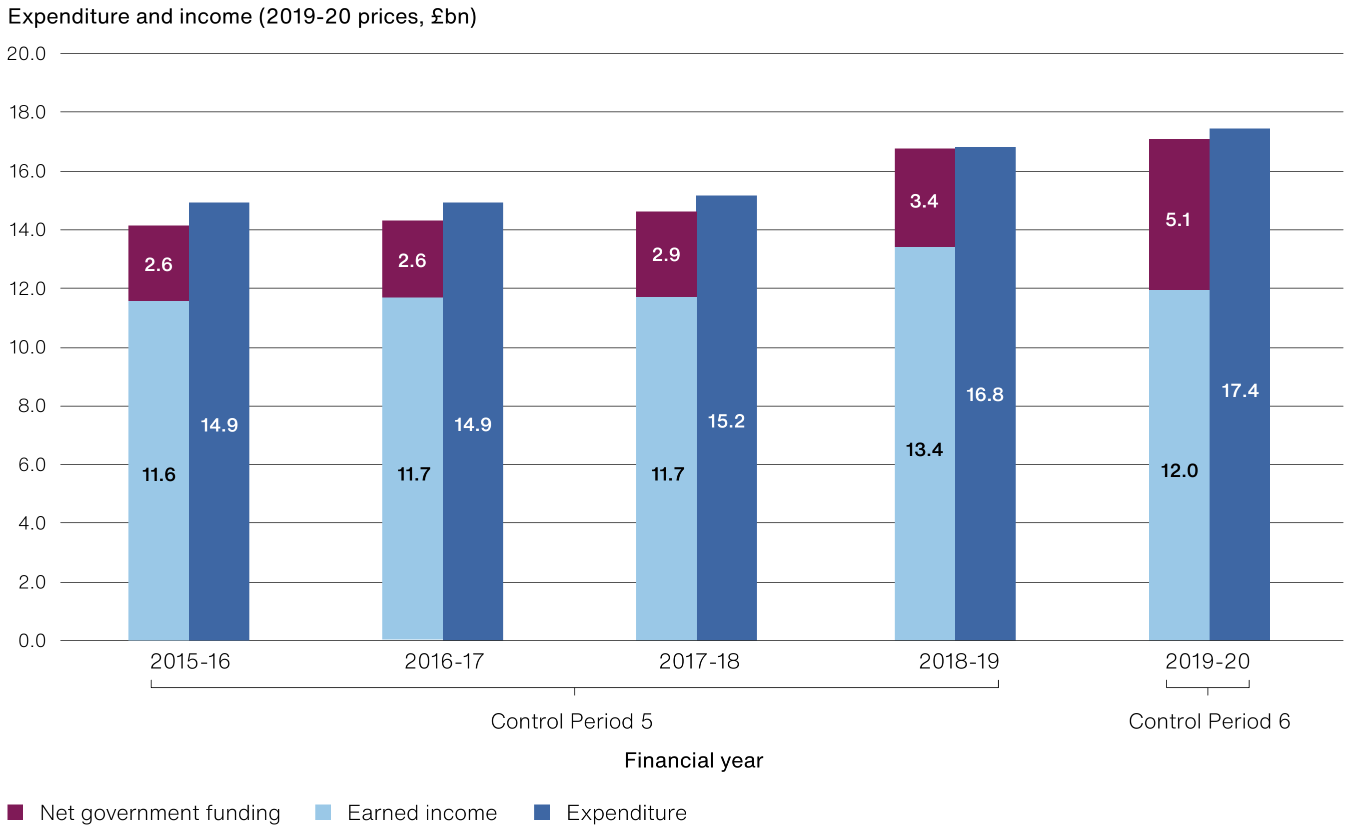
This page shows income and expenditure for the English rail system over the past five financial years, excluding expenditure on major projects delivering new infrastructure (for example, new lines or electrification).

In this document the 'rail system' includes Network Rail, franchised and non-franchised passenger service operators, freight operators and High Speed One (HS1).

Between 2015-16 and 2019-20:

- earned income increased by 3%;
- government funding increased by almost 100%; and
- expenditure increased by 17%.

Rail system income and expenditure in England, 2015-16 to 2019-20



Notes

1 All figures are net of internal financial flows. We provide more information in our methods appendix (see page 35).

2 We explain the discrepancy between total expenditure and income in our methods appendix (see page 36).

3 Net government funding accounts for payments made back to government, specifically those by franchised operating companies as per their contract agreements; and those by Network Rail in the form of its Financial Indemnity Mechanism fee (not applicable in Control Period 6).

4 Government funding in 2019-20 includes £300 million of COVID-19 support provided to franchised train operating companies in March 2020.

5 In 2018-19, the sale of Network Rail's railway arches estate generated a one-off income of £1.46 billion, leading to the higher overall system income.

Source: National Audit Office analysis of Office of Rail and Road data

Overview of whole-system income and expenditure

This page shows the breakdown of income and expenditure across the English rail system, in 2019-20.

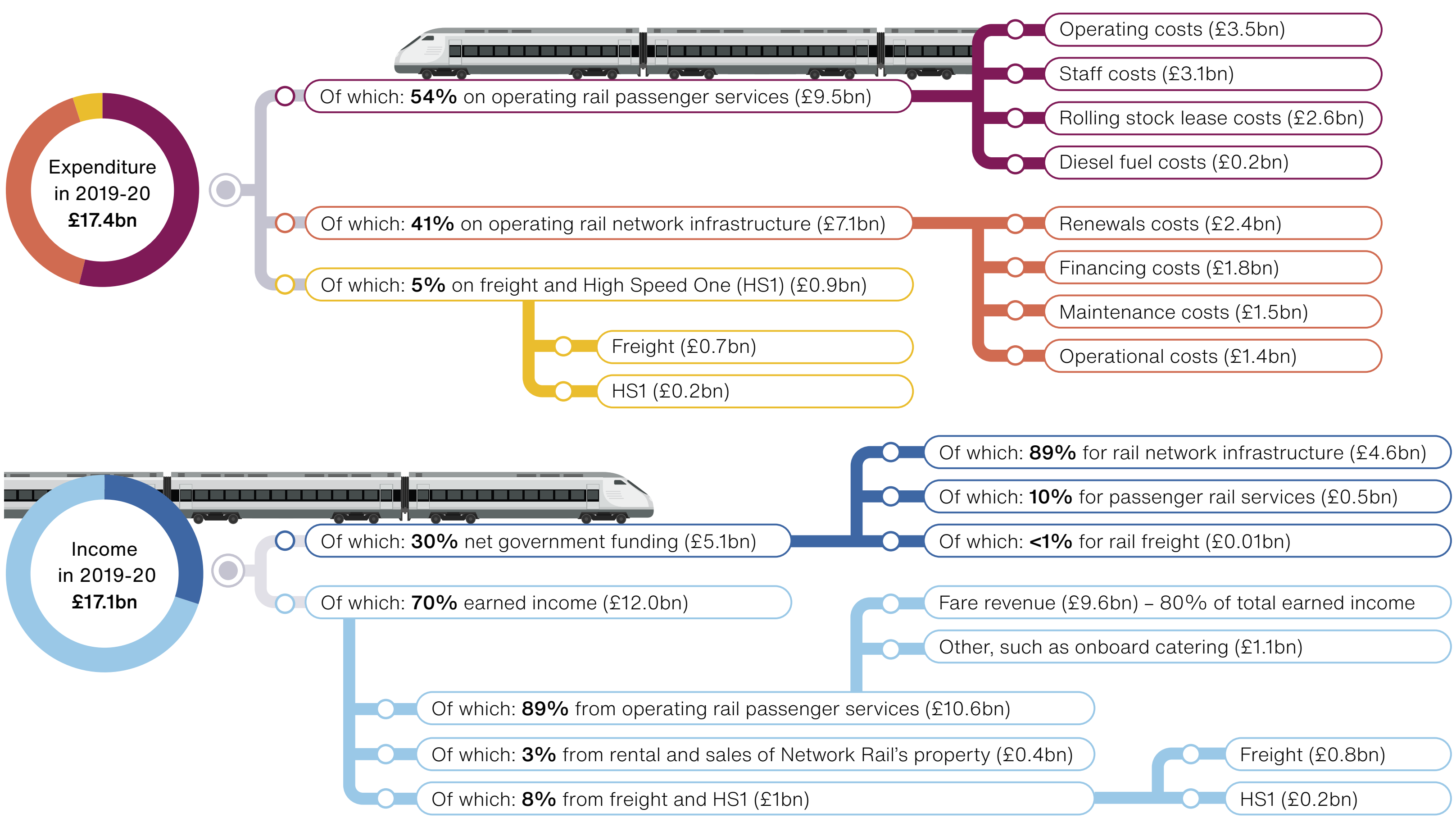
Internal financial flows

Since privatisation in the 1990s, there have been internal payments within the rail system – for example, access charges paid by operators to Network Rail. **Some of these internal payments were designed to incentivise efficiency and performance** between sector bodies.

In 2019-20, **around £2.7 billion moved internally** within the rail system. This movement does not alter the overall income and expenditure figures since they net out across the system and have limited direct impact on taxpayer funding over the long term.

Our total income and expenditure figures for the rail system are net of these internal financial flows. Our methods appendix provides more information.

The breakdown of income and expenditure across the English rail system, in 2019-20



Notes

1 All figures are in 2019-20 prices. Figures may not sum due to rounding.

2 In our methods appendix (page 35), we explain the apparent discrepancy between expenditure of £17.4 billion and income of £17.1 billion.

3 Government funding in 2019-20 includes £300 million of COVID-19 support provided to franchised train operating companies in March 2020.

4 Rail network infrastructure financing costs relate to previous debt-financed spending – see page 11.

5 These figures summarise income and expenditure, from a net perspective, of the organisations introduced on page 5.

Source: National Audit Office analysis of Office of Rail and Road data

Government funding

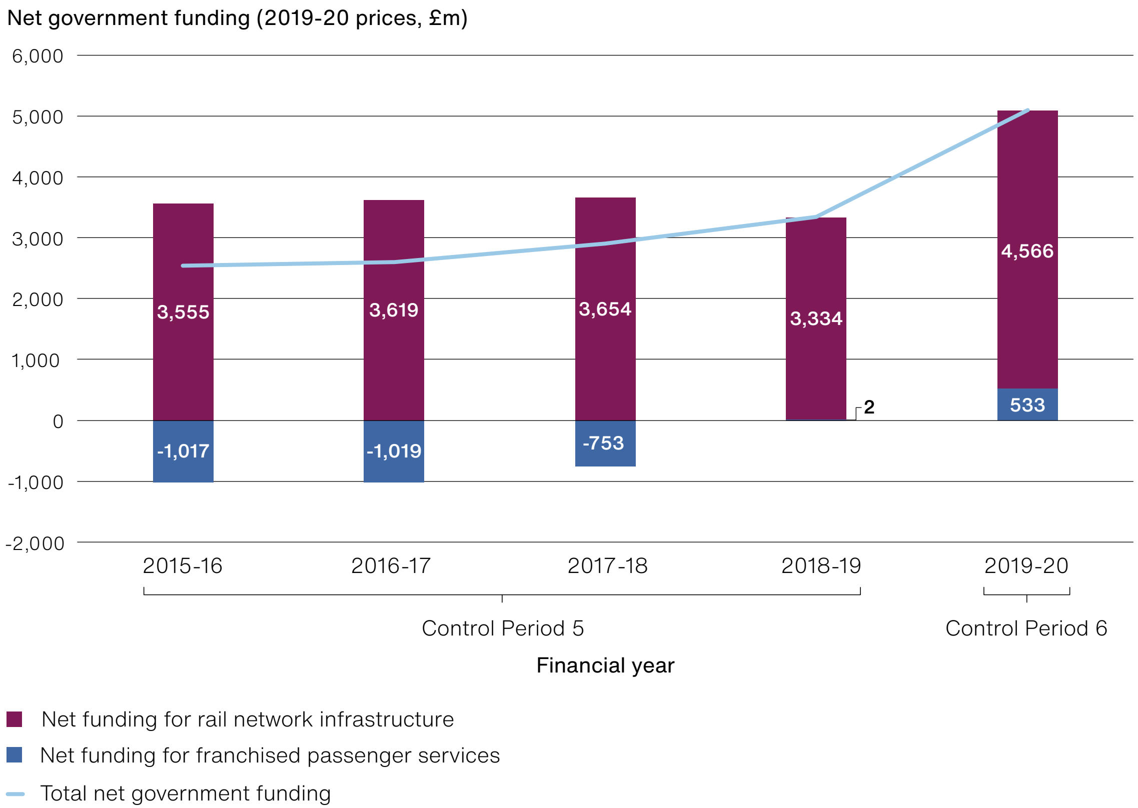
In 2019-20, net government funding made up 30% of total income coming into the system.

