



Freight Rail Usage

2017-18 Q4 Statistical Release

Publication date: 7 June 2018

Next publication date: 27 September 2018

Background

This release contains information on rail freight usage in Great Britain with the latest quarterly data referring to January, February and March of 2018.

The statistics cover **freight moved** (disaggregated by seven commodities), **freight lifted**, **freight delays per 100 train km**, **freight train km by operator** and **freight market indicators** which show comparisons with other modes of transport

Data are sourced from Network Rail, Freight Operating Companies (FOCs) and Department for Transport (DfT).

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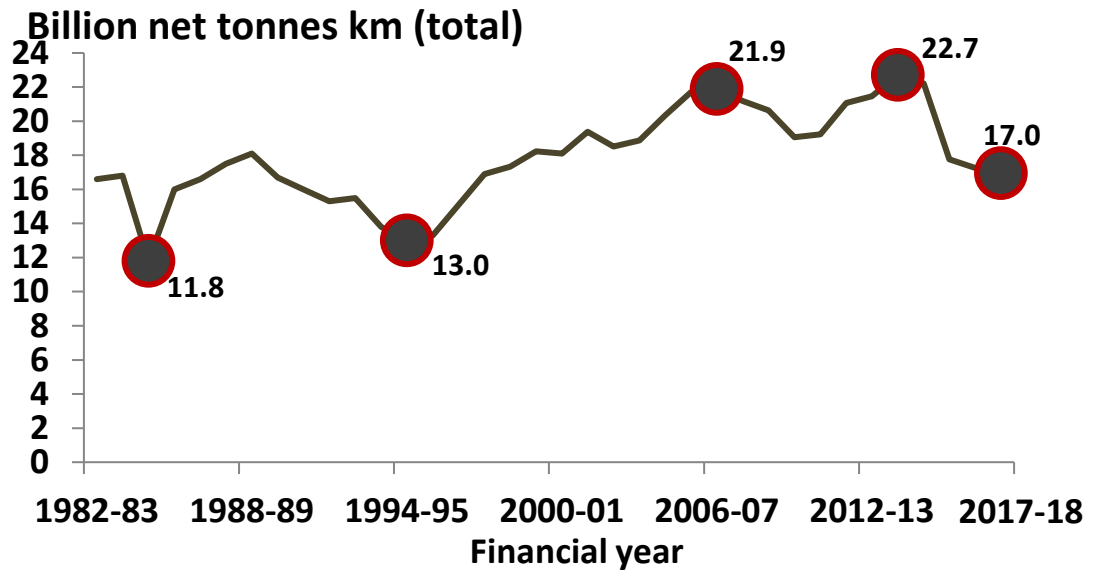
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Overall rail freight moved has declined in 2017-18 but the rate of decline has slowed compared to the previous year

Freight moved (total), Great Britain, 1982-83 to 2017-18



The total volume of rail **freight moved** fell to 17.0 billion net tonne kilometres in 2017-18, a 1.7% reduction on 2016-17. Of the seven commodities, **coal** fell the most by 12.7% compared to 2016-17 to 1.2 billion net tonne kilometres in 2017-18.

The total amount of **freight lifted** in 2017-18 recorded a decrease of 5.6% since last year and is now at 75 million tonnes.

The downward trend in **freight train movements** continued with 216 thousand in 2017-18, a reduction of 3.5% on last year. This is the lowest number of movements since the time series began in 2003-04.

Total **freight train kilometres** fell to 33 million kilometres, a decrease of 3.2% compared to 2016-17; the lowest amount recorded since the time series began in 2010-11.

Author: Stephen Pottinger (0207 282 3763)

