Keeping the lights on and the traffic moving

Sustaining the benefits of rail freight for the UK economy

Rail Delivery Group

Contents

Key facts about rail freight

Rail freight generates more than £1.5bn a year in economic benefits for UK plc through improved productivity and reduced congestion.

Goods worth £30 billion

Each year the rail freight industry carries goods worth over £30 billion – from high end whiskies and luxury cars to steel, cement and coal.

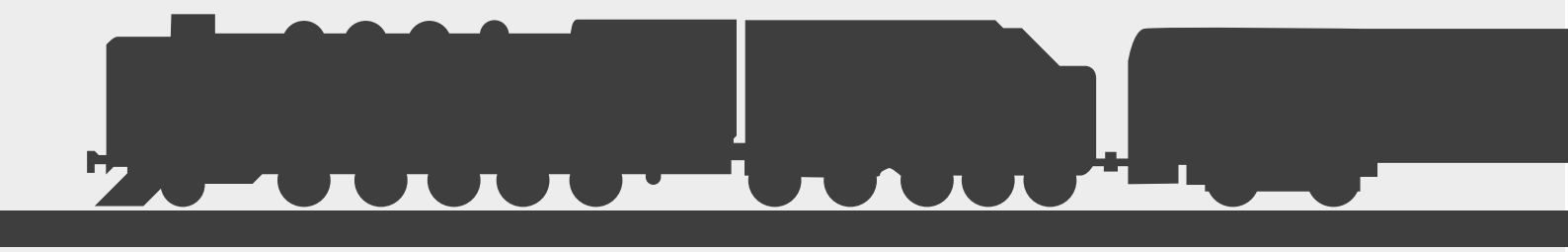
£150m a year

The five largest rail freight operators pay over £150m a year to the Exchequer in directly attributable taxes.

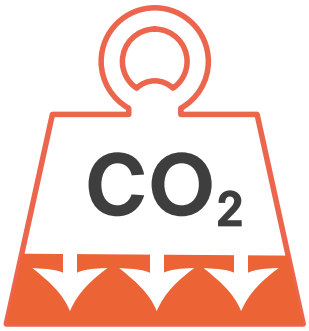
fewer lorry journeys

The rail freight industry transports goods that would otherwise require 7.6m more lorry journeys each year, resulting in 1.6bn fewer lorry kms on our roads.

By taking lorries off the roads, rail freight also prevents around 600 casualties each year.



Collectively, the five major rail freight companies directly employ over 5,000 people and have a combined turnover of more than £850m annually.



Each tonne transferred by rail rather than by road cuts CO2 emissions by 76%.

One in four

Rail freight currently moves one in four of the containers that enter the UK and over 50% of the fuel used in electricity generation in the UK.

Grown by 70%

The amount of freight transported by rail has grown by 70%, from 13.5bn net tonne km in the mid-nineties to 23.2bn net tonne km in 2012–13.

Rail currently moves 11% of the UK's inland surface freight. This has the potential to double in volume to 45.2bn net tonne km by 2043.

£2bn invested

The rail freight operators have invested over £2 billion in new locomotives, wagons and other capital equipment since privatisation.

Executive summary

A competitive and successful industry

Rail freight generates more than £1.5bn a year in economic benefits for UK plc through improved productivity, reduced congestion and wider environmental benefits.

Rail freight is an intensely competitive industry. This strong competition has helped drive efficiencies, lower costs to customers and reduce the cost of enhancing and improving the railway. The industry has grown 70% since privatisation on the back of investment and business improvements which have increased service quality and improved reliability. According to the Chief Executive of the Office of Rail Regulation (ORR), rail freight "is the most transformed sector in the rail industry since privatisation."

> [It] is the most transformed sector in the rail industry since privatisation.
>
> —
>
> Chief Executive of the ORR

Serving UK business

Rail freight transports goods worth £30bn a year, moving one in four of the containers entering the UK and half of the fuel used in electricity generation. It can move freight more quickly, safely and reliably than road and transport goods in bulk. Rail freight's customers and operations are diverse, ranging from moving fruit for supermarket shelves, to transporting hot steel between industrial plants, to exporting cars assembled in the UK.

Supporting jobs

The five major rail freight companies directly employ over 5,000 people and have a combined annual turnover of more than £850m.

Investing in the industry

Rail freight is a highly capital-intensive industry. Rail freight operators have invested over £2bn in new locomotives, wagons and other capital equipment since the mid-1990s to enhance capacity and improve performance.

An alternative to HGVs on the roads

Each freight train removes between 43–76 HGVs from the roads. In 2012/13 rail freight transported goods which would otherwise have needed 7.6m road journeys. Transporting freight by rail reduces CO_2 emissions by 76% compared to road.

Delivering economic benefits

The rail freight industry is worth £1.5bn a year in economic benefits to the UK economy:

- Transporting the goods currently carried by rail on the roads would cost rail freight's customers an additional £1bn a year. These are productivity benefits to UK plc.
- Reduced congestion and the wider environmental and safety benefits of cutting journeys by lorry is worth £0.5bn a year to the UK economy.

A growing market

Network Rail forecasts suggest that rail freight volumes could more than double over the next 30 years. This will largely be driven by the intermodal (container) sector which will see rail increasingly competing with road.

Securing growth and maximising the benefits

Freight operators are planning to make hundreds of millions of pounds worth of additional investments in the industry over the next five years. For freight operators to be able to secure funding for investments beyond this as stable an environment as possible is important.

The right environment will help rail freight to grow while reducing the cost of the railway to the taxpayer and potentially delivering economic benefits of more than £4bn a year to the UK.

The UK's freight industry is a Great British success story that delivers a fast, safe and carbon efficient service to thousands of businesses, driving forward our economy.

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Baroness Kramer


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01 Introduction

This report sets out to establish the current value of rail freight to the UK economy and examines how the benefits offered by rail could increase as overall freight volumes grow.

1.1 Purpose and methodology

The Rail Delivery Group appointed KPMG to analyse the financial, operational and investment performance of the rail freight operators since privatisation. KPMG consolidated this commercially-sensitive company-specific data into an aggregate dataset (KPMG Analysis, 2013) for the industry, which the Rail Delivery Group members used to produce this report. KPMG's role did not include independent verification of the financial data provided by the freight operating companies (FOCs). Some of the components of this aggregate industry dataset have been used by KPMG to produce a high-level estimate of the economic contribution of the rail freight industry to UK plc, using Department for Transport (DfT) and other standard assumptions where relevant.


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02 The success of privatisation

Highlights

- Rail freight has transformed itself since privatisation. Following years of decline, rail freight is growing volumes and increasing market share.
- Investment by all stakeholders has been fundamental in transforming the industry. Investment in rolling stock and infrastructure has improved the capability of the network and allowed rail freight operators to better meet customer demands.
- Competition and investment in the market have driven significant efficiencies. These efficiencies have allowed rail freight companies to compete with each other and with other modes and have resulted in rail freight reducing its footprint on the rail network through fewer but significantly better utilised trains.