Net government funding almost doubled between 2015-16 and 2019-20 from £2.6 billion to £5.1 billion. The rise reflects increases in expenditure on operating and maintaining rail network infrastructure, as agreed with government, and the pre-COVID-19 deterioration in the passenger rail market as growth in rail passengers slowed. We explain the increases in more detail in the rest of the report.

Net government funding was equivalent to £3.67 per passenger journey in 2019-20.

The Department expects levels of funding to rise by several billion in the short term as a result of the COVID-19 pandemic, before reducing as passengers return.

Net government funding for the rail system in England, 2015-16 to 2019-20



Notes

1 Funding for rail network operations covers the Network Rail grant only and excludes debt funding.

2 Net government funding for franchised passenger services in 2019-20 includes £300 million of government support in response to the COVID-19 pandemic in March 2020.

3 In addition, <1% of government funding supported rail freight. This is not included in this figure.

4 Net funding for rail network infrastructure 2018-19 does not show the generally rising trend of costs, because of the effect of the one-off disposal of Network Rail's commercial estate in that year (see page 10).

Source: National Audit Office analysis of Office of Rail and Road data

In 2019-20:

89%

of government funding supported the operation, maintenance and renewal of rail network infrastructure carried out by Network Rail.

10%

of government funding supported passenger services.

Some operators pay back premia to government, depending on their contract terms; others receive subsidy. Until 2018-19, government received more than it paid out.

Government funding for passenger services is highly dependent on commercial conditions. Passenger demand had changed pre-COVID-19 (see page 13) and bidders for contracts adapted to lower expectations of revenue growth.

The balance of government funding between the rail network and franchised passenger services is sensitive to the level at which access charges are set.

Rail infrastructure

Most rail infrastructure in England is publicly owned by Network Rail,[1] an arm's-length body of the Department.

This infrastructure includes the track, signals, overhead wires, tunnels, bridges, level crossings and stations of the main rail network.

In 2019-20, the asset value of the railway network across Great Britain was approximately £332 billion.[2]

This section (pages 9 to 12) explores the finances of rail infrastructure.

Policy aims

In 2017, the government set out its high-level aims for rail infrastructure as:

- improving performance and reliability of the railway;
- improving Network Rail's productivity; and
- continuing to operate a safe railway.

Network Rail's funding is allocated in five-year Control Periods

The Department allocates funding to Network Rail in five-year blocks, called **Control Periods**. In each Control Period government also sets out objectives and targets it expects Network Rail to deliver. The Office of Rail and Road carries out periodic reviews to determine what Network Rail should deliver in operating, maintaining and renewing its network in each Control Period, and how the funding available from government should be used to support this.

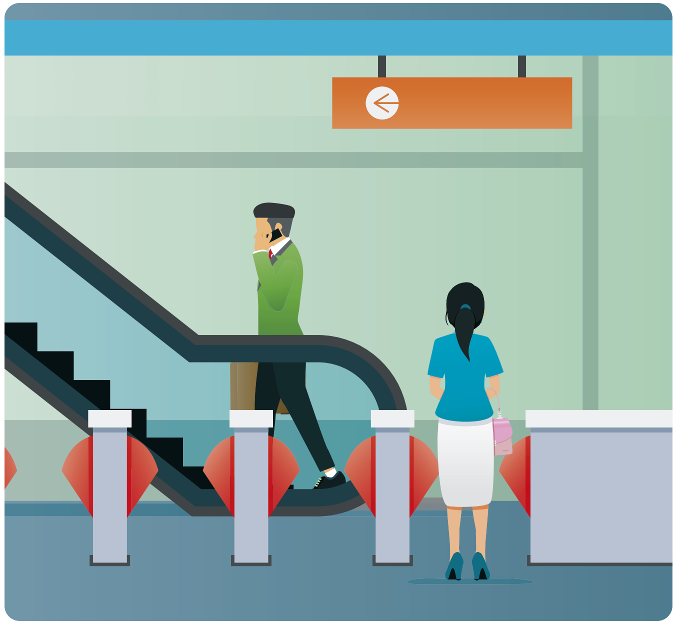
Network Rail receives additional income from rail companies running passenger and freight services.

In this document, our trend analysis covers the last five complete financial years, and spans two Control Periods – Control Period 5 and Control Period 6.

Control Period 6 (2019-20 to 2023-24)

Total budget in England: **£34.1 billion** (2017-18 prices)[3] to operate, maintain and renew the railway.

Network Rail's delivery plan for Control Period 6 focuses on improving train performance and passenger and freight user experience by improving the reliability of the rail network.

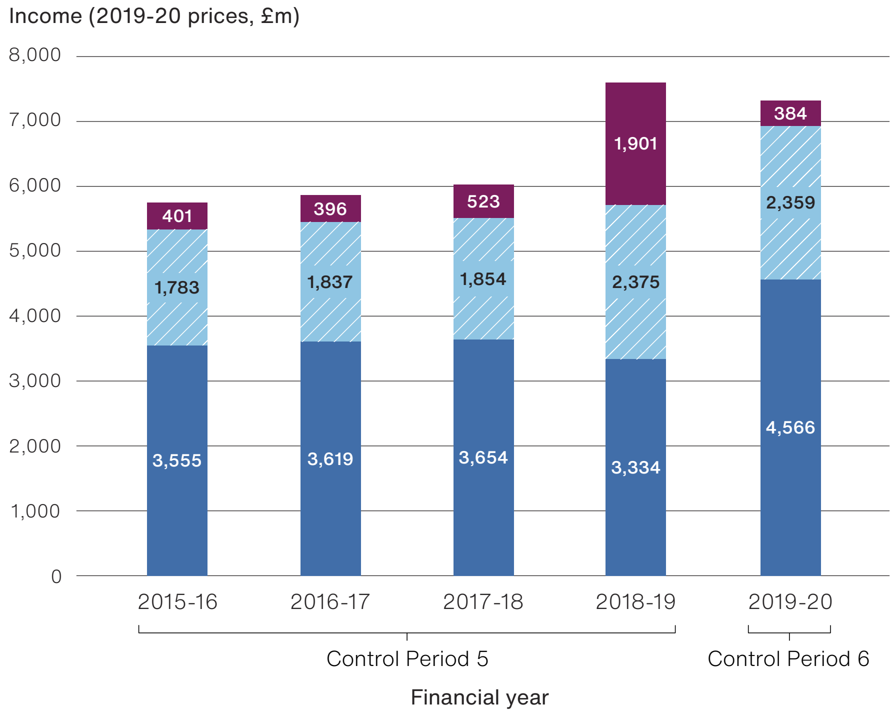


1 Excluding some infrastructure where responsibility is devolved (HS1, devolved London rail).
2 This valuation is based on the Depreciated Replacement Cost method, which reflects the replacement cost for the entire network.
3 Total budget for Control Period 6 for Great Britain: £40.2 billion (2017-18 prices). Budgets for Great Britain and England based on the Office of Rail and Road's Periodic Review final determination published in 2018. They exclude funding for major projects for new infrastructure ('enhancements').

Rail infrastructure: income

In 2019-20, Network Rail's gross income of £7.3 billion from rail infrastructure in England included £0.4 billion of earned income and £4.6 billion of government funding, with the remainder an internal financial flow from other bodies in the rail system (see page 5).

Gross income generated through the operation of rail network infrastructure in England, 2015-16 to 2019-20



	2015-16	2016-17	2017-18	2018-19	2019-20
Total (gross) (£m)	5,739	5,852	6,032	7,610	7,310
Total (net of internal financial flows) (£m)	3,957	4,015	4,178	5,235	4,951

■ Other earned income ■ Access charges ■ Government funding (dashed lines indicate internal financial flows)

Note

1 Income is presented gross and excludes adjustments made to account for payments between different bodies in the rail industry. We provide more detail in our methods appendix (see page 35).

Source: National Audit Office analysis of Office of Rail and Road data

Other earned income: from the rental and sale of Network Rail's commercial property portfolio as well as income from depots.

In 2018-19, the sale of Network Rail's railway arches estate generated a one-off income of £1.46 billion, which helped to fill the funding shortfall for projects funded through Control Period 5.

↑53% between 2015-16 and 2019-20

Access charges: an internal financial flow, received from fixed and variable charges levied at passenger and freight service operators for using the network. This includes payments made to Network Rail by operators for the traction electricity they use.

Access charges increased in 2018-19 to offset reductions in Network Rail grant funding that year, and in part due to rising electrification of rail infrastructure over the period. The Department provides protection in operator contracts for access charge changes, meaning that the changes do not generally affect operators' financial positions.

↑28% between 2015-16 and 2019-20

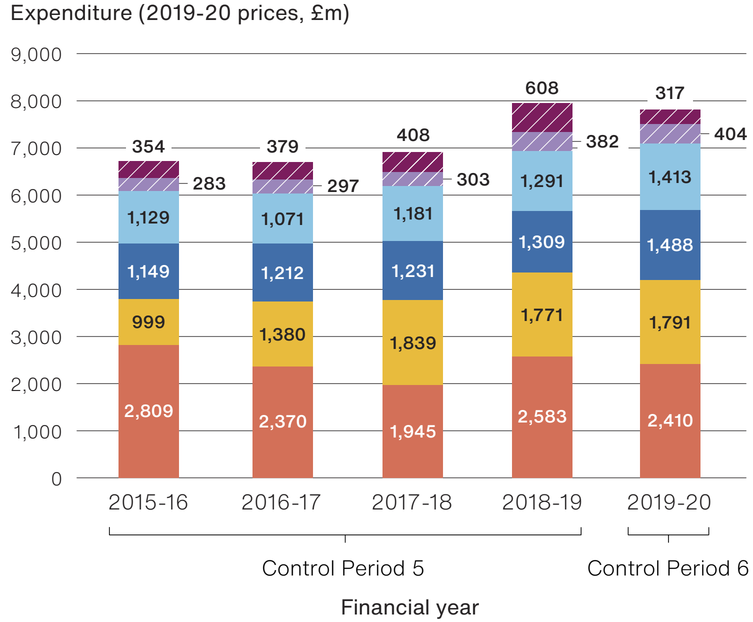
Government funding: provided through the Network Rail grant.

An increase in government funding occurred in 2019-20, reflecting an agreed increase for operations, maintenance and renewals for Control Period 6.

Rail infrastructure: expenditure

In 2019-20, Network Rail's gross expenditure on rail infrastructure was £7.8 billion in England – £7.1 billion after excluding internal financial flows (see page 7). These figures exclude expenditure on major projects delivering new infrastructure.

Gross expenditure on rail network infrastructure in England, 2015-16 to 2019-20



	2015-16	2016-17	2017-18	2018-19	2019-20
Total (gross) (£m)	6,723	6,710	6,907	7,945	7,824
Total (net of internal financial flows) (£m)	6,086	6,034	6,197	6,954	7,102

- Performance payments
- Traction electricity

(dashed lines indicate internal financial flows)

- Operations
- Maintenance
- Financing costs
- Renewals

Notes

1 Expenditure is presented gross excluding adjustments made to account for payments between different bodies in the rail industry. We provide more detail in our methods appendix (see page 35).