Responsible Statistician: Ashley Goddard

Public Enquiries: Email: Rail.Stats@orr.gsi.gov.uk

Media Enquiries: Tel: 020 7282 2094

Website: <http://www.orr.gov.uk/statistics/published-stats/statistical-releases>

1. Freight moved

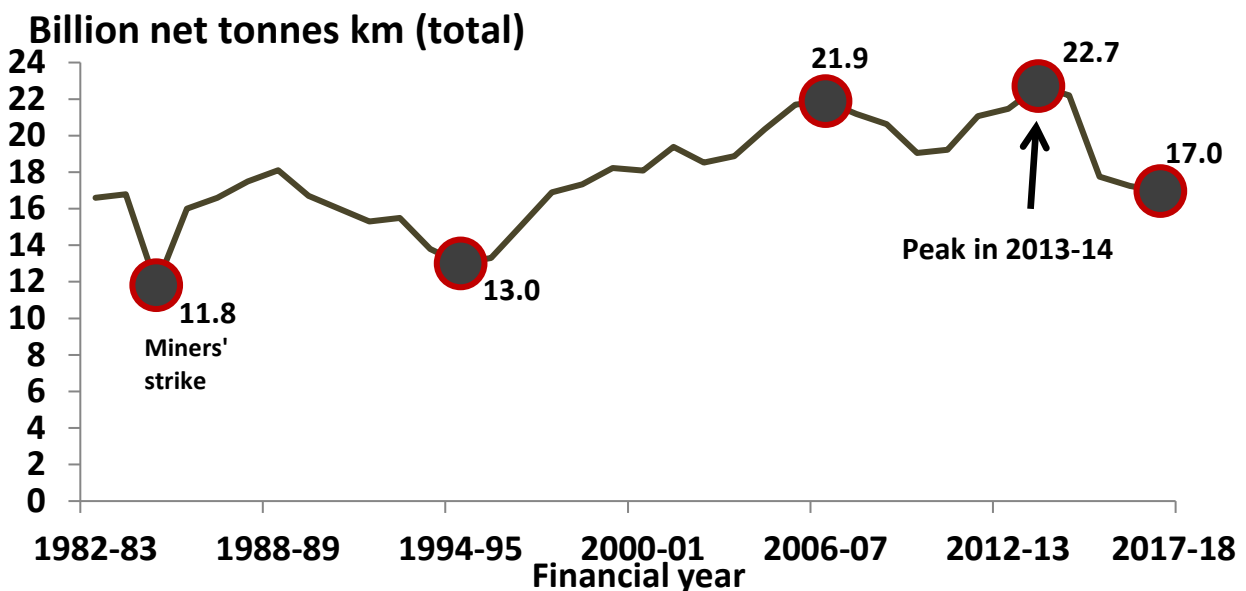


Annual 2017-18

The total volume of rail freight moved fell to 17 billion net tonne kilometres in 2017-18, a 1.7% reduction on 2016-17. This is the lowest total since the late 1990s.

Total freight moved grew steadily from 1995-96, reaching a peak of 22.7 billion net tonne kilometres in 2013-14. The government has since introduced a policy to phase out coal production in the UK by 2025 and so this has been a major factor in the decrease in the overall freight moved in the last few years¹.

Figure 1.01: The volume of rail **freight moved** (billion net tonne km), Great Britain data 1982-83 to 2017-18 ([Table 13.7](#))



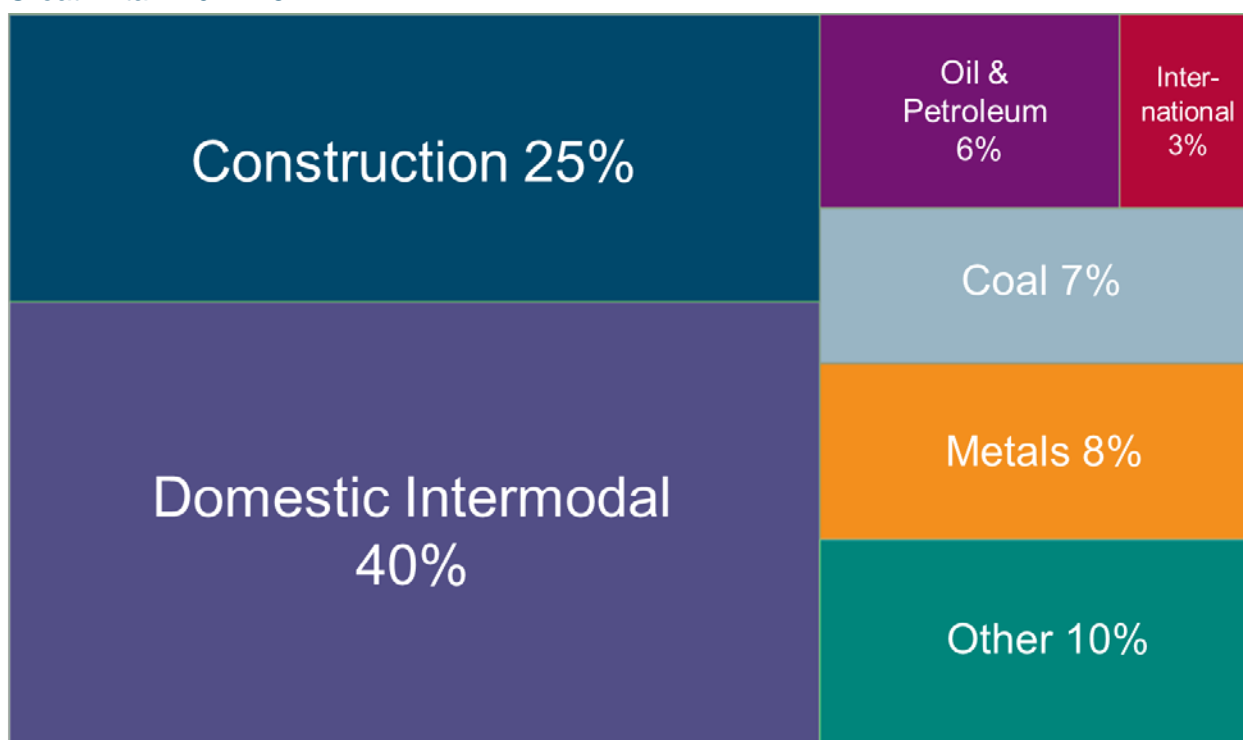
Freight moved data, measured in net tonne kilometres, shows the amount of freight which is moved on the railway network, taking into account the weight of the load and the distance carried.

Freight moved is disaggregated by seven commodities which are also summed to provide an overall total freight moved. The seven commodities are coal, metals, construction, oil and petroleum, international, domestic intermodal and other.

In addition to the seven commodities listed above the amount of goods used for railway engineering work is also reported, under the 'infrastructure' category. This is not included in the totals published in the freight moved tables and charts.

¹ <https://www.theguardian.com/business/2018/jan/05/uk-coal-fired-power-plants-close-2025>

Figure 1.02: The proportion of rail **Freight moved** (by commodity) – (Table 13.7)
Great Britain 2017-18



Of the seven major commodities Domestic intermodal recorded the biggest share of freight moved in 2017-18 (40%), its highest share since the start of the time series in 1998-99. International had the lowest share (3%).

