



The economic contribution of the UK ports industry

A Cebr report for Maritime UK

August 2019

Cebr

Disclaimer

Whilst every effort has been made to ensure the accuracy of the material in this document, neither Centre for Economics and Business Research Ltd nor the report's authors will be liable for any loss or damages incurred through the use of the report.

Authorship and acknowledgements

This report has been produced by Cebr, an independent economics and business research consultancy established in 1992. The views expressed herein are those of the authors only and are based upon independent research by them.

The industry figures making up the broad Maritime Sector are not always additive because some of the reports have been customised to cater for the overlap between certain industries. Simply adding together the industries would therefore produce a degree of double counting. Nonetheless, the broad Maritime report has had this double counting stripped out. Cebr believes fundamentally in the thoroughness and robustness of its approach and, as such, we stand by our own unbiased and fresh examination of the role of the Maritime sector and its constituent industries in the UK.

The report does not necessarily reflect the views of Maritime UK.

London, August 2019

Contents

Executive Summary	5
1 Introduction	6
1.1 About Maritime UK	6
1.2 Purpose of this report	6
1.3 Overview of the study and methodology	6
1.4 Structure of the report	8
2 The Maritime Sector and the ports industry	9
2.1 The definition of the Maritime Sector and its constituent activities	9
2.2 Quantifying the direct economic impacts of the industry at national level	10
2.3 Quantifying the direct economic impacts of the industry at regional level	12
3 The direct economic impact of the ports industry	14
3.1 The direct impact through turnover	14
3.2 The direct impact through GVA	15
3.3 The direct contribution through employment	17
3.4 The direct impact through the compensation of employees	18
3.5 The direct Exchequer contribution	19
3.6 The direct contribution through the exports of goods and services	21
4 The aggregate economic impact of the ports industry	23
4.1 The aggregate economic impact through turnover	23
4.2 The aggregate economic impacts through GVA	24
4.3 The aggregate economic impacts through employment	25
4.4 The aggregate economic impact through the compensation of employees	27
5 The regional economic impact of the ports industry	29
5.1 The direct economic impact of the ports industry by UK region	29

5.2 The aggregate economic impact of the ports industry by UK region	33
Annex A: Full set of direct economic impacts by region	35
Annex B: List of major and minor UK ports	37

Executive Summary

- The Centre for Economics and Business Research (Cebr) has been commissioned by Maritime UK to quantify the economic contribution of the ports industry. This report forms one of ten reports which also assess the contribution of the Maritime Sector as a whole, at industry-level, in Scotland, Wales, the Liverpool City Region and in the Solent LEP region.
- **In this context, the ports industry comprises all those activities undertaken in ports.** This report draws upon a combination of data sources, to quantify both the direct and aggregate economic impact of these activities in the UK economy in the years 2010 to 2017.
- The ports industry makes a macroeconomic contribution to the UK through the key macroeconomic indicators: business turnover, Gross Value Added (GVA), employment and the compensation of employees. **It is estimated that in 2017 the ports industry directly contributed approximately £29.0 billion in business turnover, £9.7 billion in GVA and 115,000 jobs for UK employees.** This respectively equates to 61% of turnover, 57% of GVA and 52% of employment directly supported by the wider UK Maritime Sector in 2017.
- The ports industry also helps to raise millions of pounds each year to the UK Exchequer and makes a sizeable contribution to UK trade through exports of goods and services. **The industry contributed an estimated total of just under £2 billion in tax revenues in 2017,** spread across Corporation Tax, Income Tax, National Insurance Contributions (NICs) and Business Rates. The industry is also estimated to have exported £9 billion of goods and services in 2017.
- After quantifying the aggregate economic impacts through the industry supply chains and induced effects on expenditures, **it is estimated that the ports industry helped to support a total of £28.7 billion of GVA in 2017.** This implies that, for every £1 in GVA directly contributed by the ports industry, a further £2.97 in GVA is stimulated across the wider UK economy.
- These aggregate economic impacts associated with the ports industry also extend to turnover, employment and the compensation of employees. **It is estimated that the ports industry helped to support a total of £70.0 billion in turnover, 822,000 jobs and £10.8 billion through the compensation of employees in 2017.**
- **While the economic contribution of the industry is spread across all UK regions, the South East region contributes the most to GVA, turnover, employment and compensation of employees both through direct and aggregate impacts.** In 2017, it is estimated that the industry in South East directly contributed £2.7 billion of GVA (28% of the direct contribution) and 27,000 jobs (23% of the direct contribution). After indirect and induced effects are considered, the aggregate impact of the industry in South East rises to almost £7.5 billion of GVA and 235,600 jobs.

1 Introduction

Cebr is pleased to present this report to Maritime UK on the economic impact of the ports industry on the UK economy. For the purposes of this report, the ports industry is defined as broadly comprising the activities undertaken in ports; in other words, the activities of the ports themselves, as well as shipping and shipbuilding activities

This report forms one of ten reports on the economic contribution of the Maritime Sector, which is defined as comprising the individual shipping, ports, marine engineering and scientific (MES), leisure marine and Maritime Business Services (MBS) industries, each comprising a wide range of component activities. The other reports focus on the economic contribution of the shipping, leisure marine, MES and MBS industries at the UK level; the economic contribution of the sector in Scotland, Wales, Liverpool City Region the Solent LEP, and the contribution of the Maritime Sector at UK-level. It is therefore important to consider this report as part of the wider framework set out in the ten reports, which set out the impact of the Maritime Sector both at a national and regional level.

Our examination spans the period from 2010 to 2017 (inclusive), with the latter being the latest year for which full data are available, and endeavours to capture the full economic ‘footprint’ of the ports industry. As such, our report is not confined to direct ongoing contributions to GDP and employment through the ports industry’s operations and activities in the UK, but also provides assessments of the associated indirect and induced multiplier impacts (together yielding the aggregate impact of the industry).

1.1 About Maritime UK

Maritime UK is the industry body for the UK’s Maritime Sector, representing companies and partner organisations in the shipping, ports, leisure marine, marine engineering and scientific and Maritime Business Services industries. It acts to promote the sector, influence government and drive growth.

1.2 Purpose of this report

This study seeks to equip Maritime UK with statistics and figures on the value of the ports industry to the UK economy, within the context of the value of the wider Maritime Sector. As such, Cebr has focused on the following key economic indicators: business turnover, employment, Gross Value Added (GVA), the compensation of employees, the Exchequer contribution (through tax revenues raised) and exports of goods and services. The study also seeks to identify the contribution of the ports industry at regional level (across the former Government Office Regions).

1.3 Overview of the study and methodology

Purpose of the study

This report provides a thorough and comprehensive examination of the role of the ports industry in the UK and its constituent sub-regional economies. It presents a range of analyses demonstrating different aspects of the value contributed by the industry, including direct contributions to GDP and employment, indirect and induced multiplier impacts and the ports industry’s contribution to the UK Exchequer through tax revenues raised.

An important task has been to develop an in-depth understanding of the ports industry. To produce a robust study, it is necessary to interrogate the available data to ensure that it captures the full range of activities that should be included in establishing the total economic ‘footprint’ of the industry. Following

the collation of the necessary data capturing these activities, the values of key economic indicators were established to demonstrate the impact of the industry. The key macroeconomic indicators include:

- The value of the turnover of the ports industry and, again, the turnover supported in the UK and regional economies through multiplier impacts.
- GVA¹ contributions to UK and regional GDP generated by the ports industry, directly and through indirect and induced multiplier impacts.
- Jobs supported by the industry, including direct, indirect and induced jobs through multiplier impacts.
- The value of employee compensation² generated by the ports industry, representing the total remuneration of employees operating in the industry.
- The contribution of the ports industry through revenues raised for the Exchequer.
- The direct, indirect and induced economic impacts referred to above are defined later in this section: by way of background the latter two effects broadly refer to how the direct impacts of an industry propagate through the supply chains of that industry and through the broader economy as a whole, respectively.

Quantifying the direct economic impacts of the ports industry and data sources

In order to quantify the direct economic impacts of the ports industry, a number of different approaches have been taken which reflect the degree of alignment (or otherwise) for each activity within the ports industry against the National Accounts framework, and is summarised below. A more detailed description of sources used for each activity within the ports industry can be found in Section 2 of this report.

- The major source of data used to quantify the direct economic contribution of the ports industry is the Financial Accounts Made Easy (FAME) database, which provides business demography and financial accounts data for companies. The FAME database has been used to generate estimates for the business turnover, GVA, employment, the compensation of employees and industry profitability.
- This data has then been used by extension to quantify the contribution that the ports industry makes to the UK Exchequer, and the productivity of the industry in terms of GVA per job.
- Data for exports of services exports from the ports industry has been sourced from both the ONS Pink Book and the UK Chamber of Shipping's (UKCoS) Annual Sea Inquiry.

¹ GVA, or gross value added, is a measure of the value from production in the national accounts and can be thought of as the value of industrial output less intermediate consumption. That is, the value of what is produced less the value of the intermediate goods and services used as inputs to produce it. GVA is also commonly known as income from production and is distributed in three directions – to employees, to shareholders and to government. GVA is linked as a measurement to GDP – both being a measure of economic output. That relationship is $(GVA + \text{Tax on products} - \text{Subsidies on products}) = \text{GDP}$. Because taxes and subsidies on individual product categories are only available at the whole economy level (rather than at the sectoral or regional level), GVA tends to be used for measuring things like gross regional domestic product and other measures of economic output of entities that are smaller than the whole economy.

² Compensation of employees is the total remuneration, in cash or in kind, payable by an employer to an employee in return for employers' social contributions, mainly consisting of employers' actual social contributions (excluding apprentices), employers' imputed social contributions (excluding apprentices) and employers' social contributions for apprentices.

Quantifying the aggregate economic impacts of the ports industry

After collation and interrogation of the data, the direct economic impacts for the ports industry have then been embedded within Cebr's economic impacts models of the UK economy. For each activity group, the direct impacts are then combined with the bespoke economic multipliers to generate indirect, induced and by extension the aggregate impacts. These multipliers were calculated by Cebr using our input-output modelling approaches, as these activities are not 'standard' sectors reported in the ONS' input-output tables. Cebr's models establish the relationships between industries through supply chain linkages, as well as industries' linkages with government, capital investors and the rest of the world (through trade). The models produce three types of impact for four indicators – turnover; GVA; employment; and the compensation of employees. The three types of impact are:

- **Direct:** the value generated and jobs supported directly by the economic activities of the ports industry.
- **Indirect:** the value and jobs supported in industries that supply inputs to the ports industry.
- **Induced:** this is the value and jobs supported in the UK economy when the direct and indirect employees of the ports industry spend their wages and salaries on final goods and services.

These three impacts are then combined to convey the aggregate economic impact associated with each activity, in terms of turnover, GVA, employment, and the compensation of employees.

1.4 Structure of the report

The remainder of the report is structured as follows:

- **Section 2** provides an overview of how the Maritime Sector has been defined, and in turn how the ports industry fits within this definition. Further information is also provided on how the key macroeconomic indicators have been captured or estimated;
- **Section 3** outlines the direct economic impacts of the ports industry. We consider the direct impacts through turnover; GVA; employment; the compensation of employees; exports; and the contribution to the UK Exchequer through tax revenues contributed by the ports industry.
- **Section 4** considers the multiplier impacts of the ports industry through the activities it stimulates in the local supply chain and in the wider economy when employees directly and indirectly employed by the ports industry spend their wages and salaries in the local and wider economy.
- **Section 5** examines the direct and multiplier (indirect and induced) impacts of the ports industry at regional level, as disaggregated by the twelve former Government Office Regions (GORS).

2 The Maritime Sector and the ports industry

Here we set out how the Maritime Sector has been defined for the purposes of the study, and how the ports industry is characterised within the sector. On a holistic level, the wider sector can be disaggregated into the shipping, ports, marine engineering and scientific, leisure marine and maritime business services industries, which in themselves are formed of numerous individual and distinct activities, of which the ports industry is the focus of this report.

2.1 The definition of the Maritime Sector and its constituent activities

Maritime UK have provided a list of activities which fall under the auspices of the Maritime Sector; Cebr has subsequently undertaken a mapping exercise using this list to identify how each of these activities aligns with the national accounts. For most Maritime Sector activities, a corresponding Standard Industrial Classification (SIC) code exists which enables the identification and quantification of the direct economic impacts using publicly-available data sources. A minority of activities do not map neatly against the SIC framework, necessitating the use of industry or local-level data for quantification purposes.

- **Shipping industry**
 - International passenger transport (cruise and ferry);
 - Domestic and inland waterway passenger transport;
 - International freight transport (bulk, container, gas and tanker);
 - Domestic & inland waterway freight transport;
 - Other shipping activity.
- **Ports industry**
 - Warehousing and storage;
 - Port activities and management;
 - Stevedores, cargo and passenger handling;
 - Border agency, HMRC and public sector employees operating in ports.
- **Leisure marine industry**
 - Recreational marine activities, marine finance and legal activities and general marine services;
 - Boatbuilding (marine leisure vessels);
- **Marine engineering and scientific industry**
 - Shipbuilding;
 - Marine renewable energy;
 - Marine support activities for offshore oil and gas, engineering and mining;
 - Marine science and academic activities, including government vessels and technical consulting;
- **Maritime Business Services industry**
 - Shipbroking services;
 - Maritime Insurance services;
 - Maritime Financial services;
 - Maritime Legal services;
 - Ship Surveying and Classification activities;
 - Maritime Education (including Maritime university courses and cadetships);
 - Maritime Consultancy; and

- Maritime Accountancy.