2 Expenditure on major projects delivering new infrastructure ('enhancements') is also excluded.

3 Staff cost data are contained within the operating, maintenance and renewals cost categories.

4 Network Rail has committed to deliver £4.0 billion of efficiency savings over the course of Control Period 6.

Source: National Audit Office analysis of Office of Rail and Road data

Performance payments: an internal financial flow. Paid to train operating companies to compensate for planned or unplanned service disruption as a result of rail infrastructure activity.

Highest in 2018-19 as a result of timetable disruption.

↑43% between 2015-16 and 2019-20

Traction electricity: an internal financial flow. The cost of electricity required to run electric services (a cost passed on to train operators).

↑25% between 2015-16 and 2019-20

Operations: costs relating to running the rail network including operations and support costs.

Increased largely due to accounting adjustments that moved capital expenditure to operating costs, rather than being a true increase in costs.

↑30% between 2015-16 and 2019-20

Maintenance: costs relating to activities that maintain the condition and capability of the existing infrastructure.

Increased partly due to planned work in preparation for Control Period 6, and partly due to the impact on assets of hot weather in 2018.

↑79% between 2015-16 and 2019-20

Financing costs: reflect the cost of servicing Network Rail's debts.

Over half of Network Rail's debt relates to loans from the Department on which interest is paid. Additionally, Network Rail pays interest on directly market-issued debt incurred under funding settlements drawn up when it was a private company, prior to its reclassification as a Central Government Body in 2014.

Beginning in Control Period 6, new borrowing from government will only be used to refinance debt; government grants will fund investment.

Renewals: costs relating to the replacement of network assets, such as track and signalling equipment, that have deteriorated and can no longer be maintained economically.

In total, renewal expenditure in Control Period 5 was £1 billion more than planned. The largest overspend by asset was on the track, which the Office of Rail and Road (the rail industry regulator) attributed to Network Rail not achieving planned efficiency improvements.

Rail infrastructure: impact of the COVID-19 pandemic

Network Rail acted to keep services available during the pandemic for those who needed to use them.

It altered timetables so passenger and freight services could continue to run, sometimes with a reduced frequency, especially at peak times. Some of these changes alleviated longer-term issues with challenging timetables associated with performance issues.[4]

With fewer passengers using the railway, Network Rail accelerated maintenance and renewals in some areas. Operating costs in some regions increased because of the demands of COVID-19 – for example, purchasing personal protection equipment (PPE) and use of additional vehicles to maintain social distancing.

Network Rail cancelled rent payments due from tenants in its commercial estate between 25 March 2020 and 23 June 2020 and cancelled base rent payments for retailers in managed stations, collecting only turnover-based rent.

Pressure on property rental revenues (which generated £254 million of income in 2019-20) caused by the pandemic is a financial concern for Network Rail (see page 10). Any sustained reduction might increase pressure on future government funding requirements.

Source: Network Rail

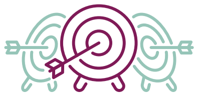
4 For example, in December 2020, the North West & Central route reported an improvement in performance following the COVID-19 pandemic and resultant changes in timetable.

Passenger rail

The Department contracts out passenger rail services in England through 14 franchise agreements. Since privatisation, almost all passenger journeys have been provided by these franchised operators – more than 99% of journeys in the past decade.

This section (pages 13 to 20) explores the finances of passenger rail.

Policy aims



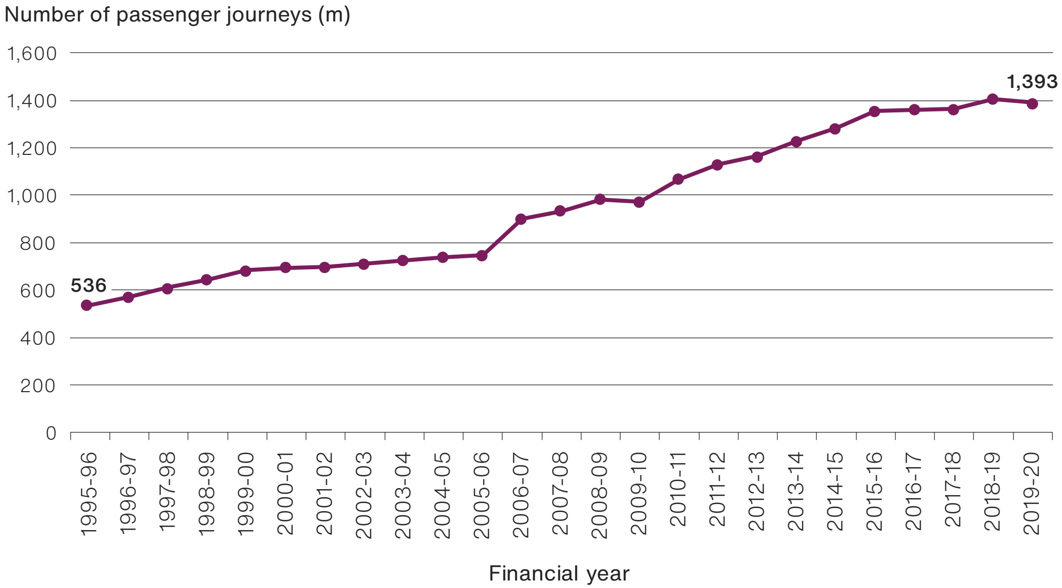
Government's overall aim for passenger rail has been to:

- encourage a competitive passenger rail market which provided high-performing, value-for-money services while driving cost-effectiveness, and where the needs of passengers were central to business planning and operations.

In September 2018, the Secretary of State for Transport announced the Williams Rail Review, to make recommendations for reforms that prioritise passengers' and taxpayers' interests. The Review followed disruption resulting from the May 2018 change to rail timetables, and the collapse of the Virgin Trains East Coast franchise.

Rail passenger numbers have increased significantly in recent decades, but since 2015-16, growth has slowed.

Number of passenger journeys by train within England and between England and the rest of Great Britain, 1995-96 to 2019-20



Notes

1 Figure includes rail journeys made within England, between England and Wales and England and Scotland. Data do not include changes of train.

2 Data first available in 1995-96.

3 There was a 160% increase in passenger journeys between 1995-96 and 2019-20.

Source: National Audit Office analysis of Office of Rail and Road data

The exception to these franchise arrangements are:

- Two franchises – London North Eastern Railway (LNER) and Northern – operated by government-owned 'operator of last resort' companies after the government terminated the original franchise contracts early in 2018 and 2020;
- In London and Merseyside, where passenger service operations are let as concession agreements by Transport for London (TfL) and the Merseyside Passenger Transport Executive; and
- Three non-franchised 'open access' operators: Hull Trains, Grand Central and Heathrow Express have access contracts with Network Rail that allow them to operate services while not having a franchise contract with central government.

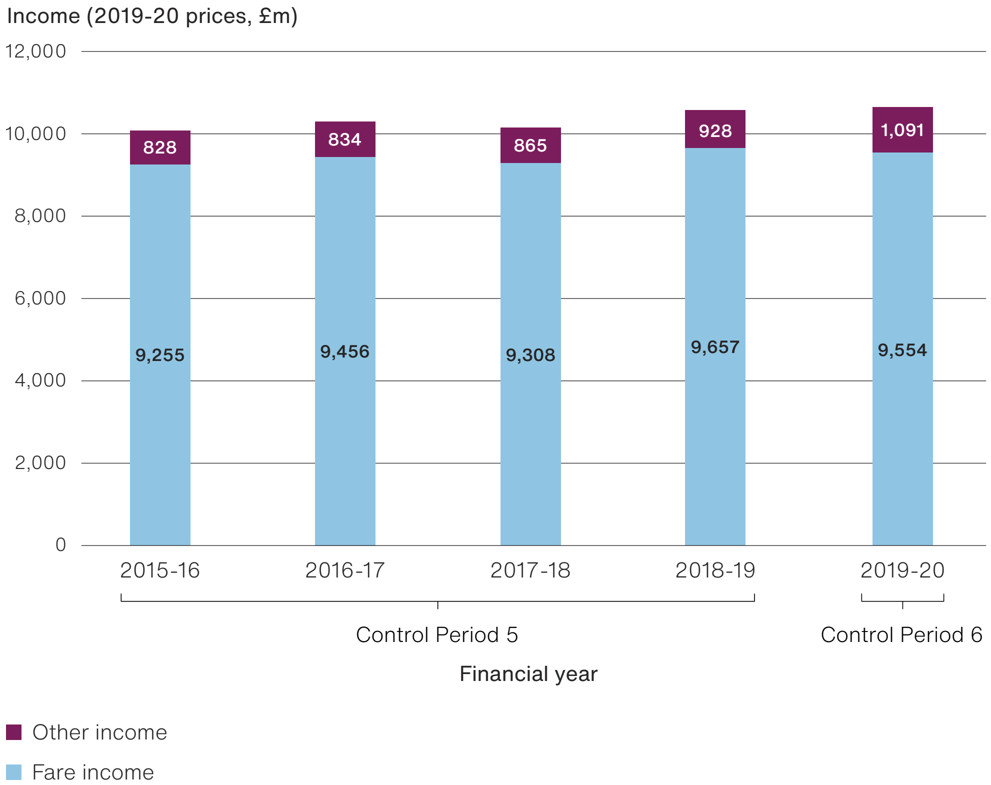
Passenger rail: fare and other income

In 2019-20, income earned from operating passenger rail services (franchised and non-franchised) was £10.6 billion.

Between 2015-16 and 2019-20, total income increased 6%. The impact of the COVID-19 pandemic in the final month of 2019-20 caused a slight decrease in fare revenue compared to the previous year.

Each year, income from operating passenger services (from fares and other income) was between 79% and 89% of total income generated in the whole rail industry (excluding government funding).

Income earned through the operation of passenger rail services in England, 2015-16 to 2019-20



Notes

1. Figure includes income earned by franchised and non-franchised operators.
2. Government funding is not included here as it is not 'earned income'.
3. Other income includes income from on-board catering, car parking charges and advertising.

Source: National Audit Office analysis of Office of Rail and Road data

↑32% between 2015-16 and 2019-20

Other income: including from passengers paying for on-board catering or car parking, or from the sale of advertising space on trains and stations.

Passenger fare revenue: received from passengers purchasing tickets to travel on the train service.

In 2019-20, passenger fare revenue contributed £9.6 billion (80%) of total earned income in the rail system (excluding government funding).

Who determines fare levels?

Certain fares – including many season tickets – are 'regulated'. This means government sets the maximum amount by which they can increase every year, linked to the Retail Price Index (RPI). Other fares are set by operators, on a commercial basis, with a view to optimising demand and revenue levels.

Under the COVID-19 Emergency Measures for rail, the difference between regulated and unregulated fares is less clear cut as government has taken on revenue responsibility and risk from operators.

Many, including the Department, argue fares are overly complex (see page 26).

Passenger rail: government funding

Franchised operators receive government funding to support the delivery of passenger services.

In 2019-20, net government funding for passenger services was £533 million. This included £300 million of financial support in response to the COVID-19 pandemic.

Until March 2020, there were various commercial models depending on the franchise. Bidders for franchise contracts proposed a value as part of the competition, based on how profitable they expected their routes to be. Some franchises paid a premium back to the Department, while others received a subsidy. However, each franchise operator took financial risk on their revenues and costs (other than in a small number of cases where services were operated on a 'management contract' basis with the Department retaining most revenue risk).

The Department's net income from franchised operators fell significantly from 2016-17 and in 2018-19 became a net cost.

Operators that run services in London and the South East generate the highest total passenger revenue from fares per passenger-kilometre – up to 18p per passenger-kilometre compared with between 7p and 17p for other franchised operators.

Before the COVID-19 pandemic, franchises were no longer as profitable for operators as they once had been.