Coal experienced the biggest reduction in freight moved in 2017-18 compared to 2016-17, a 12.7% decrease to 1.2 billion net tonne kilometres. Closure of coal powered stations to meet 2025 emissions targets, and restricted use by 2023 has affected the amount of coal moved by rail.

Four out the remaining six commodities recorded a decrease in total freight moved in 2017-18 compared to 2016-17: metals (↓5.4%) to 1.4 billion net tonne kilometres, domestic intermodal (↓1.4%) to 6.7 billion net tonne kilometres, oil and petroleum (↓5.0%) to 1.1 billion net tonne kilometres and other (↓0.3%) to 1.7 billion net tonne kilometres.

Two commodities experienced an increase in freight moved in 2017-18 compared to 2016-17: construction (↑1.5%) and international (↑12.7%). An increase in house building and other construction activity may have increased the amount of construction material moved by rail freight.

2017-18 Quarter 4 Results

In 2017-18 Q4, total freight moved was 4.2 billion net tonne kilometres, a decrease of 0.2 billion net tonne kilometres (down 5% on 2016-17 Q4). This is the lowest Q4 total since the start of the quarterly time series in 1998-99.

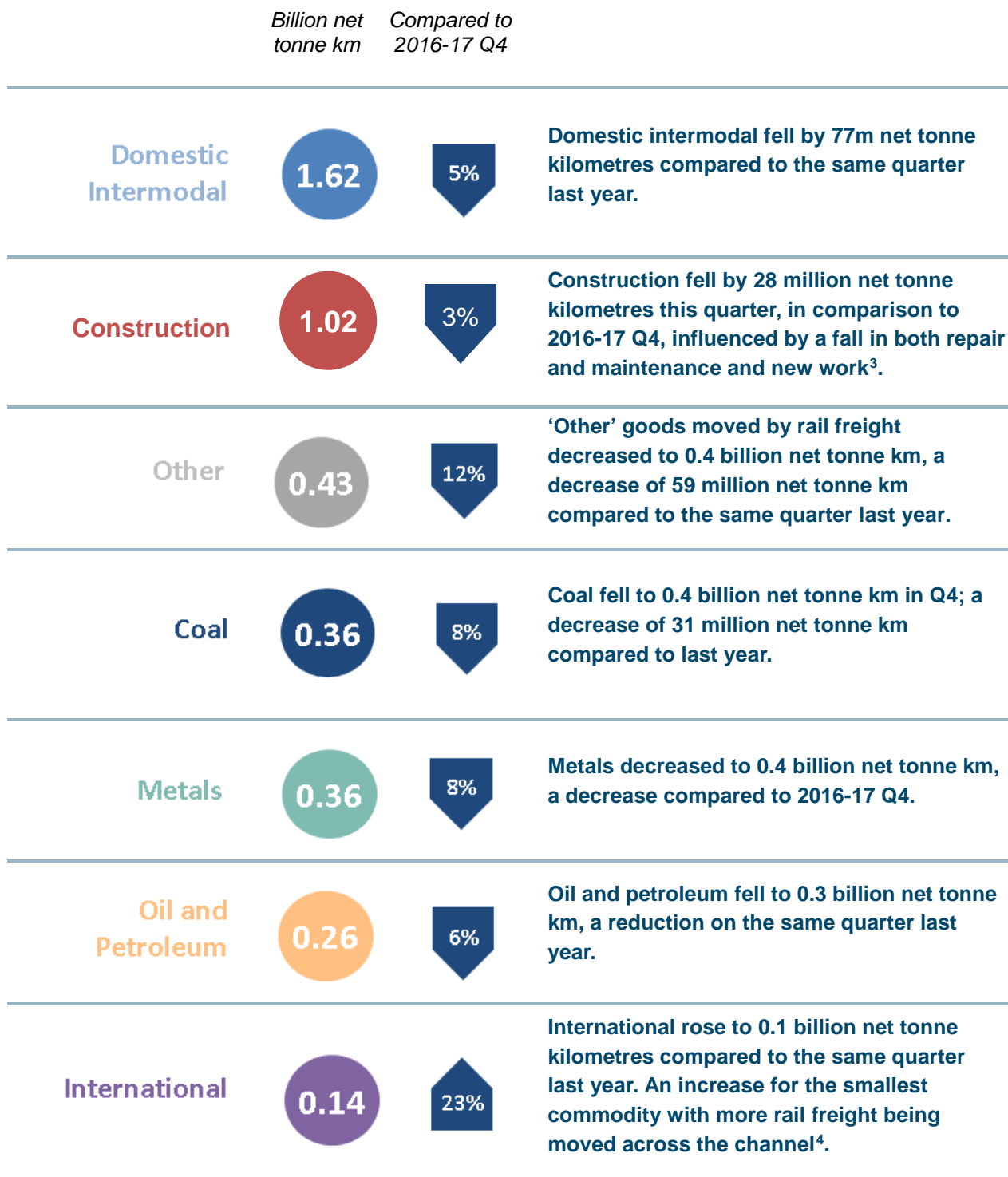
During 2017-18 Q4, six out of the seven commodities recorded a decrease compared to same quarter last year. The only increase was in international, the smallest commodity which rose by 23% to 140 million net tonne kilometres.