Here we focus on what we term the ports industry, which in this context is defined as comprising all activities taking place in and around ports – shipping, shipbuilding and the activities of ports themselves. The remainder of this section sets out the approach by which the direct, aggregate and regional economic impacts of the ports industry have been estimated.

2.2 Quantifying the direct economic impacts of the industry at national level

Table 1 below shows how activities for the ports industry have been identified, and the data sources used to capture and quantify the associated economic activity. As it is possible to separately identify shipping and shipbuilding activities using SIC codes (and for ports by assuming that activity taking place in a council ward with a port is ports-related), business demography data taken from the FAME database has been the major source of information used to generate UK-level estimates for the direct economic impacts of each activity.

Table 1: Mapping of the ports industry by activity

GROUPING	ACTIVITY	MAPPING	SOURCE(S) USED
PORTS	Warehousing and Storage	Identified through SIC code 52101, "Operation of Warehousing and Storage Facilities for Water Transport activities". Activities are then mapped to council wards containing major and minor UK ports.	FAME, BRES
	Port Authority Management, Port Security and Marshals, Port Marine and Vessel Management Services, Marine Pilots, Port Harbour Support Vessels, and Engineering and Maintenance	Identified through SIC code 52220, "Service activities incidental to water transportation". Activities are then mapped to council wards containing major and minor UK ports.	FAME, BRES
	Stevedores, cargo and passenger handling including crane/vehicle/plant drivers/operators	Identified through SIC code 52241, "Cargo Handling for Water Transport Activities". Activities are then mapped to council wards containing major and minor UK ports.	FAME, BRES
	Border Agency, Home Office and HMRC staff operating in Ports	Identified as public sector employees operating in UK ports.	Institute for Government, Port Freight Statistics, Cebr analysis
SHIPPING	International passenger transport (cruise and ferry)	Identified through SIC code 50100, "Sea and Coastal Passenger Water Transport".	FAME, BRES
	Domestic and inland waterway passenger transport	Identified through SIC code 50300, "Inland Passenger Water Transport".	FAME, BRES
	International freight transport (bulk, container, gas and tanker)	Identified through SIC codes 50200 and 77342, "Sea and coastal freight water transport", and "Renting and Leasing of Freight Water Transport Equipment".	FAME, BRES
	Domestic and inland waterway freight transport	Identified through SIC code 50400, "Inland Freight Water Transport".	FAME, BRES
	Other shipping activity	Identified through of UKCoS statistics for shipping-related employment.	UKCoS Manpower Survey
SHIPBUILDING	Shipbuilding and Marine Engineering	Identified through SIC codes 3011 ("Building of ships and floating structures") and 3315 ("Repair and Maintenance of Ships and Boats")	FAME, BRES

Source: Maritime UK, Cebr analysis

In addition to these activities mapped above, the ports industry supports a variety of maritime and non-maritime activities, including leisure marine and fishing. While these have not been included in the ports industry definition above, the role that the ports industry plays in supporting the facilitation of these other activities should not be overlooked.

2.3 Quantifying the direct economic impacts of the industry at regional level

- Here we set out the approach taken to disaggregate the direct and aggregate economic impacts of the ports industry at regional level. A full set of estimates for the regional direct economic impacts are provided in Annex A. As it is possible to quantify the economic contribution at national level using SIC codes, by extension the approach taken involves using publicly-available statistics which can be disaggregated at regional level and combining these with the UK-level direct and aggregate impacts for the ports industry.
- The first step of this approach involved determining the regional disaggregation of employment for each activity. The major source of employment data by region was the Business Register and Employment Survey (BRES)³, as accessed through NOMIS. Employment data associated with each SIC code for the ports industry were gathered and an implied regional breakdown estimated after interpolating for some missing information. As BRES only provides coverage for Great Britain, employment data in Northern Ireland has been estimated using a combination of BRES and the ONS Annual Business Survey (ABS)⁴, the latter providing the proportion of employment in Northern Ireland across the nearest industrial sector category. For the other key macroeconomic indicators – turnover, GVA, and the compensation of employees – ABS has been used alongside the regional employment estimates.

Other adjustments have been made to the regional disaggregation of the key macroeconomic indicators which represent the direct economic impacts of the ports industry, in order to reflect differences in economic performance across the regions. These are as follows:

- To account for regional differences in average productivity (GVA per employee), the breakdown of GVA has been adjusted using the ONS GVA per employee by region statistics.⁵
- To account for regional differences in wages and salaries, estimated wages and salaries paid to employees in the ports industry have been adjusted using differentials taken from ASHE.⁶
- To account for regional variation in the ratio of compensation of employees to GVA in different sectors, the compensation of employees for the industry have been adjusted using regional differentials implied by the closest industry, as sourced from the Annual Business Survey.

The regional disaggregation process can therefore be summarised as follows:

- Estimate the regional disaggregation of employment in the ports industry by combining the UK employment total with the BRES-implied split;
- Estimate the regional disaggregation of GVA by applying employment-to-GVA ratios, adjusting for regional productivity differentials, and constraining the regional totals to the UK total;
- Estimate the regional disaggregation of turnover by applying regional industry turnover-to-GVA ratios sourced from ABS, again constraining the regional totals to the UK total;

³ The Business Register and Employment Survey (BRES), produced by the ONS on an annual basis, is the official source of employee and employment estimates by detailed geography and industry within Great Britain.

⁴ The Annual Business Survey is a census of production in the United Kingdom produced by the ONS.

⁵ ONS, 2017. Subregional Productivity: Labour Productivity (GVA per hour worked and GVA per filled job) indices by UK NUTS2, NUTS3 subregions and City regions.

⁶ Ibid.

- Estimate the regional disaggregation of the compensation of employees (COE) by applying regional industry COE-to-GVA ratios sourced from ABS, again constraining the regional totals to the UK total.

Ports

Table 2 below shows the breakdown of employment in ports as implied through BRES data. The regions with the largest shares of employment in ports themselves are the South East, Scotland and the North West.

Table 2: The estimated regional breakdown of UK employment in ports activities as implied by BRES and ABS, 2010 to 2017

EMPLOYMENT	2010	2011	2012	2013	2014	2015	2016	2017
England	77%	75%	76%	75%	75%	77%	76%	78%
Scotland	15%	16%	17%	17%	18%	16%	17%	17%
Wales	5%	6%	4%	5%	4%	4%	4%	2%
Northern Ireland	2%	3%	3%	3%	2%	2%	3%	2%
East of England	9%	10%	8%	7%	7%	6%	9%	7%
East Midlands	1%	0%	0%	1%	3%	0%	0%	0%
London	12%	13%	12%	11%	13%	17%	11%	11%
North East	6%	5%	5%	7%	7%	6%	4%	2%
North West	11%	12%	11%	12%	13%	15%	15%	15%
South East	17%	16%	17%	18%	15%	13%	16%	18%
South West	9%	9%	11%	11%	9%	10%	10%	12%
West Midlands	2%	0%	0%	0%	1%	0%	1%	0%
Yorkshire and the Humber	11%	11%	11%	9%	8%	10%	10%	12%

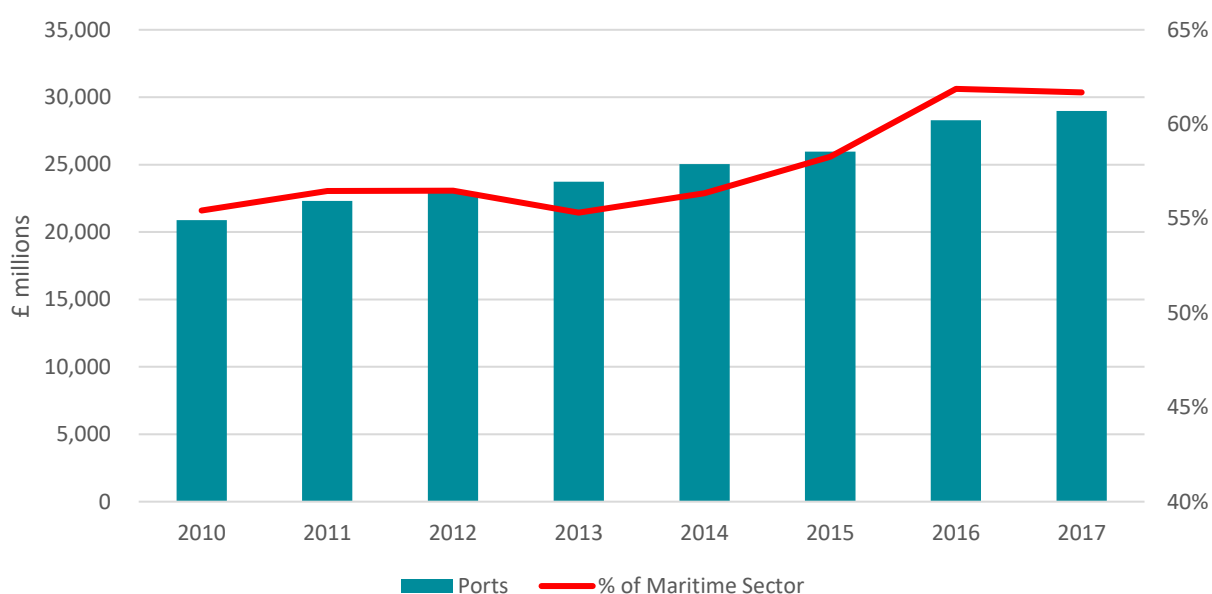
Source: ONS, Cebr analysis

3 The direct economic impact of the ports industry

3.1 The direct impact through turnover

This section examines the level of turnover which is directly supported by the ports industry. Figure 1 below illustrates the direct impact of the ports industry through turnover in the period 2010 - 2017, both in absolute levels and as a percentage of the total direct contribution from the UK Maritime Sector.

Figure 1: The estimated turnover of the ports industry, and share of the Maritime Sector's total turnover



Source: FAME, UKCoS, ONS, Cebr analysis

It is estimated that the total direct impact of the ports industry through turnover in 2017 was approximately £28.9 billion. This constitutes approximately 61.2% of the total direct impact of the Maritime Sector through turnover. As illustrated, this direct turnover contribution has been fairly consistent from 2010 to 2017; increasing every year and reaching its highest value in 2017.

Not only has turnover from the ports industry grown over the seven year period, average profitability (as measured using the aggregated ratio of gross profits to turnover) in the ports industry is also estimated to have increased since 2010, and compares favourably to that of the overall UK Maritime Sector.

Turnover from the ports industry has the possibility of growing further and faster as ports across the UK adopt modern technologies increasing efficiency and profitability of the ports. This is in line with the development Smart Ports where automated processes and improved supply chain technology will increase the competitive advantage of UK ports. Adopting new technology and developing Smart Ports across the UK is one of the key strategies outlined in the UK Maritime 2050 report.⁷

⁷ Department of Transport. (2019). 'Maritime 2050'.

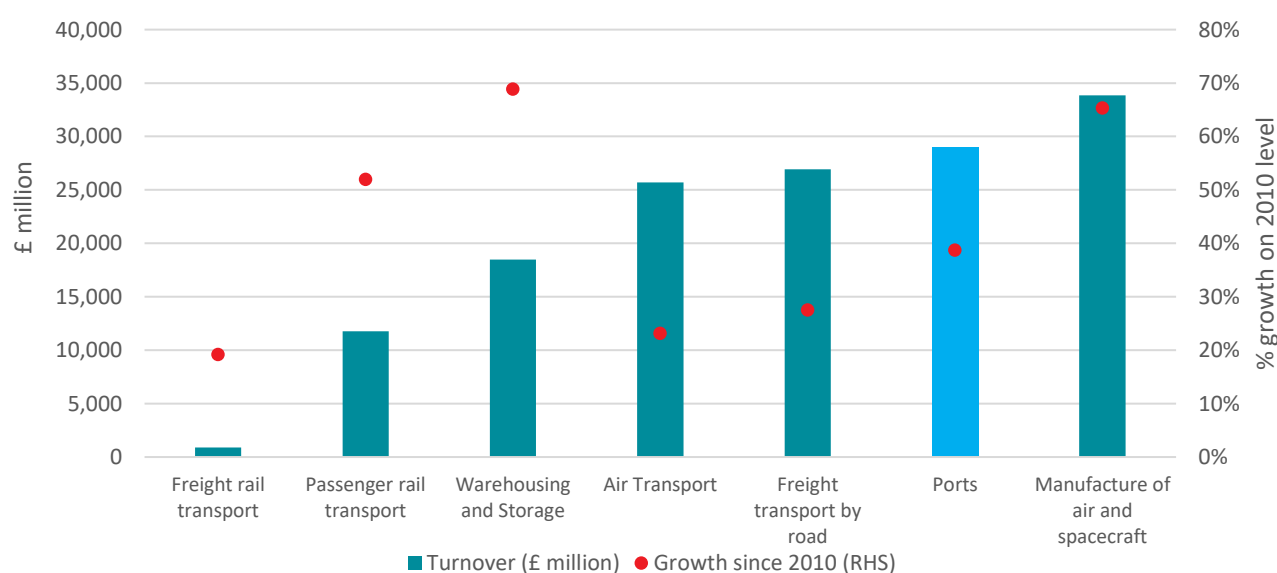
Table 3: Estimated profitability (average gross profit ratio) of the ports industry and constituent activities

Profitability	2010	2011	2012	2013	2014	2015	2016	2017
UK Maritime Sector	18.0%	17.3%	18.4%	19.2%	21.1%	20.3%	21.0%	20.2%
UK Ports industry	16.8%	16.7%	18.1%	18.3%	20.4%	20.8%	21.4%	20.9%

Source: FAME, UKCoS, ONS, Cebr analysis

To place the direct contribution through turnover in context, Figure 2 below compares the port industry's direct contribution through turnover against that of comparable transport industry activities across air, road and rail; nominal turnover growth against the 2010 level is also shown for each industry activity. Turnover data for the comparable industries has been sourced from the Annual Business Survey.