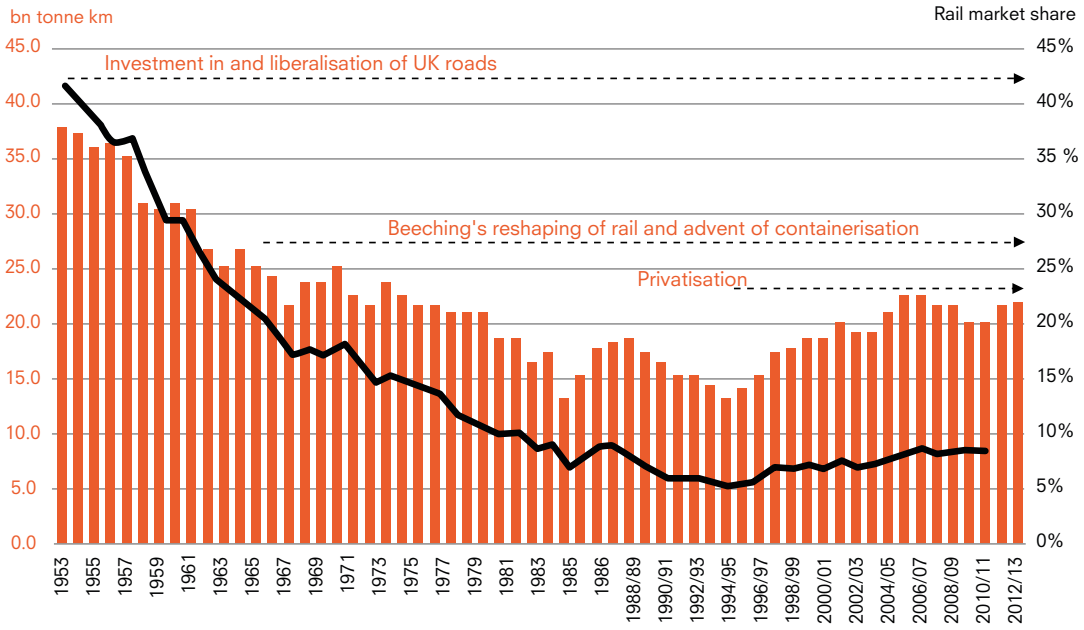
2.1 The decline and growth of rail freight

Before privatisation the rail freight industry was in steady decline. The emergence of a global economy prompted the UK's deindustrialisation and move towards a service economy which reduced the size of many of rail freight's traditional markets. Simultaneously, rail freight proved unable to compete for the growing containerised freight market following the heavy investment in, and complete liberalisation of, the UK road network. During this time rail freight pricing was fixed meaning that the industry was unable to respond effectively to new competition.

Privatisation reversed this downward trend by opening the door to private sector investment and value-driven business models. Figure 2.1 illustrates the decline in freight's market share and shows that although rail freight has not yet returned to its post-war peak (1953), it has achieved growth of over 70% since the mid-1990s.[1] This has returned rail freight to the scale of activity last seen before the first significant macro-economic impacts of globalisation were felt by the UK economy in the 1970s.

The turnaround has been recognised by the Chief Executive of the ORR who said that rail freight "is the most transformed sector in the rail industry since privatisation".[2]

Figure 2.1 Rail freight – historic volumes and market share



1990s

Grown by 70%

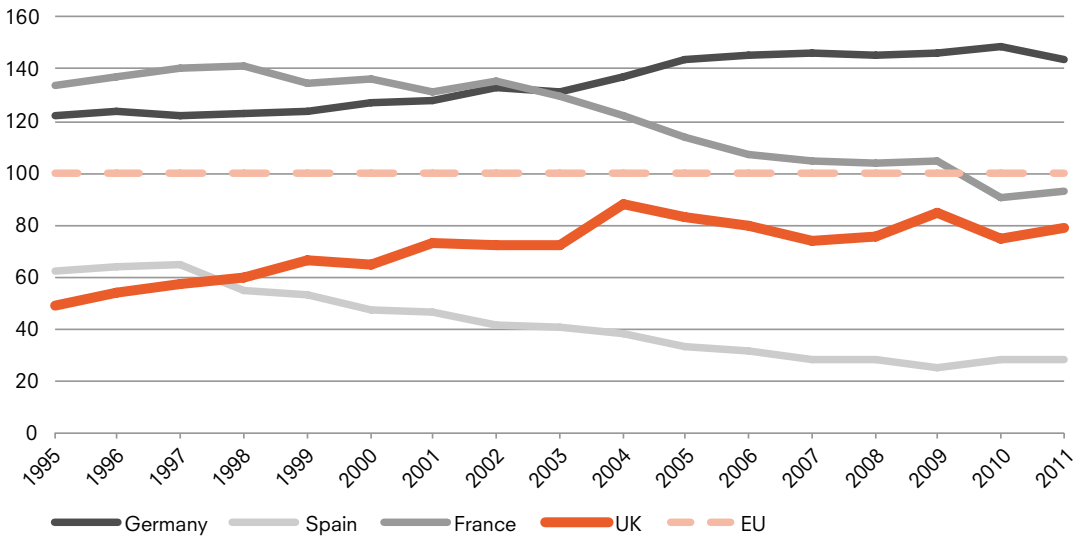
2012

The amount of freight transported by rail has grown by 70%, from 13.5bn net tonne km in the mid-nineties to 23.2bn net tonne km in 2012–13.

2.1.1 A comparison with Europe

The growth in the UK rail freight market means that its modal share is now closer to the EU average. Figure 2.2 provides a comparison of rail freight's modal share in Germany, Spain, France and the UK indexed against the EU average. When considering the longer distances between conurbations across mainland Europe, the size of the German market and their favourable regulatory environment (for example, lorries are not permitted on German roads on a Sunday), it is no surprise that Germany sits well above the EU average. But, interestingly, the largely nationalised French and Spanish rail freight industries have seen relative mode share decline.[3]

Figure 2.2 Rail freight – indexed European modal share comparison



2.2 Rail freight – driving efficiencies, reliability and service quality

Privatisation and the accompanying open market forces have been a driving force behind rail freight's improved service quality, reliability and efficiency. According to the ORR, there has been a rise of around 10% in reliability since 2005.[4] For premium delivery services such as the delivery of supermarket goods, over 98% of goods are delivered on time to the customer.[5]

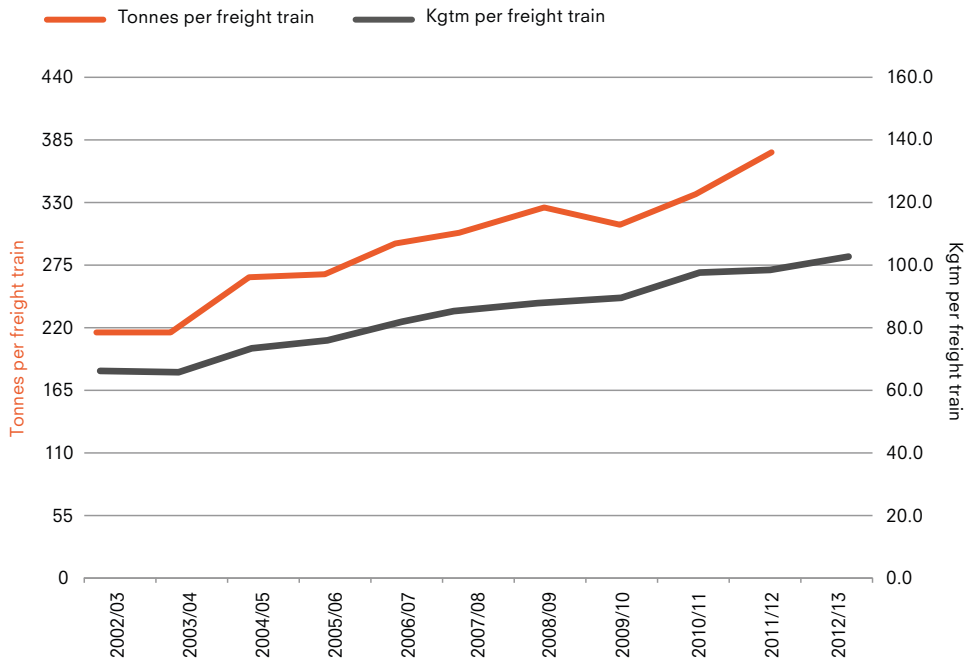
New companies have entered the market strengthening competition. This competition, alongside the investments made by other stakeholders such as, operators, ports, customers and government, and the operational improvements made to remain viable in a turbulent global economy, have driven significant efficiencies in the rail freight market.

Drax Power Ltd

As we progressively increase the amount of sustainable biomass that we burn in place of coal, rail freight has adapted to meet our new requirements. Specific freight has been designed to carry the biomass; keeping it dry and delivering the volumes we require. This evolution in freight is just one example of the changes that are necessary as the biomass supply chain develops and underpins the conversion of coal-fired power stations to generators of low cost, low carbon and reliable renewable power.