This year's Q4 saw average temperatures significantly lower than the same period last year and consequently all commodities suffered due to the delays and cancellations caused by snow and freezing weather.

In particular, in the week referred to as the 'Beast from the East' in late February/Early March, there was widespread snow across the country, leading to unavoidable delays and cancellations on the rail network. This affected the FDM (Freight Delivery Metric) significantly as it reached 92.0%² which was 2.1 percentage points lower than it was in 2016-17 Q4.

² http://orr.gov.uk/_data/assets/pdf_file/0003/27759/passenger-freight-performance-2017-18-q4.pdf (page 34)

Figure 1.03: The volume of rail **freight moved** (billion net tonne km), 2017-18 Q4 compared to 2016-17 Q4 ([Table 13.7](#))



■ Quarterly freight moved data are available on the data portal in: [Table 13.7](#)

³ <https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/bulletins/constructionoutputingreatbritain/march2018> (Main points, bullet 2)

⁴ <https://www.getlinkgroup.com/uploadedFiles/assets-uk/Media/Press-Releases/2018-Press-Release/180418-further-strong-revenue-increase-first-quarter-2018.pdf> (page 4, Fixed Link Traffic)

2. Freight lifted



Annual 2017-18

In 2017-18, the total amount of freight lifted in Great Britain fell to 75.0 million tonnes, the lowest since 1984-85, a 5.6% decrease on 2016-17. The fall was largely driven by the decline in coal freight.

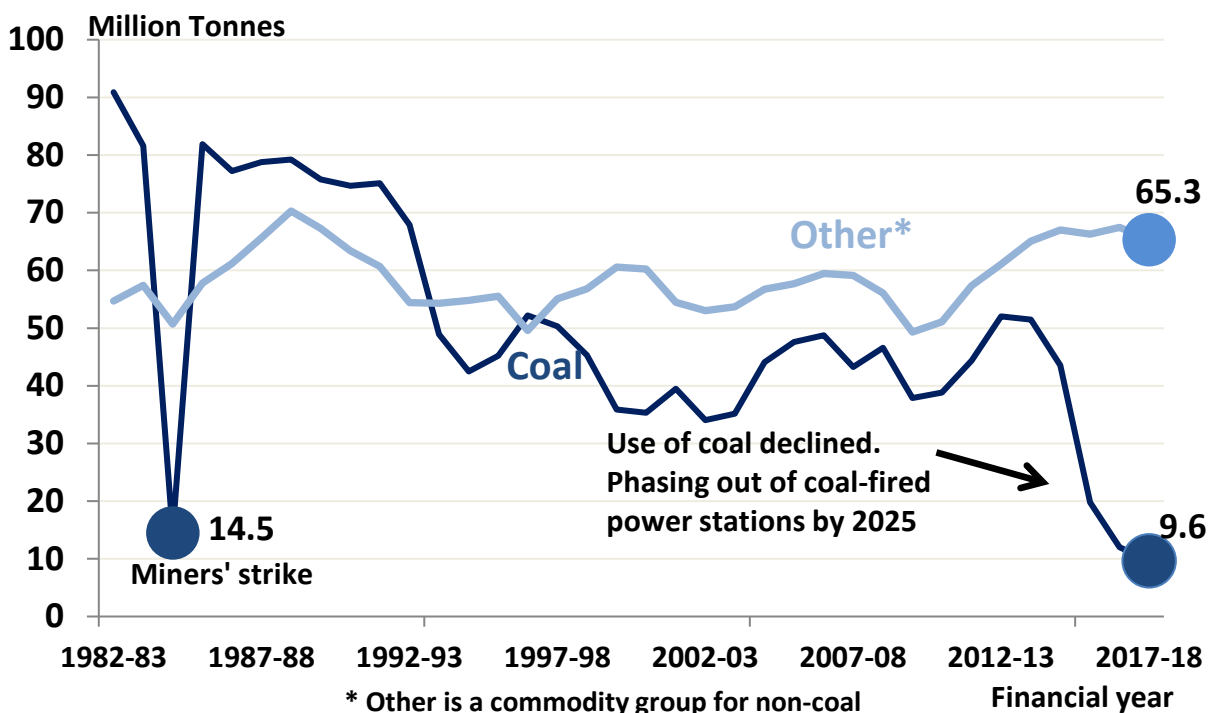
Coal freight lifted recorded 9.6 million tonnes in 2017-18, the lowest since the start of the series in 1982-83, a reduction of 19.6% on 2016-17. The decision to phase out coal-fired power stations in order to reduce carbon dioxide emissions continues to affect the amount of coal lifted. The total for other goods lifted has been steadily rising in this period (2009-10 to 2016-17), however, they also recorded a decrease of 3.1% on last year to 65.3 million tonnes in 2017-18.

Freight lifted is the mass of goods carried on the rail network measured in tonnes, excluding the weight of the locomotives and wagons. Unlike freight moved it takes no account of the distance travelled.

Freight lifted information is sourced from the four major Freight Operating Companies (FOCs): DB Schenker Rail (formerly EWS), Freightliner Ltd (formerly the BR container business), Direct Rail Services (DRS) and GB Railfreight.