Figure 2: The estimated turnover of the ports industry against comparable industries in 2017, and growth against the 2010 level



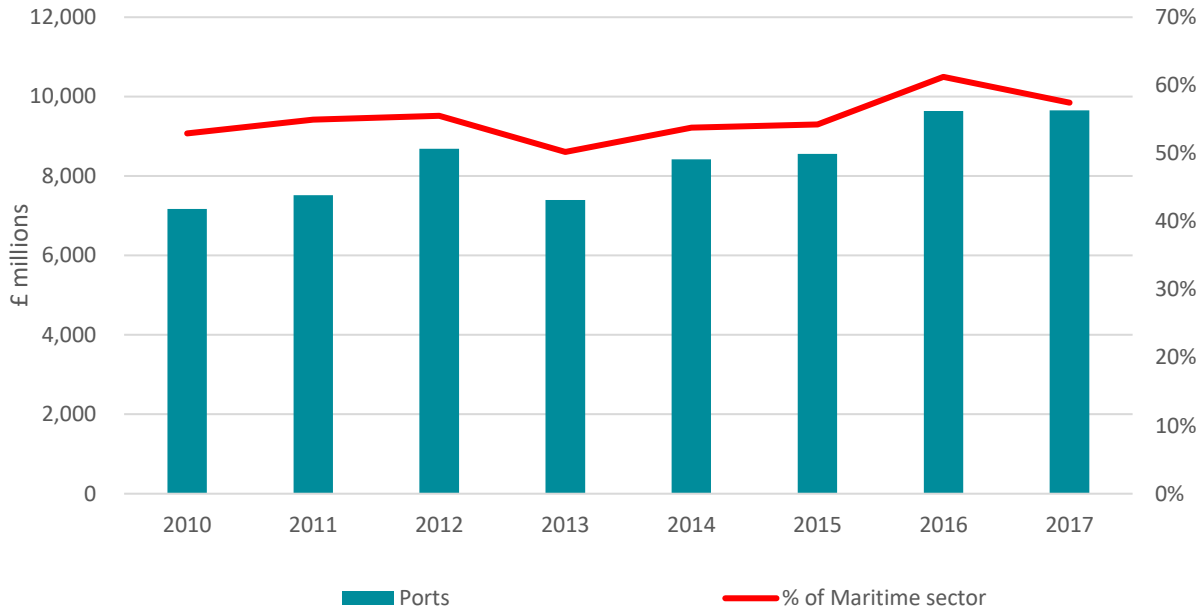
Source: FAME, UKCoS, ONS, Cebr analysis

Relative to the comparison activities, the ports industry experienced the third largest growth between 2010 and 2017; at 39%. In contrast, freight rail transport grew only 19% relative to its 2010 level. The estimated turnover of the ports industry therefore exceeded that of the wider freight transport by road, air transport, warehousing and storage, passenger rail transport and freight rail transport industries.

3.2 The direct impact through GVA

This subsection firstly illustrates the direct contributions in terms of the GVA from the ports industry to UK GDP. Figure 3 depicts this direct impact across the years 2010 to 2017; both in absolute levels (left axis) and as a percentage of the total Maritime Sector turnover contribution (right axis). It is estimated that the ports industry directly contributed approximately £9.7 billion to GVA in 2017. This constitutes approximately 57% of the total direct GVA contribution from the UK Maritime Sector in the same year.

Figure 3: The direct contribution of the ports industry through GVA, and the industry's share of the Maritime Sector's total direct contribution through GVA

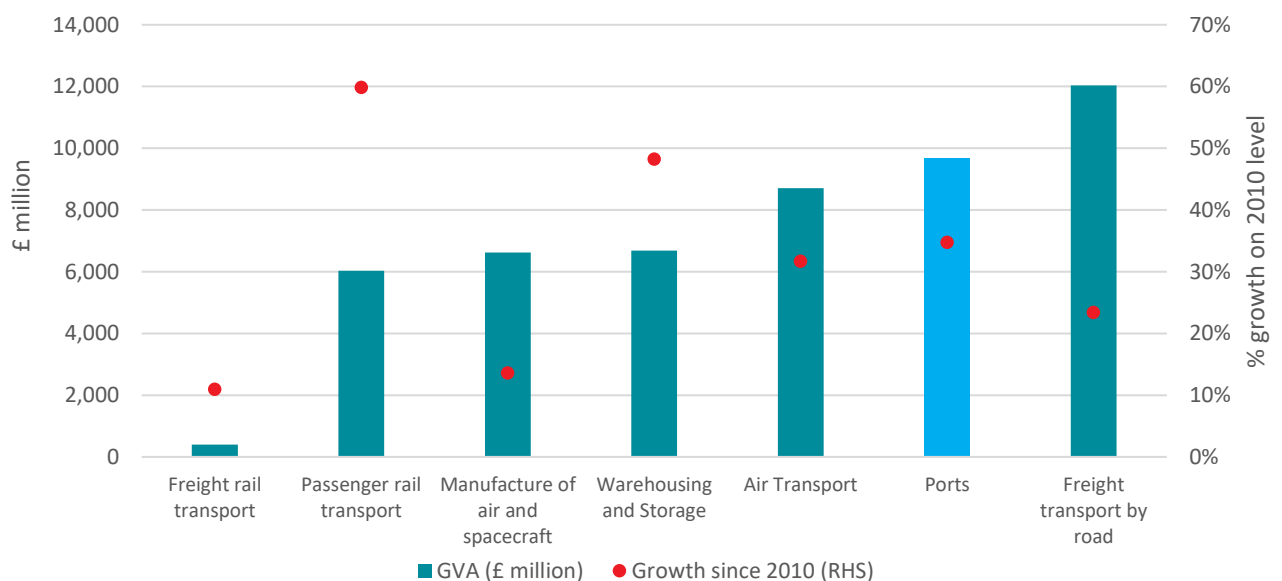


Source: FAME, UKCoS, ONS, Cebr analysis

In addition, although not quantified in this study, the ports industry plays a key role in facilitating a variety of other value-adding activities. These include some leisure marine activities, fishing, and both marine oil and gas production, and associated support activities.

Following Figure 2, Figure 4 below compares GVA trends in the ports industry against those of comparable activities. The ports industry had the second highest direct GVA contribution in 2017 only exceeded by freight transport by road. Ports had the third highest growth rate (35%) since 2010.

Figure 4: The estimated GVA of the ports industry against comparable industries in 2017, and growth against the 2010 level

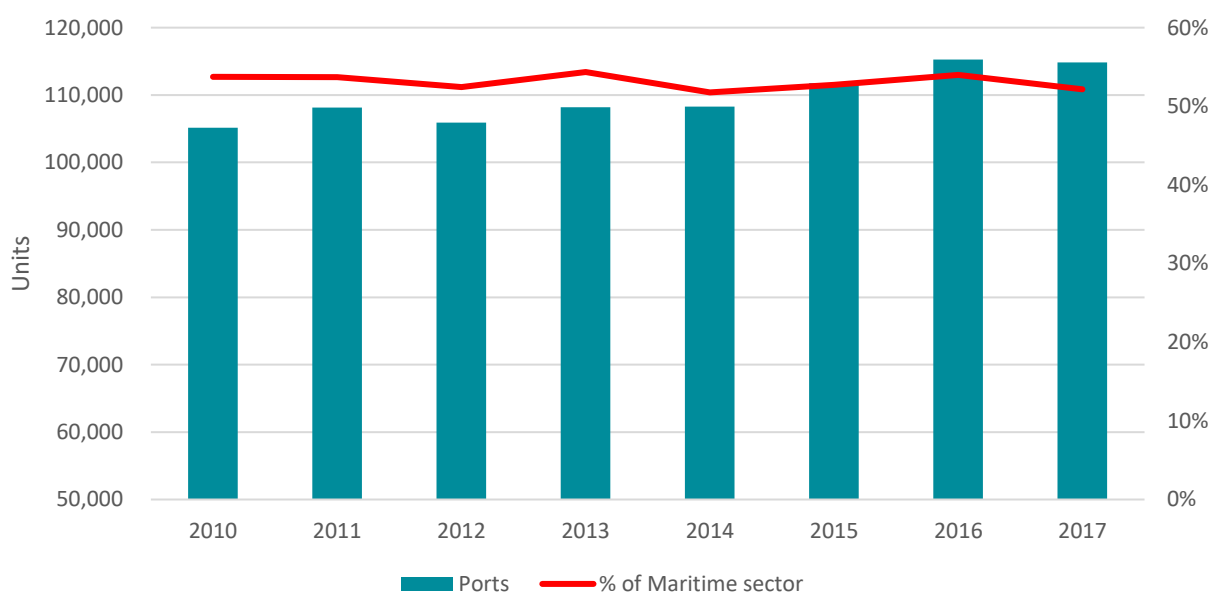


Source: FAME, UKCoS, ONS, Cebr analysis

3.3 The direct contribution through employment

In addition to its contribution through GVA, the ports industry also directly supports a significant number of jobs. Figure 5 below shows the estimated direct employment impact for ports industry for each year from 2010 to 2017; both in absolute levels (left axis) and as a percentage of the total Maritime Sector turnover contribution (right axis).

Figure 5: The direct contribution of the ports industry to UK employment, and the share of the total direct Maritime Sector contribution to UK employment, 2010 to 2017.



Source: FAME, UKCoS, ONS, Cebr analysis

It is estimated that the ports industry directly contributed approximately 115,000 jobs in 2017. This constituted approximately 52% of the Maritime Sector direct job contribution in that year. As illustrated, the direct contribution is relatively consistent across each year – both in absolute magnitude and as a percentage of the Maritime Sector direct employment contribution.

Based on the trends in GVA and employment presented in Figure 3 and Figure 5, employees operating in the ports industry are highly productive, as measured by GVA per job. Table 4 below shows the estimated average productivity of the ports industry across the years 2010 to 2017, and compared against the average productivity level of the Maritime Sector and the UK as a whole. The ports industry as a whole is more productive than the broader Maritime Sector and significantly higher than the UK average.

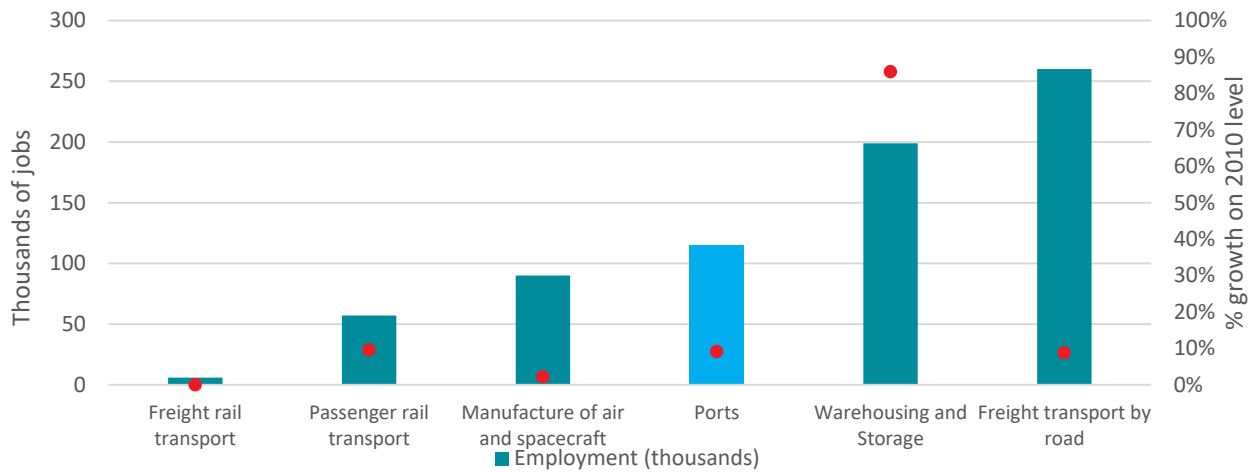
Table 4: Average productivity (GVA per job) in the ports industry in comparison to the Maritime Sector and UK economy

GVA per employee	2010	2011	2012	2013	2014	2015	2016	2017
UK economy	£46,215	£47,176	£48,355	£49,691	£50,877	£51,619	£53,013	£54,330
UK Maritime Sector	£69,760	£68,554	£78,170	£74,721	£75,599	£75,209	£74,609	£77,358
UK ports industry	£68,177	£69,568	£82,085	£68,445	£77,849	£76,634	£83,664	£84,157

Source: FAME, UKCoS, ONS, Cebr analysis

Figure 6 below compares the direct contribution that the ports industry made through UK employment in 2017 against comparable industries and activities. Employment in the ports industry exceeded aggregate employment in the manufacture of air and spacecraft; passenger rail transport and freight rail transport.