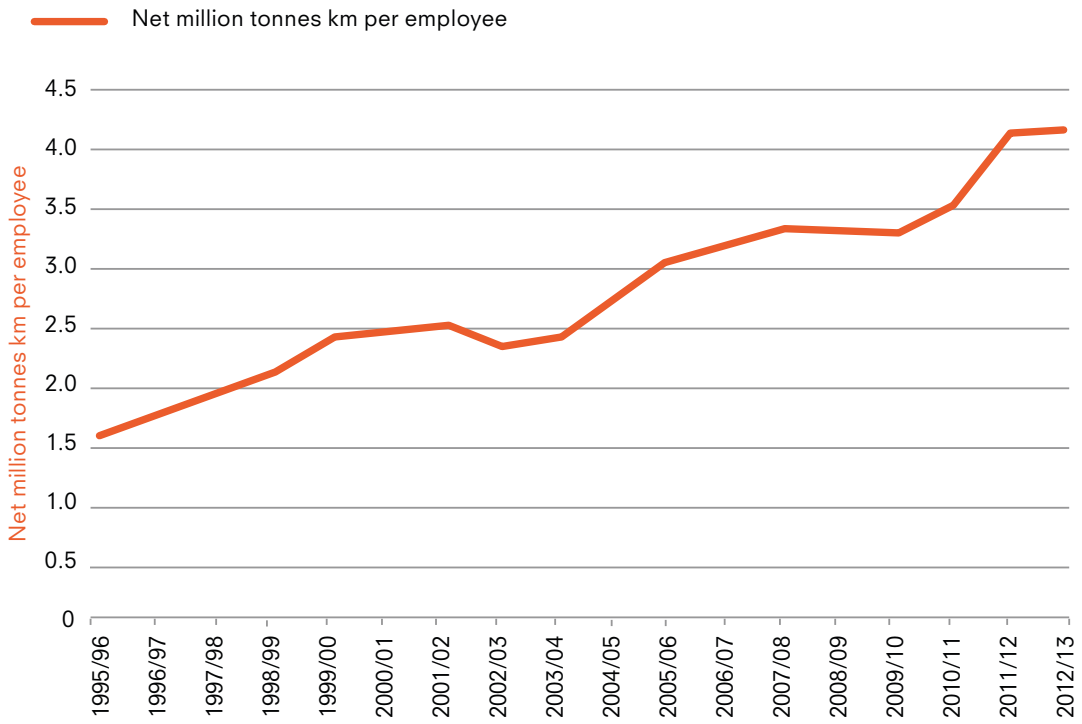
The biggest driver of freight efficiency has been a move towards longer and heavier trains meaning that the rail network is now more effectively utilised. The number of freight trains run has fallen by a third, down from over 415,000 in 2002/03 to under 276,000 in 2012/13. Adjusting for tonnes carried, tonne miles have increased by 17% over the same period. This is a net increase of 70% in tonnes per train. Including changes in distances travelled, each freight train now carries over 50% more cargo than it did 10 years ago. Investments in the capability of the network and rolling stock improvements have made this possible by providing gauge clearance and enabling longer trains to access key markets. Figure 2.3[6] highlights these efficiencies showing how the tonnes carried per freight train and gross tonne miles have increased over the last 10 years.

Figure 2.3 Tonnes per freight train and gross tonne miles



The greater efficiency with which freight is now transported has been further supported by an improvement in staff productivity since privatisation. The efficiency gains since the 1990s are shown in Figure 2.4[7] where tonne kilometres per employee have increased nearly threefold since the 1990s.

Figure 2.4 Freight efficiency gains since privatisation



Tesco

We currently run five trains a day. However, we want to do more and transport our fresh and frozen goods by rail as well. To do this we require an extremely reliable service that runs seven days a week to ensure the safety of our perishable goods. Rail freight's open communication policy has provided a forum for us to begin to discuss this and work together to make it possible.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COLAS RAIL

03 Today's rail freight industry

Highlights

- Rail freight is integral to the productivity and efficiency of many sectors of the UK economy.
- Rail freight companies operate in a highly competitive, mature market, which means profit margins are thin. Competition ensures that efficiencies from innovation are passed on to customers.
- Freight operators, Network Rail, the Government and others have invested heavily in infrastructure to improve the efficiency and performance of the rail freight sector.

Rail currently moves 11% of the UK's inland surface freight. This has the potential to double in volume to 45.2bn net tonne km by 2043.

3.1 UK freight market

Road dominates the inland surface freight market transporting 89% of the goods moved.[8] The remaining 11% of goods are moved by rail with the vast majority transported by the five largest rail freight operating companies:

- Colas Rail
- DB Schenker Rail (UK)
- Direct Rail Services (DRS)
- Freightliner
- GB Railfreight

Rail freight customers are price sensitive and with low switching costs between modes freight operators must strive to minimise costs to ensure inland distribution by rail freight is competitively priced to road.

Each year the rail freight industry carries goods worth over £30 billion – from high end whiskies and luxury cars to steel, cement and coal.

3.2 Rail freight – crucial to the UK economy

Rail delivers goods across the length and breadth of the UK – moving china clay from Cornwall, delivering supermarket goods to Inverness, transporting oil from Milford Haven and shipping containers from the southern ports to locations across the UK. Each year, rail freight carries goods worth over £30bn, from high-end whiskies, to fuel for power stations, to luxury cars for export.[9]

Mediterranean Shipping Company (UK) Ltd

MSC UK has grown its rail product over a number of years and by providing daily contract trains we offer a dedicated and reliable rail solution to our clients. Long-term investment, however, demands stability, particularly relevant when it comes to rail access charges. Therefore creating certainty will in turn encourage more operators, terminals and ports to plan ahead with confidence. MSC UK run some of the best utilised Intermodal trains on the network today and we would like to keep it this way.

The ability to move goods quickly, safely, reliably and in bulk make rail freight ideal for:

- Keeping the lights on. Rail freight has long played a vital role in supporting the Government's energy policy. Over 50% of the fuel used for electricity generation is delivered by rail. It is not just coal that is being transported by trains, but also biomass and spent nuclear fuel.[10]
- Shipping our exports. One in four deep sea containers is transported by rail with over 950,000 containers moved in 2012/13. Rail freight carries finished Minis, Land Rovers and Jaguars from factories in the Midlands and the North West to ports for export all over the world.[11]
- Delivering the post. The Royal Mail relies on the speed and reliability provided by rail, running seven mail trains a day between London and Scotland.
- Building our cities. Major construction projects such as Heathrow Terminal 5 and the Olympic Park have benefited from the reliability, competitiveness and capability of rail freight. Freight trains have helped shift one million tonnes of excavated material from Crossrail tunnelling and London receives 40% of its raw construction materials by rail freight.[12]
- Removing waste. The equivalent of 55,000 HGVs worth of domestic rubbish is transported out of Britain's major cities by rail each year.[13]
- Reducing the cost of the railway. Network Rail and the taxpayer benefit from the competition between rail operators in the cost of delivering rail infrastructure work.[14]

3.3 Rail market structure and regulation

Since privatisation, the UK rail industry has operated as a partnership between the public and private sectors. The DfT and Transport Scotland define the respective (England and Wales, Scotland) high-level strategy and taxpayer funding for the industry. In addition to promoting improvements to railway performance, the ORR approves the level and structure of charges that private-sector passenger and freight operators pay Network Rail in order to run services.

EDF Energy

We have always used rail freight. It is vital to our business, delivering 9 million tonnes of coal a year. We would not be able to transport this volume any other way.

Rail freight companies do not operate with many of the financial protections afforded to passenger operators in franchise agreements. Freight operators are fully exposed to changes in the charging regime and assume the risks associated with rolling stock and other infrastructure investments.

5,000

Collectively, the five major rail freight companies directly employ over 5,000 people and have a combined turnover of more than £850m annually.

3.4 Revenue, profits and taxation

Employing over 5,000 workers, rail freight operators have an annual turnover of over £850m.[15] Since privatisation, revenue has grown by a nominal £260m, or 44%. Today, two-thirds of this revenue comes from the industry's traditional markets where rail is typically the best suited mode of transport. For example, coal for power generation and other single customer bulk commodities. Figure 3.1 provides a breakdown of rail freight's revenue by market segment since 2000/01.