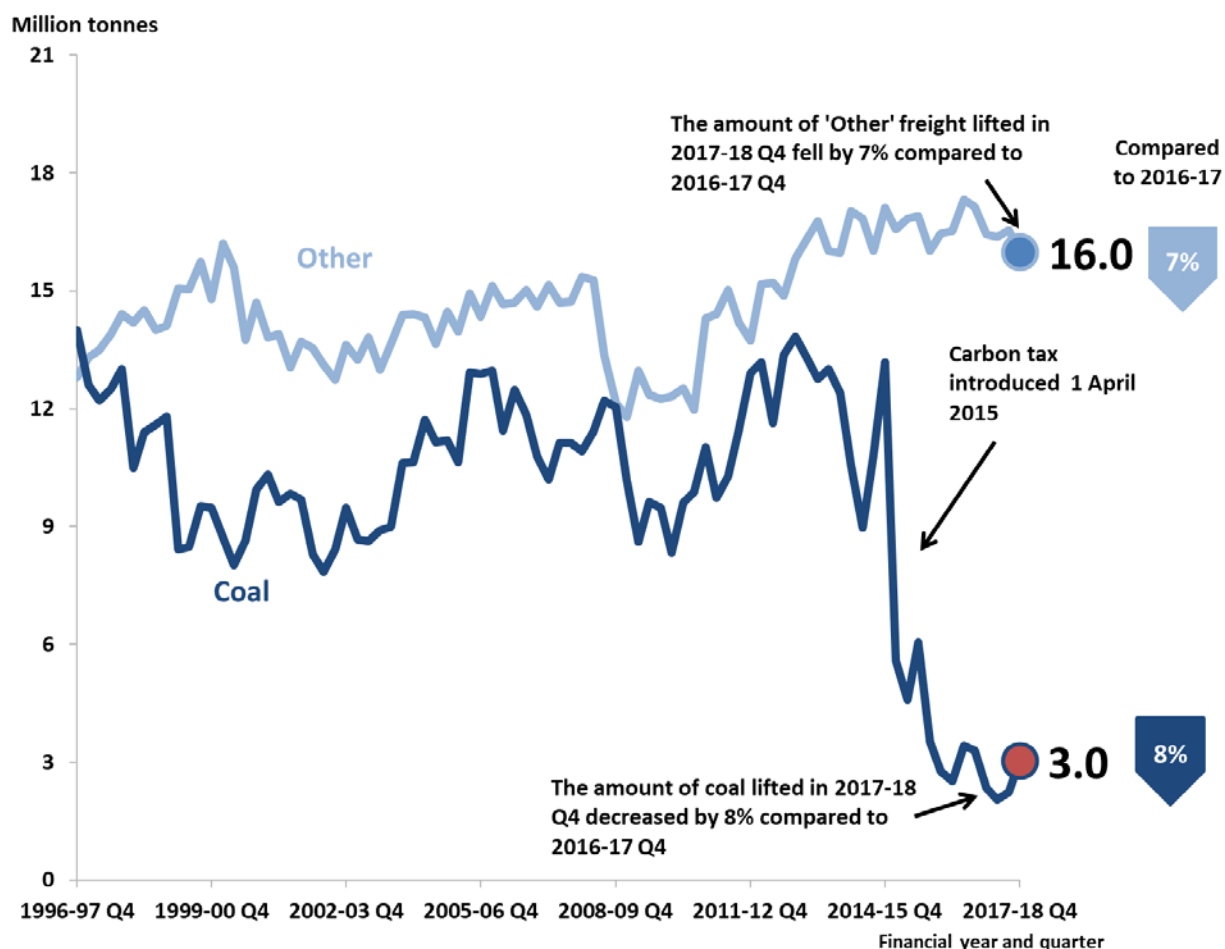
The highest total of freight lifted was in 1988-89 with 149.5 million tonnes.

Figure 2.01: The mass of rail freight lifted – (Table 13.6)
Great Britain 1982-83 to 2017-18



2017-18 Quarter 4 Results

Figure 2.02: Freight lifted (million tonnes), Great Britain, 1996-97 Q1 to 2017-18 Q4 ([Table 13.6](#))



The total amount of freight lifted in 2017-18 Q4 was 19.0 million tonnes, a decrease of 7.0% compared to 2016-17 Q4. This total is the lowest Q4 since the start of the time series in 1996-97 Q1. However, it is the highest quarterly total in the financial year 2017-18.

The amount of coal lifted in 2017-18 Q4, 3.0 million tonnes is the lowest amount in Q4 since the start of the time series in 1996-97, representing an 8.0% decrease compared to the same quarter last year.

The amount of other freight lifted in 2017-18 Q4 was 16.0 million tonnes, a decrease of 6.8% compared to 2016-17 Q4.

■ Quarterly freight lifted data are available on the data portal in: [Table 13.6](#)

3. Freight delay per 100 train kilometres



Freight delay per 100 train kilometres tends to peak in Q3 and Q4 each year, coinciding with the expected periods of adverse weather, during autumn and winter.