Figure 6: The estimated employment of the ports industry against comparable industries in 2017 and growth relative to 2010

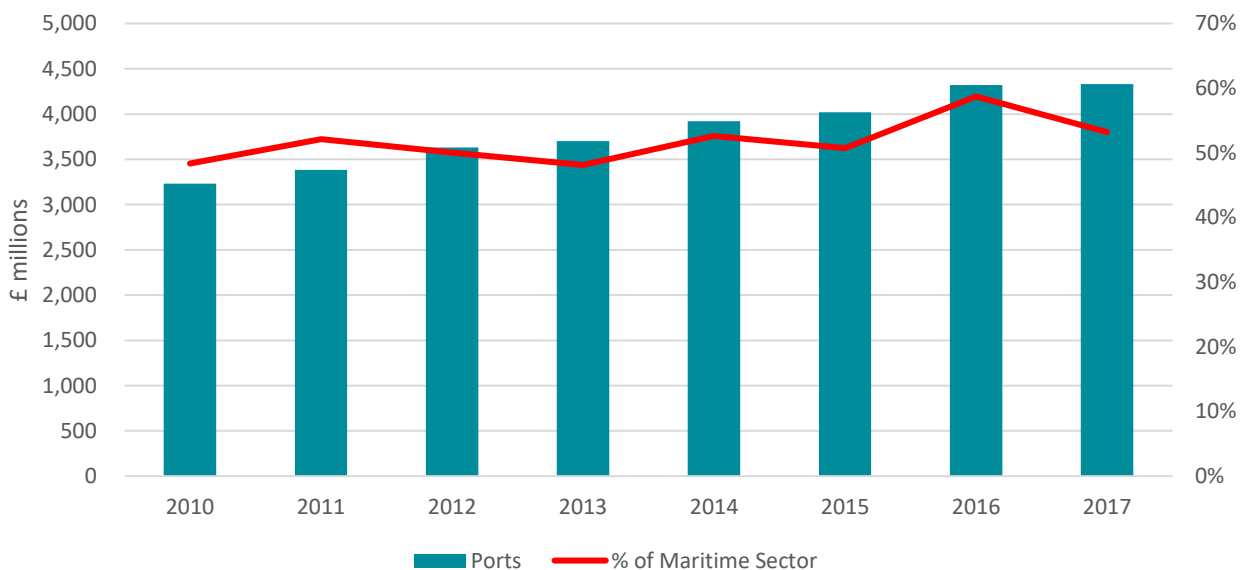


Source: FAME, UKCoS, ONS, Cebr analysis

3.4 The direct impact through the compensation of employees

This section considers the compensation of employees which is directly supported by the ports industry. Figure 7 below depicts the direct impact of the ports industry to employee compensation for each of the years 2010 to 2017; both in absolute terms and as a percentage of the total Maritime Sector contribution.

Figure 7. The direct contribution of the ports industry to the compensation of employees, and the share of the total contribution from the UK Maritime Sector, 2010 to 2017



Source: FAME, UKCoS, ONS, Cebr analysis

It is estimated that the direct employee compensation of the ports industry in 2017 was £4.3 billion. This constitutes approximately 51% of the total Maritime Sector total in the same year. In absolute terms, the direct impact of employee compensation increased each year considered.

3.5 The direct Exchequer contribution

In order to capture the incidence of taxation through the direct activities (rather than indirect and induced), Cebr has measured the direct contribution through the revenues raised from the tax heads listed below. It has been assumed that the ports industry does not generate Value-Added Tax (VAT) revenues for the UK Exchequer, with zero-rating applying to shipping services and shipbuilding.⁸

- Income Tax;
- National Insurance Contributions (NICs) – from both Employer and Employee contributions;
- Corporation Tax;
- National Non-Domestic Rates (Business Rates)

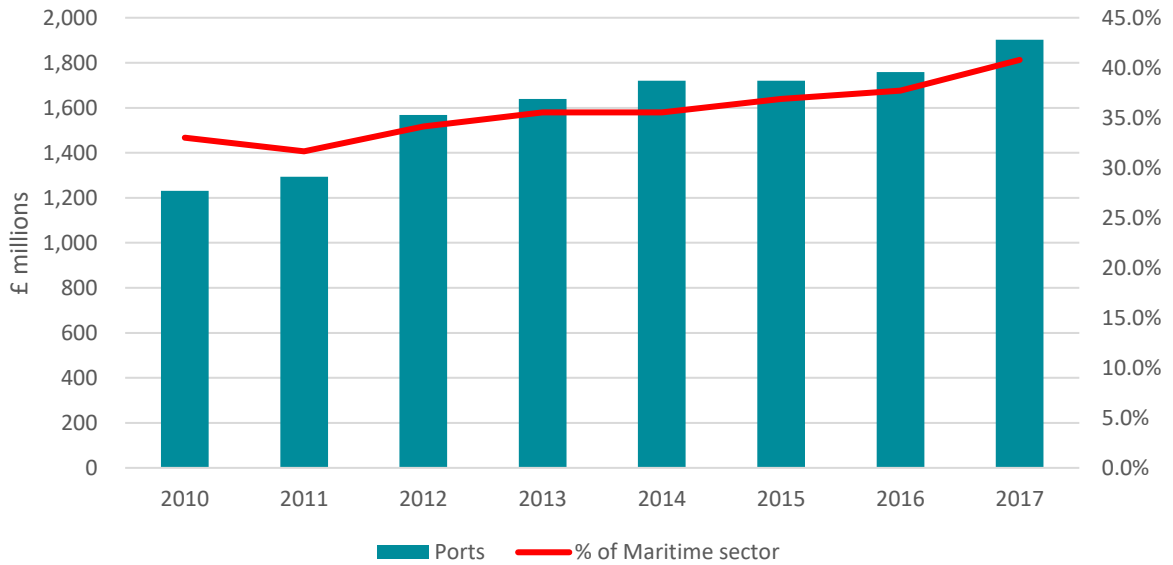
For the personal taxes listed above, Income Tax and NICs revenues have been calculated by applying tax rates to the estimated wages and salaries paid to employees operating in the ports industry; rates and thresholds have been sourced from HMRC for the years 2010 to 2017. Wages and salaries for employees have been sourced from the Annual Survey for Hours and Earnings (ASHE)⁹. For the business taxes listed above, Corporation Tax revenues have been estimated by applying HMRC estimates for Average Effective Tax Rates (AETRs) to the estimated Gross Profit of each industry activity. Business Rates have been estimated using the average level of Business Rates paid as a proportion of Maritime Sector GVA, drawing upon the ONS Annual Business Survey (ABS).

Figure 8 below shows the direct contribution of the ports industry to the UK Exchequer in the years 2010 to 2017. The total Exchequer contribution is estimated to have been £1.9 billion in 2017.

⁸ The following services are zero-rated by HMRC: Passenger transport in a vehicle, boat or aircraft that carries not less than ten passengers; International freight transport that takes place in the UK and its territorial waters; Domestic leg of freight transport to or from a place outside the EU; Ship repairs and maintenance. Further information on the list of zero-rated and VAT-exempt goods and services can be found here: <https://www.gov.uk/guidance/rates-of-vat-on-different-goods-and-services#transport-freight-travel-and-vehicles>

⁹ The Annual Survey of Hours and Earnings (ASHE) provides data on the levels, distribution and make-up of earnings and hours worked for UK employees by sex and full-time or part-time status in all industries and occupations.

Figure 8. The direct contribution of the ports industry to the UK Exchequer, and this as a share of the Maritime Sector's total contribution to the UK Exchequer, 2010 to 2017, £ million.

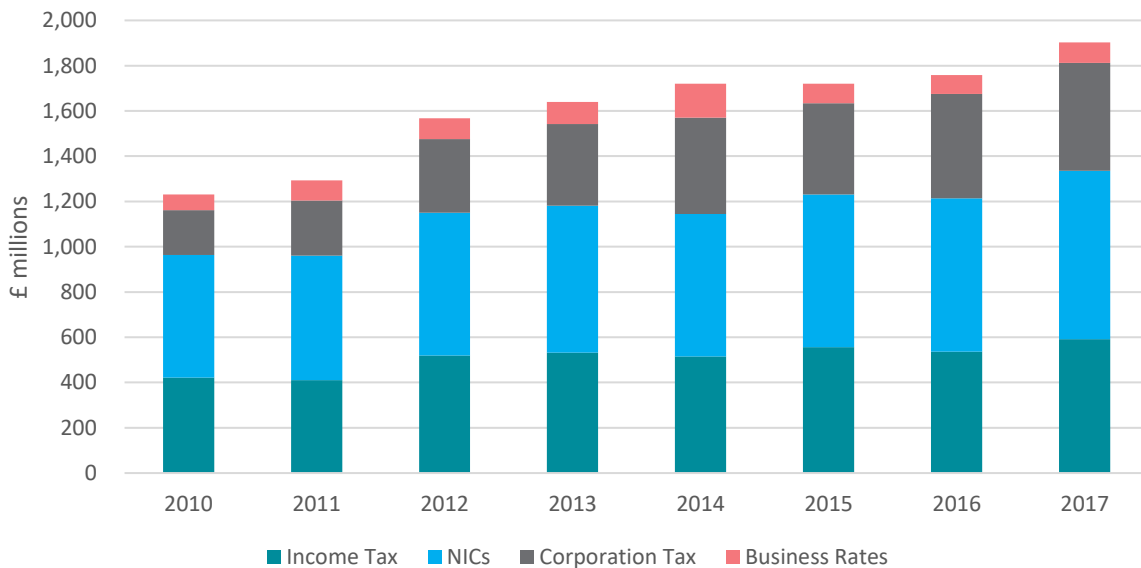


Source: FAME, UKCoS, ONS, Cebr analysis

The ports industry makes a significant contribution and increasing to the UK Maritime Sector's overall Exchequer contribution, rising from 33% to 41% of the total from 2010 to 2017.

Figure 9 below disaggregates the direct contribution by tax head across the years 2010 to 2017. In each of the years, there is a clear ordering: NICs and Income Tax contribute the largest share (in that order), followed by Corporation Tax and then Business Rates. In 2017 the shares were as follows: 39% for NICs; 31% for Income Tax; 25% for Corporation Tax; and 5% for Business Rates.

Figure 9. The direct contribution of the ports industry to the UK Exchequer by tax head, 2010 to 2017, £ million.

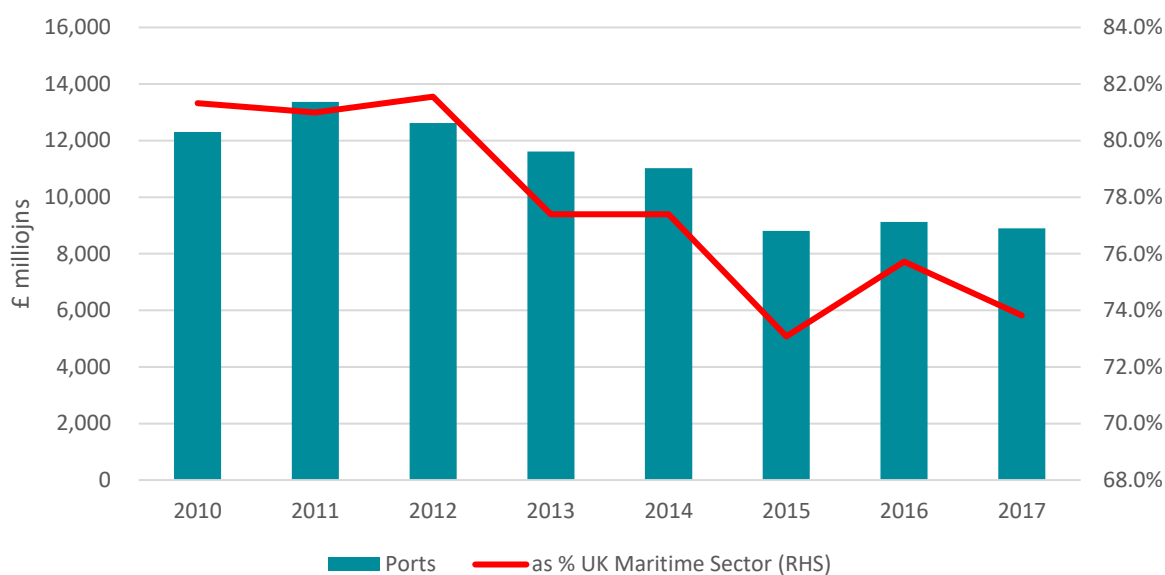


Source: ONS, FAME, Cebr analysis

3.6 The direct contribution through the exports of goods and services

Figure 10 below shows the estimated value of exports between 2010 and 2017, both in absolute terms and as a percentage of the total Maritime Sector contribution.