In recent years, operator expenditure has increased at a faster rate than operator income, as cost inflation continued but passenger numbers fell below the initial expectations of many operators when they bid for the franchise.

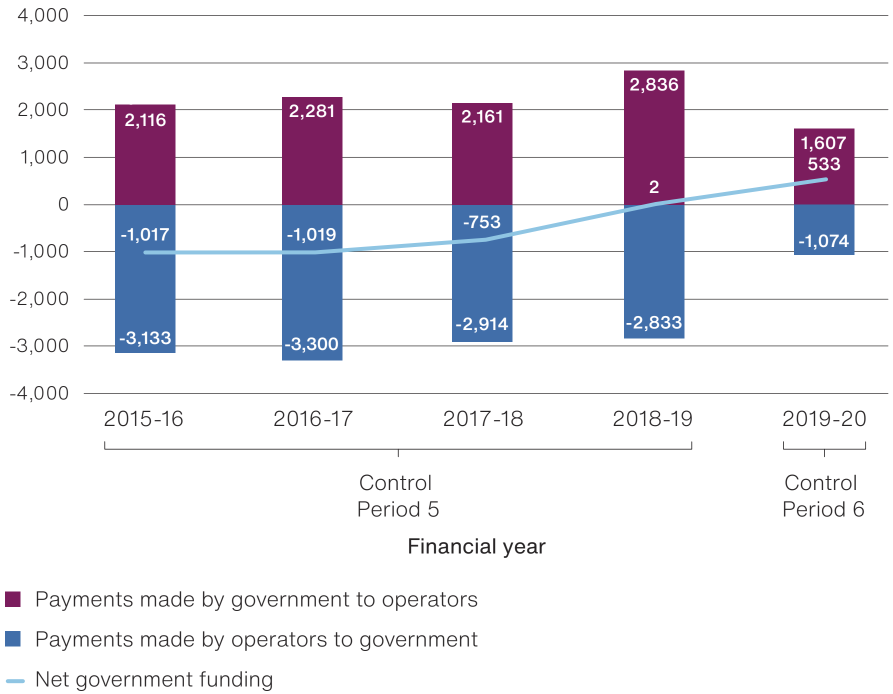
This has affected the profitability of operators and costs for government. Some franchises have terminated early as a result of their losses. Newer franchise bids have reflected higher costs.

In addition to decreasing profitability, other factors – such as: a switch in Network Rail's funding stream (from the Network Rail grant to payments by operators through access charges), additional costs for rolling stock, and COVID-19 support in 2019-20 have contributed to the increased government support provided to franchised operators.

The COVID-19 pandemic brought an end to the current commercial model of rail franchising.

Net government funding for franchised operators in England, 2015-16 to 2019-20

Government funding and receipts (2019-20 prices, £m)



Notes

1 Net government funding accounts for funding given to franchised operators and payments made back to government by franchised operators, as per their contract agreements.

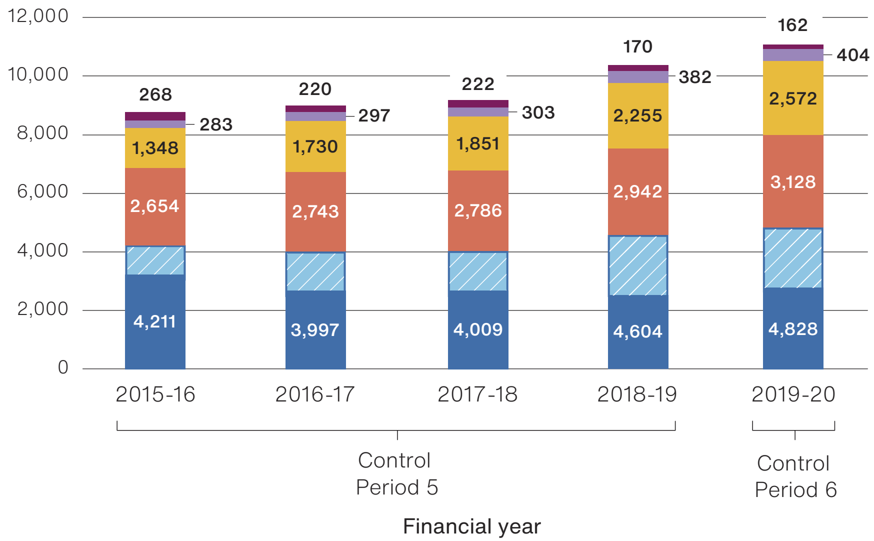
2 Government funding in 2019-20 includes £300 million of COVID-19 support provided in March 2020.

Source: National Audit Office analysis of Office of Rail and Road data

Passenger rail: expenditure

In 2019-20, gross expenditure on passenger service operations was £11.1 billion across franchised and non-franchised operators (£9.5 billion excluding internal financial flows).

Gross expenditure on rail passenger services by operators in England, 2015-16 to 2019-20



- Diesel fuel costs
- Traction electricity
- Rolling stocks lease costs
- Staff costs

- Of which internal financial flow
  ↑
- Network Rail charges and other operating costs

	2015-16	2016-17	2017-18	2018-19	2019-20
Total (gross) (£m)	8,764	8,988	9,170	10,352	11,095
Total (net of internal financial flows) (£m)	7,625	7,818	8,028	8,970	9,458

Notes

1 Figure includes franchised and non-franchised operator expenditure.

2 Expenditure is presented gross and excludes adjustments made to account for payments between different bodies in the rail industry. We provide more detail in our methods appendix (see page 35).

3 In 2015-16, the Office of Rail and Road (ORR) categorised approximately £200 million as operating costs which should have been included as rolling stock costs. We have presented the data as published by ORR.

Source: National Audit Office analysis of Office of Rail and Road data

↓40% between 2015-16 and 2019-20

Diesel fuel: the cost of fuel required to run diesel-operated services.

Reductions are due to increased electrification of the network and the decrease in diesel fuel is mirrored by an increase in **traction electricity**.

↑43% between 2015-16 and 2019-20

Traction electricity: the cost of electricity required to run electric services. This cost is passed on to train operators from Network Rail.

Increased in part due to rising electrification of rail infrastructure over the period.

↑91% between 2015-16 and 2019-20

Rolling stock lease costs: which operators pay to lease vehicles to run their services (see page opposite).

↑18% between 2015-16 and 2019-20

Staff costs: Salaries, holiday and sickness pay, and overtime for staff involved in the delivery of passenger services.

Increased costs partly reflect increased operator staff numbers. ORR's analysis shows full time equivalent (FTE) operator employees in Great Britain rose to 62,073 in 2019-20 – an increase of 10% since 2015-16.[5]

↑15% between 2015-16 and 2019-20

Operating expenditure: costs direct to operators. Includes station costs, utilities, IT services, marketing and replacement bus hire, as well as smaller amounts of corporation tax and financing costs. This category includes Network Rail charges (an internal financial flow – see page 7) roughly proportional to the light blue section of the graph.

5 Data for two operators were not available in 2015-16. There have been some revisions from head count basis to FTE basis over the period. The 2019-20 figure is based entirely on FTE.

Passenger rail: expenditure on rolling stock

Rolling stock is a significant fixed cost for operators running passenger services. Operators lease rolling stock from private rolling stock companies who own the assets.

Operators' expenditure on rolling stock increased, largely because they replaced older rolling stock with newer trains, but also because they needed to lease more rolling stock to run more services.

Approximately 16,000 vehicles make up the passenger fleet, with an average age of 17.3 years in 2019-20.[6]

Government defines the rolling stock requirements that a franchised operator must meet.

Non-franchised operators also lease rolling stock from rolling stock companies but can set the requirements themselves.

The extent to which the operator (and by extension, passengers and taxpayers) is liable for any maintenance costs incurred to keep rolling stock operational depends on the contract between the operator and the party responsible for maintenance.

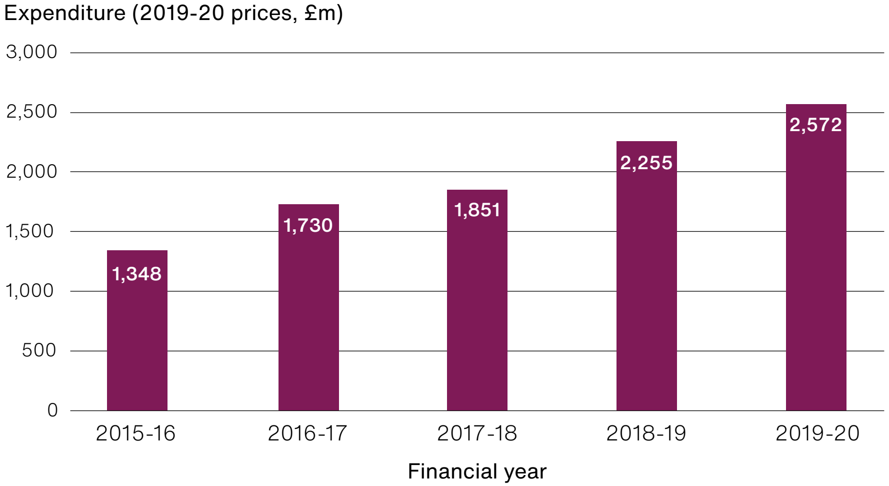
Costs have increased from 2017-18 partly because two new large rolling stock fleets have come into service: the Intercity Express fleet on the Great Western and East Coast lines, and trains on the Thameslink route. These were government-led procurements, see our report *Procuring new trains*.[7]

In 2009, the Competition Commission investigated the rolling stock leasing market. It set out recommendations to improve competition in the market – including:

- to the franchising authority to make changes in the franchising system – for example, longer franchise terms to give operators more time to realise the benefits of new rolling stock; and
- to rolling stock companies to remove non-discrimination requirements, and provide operators with a set list of information to inform their bids (which was reflected in a Transparency Order in 2010).

While the market has seen new entrants, in April 2020 the Office of Rail and Road concluded that these measures had not alleviated the original competition concerns and recommended to the Competition and Markets Authority that it was appropriate to keep the Transparency Order in place.[8]

Expenditure by train operating companies on rolling stock to deliver passenger services in England, between 2015-16 and 2019-20



Notes

1 Expenditure by franchised and non-franchised operators is included in this figure.

2 Expenditure is presented gross and excludes adjustments made to account for payments between different bodies in the rail industry. We provide more detail in our methods appendix (see page 35).

3 In 2015-16, the Office of Rail and Road (ORR) categorised approximately £200 million as operating costs which should have been included as rolling stock costs. We have presented the data as published by ORR.

Source: National Audit Office analysis of Office of Rail and Road data

6 The typical service life of a rail vehicle is around 30–35 years. Age range of vehicles in operation in 2019-20 was 0.3 years to 40.6 years.

7 Comptroller and Auditor General, *Procuring new trains*, Session 2014-15, HC 531, National Audit Office, July 2014. Available at: www.nao.org.uk/report/procuring-new-trains-2/

8 Office of Rail and Road, *Final decision – Review of the Rolling Stock Leasing Market Investigation Order 2009*, April 2020.

Passenger rail: impact of COVID-19

The COVID-19 pandemic led to a significant decline in passenger demand, threatening the financial viability of rail operators.

In response, **the government announced emergency agreements** with franchised operators.

In September 2020, the Department announced Emergency Recovery Measures Agreements (ERMAs) and the end of the current commercial model of rail franchising as a first step in delivering rail reform and a more customer-focused railway.