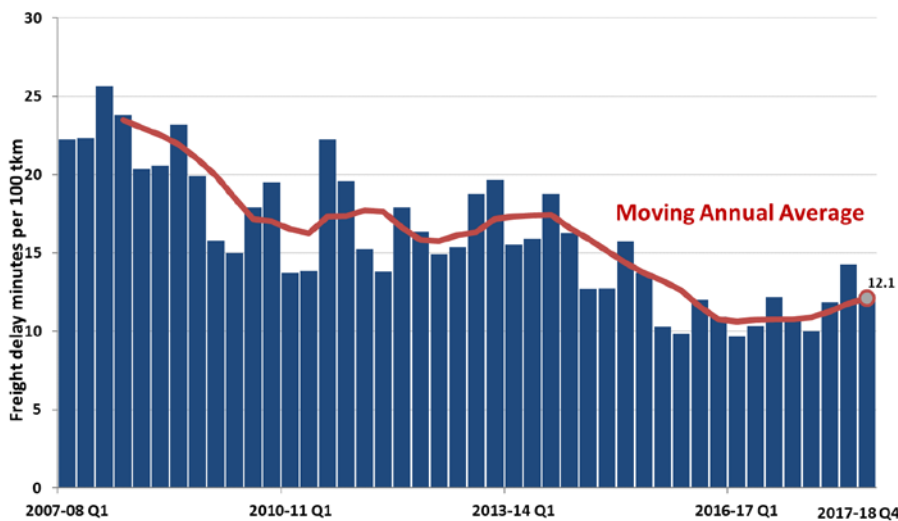
Annual 2017-18

Normalised freight delay increased by 12.3% to 12.1 minutes per 100 train kilometres in 2017-18.

2017-18 Quarter 4 Results

Freight delay increased by 12.8% compared to the same quarter last year with 12.3 minutes per 100 train kilometres in 2017-18 Q4.

Figure 3.01: Normalised **Freight delay per 100 train kilometres**, Great Britain, 2007-08 Q1 to 2017-18 Q4 ([Table 13.5](#))



Freight delay per 100 train kilometres tends to peak in Q3 and Q4 each year, coinciding with the expected periods of adverse weather, during autumn and winter

(P) This dataset is provisional as delay data is often revised as part of the delay attribution process (please see the [Freight Rail Usage quality report](#) for further details).

Quarterly freight delays per 100 train km data are available on the data portal: [Table 13.5](#)

Freight delay per 100 train kilometres is a normalised measure of delay experienced by FOCs.

The measure is calculated from the total delay experienced by all GB freight operators divided by their train mileage.

Freight train mileage can fluctuate depending on demand so a normalised measure allows for comparison over time regardless of changing levels of freight traffic on the network.

Freight Delivery Metric (FDM) is another measure of freight train delay. It is based on the percentage of freight trains that arrive at their destination within 15 minutes of their scheduled arrival time.

Results and more information can be found in the quarterly [Passenger and Freight Rail Performance statistical release](#).

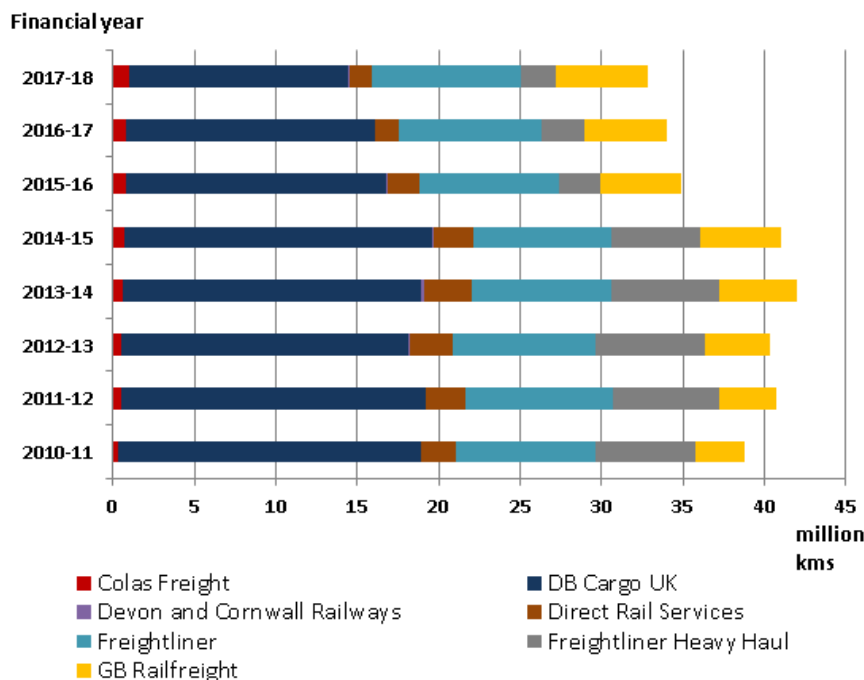
4. Freight train kilometres by operator

Freight train kilometres by operator data cover FOCs on Network Rail infrastructure and were included for the first time in the [2015-16 Q4 statistical release](#).

Annual 2017-18

In 2017-18, total freight train kilometres fell 3.2% to 32.9 million kilometres, a reduction of just over 1 million kilometres compared to 2016-17. This is the lowest amount recorded since the time series began in 2010-11. The last three years have been significantly lower than previous years.

Figure 4.01: Freight train kilometres by operator, Great Britain, 2010-11 to 2017-18 ([Table 13.25](#))



Freight train kilometres is the actual mileage in kilometres operated by FOCs on Network Rail infrastructure

The data is sourced from Network Rail's Track Access Billing System (TABS) and covers only the mileages charged through TABS.

Competition between freight operators means we would expect a greater level of variation in mileage from year to year than in the passenger market.

Not all freight operators have been in operation throughout the time-series, therefore total year on year comparison should be treated with caution.