Figure 10. Exports of goods and services from the ports industry, 2010 to 2017, £ million

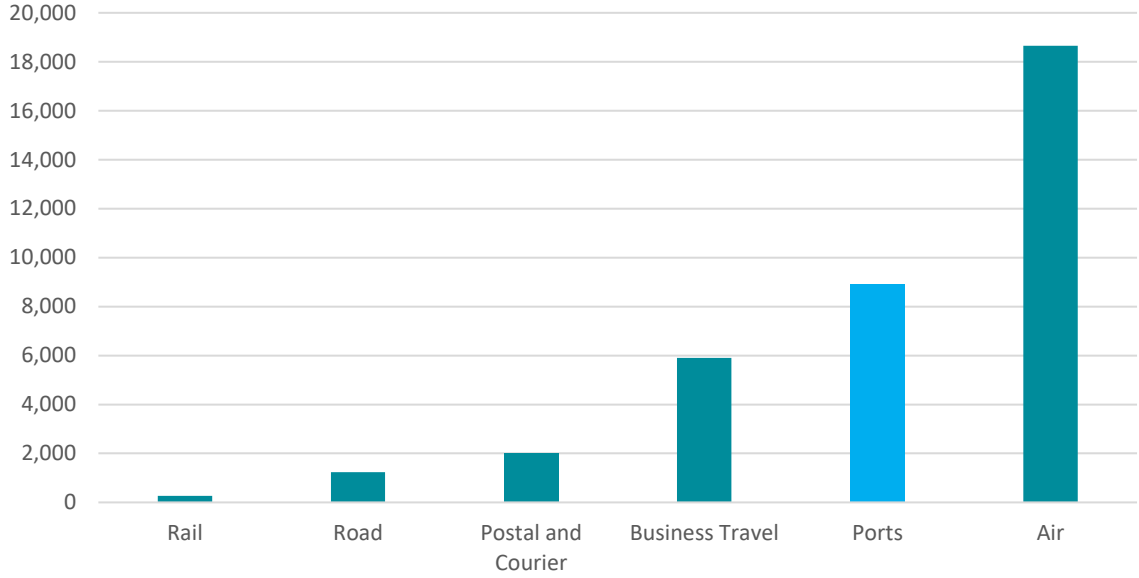


Source: UKCoS, ONS, Cebr analysis

A total value of approximately £9 billion in goods and services was exported by the ports industry in 2017, equating to 74% of total Maritime Sector exports that year.

Figure 11 compares exports from the ports industry against those from other transportation activities. We observe that the value of exports of services from the ports industry was significantly in excess of that of road, rail and postal and courier activities, although below that of the air transport industry in 2017.

Figure 11: Exports of services from the ports industry against comparable transportation activities, 2017, £ million



Source: ONS, Cebr analysis

4 The aggregate economic impact of the ports industry

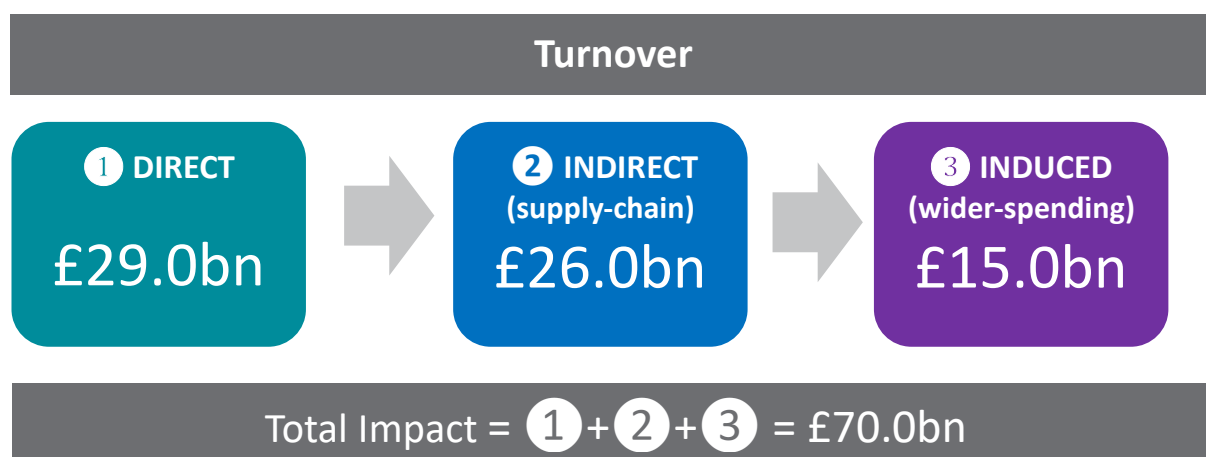
This section sets out the aggregate economic impacts of the ports industry, by taking into account the indirect (or supply chain) and induced (employee spending) impacts that arise from the activities of firms within this industry.

4.1 The aggregate economic impact through turnover

This section sets out the aggregate economic impact of the ports industry through turnover. Figure 12 below illustrates the direct, indirect and induced turnover impacts associated with the ports industry. The ports industry directly contributed £29.0 billion in turnover, £26.0 billion worth of turnover is stimulated in the supply chain and £15.0 billion worth of turnover in the wider economy when direct and indirect employees spend their earnings. Once the indirect and induced economic channels are taken into consideration the ports industry contributed an aggregate economic impact of £70.0 billion in turnover.

Therefore, for every £1 turnover directly contributed by the ports industry in 2017, a total of £2.42 was supported across the economy.

Figure 12: Turnover multiplier impacts of the ports industry, 2017



Source: FAME, UKCoS, ONS, Cebr analysis

Table 5 below shows how the total turnover of the ports industry is estimated to have evolved since 2010.

Table 5: Turnover impact of the ports industry, 2010 to 2017, £ million

	Direct Impact	Composite multiplier	Aggregate turnover impact
2010	20,884	2.42	50,565
2011	22,300	2.42	53,978
2012	22,972	2.42	55,504
2013	23,732	2.42	57,342
2014	25,030	2.42	60,536
2015	25,976	2.41	62,712
2016	28,291	2.41	68,292
2017	28,972	2.42	69,989

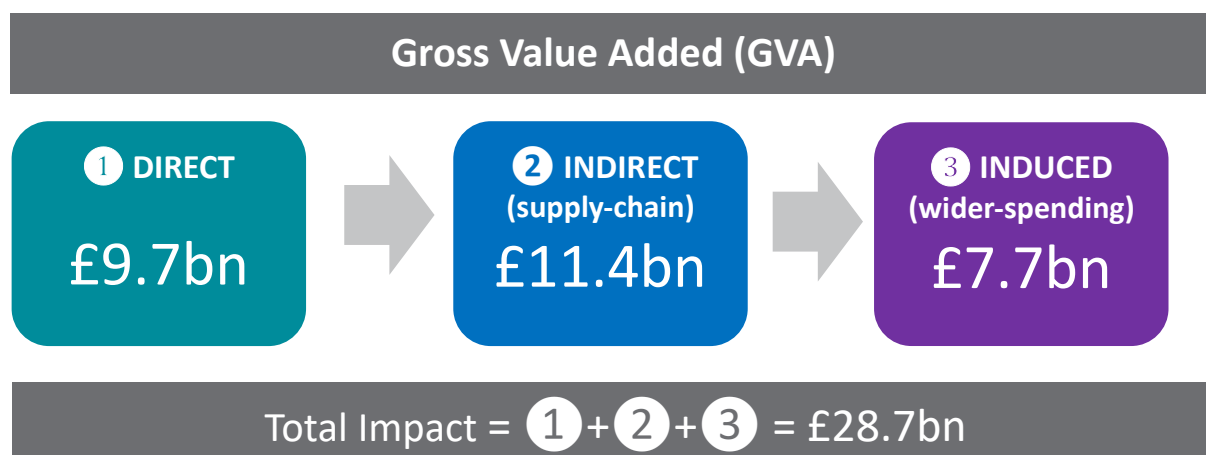
Source: FAME, UKCoS, ONS, Cebr analysis

4.2 The aggregate economic impacts through GVA

Figure 13 shows the estimated aggregate GVA impacts from the ports industry. The ports industry directly contributed just under £9.6 billion to the UK economy's GDP in 2017. Once the indirect and induced economic channels are taken into consideration the ports industry contributed approximately £28.7 billion to GDP.

Therefore, for every £1 of GVA initially contributed by the ports industry in 2017, the UK economy as a whole experienced an increase in GVA of £2.97.

Figure 13. GVA Multiplier impacts for the ports industry, 2017



Source: FAME, UKCoS, ONS, Cebr analysis

Table 6 below shows the estimated direct and aggregate GVA impacts of the ports industry across the years 2010 to 2017.

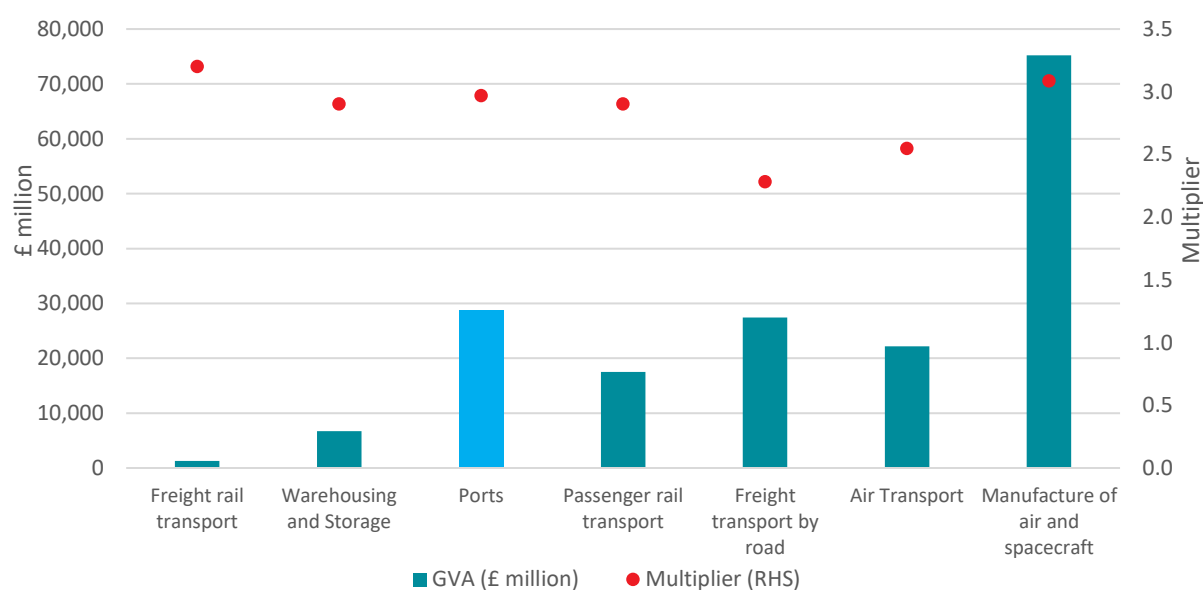
Table 6: Direct and aggregate GVA impact of ports industry, 2010 to 2017, £ million

	Direct Impact	Composite multiplier	Aggregate GVA impact
2010	7,171	2.98	21,386
2011	7,523	2.97	22,340
2012	8,694	2.97	25,848
2013	7,404	2.97	21,978
2014	8,430	2.97	25,002
2015	8,563	2.96	25,362
2016	9,646	2.96	28,557
2017	9,664	2.97	28,687

Source: FAME, UKCoS, ONS, Cebr analysis

To place these results in context, Figure 14 below compares the aggregate GVA impact of the ports industry against the comparable transport activities identified in the previous section. In addition, the GVA multipliers associated with each activity are also presented.

Figure 14. The aggregate GVA impact and GVA multiplier of the ports industry against comparable industries, 2017



Source: FAME, UKCoS, ONS, Cebr analysis

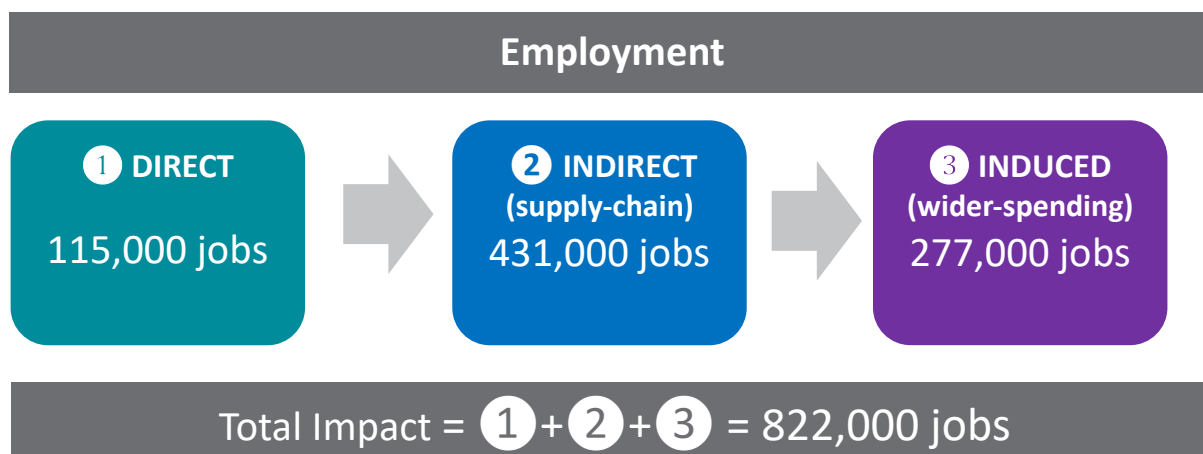
The aggregate GVA impact of the ports industry exceeds that of freight rail transport, warehousing and storage, passenger rail transport and air transport. The GVA multiplier for the ports industry is exceeded only by that of freight rail transport and manufacture of air and spacecraft.