Figure 3.1 Rail freight revenue by market segment

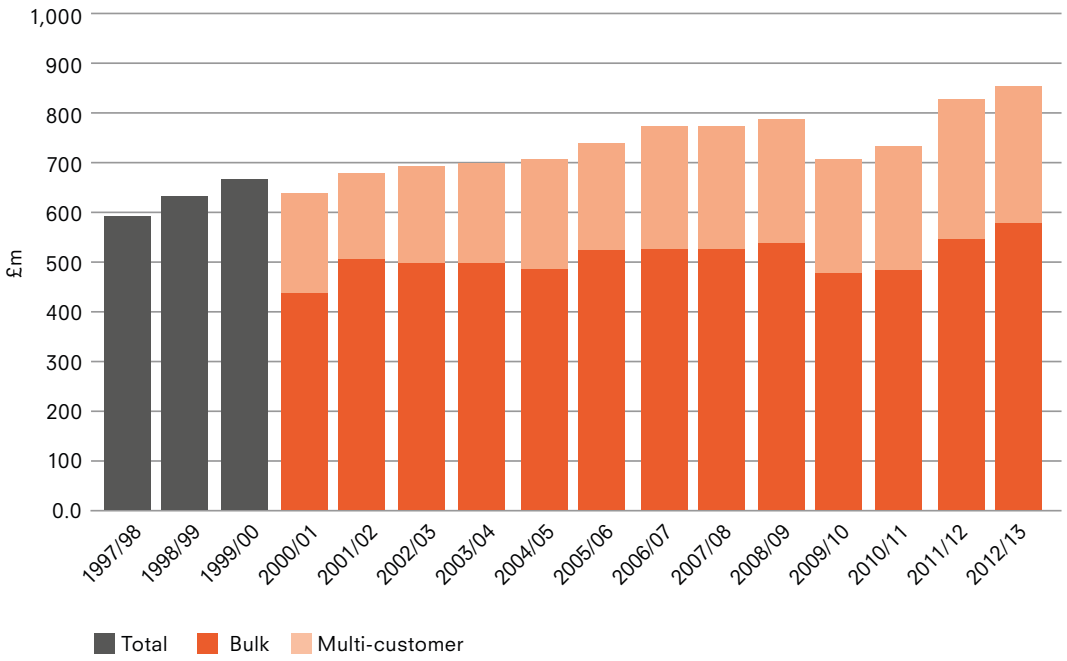
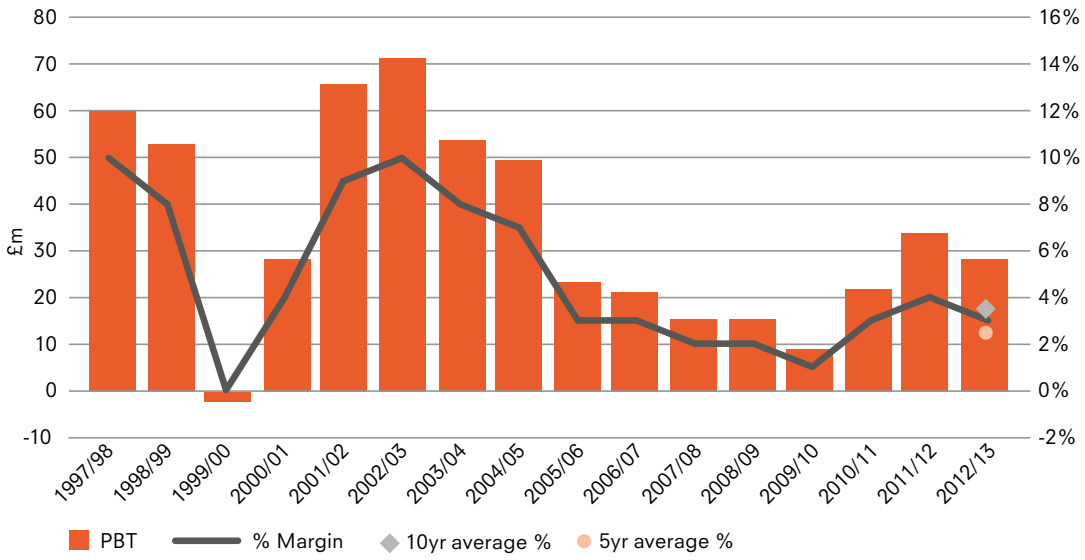


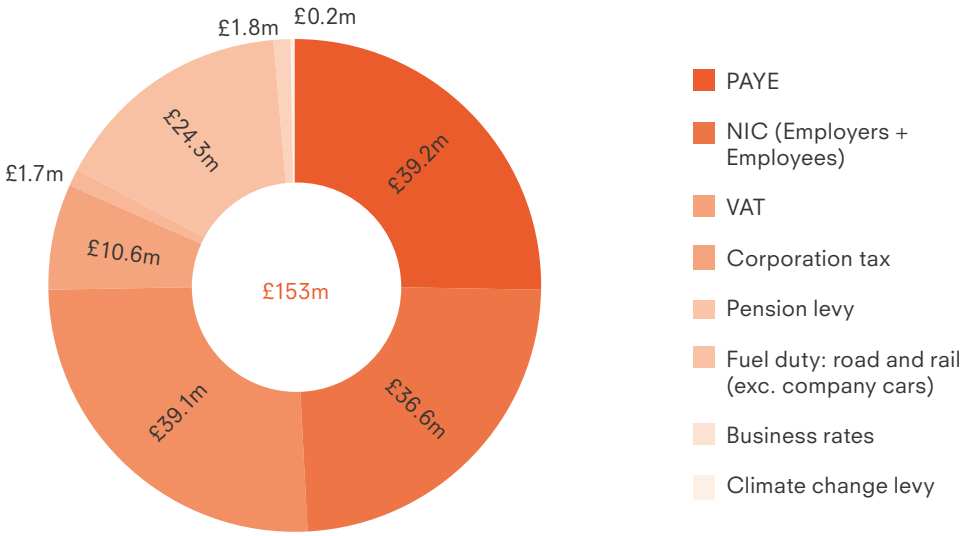
Figure 3.2 shows the nominal domestic Profit Before Tax (PBT) and the percentage PBT of the UK rail freight operators. The five and 10 year rolling average of ongoing domestic profit for rail freight operators are 2.6% and 3.5% respectively. The chart shows that the industry saw some years with higher average margins following privatisation, but these have been competed away due to the intensity of both internal and external competition. The industry recorded profit before tax of £27m in 2012/13.[16]

Figure 3.2 Ongoing domestic profit before tax and profit margin



In addition, rail freight operators make significant tax contributions to the UK Exchequer. Figure 3.3 provides a breakdown of the £150m of tax receipts paid in 2012/13.[17]

Figure 3.3 UK taxes paid by freight operating companies 2012–13



3.5 Investing in capacity and performance

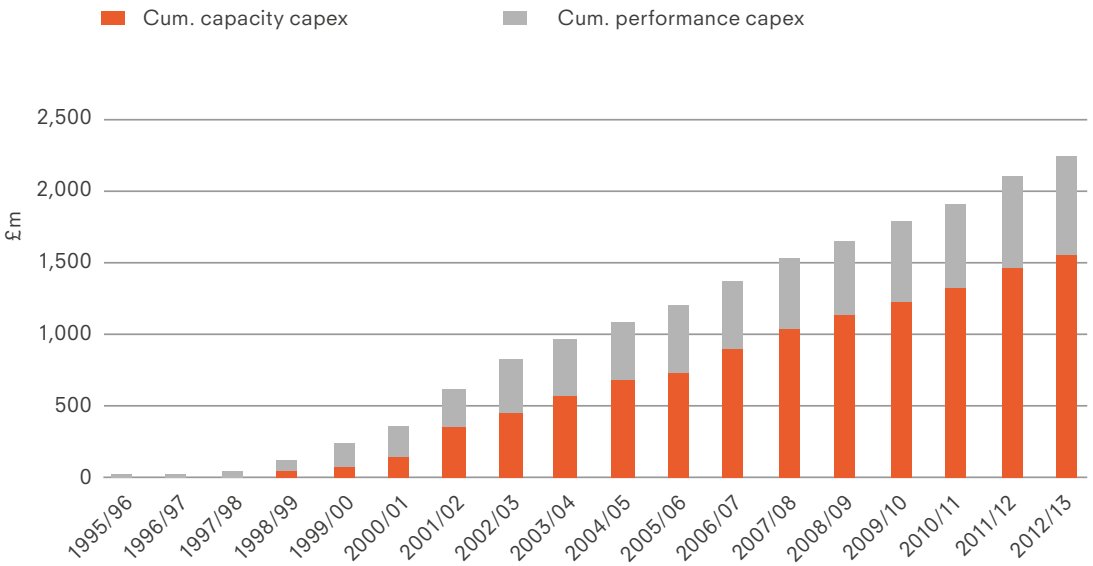
Rail freight is a highly capital-intensive industry. Investment by freight operators, Network Rail, the Government and other stakeholders has enhanced capacity and improved the performance of the network.