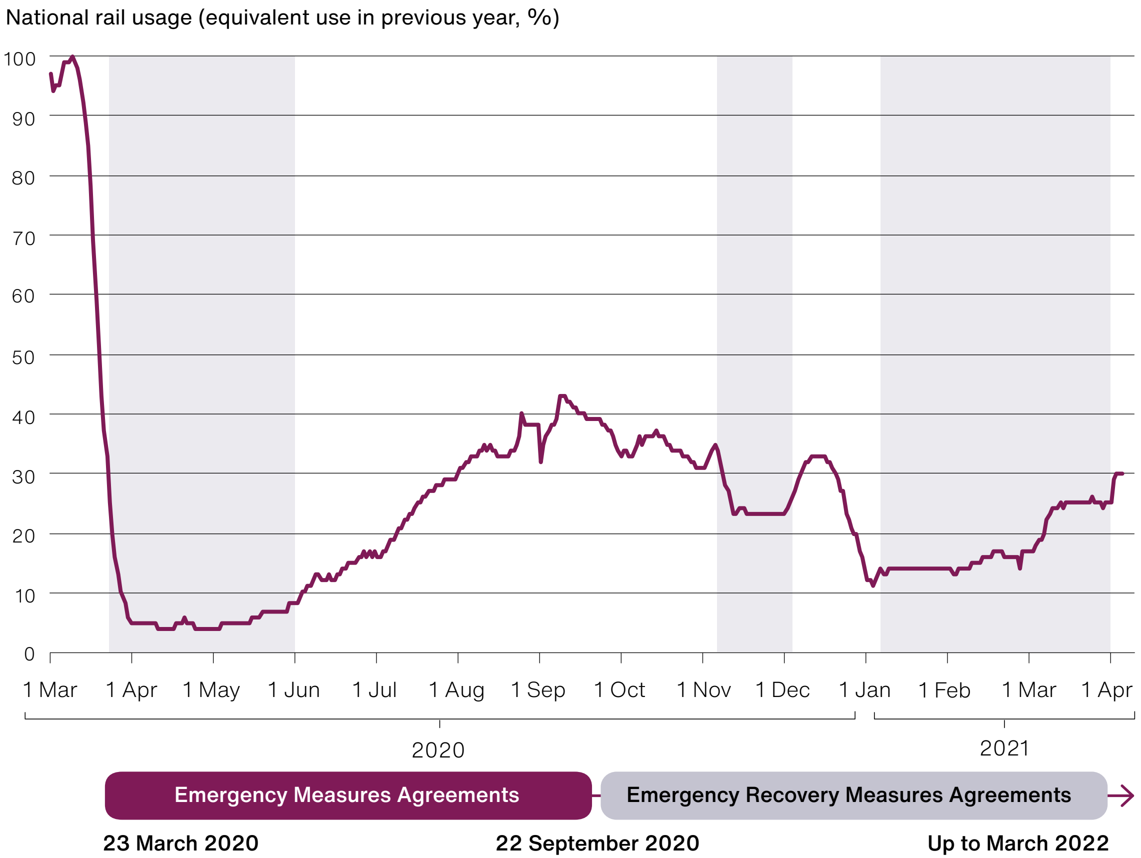
The measures include more stringent performance targets and require coordination between operators in an attempt to reduce capital costs and improve passenger satisfaction.

The Emergency Recovery Measures Agreement period runs for up to 18 months, depending on the franchise, with the last expected to end by March 2022. When the Agreements end, the Department will seek to replace the underlying franchise agreements with directly awarded National Rail Contracts. The definition and requirements of these contracts are yet to be confirmed.

Non-franchised operators were not eligible for emergency support.

These operators suspended services and ran reduced timetables. The Department told us that these operators were able to access general support measures available across the economy, such as the furlough scheme. However, they may face job losses or reduced services to remain financially viable in the future.

Rail usage in Great Britain between 1 March 2020 and 1 April 2021



Notes

1 Grey areas represent periods of lockdown in England. Since June 2020, in between these lockdown periods, there have been other various restrictions affecting travel demand – such as local tiered lockdowns, government advice to work from home and the closure of entertainment facilities.

2 Data are for Great Britain as England-only data are not published by the Department for Transport.

3 Although data are reported in days, comparisons are made to the equivalent week in 2019 based on a rolling weekly average for the days.

4 For full notes and limitations of the data see: www.gov.uk/government/publications/transport-use-during-the-coronavirus-covid-19-pandemic/covid-19-transport-data-methodology-note.

Source: National Audit Office analysis of Department for Transport statistics on transport during the COVID-19 pandemic

Emergency Measures Agreements

- Overlay to existing franchise agreements.
- All revenue and cost risk transferred to government.
- Total government support between March and September 2020: £4.1 billion.

Emergency Recovery Measures Agreements

- Signal end of the current commercial model of rail franchising.
- Additional government support in remainder of 2020-21 financial year: between £4 billion and £5 billion, depending on the number of people travelling.

Passenger rail: impact of COVID-19

In response to the COVID-19 pandemic, government changed the franchising model of passenger service delivery, **transferring substantially all risk and reward from operators to the Department**.

The new arrangements mean the government is now **directly exposed to operators' income and expenditure positions**, rather than exposure being deferred until a franchise contract ends or the financial position of a franchisee changes.

Change in distribution of financial risk in the rail system in England, before and as a result of the COVID-19 pandemic

	Pre-COVID-19	Post-COVID-19 contracting (from March 2020)
Type of contract	Franchise agreements between the Department for Transport (the Department) and operator.	Adapted franchise agreements through Emergency Measures Agreements and then Emergency Recovery Measures Agreements (ERMAs). When ERMAs end, the Department will seek to replace the underlying franchise agreements with directly awarded National Rail Contracts.
Revenue risk Who absorbs the loss if passenger fare income falls?	Operators generally held revenue risk and were therefore incentivised to maximise revenue. They bore significant risk as their franchise bids were based on often over-optimistic assumptions of future fare revenue, which might not materialise. Some operators had partial protection through risk-sharing mechanisms built into contracts. Separately, if revenue was affected by government actions (for example, if an infrastructure upgrade was postponed or cancelled), the Department and operator would negotiate and agree to adjust payments. Exceptionally, the Thameslink, Southern and Great Northern franchise was run as a gross cost contract where the Department absorbed passenger revenue risk while the operator retained risk on ancillary revenue.	These risks are borne by the Department, which must scrutinise whether complete revenues and contractually appropriate costs are being submitted by operators. Operators receive a management fee for their services on a fixed percentage basis, with some performance elements.
Expenditure risks If operational costs rise, who pays?	Operators predominantly bore this risk, although the Department provided selective protections, such as for changes to track access charges by Network Rail.	
Financial failure What happens if an operator fails?	See page 20 – Impact of franchise terminations.	The extent of risk transfer under the adapted franchise agreements makes financial failure extremely unlikely. It is not yet clear how financial failure risks will be managed under any future model.
Management risks Who is responsible for ensuring revenue and costs are properly accounted for?	Accounting arrangements under franchising were straightforward for the Department, as payments to and from operators were primarily reliant on contracted levels of premium and subsidy.	Under the adapted franchise agreements, arrangements are more resource-intensive for the Department, which must: • absorb the variability from taking on revenue and cost risk; • enhance scrutiny to ensure operators are deducting only allowable costs; and • calculate management/fixed fees and performance payments.

Passenger rail: impact of franchise terminations

The impact of the COVID-19 pandemic on rail caused government to seek to end previous franchise arrangements.

However, before the COVID-19 pandemic, some franchised operators were experiencing commercial difficulties. This was largely because their bids were based on assumptions of passenger growth that were higher than those which materialised.

Franchise terminations resulting from this over-optimism did not lead to bailouts but accelerated the Department's existing exposure to the underlying commercial issues.

The profit/loss position for a franchised operator depended on the difference between:

- its underlying income and expenditure; and
- the amount it was contracted with the Department to pay/receive as premium/subsidy.

An operator whose underlying position was materially worse than its contracted position made a loss. This position became increasingly common as winning operators did not anticipate or provide for sufficient resilience against the recent slowdown in passenger growth (page 13).

Owning groups' financial exposure to losses were effectively capped at the level of the contracted Parent Company Support, Performance Bond and, in some limited scenarios, their Agreed Funding Commitment from their parent company. Parent Company Support represented a funding source that could be drawn down to cover operator losses.

Once Parent Company Support was fully drawn down by the operator, there was no further obligation on the parent company to continue to fund operating losses. If such losses continued and no additional support was provided, the operator would be likely to default on the financial liquidity conditions in its contract.

If this happened, it would provide the Department with grounds to terminate the contract.

Up to termination, loss-making franchises provided a temporary benefit for the taxpayer, as the Department benefited from financial terms now known to be unsustainable.

After termination the Department is legally obliged to ensure continuity of passenger service.

Lead times in running a full procurement are long, so instead the Department would have the option to either:

- enter into a replacement contract with the incumbent on amended terms; or
- transfer the business into a government-owned 'operator of last resort' (OLR) company. This was the option chosen for the East Coast (2018) and Northern Rail (2020) franchises.

In both scenarios, the Department becomes exposed to the financial risk of reduced revenue from slowed passenger growth, from which it is temporarily shielded by the loss-making franchisee.

Rail freight

In 2019-20 in Great Britain 16.6 billion net tonne kilometres of freight were moved by rail. Freight operates largely on the same network as passenger services. Unlike the passenger sector, rail freight is almost entirely privatised.

This section (pages 21 to 23) explores the finances of rail freight.

Rail freight operators run in response to demand from their commercial customers – if there is no demand a service will not run.

Government has a limited role in rail freight but sets the safety and regulatory environment.

Policy aims

In 2016, government published a Rail Freight Strategy setting out to:

- improve understanding of freight priorities, demand and use of the network; and
- support innovation in the freight industry including identifying new market opportunities.

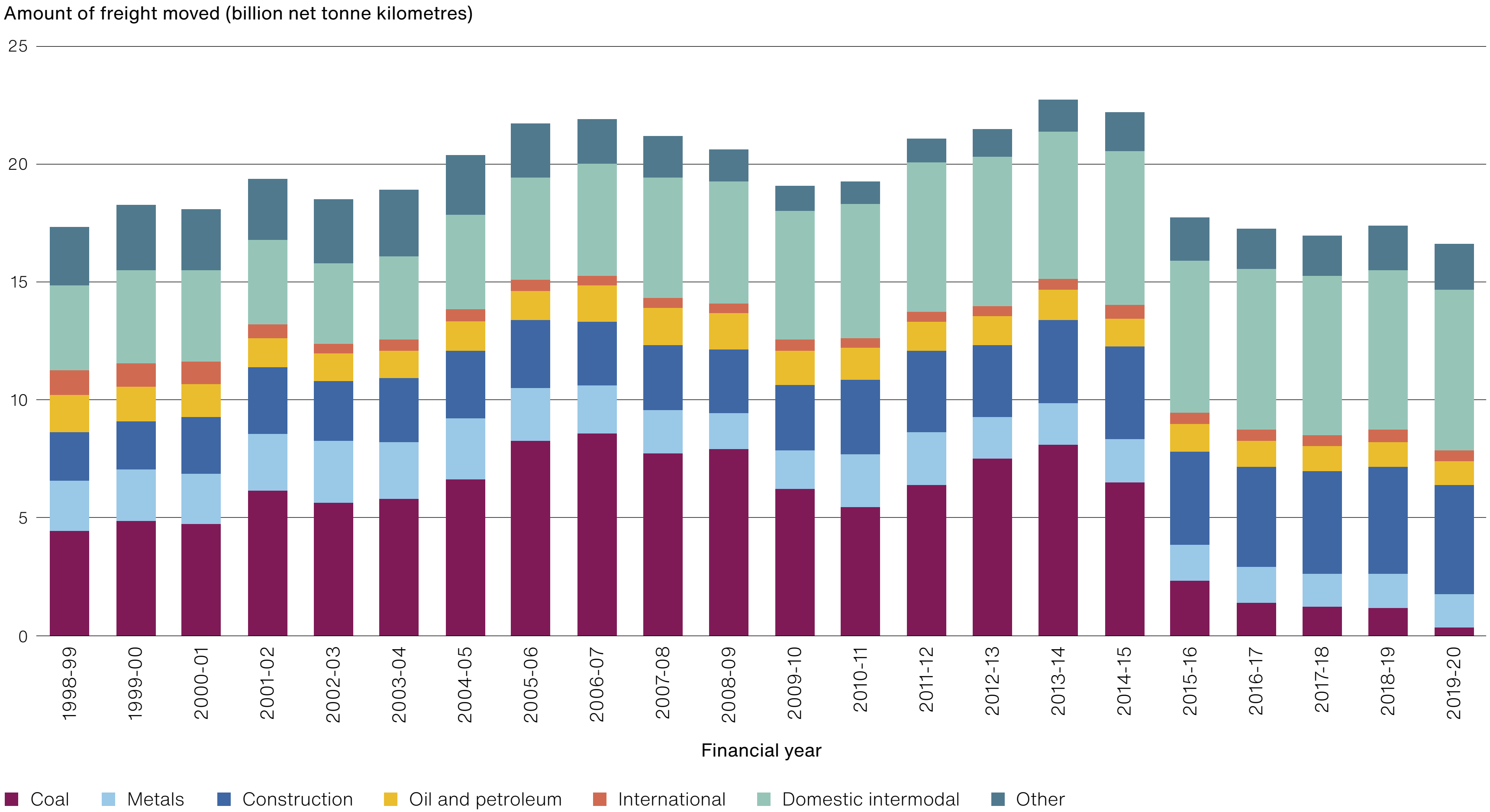
The Department promised a 'cross-modal' freight strategy setting out its expectations for rail freight, due in 2020, but this has been delayed. However, in *Decarbonising Transport: setting the challenge (2020)*, it highlighted the importance of increasing lower-carbon rail freight.