4.3 The aggregate economic impacts through employment

Figure 15 below shows the estimated aggregate employment impacts from the ports industry. The ports industry directly supported around 115,000 jobs in the UK in 2017. Once the indirect and induced economic channels are taken into consideration the ports industry supported a total of 822,000 jobs in 2017.

Therefore, breaking it down on the individual level, for every 1 job directly supported by the ports industry in 2017, a total of 7.16 jobs were supported in the broader UK economy.

Figure 15. Employment multiplier impacts of the ports industry, 2017



Source: FAME, UKCoS, ONS, Cebr analysis

Table 7 shows how the aggregate employment impact of the ports industry is estimated to have evolved since 2010.

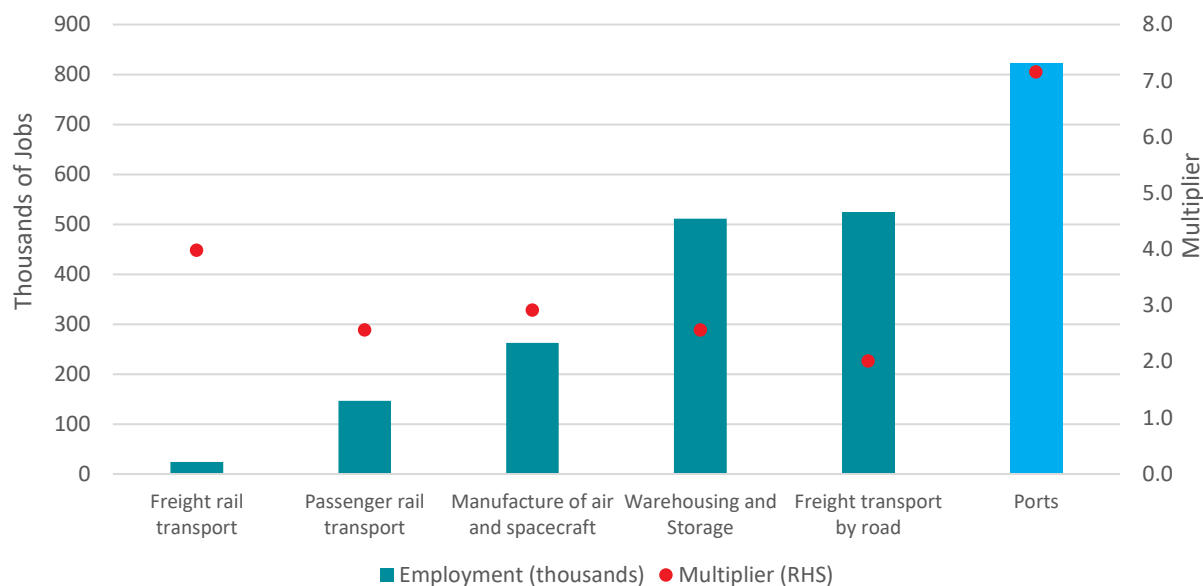
Table 7: Direct and aggregate employment impact of the ports industry, 2010 to 2017, thousands of jobs

	Direct Impact	Composite multiplier	Aggregate employment impact
2010	105.2	7.02	738.1
2011	108.1	6.98	754.6
2012	105.9	7.19	761.7
2013	108.2	7.09	766.9
2014	108.3	7.03	761.4
2015	111.7	7.17	801.0
2016	115.3	6.98	804.7
2017	114.8	7.16	822.1

Source: ONS, UKCoS, FAME, Cebr analysis

To place these results in context, Figure 16 below compares the aggregate employment impact of the ports industry in 2017 against the comparable transport activities identified in the previous section. In addition, the employment multipliers associated with each activity are also presented.

Figure 16: The aggregate employment impact and multiplier of the ports industry against comparable industries, 2017



Source: FAME, UKCoS, ONS, Cebr analysis

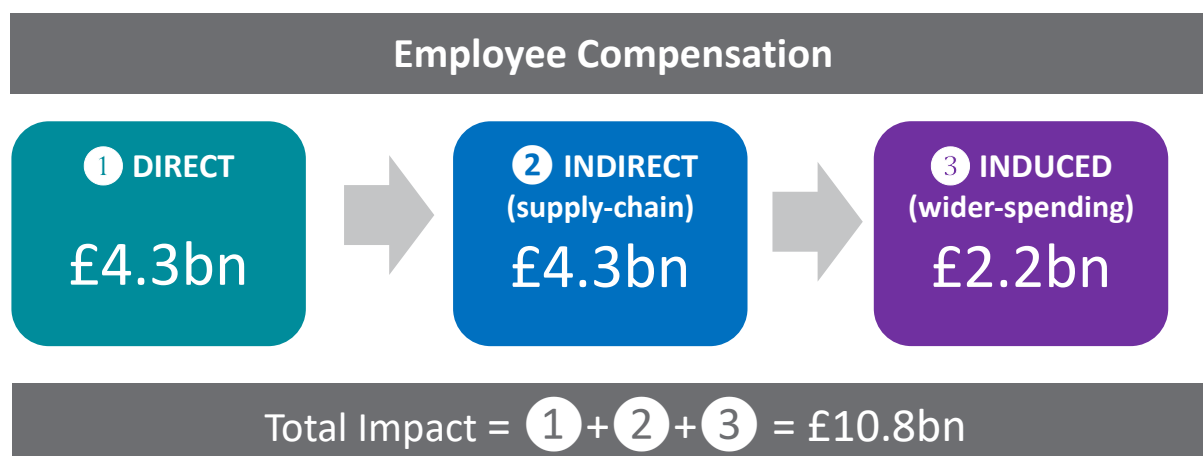
As is clearly depicted, the ports industry contributes significantly more to employment than all other industries included in the comparison. Furthermore, the composite employment multiplier for the ports industry is substantially higher than for the other comparison industries: 7.16 for the ports industry relative to the second highest of 3.98 for freight rail transport.

4.4 The aggregate economic impact through the compensation of employees

Figure 17 below presents the direct, indirect, induced and aggregate impacts on the compensation of employees for the ports industry in 2017. The ports industry directly contributed £4.3 billion to the economy in employee compensation in 2017. Once the direct and indirect contributions are taken into consideration, it is estimated that the ports industry supported a total of approximately £10.8 billion in employee compensation in 2017.

Alternatively, this can be interpreted as for every £1 of employee compensation directly contributed by the ports industry in 2017, a total of £2.50 was supported across the economy.

Figure 17: Employee compensation multiplier impacts of the ports industry, 2017



Source: FAME, UKCoS, ONS, Cebr analysis

Table 8 shows how the total employee compensation of the ports industry is estimated to have evolved since 2010.

Table 8: Direct and aggregate impacts through the compensation of employees from the ports industry, 2010 to 2017, £ million

	Direct Impact	Composite multiplier	Aggregate employee compensation impact
2010	3,230	2.51	8,116
2011	3,381	2.50	8,468
2012	3,629	2.49	9,034
2013	3,702	2.49	9,222
2014	3,920	2.49	9,767
2015	4,020	2.50	10,041
2016	4,321	2.50	10,813
2017	4,330	2.50	10,821

Source: FAME, UKCoS, ONS, Cebr analysis

5 The regional economic impact of the ports industry

In this final section we examine the economic contribution of the ports industry across the different UK regions, following the approach set out earlier in Section 2 of this report. A full set of regional direct economic impacts for each year over the period 2010 to 2017 can be found in Annex A.

5.1 The direct economic impact of the ports industry by UK region

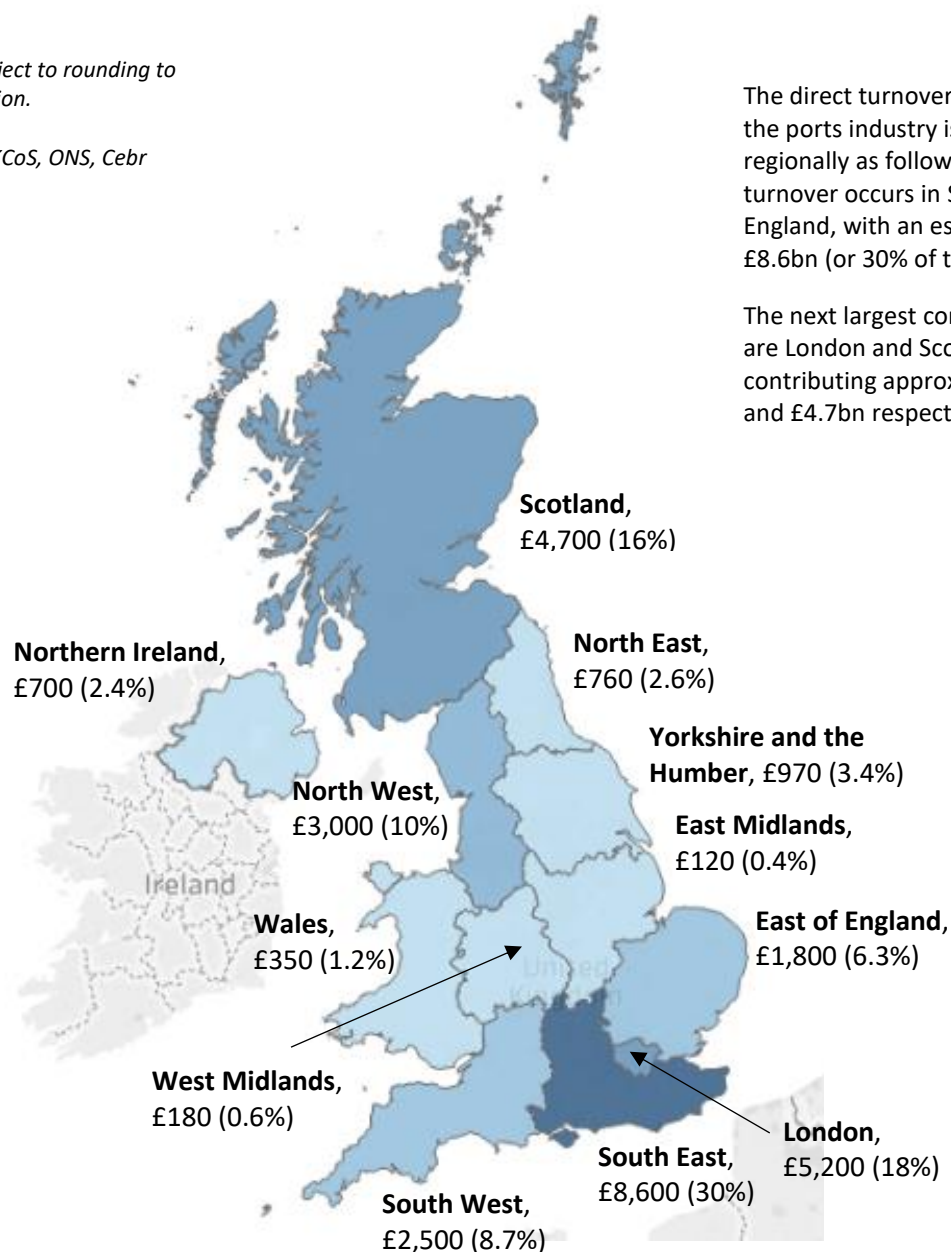
Business Turnover and GVA

Figure 18 and Figure 19 below show the estimated regional breakdown of business turnover and GVA directly supported by the ports industry in 2017.

Figure 18: Regional breakdown of turnover directly contributed by the ports industry in 2017

Note: Figures subject to rounding to nearest £100 million.