3.5.1 Investment by freight operators

Rail freight operators have invested well over £2bn in new locomotives, wagons and other capital equipment since the 1990s. Figure 3.4 provides a breakdown of the cumulative capital expenditure by freight operators since privatisation along with planned expenditure up to 2018/19.[18] On a simplified basis:

- To date 70% of investment has been directed towards enhancing capacity and capability; for example longer, heavier trains.
- To date 30% of the investment has been focussed on improving freight performance on the network; for example improving the reliability of the rolling stock.
- Over the next five years rail freight operators plan to invest hundreds of millions of pounds. This will be equally split between enhancing capacity and improving performance on the network.

Figure 3.4 Cumulative capital expenditure by freight operators



The rail freight operators have invested over £2 billion in new locomotives, wagons and other capital equipment since privatisation.

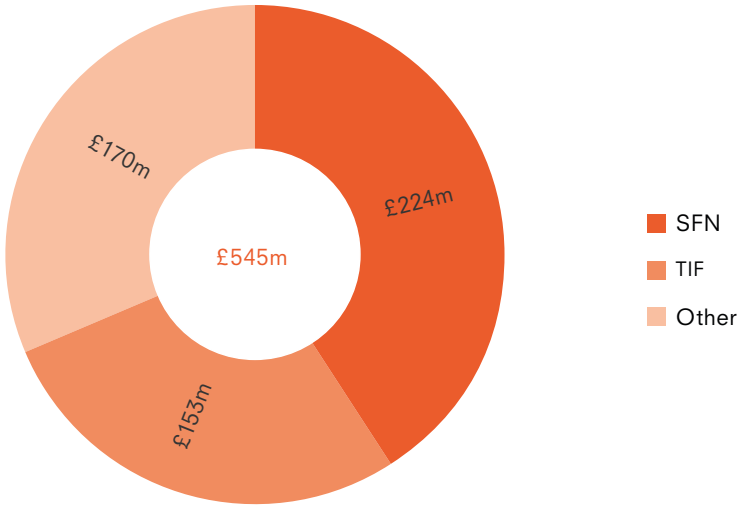
3.5.2 Investment by Network Rail and government

Network Rail, via the Strategic Freight Network (SFN), government, through the Transport Innovation Fund (TIF), and other funding sources have invested over £500m to improve freight capacity and performance during Control Period 4 (CP4, 2009–14). A further £200m has been allocated for the development of the SFN in England and Wales in CP5 and £30m has been committed to the Scottish Strategic Rail Freight Investment Fund. These investments cover a range of capacity, capability and performance enhancements that benefit rail freight. This includes improving the gauge clearance to allow deep sea containers to be transported along main lines and via diversionary routes and allowing longer freight trains to operate by extending loops, enhancing the signalling and adding additional chords. A breakdown of the funding sources for these investments is shown in Figure 3.5.[19]

Peel Ports Group

In 2015 we will open a new £350m container facility that will double annual capacity to around 2 million twenty foot equivalent unit (TEU) in and out of Liverpool. Approximately 15% of capacity will be handled by rail freight. In addition we are planning for a new biomass import facility, where 100% of volumes will be transported by rail.
The support provided by Network Rail and the rail freight industry has allowed us to adjust to market changes, pass on real benefits to our clients and secure new business and a future for Peel.

Figure 3.5 Government funding in CP4



3.5.3 Investment by other stakeholders

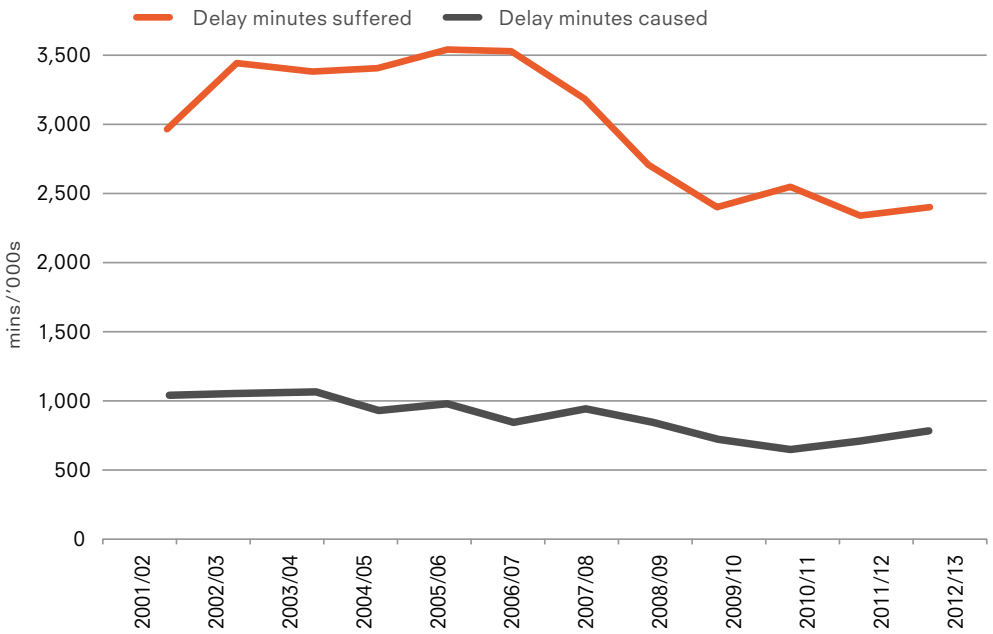
In addition to the investment by rail freight operators and government, many infrastructure providers that rely on the rail network have themselves made investments to improve the performance and capability of rail freight. Ports, power stations and distribution centres have all made significant investments in infrastructure. In the last seven years over £250m has been invested by Britain's ports in rail connected facilities to handle container and bulk traffic (at Felixstowe, Southampton, London Gateway, Hull and Immingham) with further investment expected across the UK.

3.6 Rail freight performance

The investments made by the freight operators, Network Rail and successive governments alongside those made by passenger operators have improved the performance of the rail network. Figure 3.6 shows the delay minutes caused and suffered by freight operators since 2001.[20] Against the backdrop of an increasingly busy network (total train miles have increased year on year, driven by the increase in passenger activity), the reduction in delay minutes indicates performance has improved significantly over the last 12 years. This is encouraging, particularly given the lag between investment and performance with generally long lead times to realise the benefits.

Rail freight companies continue to strive to improve performance. Half of the planned investment by freight operators in CP5 is directed at improving performance. Freight operators are also continuing to work with customers to minimise the performance risks associated with off-network locations. Ports, collieries and power stations continue to make investments to improve the reliability of rail freight.

Figure 3.6 Delay minutes caused and suffered by freight operators

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04 The wider benefits of rail freight to the UK

Highlights

- Rail freight generates more than £1.5bn a year in economic benefits for UK plc, saving its customers £1bn a year through improved productivity and saving the economy a further £0.5bn through the reduced congestion and wider environmental benefits of cutting journeys by HGV.
- Each freight train removes up to 76 HGVs from the roads. In 2013, 7.6m more HGV journeys would have been required to transport rail freight's goods by road.
- Transporting freight by rail reduces CO_2 emissions by 76% compared to road. Rail freight also reduces air pollution, road damage and traffic noise and prevents casualties.