Source: Network Rail

Impact of COVID-19

COVID-19 initially reduced rail freight volumes. However, volumes have now returned to pre-pandemic levels. Reduced passengers services meant more access to the network for freight operators.

Freight moved by rail in Great Britain, 1998-99 to 2019-20



Notes

1 Data are for Great Britain as England-only data are not available.

2 Consistent data across the freight categories only started to be published from 1998-99.

3 Net tonne kilometre is a measure of freight moved (tonnes) multiplied by the distance covered (kilometre).

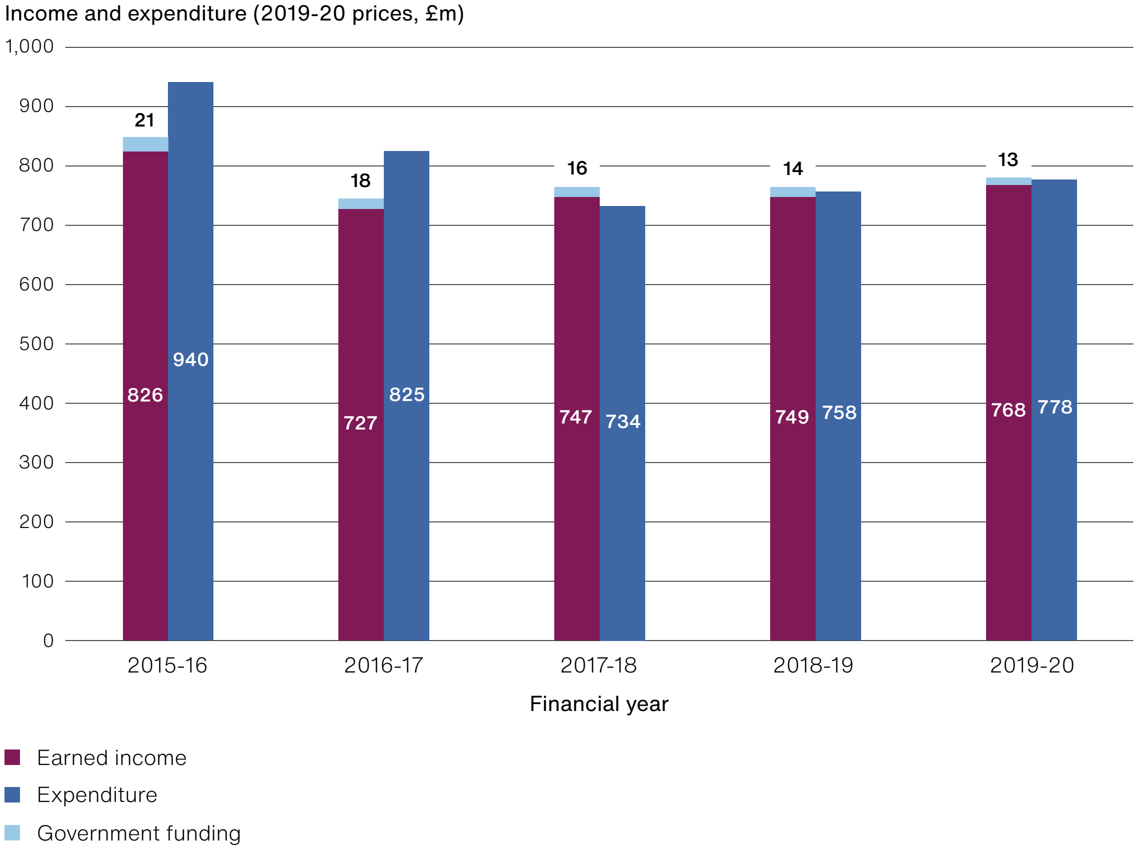
4 The amount of coal moved decreased between 2014-15 and 2015-16 following an increase in the Carbon Price Floor in 2015, which increased the cost of using coal and accelerated a reduction in its use.

Source: National Audit Office analysis of Office of Rail and Road data

Rail freight: income and expenditure

As private companies, freight operators often make long-term financial investments in assets and personnel.

Gross income and expenditure in the rail freight sector in England, 2015-16 to 2019-20



Notes

1 Figures represent gross income and expenditure and exclude adjustments made to account for payments between different bodies in the rail industry. We provide more detail in our methods appendix (see page 35).

2 Government funding to the freight sector is through the Mode Shift Revenue Support Intermodal grant to encourage modal shift from road.

3 Data were not available for 2019-20 when the Office of Rail and Road (ORR) completed their publication. ORR used 2018-19 figures for freight operators adjusted for inflation, which we include here.

Source: National Audit Office analysis of Office of Rail and Road data

Rail freight sector income is almost all from the operation of demand-led services to customers, with small amounts of other income from transactions between subsidiaries and affiliates.

Expenditure comprises rolling stock purchase or leasing costs, staff costs and network access charges.

Compared to road haulage, rail freight has a higher proportion of fixed costs. This makes rail much more competitively priced for high-volume transport over long distances, where unit costs are low.

Government provides a small amount of subsidy through the Mode Shift Revenue Support Intermodal grant, which encourages the movement of bulk and intermodal freight by rail (and water) on routes where road haulage has a financial advantage.

This makes up less than 1% of total government funding for rail.

Challenges ahead

All change? The Williams Rail Review

In 2018, the Department launched the Williams Rail Review to explore the structure of the rail industry, how passenger rail services are delivered, and determine which organisational and commercial frameworks are most suitable. Central to the Review's remit is putting customers (passengers and freight companies) at the heart of the system.

The Department, and the wider industry, had a number of concerns which led to the review. These included:

- lack of strategic oversight leading to service disruption and poor passenger experience;
- lack of integration between rail infrastructure and passenger (and freight) services;
- confused accountabilities for delivering services and for rail disruption;
- concerns over value for money for passengers and taxpayers;
- franchise failures and long-term financial sustainability of franchises and the franchise market;
- the balance between public and private sector involvement; and
- concerns over the system being fit for purpose alongside changing travel and work patterns.

The Department originally expected to publish the Review's recommendations in the form of a white paper in autumn 2019. This is now expected in May 2021.

In the meantime, Keith Williams (the independent chair) has spoken publicly about the options being considered, including:

- a new national rail body or 'guiding mind' with overall responsibility and accountability for rail infrastructure and passenger services;
- the department stepping back from day-to-day running of the railway;
- more influence for cities and regions;
- simplifying fares and ticketing; and
- ending franchising in its current form (which has been precipitated by the COVID-19 pandemic).

The rest of this section explores some key questions facing government as it takes forward rail reforms

How will government address the need for integrated decision-making, and shape its own role?

The structure of the current rail system is little changed from the post-1994 design of interconnected public and private organisations with discrete remits. In recent years, this system has showed signs of strain in responding to challenges affecting multiple elements of the rail industry.

- On reviewing the major service disruptions caused by the 2018 timetable changes, the Office of Rail and Road has described a gap in accountability for major network changes characterised by "no one taking control".
- The Williams Rail Review recognises the need to reduce fragmentation in order to better address cross-industry issues.
- Even before the pandemic, franchise terminations were demonstrating the taxpayer's exposure to the underlying costs and revenues of the whole industry, and the limits of operators' ability to absorb risk as circumstances change under pre-COVID franchising terms.

The Williams Rail Review was set up with a remit to review the roles and structures of all parts of the industry, looking at how they can work together more effectively to reduce fragmentation, improve passenger services and increase accountability.

Further reading:

Office of Rail and Road, *Independent inquiry into the timetable disruption of May 2018*, December 2018. Available at: www.orr.gov.uk/sites/default/files/om/inquiry-into-may-2018-timetable-disruption-december-2018-report-grayscale.pdf

Department for Transport, *The Williams Rail Review* – online collection, February 2019. Available at: www.gov.uk/government/collections/the-williams-rail-review

What is the most effective balance between public and private sector roles?

Ministers have described the need to "get the best from the public and private sectors". Since privatisation, this balance has evolved, often in response to external factors or events, towards increased government influence:

- Significant safety issues indirectly forced the administration of privately owned Railtrack, and the transfer of its business to Network Rail in 2002, which was itself reclassified into the public sector in 2014, bringing infrastructure management back firmly into the public sector.
- The extent of risk transferred from the Department to franchised operators has varied and the pandemic has meant revenue and cost risk returning in full to the taxpayer.
- British Rail's rolling stock was sold in 1994 but the Department has since made significant direct interventions in the market to achieve its aims, such as the Intercity Express Programme procurement.

These developments provide an opportunity for reflection as the Williams Rail Review determines how to leverage a commercial model to ensure improved services for passengers and taxpayers, and more effectively balance public and private sector involvement.

Further reading:

HC Transport Committee, *Rail franchising*, Ninth Report of Session 2016–17, HC 66, January 2017. Available at: https://publications.parliament.uk/pa/cm201617/cmselect/cmtrans/66/66.pdf

Comptroller and Auditor General, *Procuring new trains*, Session 2014-15, HC 531, National Audit Office, July 2014. Available at: www.nao.org.uk/wp-content/uploads/2014/07/Procuring-new-trains.pdf

How can passenger revenue be influenced?

The need for government funding is directly related to passenger revenue levels: these are a product of how many people choose to travel by rail and the fares they pay. The government has significant control over fares, but passenger demand is harder to influence.