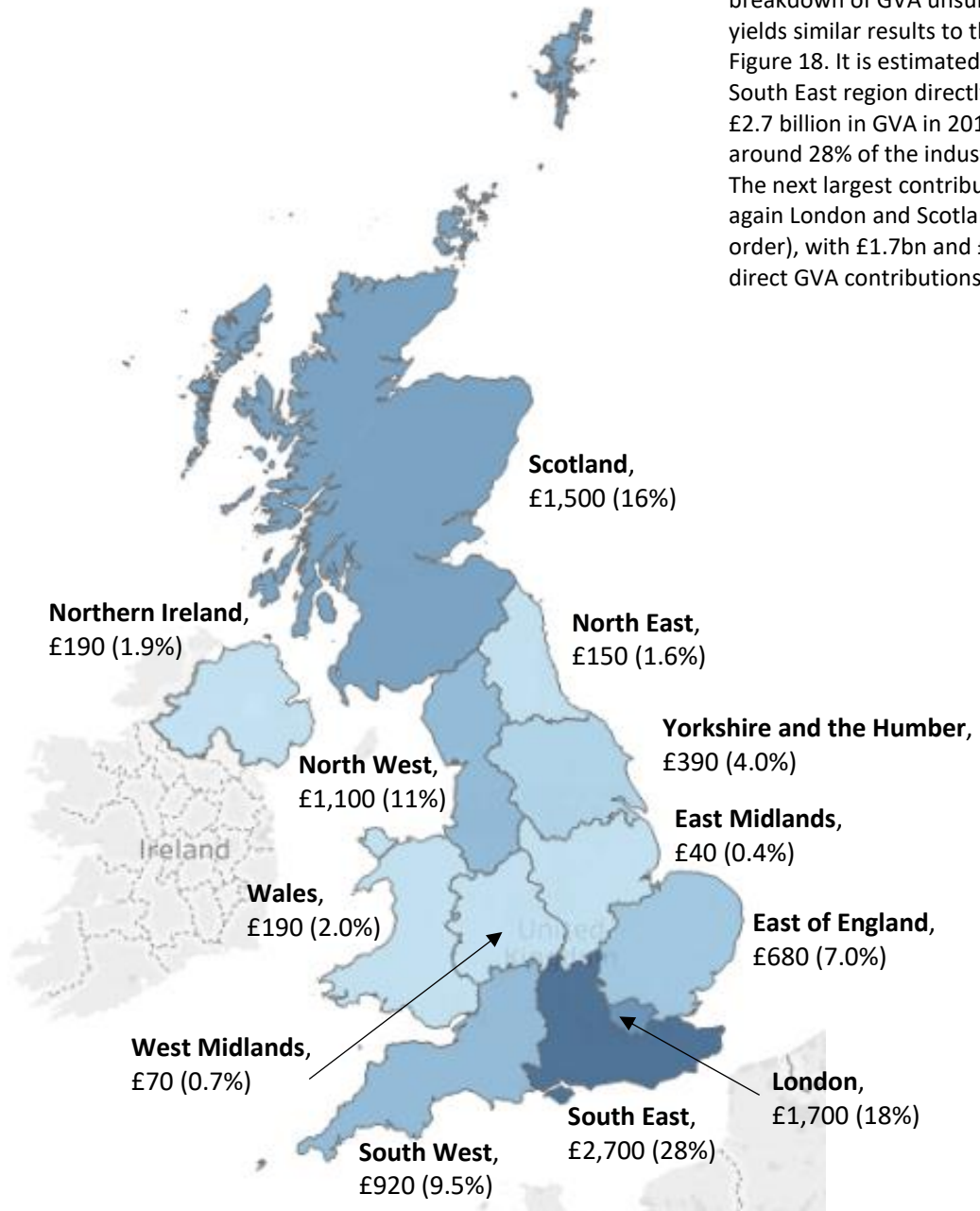
Source: FAME, UKCoS, ONS, Cebr analysis



The direct turnover contribution of the ports industry is broken down regionally as follows: the majority of turnover occurs in South East England, with an estimated value of £8.6bn (or 30% of the total).

The next largest contributing regions are London and Scotland contributing approximately £5.2bn and £4.7bn respectively.

Figure 19. Regional breakdown of GVA directly contributed by the ports industry in 2017

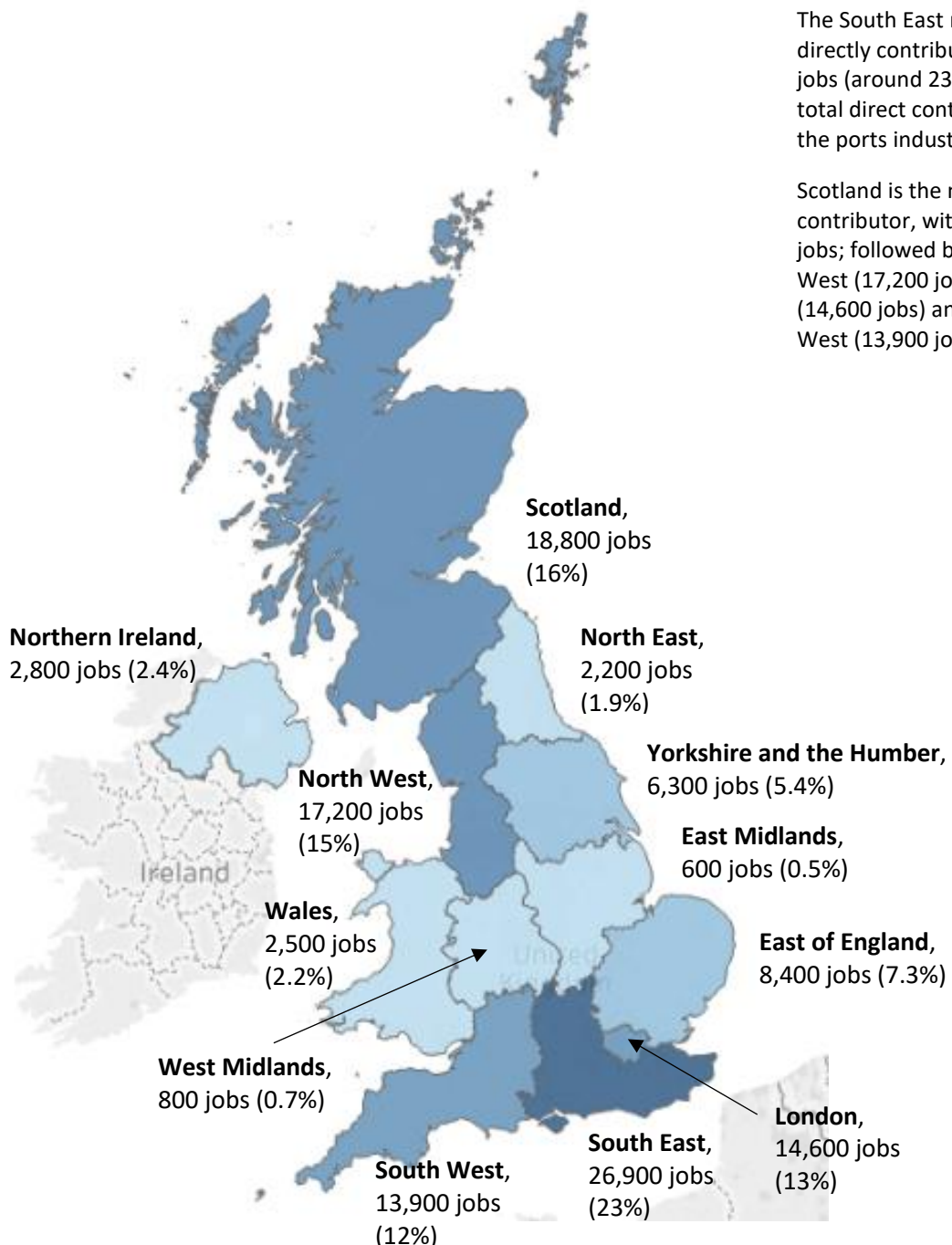


Note: Figures subject to rounding to nearest £100 million. Source: FAME, UKCoS, ONS, Cebr analysis

Employment and the Compensation of Employees

Figure 20 and Figure 21 overleaf show the estimated regional breakdown of employment and the compensation of employees directly supported by the ports industry in 2017. The South East region represents the biggest share in employment by ports industry with 26,900 jobs. Additionally, the South East region is the largest contributor of compensation of employees at £930m.

Figure 20: Regional breakdown of employment directly contributed by the ports industry in 2017

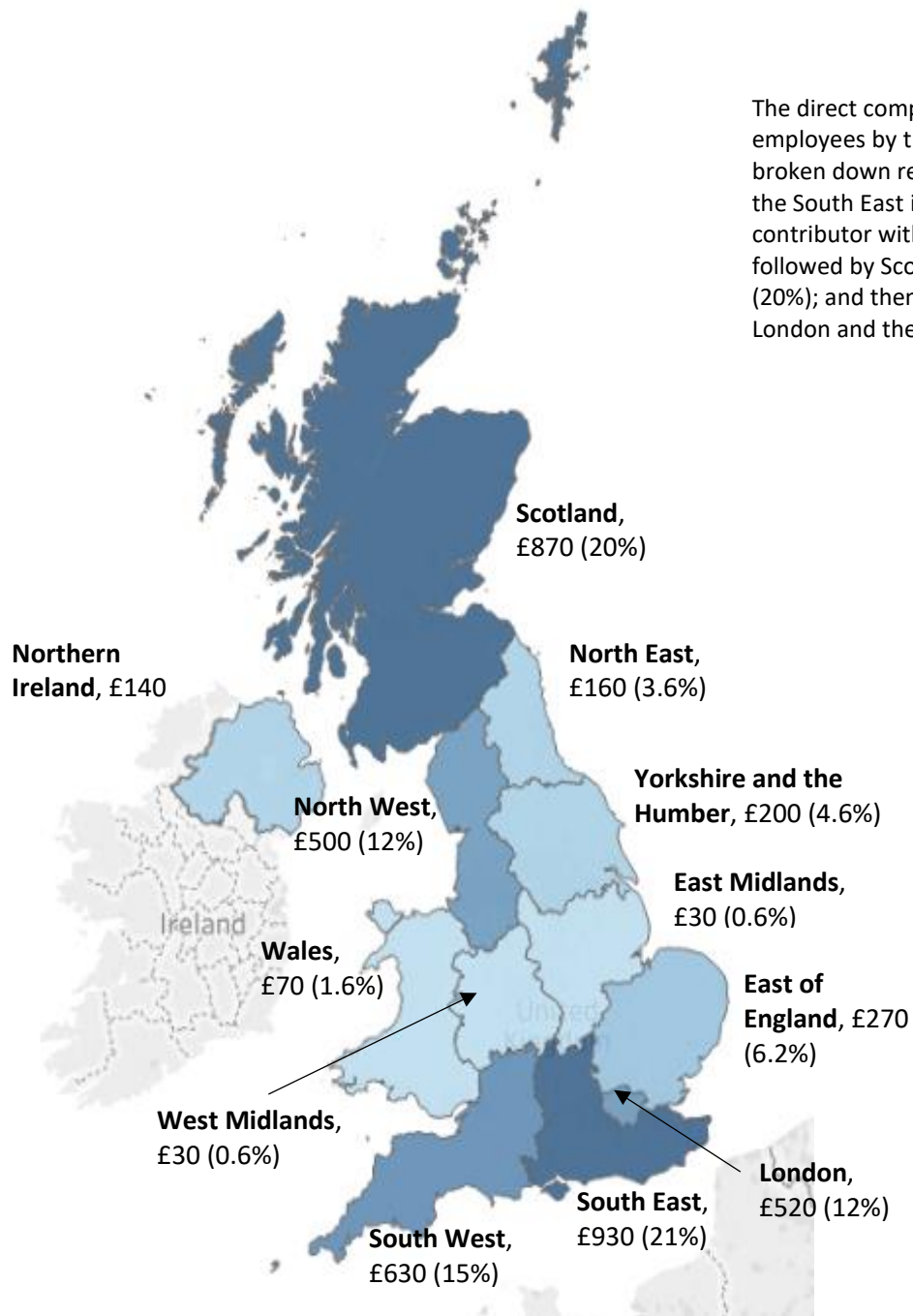


The South East region directly contributes 26,900 jobs (around 23% of the total direct contribution of the ports industry).

Scotland is the next largest contributor, with 18,800 jobs; followed by the North West (17,200 jobs); London (14,600 jobs) and the South West (13,900 jobs).

Note: Figures subject to rounding to the nearest 100 jobs. Source: FAME, UKCoS, ONS, Cebr analysis

Figure 21: Regional breakdown of the direct contribution through the compensation of employees by the ports industry in 2017



Note: Figures subject to rounding to nearest £100 million. Source: FAME, UKCoS, ONS, Cebr analysis

5.2 The aggregate economic impact of the ports industry by UK region

This final subsection examines the aggregate economic impact of the ports industry across each region for the four macroeconomic indicators covered in the previous subsection.

In order to estimate the aggregate economic impact of the industry at regional level, the direct economic impacts as already estimated were combined with Cebr's regional economic impact models, within which the activities of the ports industry were separately identified and isolated. It should be noted that the economic impact multipliers as estimated for each region are necessarily lower than the equivalent multiplier for the ports industry as a whole, reflecting the leakage of impacts when the activity of the industry in a particular region imports inputs from elsewhere in the UK outside that region.

The aggregate economic impacts for business turnover and GVA by region

Table 9 shows the breakdown of direct and aggregate economic impacts for business turnover and GVA

Region	Turnover			GVA		
	Direct Impact	Industry Multiplier	Aggregate Impact	Direct Impact	Industry Multiplier	Aggregate Impact
Scotland	4,698	2.26	10,620	1,501	2.69	4,044
Wales	346	2.16	750	189	2.61	492
Northern Ireland	704	2.10	1,477	186	3.83	714
East of England	1,835	2.31	4,239	681	2.82	1,922
East Midlands	125	2.26	282	40	2.67	106
London	5,188	2.05	10,661	1,729	2.54	4,396
North East	756	2.19	1,654	151	6.76	1,019
North West	3,018	2.15	6,498	1,098	2.43	2,668
South East	8,629	2.25	19,413	2,707	2.78	7,534
South West	2,524	2.28	5,758	923	2.47	2,278
West Midlands	177	1.97	349	68	2.52	171
Yorkshire and the Humber	972	2.32	2,254	390	2.80	1,093

in 2017, alongside the composite industry multiplier for each region. For turnover, the highest regional industry multipliers are found in Yorkshire and the Humber (2.32), East of England (2.31) and the South West (2.28). The highest aggregate impact is concentrated in South East (£19.4m): this is driven largely through the high direct impact. Turning to GVA, the highest regional multipliers are in North East (6.76), Northern Ireland (3.83) and East of England (2.82).