Please see the accompanying [quality report](#) for more information.

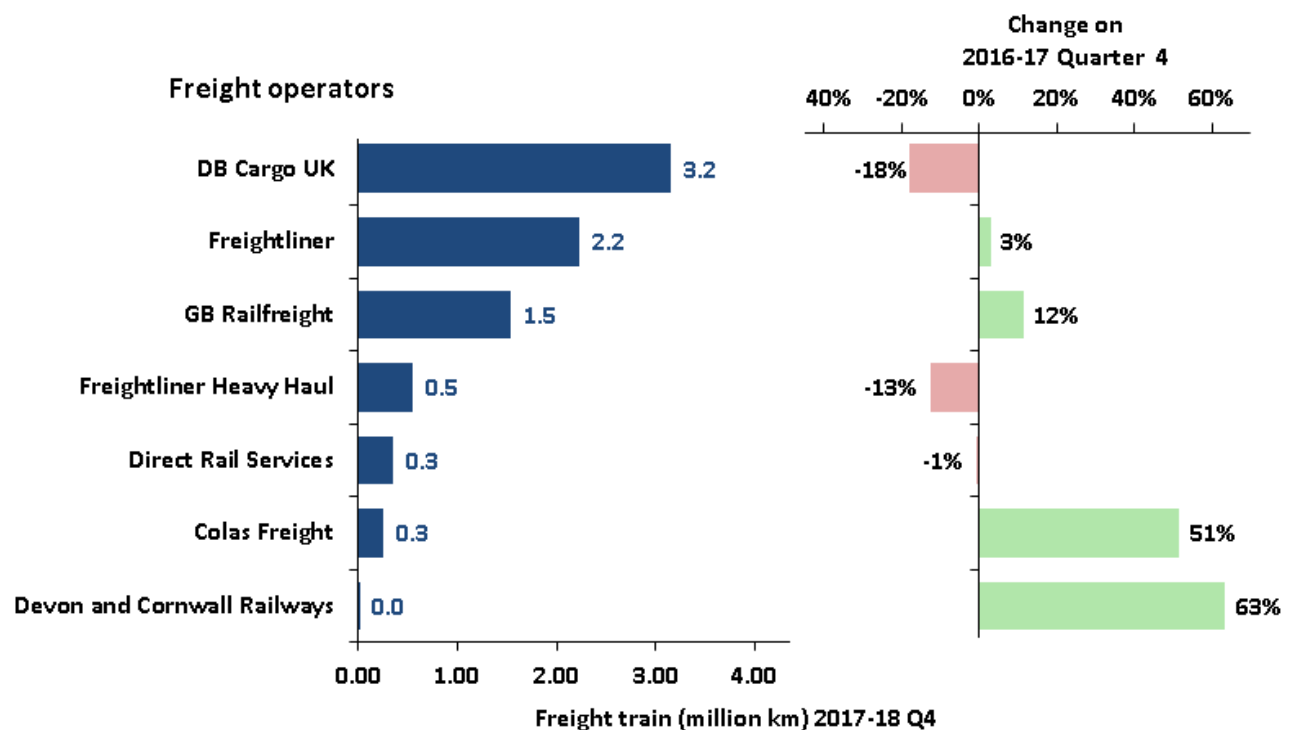
2017-18 Quarter 4 Results

In 2017-18 Q4, total freight train kilometres was 8 million kilometres, a reduction of 0.4 million kilometres (down 5.2%) compared to the same quarter last year.

The largest two operators DB Cargo UK and Freightliner accounted for 66.6% of the freight train kilometres in 2017-18 Q4.

The decrease in total freight train kilometres is driven by DB Cargo UK which dropped by 0.7 million kilometres since Q4 last year, but is offset by a significant increase from GB Railfreight.

Figure 4.02: Freight train kilometres by FOC, Great Britain, 2017-18 Q4 ([Table 13.25](#))



- Quarterly freight kilometres by operator data are available on the data portal in: [Table 13.25](#)

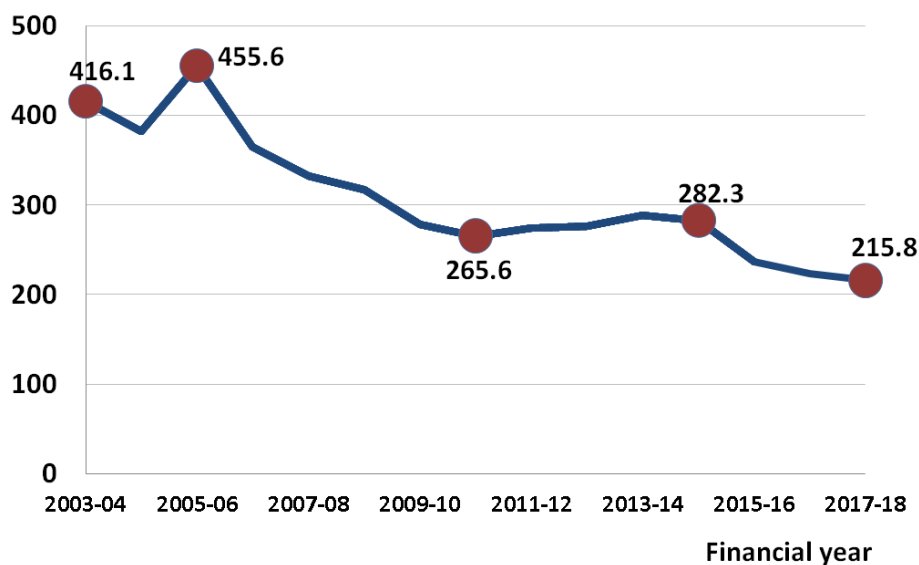
5. Freight market indicators

Freight market indicators comprise three measures: number of freight train movements on the network (data available up to 2017-18), impact on road haulage (2016-17), and rail market share (calendar year 2016).