From 2015-16, the previously high rate of growth in overall passenger numbers slowed to a virtual standstill (page 13). In the short term, the industry is focused on how much and how quickly passenger numbers will recover from the impact of the COVID-19 pandemic (pages 18 and 19). Longer-term demand factors can be either:

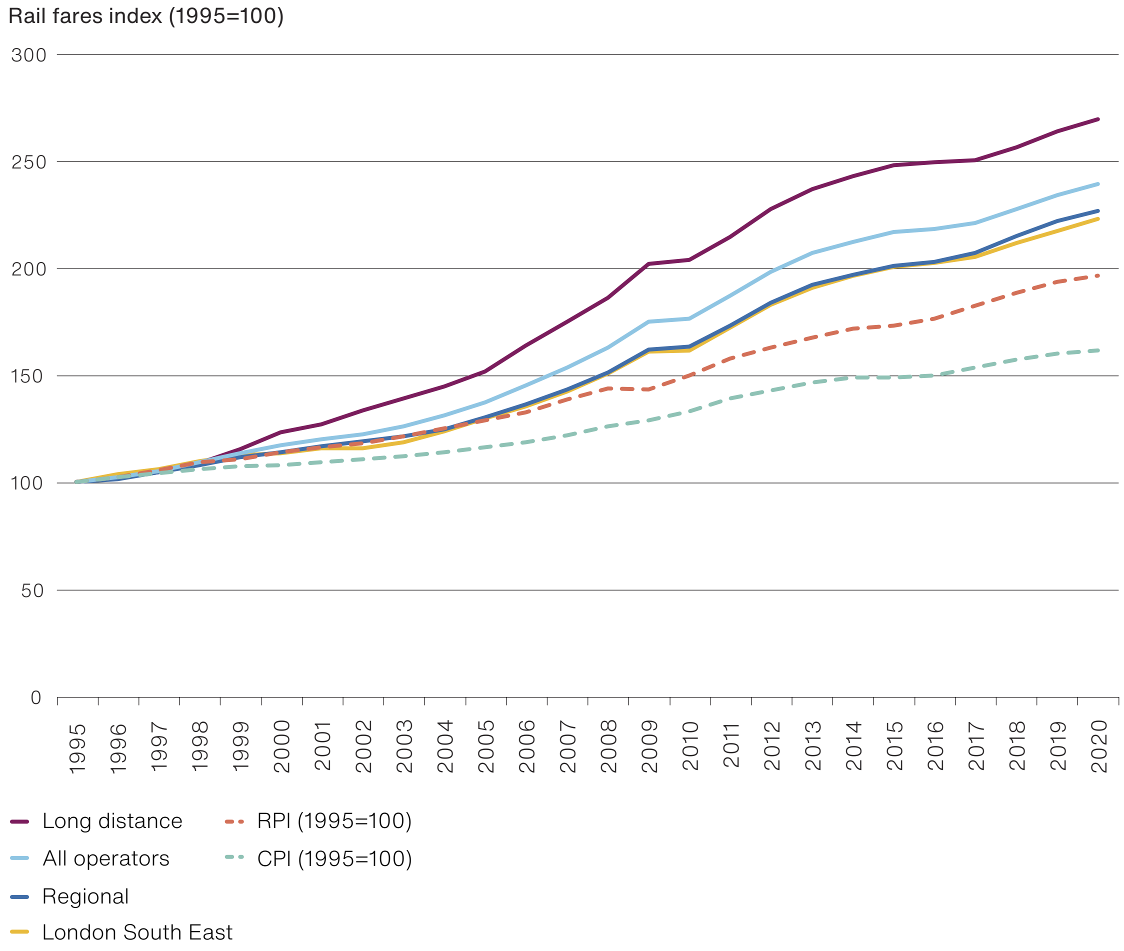
- external, such as the economy, workplace patterns and developments in other travel modes, such as new/better-quality roads or fuel costs; or
- controllable, such as availability of passenger information and the extent to which fares are seen as affordable, simple and flexible.

In recent decades, rail fares have increased above inflation, particularly in long distance services (see figure). Government uses the Retail Price Index (RPI) as a baseline to cap regulated fare increases, on the basis of RPI + X%. The Department committed to using the Consumer Price Index (CPI) in rail fare increases, which runs around 1% beneath RPI, but is yet to make the change.

Further reading:

Office of Rail and Road, *Rail Fares Index (January 2020)*, May 2020. Available at: https://dataportal.orr.gov.uk/media/1736/rail-fares-index-january-2020.pdf

Increase in rail fares in Great Britain between 1995 and 2020 (1995 = 100)



Notes

1 Rail fare data contain regulated and unregulated ticket prices. Regulated fares are standard class fares including saver returns, standard returns, off-peak fares between major cities and season tickets for most journeys. Data include first class and standard class tickets.

2 Rail fare data are for Great Britain as England-only data are not published.

Source: National Audit Office analysis of Office of Rail and Road data

How else can the interests of taxpayers be protected?

The COVID-19 pandemic is putting greater focus on the costs of the railway, to which the taxpayer remains exposed. As well as looking at passenger revenue, the government may look at opportunities for cost control.

The new emergency agreements (see pages 18 and 19) and subsequent direct awards provide an opportunity to better understand and benchmark costs, but significant long-term obligations such as rolling stock leases and pension obligations in Network Rail and train operating companies affect the flexibility available to the Department.

Cost control requires carefully weighed decisions in a safety-critical industry with unusually long-term dimensions to value for money, for example:

- the need to optimise timings of maintenance and renewal work to maintain the rail network's condition and provide value-for-money management of this asset over a span of decades;
- the potential for investment to increase future passenger revenues or reduce running costs; and
- wider social and economic benefits the government looks to achieve through rail connectivity.

How should capacity, performance and cost considerations be balanced?

Train punctuality has suffered in recent years alongside efforts to increase capacity, with the worst difficulties seen in the congested London and South East area during peak time. Peak services are also a significant driver of cost since they dictate route requirements including for rolling stock, trained drivers and infrastructure.

Reduced timetables put in place in response to COVID-19 restrictions have reduced the number of services running during peak time, and allowed operators and Network Rail to run a more reliable service.

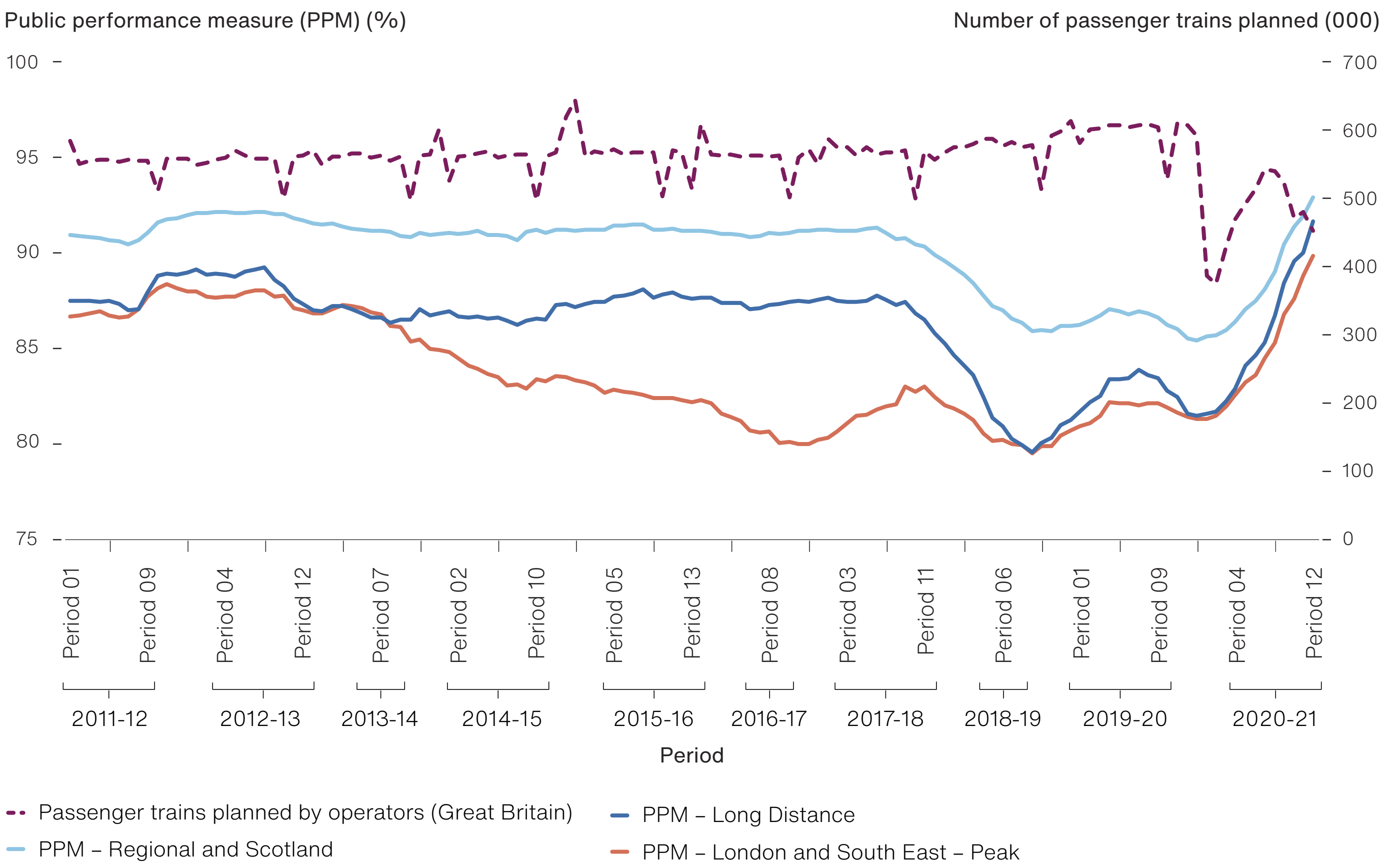
In the future, infrastructure and rolling stock improvements, particularly modernising signal systems, have the potential to allow more trains running closer together; but there will always be trade-offs between maximising the number of services, and having a punctual and resilient service.

Whether a flattened peak will adequately respond to passenger demand in the longer term is uncertain, but future service patterns will continue to impact capacity, performance and cost.

Further reading:

HC Committee of Public Accounts, *Rail management and timetabling*, Eighty-first Report of Session 2017–2019, HC 1793, February 2019. Available at: https://publications.parliament.uk/pa/cm201719/cmselect/cmpubacc/1793/1793.pdf

Train performance and the number of trains planned in Great Britain, 2011-12 to 2020-21



Notes

1 Public Performance Measure (PPM) data presented are a moving average of the last 12 months' figures. PPM is the proportion of trains arriving at their destination early or within 10 minutes (for long distance, Hull Trains and Grand Central) or within five minutes (for other operators). Trains that miss planned calling points fail PPM. Further information on the Office of Rail and Road's PPM methodology is available at: https://dataportal.orr.gov.uk/media/1760/passenger-performance-quality-report.pdf

2 The PPM data for Long Distance and Regional and Scotland include services across Great Britain.

3 PPM failures can be a result of infrastructure issues, operator issues, or unforeseen external events.

Source: National Audit Office analysis of Office of Rail and Road data tables, drawn from Network Rail

What investment will be required to support net zero plans?

Shifting people and freight from road to rail would make significant carbon savings, but as road vehicle technology becomes greener, to meet net zero plans, government will need to invest in greening the rail network itself.

The Department has announced it intends to remove all diesel trains by 2040 but is yet to publish plans on how it will meet this target. Network Rail has analysed replacement technologies based on traction requirements, and concluded that, while hydrogen and battery-powered locomotives could play a part, for 85% of unelectrified line in Great Britain, the best technology would be electrifying the network.

This proposal would require sustained investment in electrification over the coming decades at or higher than the reasonably high level seen in recent years. This is despite the partial scaling back of plans, following cost increases in specific projects such as the Great Western Main Line.

Although less carbon-intensive than road, rail freight faces specific challenges in decarbonising in addition to considering traction sources. Greater use of rail for moving freight will require reductions in congestion and improved interchanges to allow goods to transfer during their journey from road or ship to rail.