	Turnover	GVA
--	----------	-----

Region	Direct Impact	Industry Multiplier	Aggregate Impact	Direct Impact	Industry Multiplier	Aggregate Impact
Scotland	4,698	2.26	10,620	1,501	2.69	4,044
Wales	346	2.16	750	189	2.61	492
Northern Ireland	704	2.10	1,477	186	3.83	714
East of England	1,835	2.31	4,239	681	2.82	1,922
East Midlands	125	2.26	282	40	2.67	106
London	5,188	2.05	10,661	1,729	2.54	4,396
North East	756	2.19	1,654	151	6.76	1,019
North West	3,018	2.15	6,498	1,098	2.43	2,668
South East	8,629	2.25	19,413	2,707	2.78	7,534
South West	2,524	2.28	5,758	923	2.47	2,278
West Midlands	177	1.97	349	68	2.52	171
Yorkshire and the Humber	972	2.32	2,254	390	2.80	1,093

Table 9: Regional breakdown of the direct and aggregate impacts through turnover and GVA by the ports industry in 2017, £ million

Source: FAME, UKCoS, ONS, Cebr analysis

Finally,

Region	Employment			Compensation of Employees		
	Direct Impact	Industry Multiplier	Aggregate Impact	Direct Impact	Industry Multiplier	Aggregate Impact
Scotland	18.8	6.09	114.6	868	2.27	1,970
Wales	2.5	6.83	16.9	67	2.19	148
Northern Ireland	2.8	6.16	17.1	136	1.97	268
East of England	8.4	6.26	52.5	268	2.44	655
East Midlands	0.6	3.20	1.9	27	2.27	61
London	14.6	9.87	144.0	516	2.30	1,188
North East	2.2	2.86	6.2	158	2.09	330
North West	17.2	4.79	82.3	506	2.09	1,056
South East	26.9	8.78	235.9	928	2.48	2,300
South West	13.9	5.41	75.2	631	2.22	1,400
West Midlands	0.8	7.27	5.9	25	2.15	53

Yorkshire and the Humber	6.3	3.50	21.9	200	2.36	470
--------------------------	-----	------	------	-----	------	-----

Table 10 below shows the breakdown of the direct and aggregate economic impacts for employment and the compensation of employees in 2017, alongside the composite industry multiplier for each region. The industry in South East England is estimated to have supported around 235,900 jobs and £2.3 billion through the compensation of employees across the UK economy in 2017. For employment, the highest industry multiplier is in London and the South East region; whilst for the compensation of employees the highest industry multipliers are in the South East and East of England regions.

Table 10: Regional breakdown of the direct and aggregate impacts through employment and the compensation of employees by the ports industry in 2017, thousands of jobs and £ million

Region	Employment			Compensation of Employees		
	Direct Impact	Industry Multiplier	Aggregate Impact	Direct Impact	Industry Multiplier	Aggregate Impact
Scotland	18.8	6.09	114.6	868	2.27	1,970
Wales	2.5	6.83	16.9	67	2.19	148
Northern Ireland	2.8	6.16	17.1	136	1.97	268
East of England	8.4	6.26	52.5	268	2.44	655
East Midlands	0.6	3.20	1.9	27	2.27	61
London	14.6	9.87	144.0	516	2.30	1,188
North East	2.2	2.86	6.2	158	2.09	330
North West	17.2	4.79	82.3	506	2.09	1,056
South East	26.9	8.78	235.9	928	2.48	2,300
South West	13.9	5.41	75.2	631	2.22	1,400
West Midlands	0.8	7.27	5.9	25	2.15	53
Yorkshire and the Humber	6.3	3.50	21.9	200	2.36	470

Source: FAME, UKCoS, ONS, Cebr analysis

Annex A: Full set of direct economic impacts by region

Table A.1: Direct economic impact of the ports industry through turnover, 2010 to 2017, £ million

TURNOVER	2010	2011	2012	2013	2014	2015	2016	2017
England	17,455	17,798	18,241	18,683	19,870	20,564	22,299	23,224
Scotland	2,146	2,836	3,108	3,988	3,899	3,926	4,573	4,698
Wales	717	1,115	1,125	682	764	918	693	346
Northern Ireland	566	551	499	379	496	568	726	704
East of England	2,002	2,256	1,854	1,851	1,708	1,440	2,187	1,835
East Midlands	145	139	131	248	699	104	79	125
London	4,393	5,684	5,458	4,312	5,655	7,654	5,194	5,188
North East	676	589	609	941	1,211	867	1,083	756
North West	2,339	2,064	2,212	2,563	2,430	2,335	3,154	3,018
South East	4,839	4,096	5,093	5,194	5,128	4,769	7,366	8,629
South West	1,405	1,530	1,933	2,632	2,215	2,454	2,149	2,524
West Midlands	249	96	87	181	340	179	323	177
Yorkshire and the Humber	1,407	1,344	864	761	484	761	765	972

Source: FAME, UKCoS, ONS, Cebr analysis

Table A.2: Direct economic impact of the ports industry through GVA, 2010 to 2017, £ million

GVA	2010	2011	2012	2013	2014	2015	2016	2017
England	5,940	5,968	6,865	5,846	6,600	6,883	7,622	7,787
Scotland	829	1,026	1,316	1,127	1,404	1,219	1,477	1,501
Wales	260	331	304	265	254	295	346	189
Northern Ireland	142	197	209	167	172	166	201	186
East of England	621	577	599	549	614	502	820	681
East Midlands	77	46	49	77	232	41	28	40
London	1,708	1,815	1,840	1,341	1,724	2,268	1,823	1,729
North East	227	190	212	232	311	239	168	151
North West	642	745	847	877	1,003	1,103	1,275	1,098
South East	1,458	1,445	1,915	1,577	1,636	1,480	2,185	2,707
South West	494	570	868	821	726	820	844	923
West Midlands	137	43	53	55	118	72	120	68
Yorkshire and the Humber	577	537	484	317	237	357	360	390

Source: FAME, UKCoS, ONS, Cebr analysis

Table A.3: Direct economic impact of the ports industry through employment, 2010 to 2017, jobs

EMPLOYMENT	2010	2011	2012	2013	2014	2015	2016	2017
England	82,507	82,336	81,564	83,046	83,047	88,289	89,096	90,765
Scotland	15,004	16,445	16,967	17,373	18,715	16,360	18,710	18,807
Wales	5,098	6,075	4,377	4,867	3,878	4,491	4,567	2,482
Northern Ireland	2,567	3,280	3,002	2,896	2,647	2,605	2,919	2,773
East of England	9,235	9,072	7,565	8,108	8,287	6,828	10,153	8,392
East Midlands	1,137	734	701	1,208	3,405	642	407	593
London	14,133	16,273	15,347	13,344	15,939	22,127	14,194	14,596
North East	4,696	4,313	4,116	5,259	5,581	4,470	3,405	2,168
North West	11,879	12,640	12,396	14,055	14,610	16,934	18,641	17,186
South East	20,121	19,109	21,059	21,233	19,008	18,048	22,467	26,873
South West	9,710	10,116	12,449	13,309	10,674	12,197	12,610	13,894
West Midlands	2,129	664	613	850	1,691	1,016	1,517	810
Yorkshire and the Humber	9,467	9,415	7,317	5,681	3,852	6,027	5,701	6,253

Source: FAME, UKCoS, ONS, Cebr analysis

Table A.4: Direct economic impact of the ports industry through the compensation of employees, 2010 to 2017, £ million

COMPENSATION OF EMPLOYEES	2010	2011	2012	2013	2014	2015	2016	2017
England	2,481	2,514	2,716	2,761	2,964	3,038	3,216	3,259
Scotland	464	543	629	740	715	762	842	868
Wales	202	212	166	130	137	124	124	67
Northern Ireland	84	113	117	70	105	95	139	136
East of England	305	308	256	281	255	216	311	268
East Midlands	19	22	27	40	67	25	18	27
London	419	529	563	460	599	707	538	516
North East	162	141	142	183	222	195	231	158
North West	418	334	428	402	451	528	520	506
South East	636	566	706	652	665	594	832	928
South West	257	357	424	569	553	575	553	631
West Midlands	26	17	21	28	41	36	49	25
Yorkshire and the Humber	240	240	148	147	111	163	164	200

Source: FAME, UKCoS, ONS, Cebr analysis

Annex B: List of major and minor UK ports

Table B.1: List of major and minor UK ports featured in the analysis

Port	GORS region	Port	GORS region
Aberdeen	Scotland	Littlehampton	South East
Able Humber Port	Yorkshire and the Humber	Liverpool	North West
Anglesey	Wales	Llandulas	Wales
Appledore	South East	Lochaline	Scotland
Ardrishaig	Scotland	Lochboisdale	Scotland
Ayr	Scotland	Lochinver	Scotland
Bangor	Wales	Lochmaddy	Scotland
Barnstaple	South West	London	London
Barra Castlebay	Scotland	London Gateway	London
Barrow	North West	Londonderry	Northern Ireland
Barry	Wales	Lossiemouth	Scotland
Belfast	Northern Ireland	Lowestoft	East of England
Berwick	North East	Macduff	Scotland
Bideford	South West	Magheramorne	Northern Ireland
Bird Port	Wales	Maldon	East of England
Birkenhead	North West	Manchester	North West
Blyth	North East	Marine Resource Centre	Scotland
Boston	East Midlands	Medway	South East
Bridgwater	South West	Methil	Scotland
Brightlingsea	East of England	Milford Haven	Wales
Bristol	South West	Mistley	East of England
Buckie	Scotland	Montrose	Scotland
Burghead	Scotland	Mostyn	Wales
Burntisland	Scotland	Neath	Wales
Burry Port	Wales	Newhaven	South East
Caernarfon	Wales	Newlyn	South West
Cairnryan	Scotland	Newport	Wales
Cardiff	Wales	Newport, Isle of Wight	South East
Carrickfergus	Northern Ireland	Oban	Scotland
Castlebay	Scotland	Orkney Islands Council	Scotland
Charlestown	South West	Padstow	South West
Chatham	South East	Par	South West
Chichester	South East	Penarth	Wales
Clyde	Scotland	Penryn	South West
Coleraine	Northern Ireland	Penzance	South West
Corpach	Scotland	Perth Harbour	Scotland
Cowes	South East	Peterhead	Scotland
Craignure	Scotland	Plymouth	South West
Cromarty Firth	Scotland	Poole	South West
Cullivoe (Yell)	Scotland	Port Askaig	Scotland
Dartmouth	South West	Port Penrhyn	Wales
Douglas	Isle of Man	Port Talbot	Wales
Dover	South East	Port William	Scotland
Dundee	Scotland	Porthoustock	South West

Port	GORS region	Port	GORS region
Exmouth	South West	Portland	South West
Fairlie Quay	Scotland	Portree	Scotland
Falmouth	South West	Portrush	Northern Ireland
Felixstowe	East of England	Portsmouth	South East
Fishguard	Wales	Preston	North West
Fleetwood	North West	Ramsgate	South East
Folkestone	South East	Red Bay	Northern Ireland
Forth	Scotland	River Trent	Yorkshire and the Humber
Fosdyke	East Midlands	Rosyth	Scotland
Fowey Harbour	South West	Rye	South East
Fraserburgh Harbour	Scotland	Sandwich	South East
Gairloch	Scotland	Scalloway	Scotland
Garlieston	Scotland	Scrabster	Scotland
Garston	North West	Seaham	North East
Gill's Bay Scotland	Scotland	Sharpness	South West
Girvan	Scotland	Sheerness	South East
Glensanda	Scotland	Shoreham	South East
Goole	Yorkshire and the Humber	Shotton	Wales
Grangemouth	Scotland	Silloth	North West
Great Yarmouth	East of England	Southampton	South East
Grimsby	Yorkshire and the Humber	Stornoway	Scotland
Gweek	South West	Stranraer West Pier	Scotland
Hartlepool	North East	Sullom Voe	Scotland
Harwich	East of England	Sunderland	North East
Helmsdale	Scotland	Sutton Bridge	East Midlands
Heysham	North West	Swansea	Wales
Holyhead	Wales	Tarbert	Scotland
Howden	Yorkshire and the Humber	Tayport	Scotland
Hughtown (St Mary's)	South West	Teesport	North East
Hull	Yorkshire and the Humber	Teignmouth	South West
Immingham	Yorkshire and the Humber	Tilbury	East of England
Inverkeithing	Scotland	Torquay	South West
Inverness	Scotland	Troon	Scotland
Ipswich	East of England	Truro	South West
Irvine	Scotland	Tyne	North East
Isle of Whithorn	Scotland	Uig	Scotland
Keadby	Yorkshire and the Humber	Wallasea	East of England
Killyleagh	Northern Ireland	Warkworth	East of England
Kilroot	Northern Ireland	Warrenpoint Port	Northern Ireland
King's Lynn	East of England	Watchet	South West
Kinlochbervie	Scotland	Wells	South West
Kirkcaldy	Scotland	Weymouth & Portland	South West
Kirkcudbright	Scotland	Whitby	Yorkshire and the Humber
Kishorn Quay	Scotland	Whitehaven	North West
Kyle of Lochalsh	Scotland	Whitehills Harbour	Scotland
Lancaster	North West	Whitstable	South East

Port	GORS region	Port	GORS region
Larne	Northern Ireland	Wick	Scotland
Larne Bank Quays	Northern Ireland	Wick Harbour	Scotland
Leith	Scotland	Wisbech	East of England
Lerwick	Scotland	Workington	North West

Source: Department for Transport, Cebr analysis