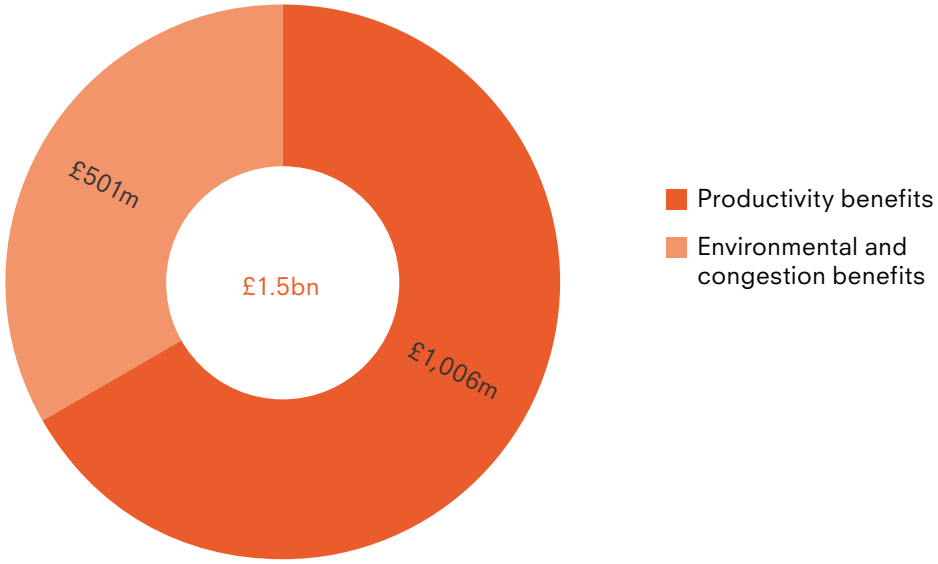
Rail freight generates more than £1.5bn a year in economic benefits for UK plc through improved productivity and reduced congestion.

4.1 Delivering economic benefits

The rail freight industry is worth £1.5bn a year in benefits to the UK economy, equivalent to nearly double the annual revenues of the rail freight operators.[21] A breakdown of the economic benefits, shown in Figure 4.1, reveals that:

- Transporting goods currently carried by rail on the roads would cost rail freight's customers an additional £1bn a year. These are productivity benefits to UK plc.
- Reduced congestion and the wider environmental and safety benefits of cutting journeys by HGV are worth £0.5bn a year to the UK (based on DfT externality assumptions).[22]

Figure 4.1 2012/13 economic benefits of rail freight



The rail freight industry transports goods that would otherwise require 7.6m more lorry journeys each year, resulting in 1.6bn fewer lorry kms on our roads.

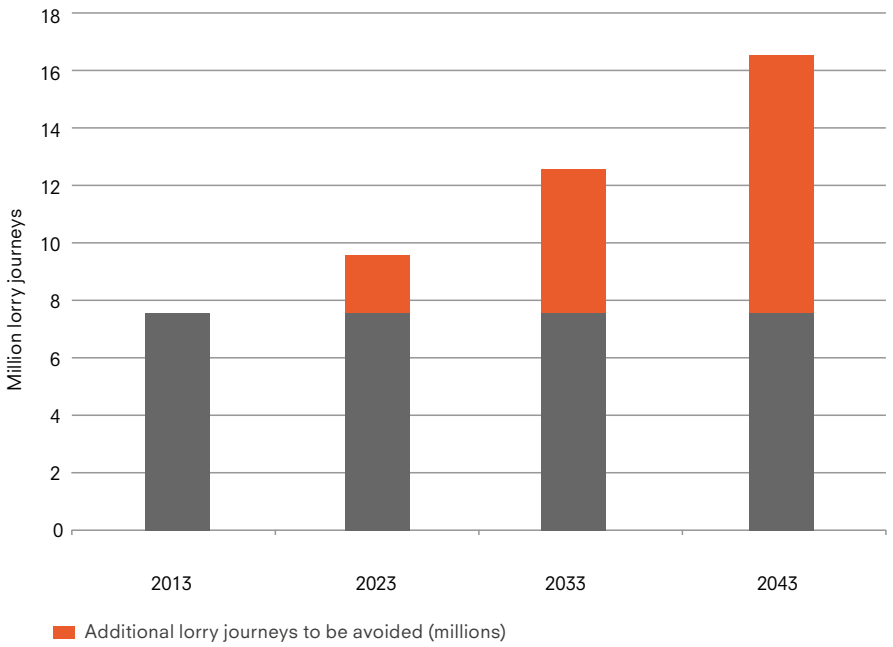
4.1.1 Congestion benefits

Britain's roads are amongst the busiest in Europe, and Britain's motorways carry a higher proportion of freight than any other major economy except Japan.[23] Estimates suggest that the economic drag caused by road congestion is equivalent to £20bn a year.[24]

Each freight train removes between 43–76 Heavy Goods Vehicles (HGVs) off the roads depending on the commodity being transported. Figure 4.2 shows that rail freight transports goods that would otherwise require 7.6m HGV journeys each year, resulting in 1.6bn fewer HGV kilometres.[25] This is equivalent to approximately 7,000 HGVs driving from London to Edinburgh every day.

If rail freight is not able to meet the growing demand for moving containers to and from ports there is the potential for a large increase in HGV journeys. Straight line extrapolation from current equivalent HGV miles and rail activity suggests that by 2043 there could be an extra 9.3m HGV journeys on UK roads (Figure 4.2).

Figure 4.2 HGV journeys avoided (2023-2043 forecast)



This level of additional HGV traffic would put severe pressure on the road network, particularly those roads between ports and major conurbations. The increased transport costs and congestion would limit the potential of UK ports and severely handicap trade and export industries. In these instances the opportunity cost of not investing in rail would be significant.

4.1.2 Environmental benefits

Transporting freight by rail reduces CO_2 emissions by 76% compared to road. In 2011, HGVs produced around 23m tonnes of CO_2 or 5% of the UK's carbon emissions.[26] This is around two-thirds of the amount produced by the entire UK aviation industry. Transporting these goods by rail in 2011 would have cut CO_2 emissions by 17.5m tonnes. Tesco estimate that it saves 3,000 tonnes of CO_2 a year by transporting goods by rail.[27]

Hutchison Port (UK) Limited

Over the past decade rail freight has provided key support to the Port of Felixstowe, helping us more than double our freight volume by rail and increase scheduled rail services by 50% with 11,500 containers moved every week on the 60 trains that serve Felixstowe. This has not only generated new business but has also allowed more than 250,000 lorries to be taken off the road, reducing the carbon footprint and congestion and has been enabled by more than £40m of investment by the port since 2010 in order to enhance its rail freight facilities.

4.1.3 Other benefits

Reducing carbon emissions and road congestion are not the only benefits offered by rail freight over the road alternative. Rail freight also:

- Reduces air pollution. Rail freight produces over 10 times less small particulate matter than road haulage and 15 times less nitrogen oxide for the equivalent mass hauled.[28]
- Reduces damage to the roads. A 40 tonne HGV causes significantly more damage in wear and tear to the roads than a normal car.[29]
- Reduces traffic noise. Traffic noise damages the health of one in three people in Europe, while the noise reductions from rail freight are estimated to be worth £60m a year in the UK.[30]
- Saves lives. Around 10% of all traffic fatalities involve an HGV. By reducing HGV journeys, rail freight prevents around 600 casualties a year.[31]

By taking lorries off the roads, rail freight also prevents around 600 casualties each year.

4.1.4 Other economic benefit calculations

An alternative calculation has been made to determine the economic contribution of the rail freight sector to the UK economy. In 2009 Network Rail appointed consultants Steer Davies Gleave to calculate the direct, indirect and induced benefits of rail freight to the economy. Rail freight was valued as contributing £870m in direct benefits to the UK economy, £3.8bn in indirect benefits and £5.9bn in induced benefits.[32] This calculation uses a macro-economic methodology whereas KPMG's calculation focussed on the specific productivity and externality benefits delivered by rail freight. Both calculations demonstrate that rail freight is integral to, and drives value throughout, the UK economy.