Further reading:

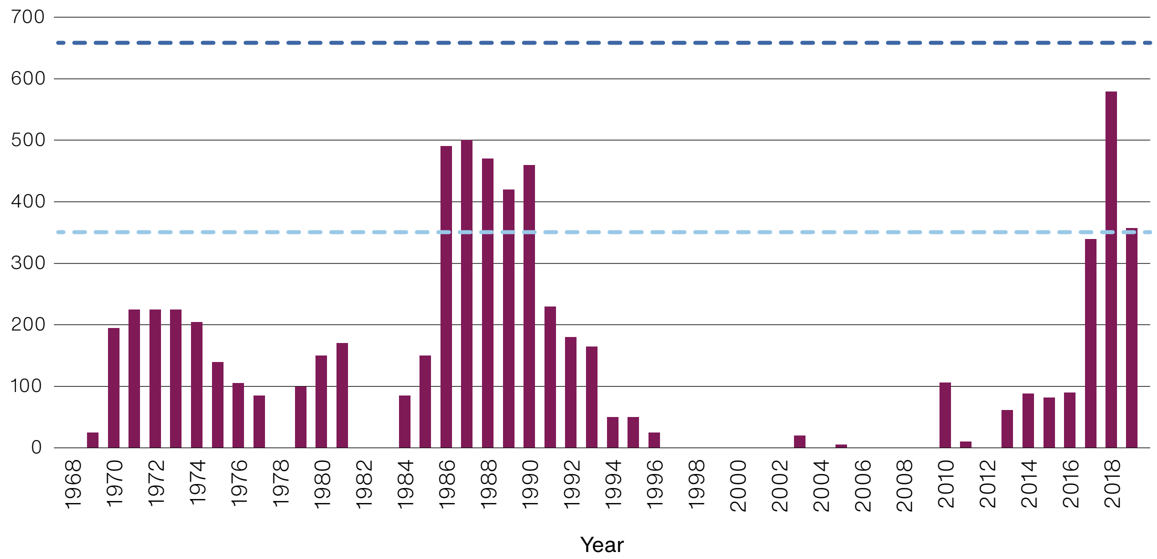
HC Transport Committee, *Trains fit for the future?*, Sixth Report of Session 2019–2021, HC 876, March 2021. Available at: https://committees.parliament.uk/publications/5179/documents/52006/default/

Department for Transport, *Decarbonising Transport: Setting the Challenge*, March 2020. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/932122/decarbonising-transport-setting-the-challenge.pdf

Network Rail, *Traction decarbonisation network strategy – interim programme business case*, July 2020. Available at: www.networkrail.co.uk/wp-content/uploads/2020/09/Traction-Decarbonisation-Network-Strategy-Interim-Programme-Business-Case.pdf

Annual track electrification in Great Britain between 1968 and 2018, and future annual electrification required to deliver net zero

Number of track kilometres electrified



658 – Average level of electirification required to acheive net zero by 2040

355 – Average level of electirification required to acheive net zero by 2050

Note

1 Data are for Great Britain as England-only data are not published.

Source: National Audit Office analysis of Network Rail data

£18 billion to £26 billion (2020 prices)

Estimated capital cost to achieve net zero railway emissions through electrification

£12 billion to £17 billion (2020 prices)

Estimated operating cost savings over 90-year appraisal period before considering other economic benefits

How can the rail network be made more resilient to extreme weather?

The Department needs to ensure that the rail sector addresses the risks to rail infrastructure from climate change.

Following the fatal railway accident at Stonehaven, Network Rail identified that the impact of extreme weather and climate change is accelerating faster than its planning assumptions.

Extreme weather and climate change have implications for safety – as there is an increased risk of derailments – as well as considering other impacts of cancelled or reduced timetables.

As with flood risk management, ensuring the resilience of the network will require a long-term approach to funding and asset management which provides confidence that infrastructure resilience will be at the required level as risk increases over time.

Further reading:

Network Rail, *Resilience of rail infrastructure*, March 2021. Available at: www.networkrail.co.uk/wp-content/uploads/2020/09/Traction-Decarbonisation-Network-Strategy-Interim-Programme-Business-Case.pdf

Source: Network Rail

Glossary

Network Rail	Owns and operates the majority of Britain's rail infrastructure, which includes the track, bridges, tunnels, stations and commercial properties. They manage the day-to-day use of infrastructure but do not run services or own passenger trains. Despite being initially classified as a private company, Network Rail was reclassified as a public sector organisation in 2014, making it subject to the traditional instruments of Parliamentary accountability. The organisation has three main income streams: access charges, government funding and other earned income (including property rental income). Network Rail plans its activity in 'Control Periods', agreed with the Office of Rail and Road, its regulator.
Control Period	Rolling five-year investment periods in which Network Rail works for financial planning and delivery. Control Period 5 ran from 2014-15 to 2018-19. Control Period 6 began in 2019-20 and runs to 2023-24.
Train Operating Companies (operators)	Run passenger services; the consumer face of railway services. They lease and manage stations owned by Network Rail and can apply for franchising with the Department. Franchising allows operators to run specific routes and join the Department rail franchising programme, aligning their aims. Franchised train operators are contracted to either pay a premium to or receive a subsidy from the Department, depending on how profitable their route is expected to be.
Franchising	According to legislation enacted in the 1993 Railways Act, franchising refers to the legal agreement where other parties (other than government) undertake to provide passenger rail services. In England, these franchise agreements are between operators and the Department.
Open access operators	Privately financed operators of both freight and non-franchised passenger services. Operators must have a track access agreement in place with Network Rail, approved by the Office of Rail and Road, to use the railway.
Rolling stock companies (ROSCOs)	Own the trains, which they lease to passenger and freight operating companies. They work closely with operators and are responsible for funding the purchase of new trains, maintaining the fleet and organising fleet transfer.
Department for Transport (the Department)	Works with its agencies and other bodies to support the transport network that helps the UK's businesses and gets people and goods travelling around the country. The Department sets the strategic direction for the rail industry in England and Wales. It funds investment in infrastructure through Network Rail, manages rail franchises and regulates some rail fares. Currently has 14 franchise agreements with train operating companies.
Office of Rail and Road (ORR)	The independent safety and economic regulator of the railway. It works closely with the Department's rail group, rail infrastructure companies and safety organisations. ORR is funded partly through licence fees and safety levies – its economic regulation activities are mainly funded by Network Rail's licence fee.
Rail Delivery Group (RDG)	The British rail industry membership body brings together companies that run British rail (that is, all passenger and freight companies). The group supports its members and, on their behalf, delivers national ticketing, information and reservation services.

Further reading

From the NAO

On the Department for Transport

- Comptroller and Auditor General, *Department for Transport Departmental Overview 2019-20*, National Audit Office, December 2020. Available at: www.nao.org.uk/report/departmental-overview-2019-20-department-for-transport/

On Network Rail

- Comptroller and Auditor General, *Network Rail's sale of railway arches*, Session 2017–2019, HC 2137, National Audit Office, May 2019. Available at: www.nao.org.uk/report/network-rails-sale-of-railway-arches/
- Comptroller and Auditor General, *A short guide to Network Rail*, National Audit Office, August 2015. Available at: www.nao.org.uk/report/a-short-guide-to-network-rail/
- Comptroller and Auditor General, *PAC Memorandum: Planning and delivery of the 2014-2019 rail investment programme*, National Audit Office, October 2015. Available at: www.nao.org.uk/report/pac-memorandum-planning-and-delivery-of-the-2014-2019-rail-investment-programme/

On rail franchising

- Comptroller and Auditor General, *The Thameslink, Southern and Great Northern rail franchise*, Session 2017–2019, HC 528, National Audit Office, January 2018. Available at: www.nao.org.uk/wp-content/uploads/2018/01/The-Thameslink-Southern-and-Great-Northern-rail-franchise.pdf
- Comptroller and Auditor General, *Investigation into the South East Flexible Ticketing Programme*, Session 2016-17, HC 1130, National Audit Office, April 2017. Available at: www.nao.org.uk/report/investigation-into-the-south-east-flexible-ticketing-programme/
- Comptroller and Auditor General, *Reform of the rail franchising programme*, Session 2015-16, HC 604, National Audit Office, November 2015. Available at: www.nao.org.uk/report/reform-of-the-rail-franchising-programme/
- The NAO reported on payments made to and from franchised operators, including the start of the COVID-19 Emergency Measures Agreements period, in the 2019-20 audit of the Department. The Department for Transport's Annual Report and Accounts 2019-20 can be found at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936346/DfT-Annual-Report-and-Accounts-2019-20-web-accessible.pdf

On rolling stock

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Appendix One

Methods

Data sources

Data were drawn from published sources (except figures on emergency support to the end of March 2021, which have yet to be published).

We drew on published data from the Office of Rail and Road (ORR), which can be found on its data portal,[9] specifically:

- Table 7210 – rail industry finances (net of internal flows).
- Table 7216 – Network Rail and franchised train operator finances.
- Table 7233 – non-franchised train operator finances.
- Table 7243 – freight operator finances.
- Table 1310 – freight moved data.
- Table 1510 – passenger journey data.

ORR produces statistics for England only based on Network Rail's Track Access Billing system. More information is available from ORR.[10]

We have not independently validated these data but have agreed our analysis with ORR.

Source: Network Rail

9 Office of Rail and Road data portal on rail industry finances. Available at: https://dataportal.orr.gov.uk/statistics/finance/rail-industry-finance/

10 Office of Rail and Road, *Rail industry finance (UK) – Quality report*, November 2020. Available at: https://dataportal.orr.gov.uk/media/1545/rail-finance-quality-report.pdf

Basis of whole-industry data analysis

Part Two of this overview provides a summary of the income and expenditure for the bodies marked as 'included' on page 5, based on Office of Rail and Road (ORR) regulatory data. This includes Network Rail and train operators but excludes the Department for Transport (the Department), the ORR and the rolling stock companies. No consolidated accounts are prepared for the industry as a whole. Franchised train operators are outside the accounting boundary of the Department's group accounts due to their Office for National Statistics classification.

We chose to include Network Rail and train operators since their income and expenditure, taken together, highlights the large majority of income and expenditure to which taxpayers are exposed in the long term.

Our analysis presented in Parts Three, Four and Five includes the income and expenditure directly incurred by those bodies, including in relation to other bodies marked as 'excluded' on the diagram. For example, the costs to operators of leasing rolling stock are included, but the underlying income and expenditure of rolling stock companies is outside our scope.

As a result of the Department being 'excluded', our analysis does not include the comparatively smaller costs incurred directly by the Department in overseeing this system. It also includes the full costs to Network Rail of servicing its debt, some of which is payable to the Department and does not directly represent a net cost to the taxpayer (see page 11).

Internal financial flows netted from our total income and expenditure rail system figures

The total income (£17.1 billion) and expenditure (£17.4 billion) figures for the rail system in England (in 2019-20), presented in Part Two of this overview, are presented on a net basis.

Since privatisation in the 1990s, there have been internal payments within the rail system – for example, access charges paid by operators to Network Rail. This movement does not alter overall income and expenditure since they net out across the system and have limited direct impact on taxpayer funding over the long term.

In our analysis, we made adjustments to remove these internal financial flows from the total system income and expenditure figures.

This netted approach is consistent with the way the Office of Rail and Road presents rail system total income and expenditure.[11]

Income and expenditure presented at a detailed level, for rail infrastructure (Part Three), passenger rail services (Part Four) and rail freight (Part Five), are presented gross. In these sections, internal financial flows are highlighted in the diagrams where available.

11 Office of Rail and Road, *Rail industry finance (UK) – Quality report*, November 2020. Available at: https://dataportal.orr.gov.uk/media/1545/rail-finance-quality-report.pdf

Explanation of the discrepancy between income and expenditure

The headline rail sector figures in this overview suggest a £340 million gap between income (£17.1 billion) and expenditure (£17.4 billion) in 2019-20.

This discrepancy can be broken down by industry participants (see table).

Consolidated statutory accounts for the industry as a whole are not prepared. The apparent income deficit in Network Rail is due to timing differences between when government funding is received and when costs are recognised for accounting purposes. The data used herein, including for Network Rail, are derived by the Office of Rail and Road from regulatory filings. Network Rail's audited statutory accounts[12] do not show a significant difference between income and expenditure (for Great Britain as a whole, there was a recorded loss of £20 million in 2019-20).

Industry participant (£m)	Income	Expenditure	Difference
Network Rail	7,310	7,824	-514
Franchised operators	11,016	10,991	25
Other operators	161	103	58
Freight	782	778	4
High Speed One	237	151	87
Totals	**19,506**	**19,846**	**-340**

Note

1 Figures are rounded and may not sum.

12 Network Rail, *Annual Report and Accounts 2020*, July 2020. Available at: www.networkrail.co.uk/wp-content/uploads/2020/07/Annual-report-and-accounts-2020.pdf

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