Number of freight train movements

Number of freight train movements, Great Britain, 2003-04 to 2017-18
([Table 13.10](#))

Number of freight trains movement
(Thousands)



Number of freight train movements

shows the volume of freight trains on the railway network each year.

The data is sourced from Network Rail and is based on chargeable train movements.

During 2017-18, the number of freight movements recorded were just under 216 thousand, the lowest since the start of the time series in 2003-04, a decrease of 3.5% compared to 2016-17.

■ Annual freight train movement data are available on the data portal in: [Table 13.10](#)

Impact on road haulage

In 2016-17, the number of lorry kilometres required to transport the amount of freight moved by rail was 1.7 billion kilometres, a 3.9% decrease on 2015-16. This is the lowest number recorded since the start of the time series in 2004-05.

There were 8.2 million lorry journeys avoided in 2016-17 through the use of rail freight, 0.1% fewer than the previous year. This is also the lowest number of avoided lorry journeys recorded since 2004-05.

- Annual impact on road haulage data are available on the data portal in: [Table 13.8](#)

Rail market share

In 2016, 4.9% of all freight lifted was on rail, with 79 million tonnes. The proportion of freight lifted on the rail network fell by one percentage point compared to 2015. Between 2015 and 2016, freight lifted by road (HGV) increased by 0.7 percentage points.

The proportion of freight moved on the rail network was 8.7% in 2016, with 17 billion net tonne kilometres. This was a decrease of 1.3 percentage points compared to the previous year. Between 2015 and 2016, proportionately road (HGV) freight moved increased by 1.9 percentage points.

- Annual rail market share data are available on the data portal in: [Table 13.12](#)

Impact on road haulage

consists of two measures; **rail freight lorry kilometres equivalent** and **avoided lorry journeys**.

Rail freight lorry kilometres equivalent

measures an equivalent distance that road vehicles (HGVs) would need to have travelled to move the amounts of freight carried on rail.

Avoided lorry journeys is

the equivalent number of road vehicle trips necessary to move the freight.

Rail market share statistics show the volumes of freight moved and freight lifted on different modes of transport; rail, road, pipeline and water.

Road data is calculated based on HGVs only as data for other vehicle types is not available.

Pipeline data is not available after 2011 therefore it has been excluded from the annual totals and the calculations of market share.

Annex 1 – List of pre-created reports available on the Data Portal

All data tables can be accessed on the [data portal](#) free of charge. The data portal provides on screen data reports, as well as the facility to download data in Excel format and print the report. We can provide data in csv format on request.

Freight moved

- Freight moved, 1982-83 to 2017-18 (annual), 1998-99 Q1 to 2017-18 Q4 (quarterly) – [Table 13.7](#)

Freight lifted

- Freight lifted, 1982-83 to 2017-18 (annual), 1996-97 Q1 to 2017-18 Q4 (quarterly) – [Table 13.6](#)

Freight delay minutes per 100 train kilometres

- Normalised freight delay, 2007-08 to 2017-18 (annual), 2007-08 Q1 to 2017-18 Q4 (quarterly) – [Table 13.5](#)

Freight train kilometres by operator

- Freight train kilometre, 2010-11 to 2017-18 (annual), 2010-11 Q1 to 2017-18 Q4 (quarterly) – [Table 13.25](#)

Freight market indicators (Q4/annual publications only)

- Number of freight train movements, 2003-04 to 2017-18 – [Table 13.10](#)
- Impact on rail haulage, 2004-05 to 2016-17 – [Table 13.8](#)
- Rail market share, 1998 to 2016 – [Table 13.12](#)

Revisions: There have been some minor revisions to the previously published dataset. Further details can be found at: [Revisions Log](#).

Methodology: For more information on data collection and the methodology used to calculate the statistics in this release please see the accompanying [Quality Report](#).

Annex 2

Statistical Releases

This publication is part of the statistical releases which cover the majority of reports that were previously released through the [Data Portal](#). The statistical releases consist of four annual and four quarterly themed releases:

Annual:

- Rail Finance & Rail Fares Index;
- Rail Safety Statistics;
- Rail Infrastructure, Assets and Environmental;
- Regional Rail Usage.

Quarterly:

- Passenger and Freight Rail Performance;
- Freight Rail Usage;
- Passenger Rail Usage;
- Passenger Rail Service Complaints.

A full list of publication dates for the next twelve months can be found in the [release schedule](#) on the ORR website.

National Statistics

The United Kingdom Statistics Authority designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is ORR's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

For more details please contact the Statistics Head of Profession Lyndsey Melbourne on 020 7282 3978 or contact rail.stats@orr.gsi.gov.uk.

The Department for Transport (DfT) also publishes a range of rail statistics which can be found at [DfT Rail Statistics](#). They also publish road freight statistics which can be found at [Road freight: domestic and international statistics](#).



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