FCC Environment

The resource management sector is already a large user of rail freight capacity and the partnership has huge potential for the future. That the freight industry is taking more interest in what our current needs are and what they will be in 30 years' time, demonstrates that it is a relationship which will be useful to all parties.

Sainsbury's

Sainsbury's transport strategy is defined to deliver on the key targets of service, cost and – increasingly – environmental impact. That's why, when we recently reviewed our clothing delivery solution from our national distribution centre (NDC), we took the decision to change our trunk solution from road to rail between the clothing NDC in Bedford and the regional distribution centre (RDC) in Glasgow. Change was possible due to the availability of a shared user rail solution with a quality rail operator and the reliability of the rail freight service – and as a result, we've calculated and have subsequently delivered financial and environmental benefits including an annual reduction of 271 tonnes of CO_2 produced. Going forward, we will continue to seek further opportunities to convert traffic to rail in a shared user environment.

The Government wish to facilitate the continuing development of a competitive, efficient and dynamic private sector rail freight industry. We are committed to ensuring that policies and regulations should work to that end and not create unnecessary transactional costs or other obstacles to the achievement of those objectives and future growth.

—

Simon Burns MP

05 The future of the rail freight industry

Highlights

- Forecasts suggest that rail freight could more than double in volume over the next 30 years, increasing the economic benefits to the UK to over £4bn per year.
- The shape of the industry is expected to change with the growing intermodal freight sector increasingly putting rail freight in direct competition with roads.
- A stable environment will allow freight operators to continue to make significant investments. These investments will allow operators to continue to drive efficiency, improve performance and reduce costs and allow the significant economic benefits of rail freight to be realised at no additional cost to government.

5.1 Rail freight – a positive future

There are many reasons to be optimistic about rail freight's future:

- A stable environment will allow freight operators to continue to make significant investments. These investments will allow operators to continue to drive efficiency, improve performance and reduce costs allowing the significant economic benefits of rail freight to be realised at no additional cost to government.[33]
- The UK's ports are expected to see demand for container shipments almost triple by the 2030s, increasing to around 20m twenty-foot equivalent units (TEUs). Since 2005 the ports of Felixstowe, Southampton, Liverpool, Teesport and Bristol have all been granted planning consent for additional capacity (circa 1.5m TEUs each) and DP World has opened a new rail-connected container port on the Thames (London Gateway).[34]
- High Speed Two (HS2) is expected to free up crucial capacity for freight on the West Coast Main Line and other key north-south arteries.
- The Strategic Freight Network (SFN) investment programme will continue to enhance the capacity and capability of the rail network enabling longer trains with higher loading gauges to run on key freight corridors.
- The development of an electrified freight network should, over time, enhance the capability of the network and improve environmental performance.
- There is significant scope to increase the amount of rail freight using the Channel Tunnel. Various complexities, including the track access charges, have so far restricted the number of freight trains using the tunnel.
- Rail freight will continue to play a vital role in supporting the Government's energy policy. The Government has announced plans for up to 16GW of nuclear capacity, while the emerging biomass sector could prove a significant customer in the future.[35]

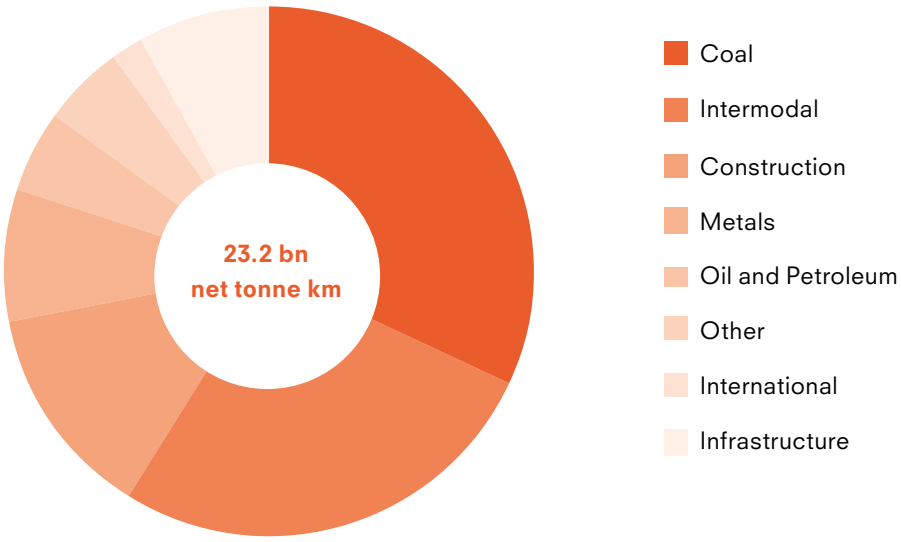
CEMEX

We move over 2m tonnes of aggregate a year by rail , including limestone from Buxton to London – a key material in the construction industry. As the construction industry continues to grow, we would like to grow with it: current demand alone would warrant an increase in output from 33 to 38 trains a week. The growth of the rail freight industry to support and match the growth of our business would be very welcome indeed, and beneficial to both us and the wider economy.

5.2 Changing commodities for rail freight

The industry is at a pivotal moment. In recent years coal has been the dominant commodity, accounting for 32% of all the goods moved by rail, as shown in Figure 5.1.[36] This is forecast to change significantly as forthcoming environmental legislation is expected to result in an 80% fall in the volume of coal transported by 2023. Network Rail's 2013 Freight Market Study suggests that this decline in coal moved will be more than offset by the forecasted growth of the intermodal and biomass markets by 2023, as shown in Figure 5.2.[37] Unconstrained forecasts indicate potential to more than double the size of the rail freight market by 2043.

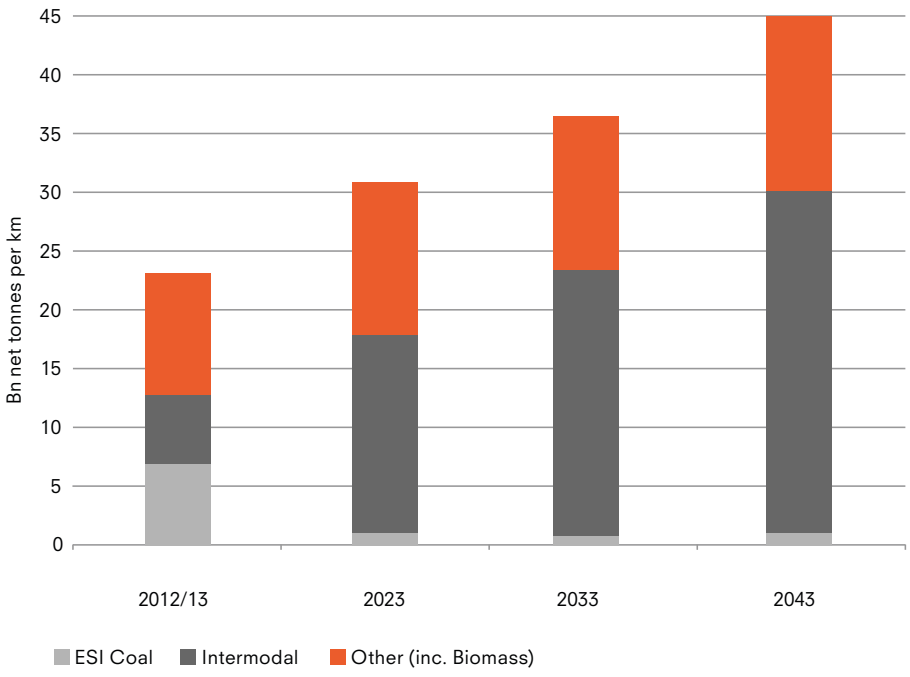
Figure 5.1 Rail freight size by sector, 2012/13



Sibelco Europe

We're a minerals company not a transport company, so all the help we've been given by rail freight has been invaluable. As a result of what we have learnt we have increased our rail usage across the UK and into Europe. As the rail infrastructure improves and expands, so will the proportion of our annual transport budget we spend on rail instead of road.

Figure 5.2 Freight forecast by commodity



5.3 Growth of economic benefits

The economic benefits of moving freight by rail are compelling and the benefits to UK plc will be significant if rail freight is able to grow as the forecasts suggest. Using Network Rail forecasts of rail freight volumes in 2043, straight lines estimates of the KPMG figures indicate that the economic benefits would increase from £1.5bn to over £4bn per year. We believe this undervalues the actual benefits that would be generated because at the margin, with no significant uplift in road investment, the value of alleviating congestion would increase exponentially.

TATA Steel

Rail freight is an essential part of our manufacturing flow. Every year we move 6–7m tonnes of raw materials from Immingham to Scunthorpe and we couldn't do this any other way than by rail freight. The same is true when moving our outgoing steel to port or as close to the customer as possible.

5.4 Delivering growth and maximising the economic benefits

As rail freight transports less of the traditionally rail-suited commodities and the intermodal market becomes an increasingly greater proportion of the sector's traffic, rail freight will increasingly be competing directly with road. In order to be able to compete effectively, rail freight operators look to have as stable a cost base as possible. Stability gives confidence to operators and investors that they can make the large investments required to continue with efficiency gains and accommodate future growth.

Freight operators are planning to make hundreds of millions of pounds worth of additional investments in the industry over the next five years. In light of the forecast doubling in freight volumes by 2043 significantly larger investments will be required. The benefits to the UK economy of accommodating this growth are clear – the productivity gains, environmental benefits and reduced congestion costs delivered by an increase in rail freight will be substantial.

The right environment will help rail freight grow. It will not require any additional funding from the Government and even has the potential to be delivered within a framework that can contribute to reducing the cost of the railway to the taxpayer while continuing to deliver significant economic benefits to the UK.

Every estimation I have seen suggests that demand for rail freight will grow quickly over the rest of this decade. And we want you to be able to accommodate and profit from that growth.

—

Stephen Hammond MP
Transport Minister

An independent perspective on the future of the UK freight market and rail's role

The following has been written by Jim Steer in his capacity as president of the Chartered Institute of Logistics and Transport in the UK

Freight market trends

Rail freight exists to provide a cost effective and sustainable transport service for its customers. In looking towards the future for rail freight, it is essential to understand the key market trends which are impacting businesses generally, and their supply chains in particular. This is not at all straightforward, as many of the trends are apparently contradictory (for example, globalisation and an increased awareness of sustainability).

Market trends affecting users of rail freight include:

- Globalisation: increased trade as a percentage of GDP has been a continuous trend for many years and is set to continue.
- Centralisation: businesses continue to seek economies of scale by centralising production and distribution.
- Rising commodity costs: increasing population and global prosperity inevitably put pressure on the prices of commodities including coal, oil, steel and other metals. Outcomes will include changes in the pattern of consumption and a move towards greater use of recycled materials.
- Rising costs of road transport: a by-product of increases in the cost of oil may potentially combine with increased congestion costs and possibly road pricing, producing a real-terms increase in the cost of road transport.
- Focus on sustainability: whether driven by government, consumers, or businesses themselves, there are already signs that supply chains are changing to improve sustainability. This could, paradoxically, lead to some businesses returning to more localised models for procurement and distribution.
- E-Logistics: the rise of internet communications supports globalisation and lean supply chains. There will be a continued trend towards home shopping and home deliveries of goods, with varied impacts on supply chains.
- Supply chain changes: the last two decades have seen a concerted move towards centralised supply chains with retailers dominating the fast moving consumer goods supply chains. While this may continue, market changes will see a wider variety of supply chain solutions being adopted, with, for example, some businesses moving towards port-centric distribution – placing their hubs at ports rather than in the Midlands.

Rail industry positioning

The rail freight sector is well placed to benefit from these changes:

- Rail freight is less sensitive than road freight to changes in the price of oil.
- Rail freight is particularly effective at moving a high volume of goods to and from ports – and so will benefit from increased trade.
- There is a concerted move by rail freight operators and Network Rail towards longer and heavier trains. This will allow rail freight to continue to make efficiencies and compete against road.
- Rail freight is correctly seen as being sustainable, not only in terms of greenhouse gases, but also in terms of safety and impact on communities.
- The rail freight industry has internal competition which will keep prices low and provide scope for innovation in terms of customer service and technology.
- Trends in the rail freight sector and wider supply chain are leading businesses to invest in rail hubs surrounded by large distribution centres.

Challenges

Despite these advantages, the rail freight industry recognises that it has to address a number of threats and weaknesses if it is to continue to serve its existing markets well and to play an increasing role in distribution. These include:

- A lack of rail connected distribution facilities. The economics are clear: rail freight provides maximum benefits to users when the origin and destination are at or near a rail head (such as an intermodal terminal). Despite the positive changes of the last 10 years, most retail and manufacturing distribution centres are not adjacent to rail freight facilities, and many do not even have access to a local or regional facility. The planning system is improving, but holding back plans for rail freight interchanges prevents business from benefiting from the efficiency offered by rail freight. There is a direct correlation.
- Capacity. The success of rail privatisation that has led to growth of passenger and freight usage means that little capacity remains on core routes. On the crucial West Coast Main Line, this limit will be reached before 2030 and on some other routes the limit may be reached even sooner. Network Rail, supported by the DfT, is investing to increase capacity by technical innovation such as the European Traffic Management System (ERTMS) which will enable longer trains and eliminate pinch points on the network. HS2 will also enable additional capacity on north-south corridors.
- Access charge stability. In common with other transport operators, rail freight operators work continuously to drive down costs. A significant cost not under their direct control is the regulated charge for access to the rail infrastructure. Long-term stability in the structure and level of freight access charges is important in creating a climate of confidence for long-term business investment, where the current five year cycle is out of kilter with the typical long life of assets employed and freight operators' investment horizons.

Three opportunities for rail freight

The Channel Tunnel: it is clear that the volume of rail freight to and from the continent is well below its potential. The Channel Tunnel was forecast to be carrying 35 trains per day in each direction, but the reality is barely 10% of this. The reasons are complex, but include pricing and the complexities of operating trains across multiple railways.

Changed attitudes: while some businesses have taken the opportunities offered by rail freight seriously, including traditional road hauliers such as Stobart, Malcolm, and Russells, others either ignore the opportunity or expect rail freight to replicate road freight services. To maximise the benefits of rail freight, businesses may need to restructure their supply chains. But by ignoring rail freight, they may be losing competitive advantage in the future.

Electrification: With government support Network Rail is electrifying extensive sections of the rail network. Electrification offers significant capacity benefits. It also allows rail freight to do something that road freight can not: use carbon neutral fuel by purchasing electricity from suppliers who use nuclear or renewable generation.

The future of rail freight

Looking at changes in supply chains and changes in the rail industry, there is strong potential for rail freight to play an increasingly relevant part in distribution, taking advantage of the economies of longer and heavier trains, more electric haulage, and integration with other parts of the supply chain to offer businesses the combined benefits of all modes.

Maximising these opportunities will need more effort to increase business awareness of what rail freight offers; continued investment by Network Rail in capacity; better alignment of the regulatory oversight of rail freight's track costs to reflect investment realities and sustainability policies; support by planners to the developers of rail freight interchanges and unlocking the use of the Channel Tunnel.

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Rail Delivery Group

The Rail Delivery Group was set up in 2011 and brings together the owners of Britain's passenger train operating companies, freight operators and Network Rail to provide leadership to Britain's rail industry.

- Its mission is to promote greater co-operation between train operators and Network Rail through leadership in the industry and by working together with Government, the supply chain and stakeholders.
- It is committed equally to the long-term health of the railway as well as the need to see improvement in the shorter term.
- It does this by developing strategies for the industry to put into practice and by proposing solutions for policy makers to implement.

For more information about this report, contact freight@raildeliverygroup.com or visit www.raildeliverygroup.com