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Economic importance of the Belgian ports: Flemish maritime ports, Liège port complex and the port of Brussels – Report 2012

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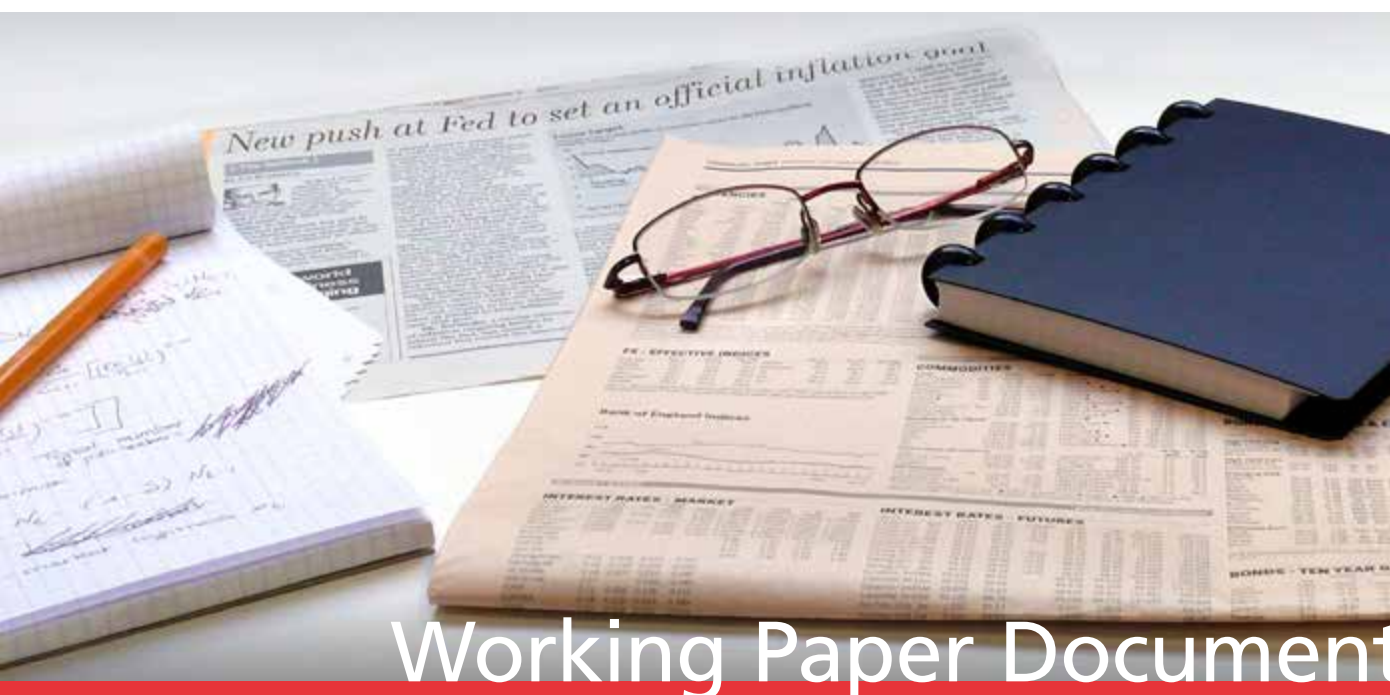
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ECONOMIC IMPORTANCE OF THE BELGIAN PORTS:

Flemish maritime ports, Liège port complex
and the port of Brussels – Report 2012



Working Paper Document

by Claude Mathys

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Abstract

This paper is an annual publication issued by the Microeconomic Analysis service of the National Bank of Belgium.

The Flemish maritime ports (Antwerp, Ghent, Ostend, Zeebrugge), the Autonomous Port of Liège and the port of Brussels play a major role in their respective regional economies and in the Belgian economy, not only in terms of industrial activity but also as intermodal centers facilitating the commodity flow.

This update paper¹ provides an extensive overview of the economic importance and development of the Flemish maritime ports, the Liège port complex and the port of Brussels for the period 2007 - 2012, with an emphasis on 2012. Focusing on the three major variables of value added, employment and investment, the report also provides some information based on the social balance sheet and an overview of the financial situation in these ports as a whole. These observations are linked to a more general context, along with a few cargo statistics.

Annual accounts data from the Central Balance Sheet Office were used for the calculation of direct effects, the study of financial ratios and the analysis of the social balance sheet. The indirect effects of the activities concerned were estimated in terms of value added and employment, on the basis of data from the National Accounts Institute. As a result of the underlying calculation method the changes of indirect employment and indirect value added can differ from one another.

The developments concerning economic activity in the six ports in 2011 - 2012 are summarised in this table:

Changes from 2011 to 2012 (in percentages)	Value added (current prices)	Employment (Full-time Equivalents)	Investment (current prices)	Tonnage (metric tonnes)
Flemish maritime ports				
Direct	+ 1.0	+ 1.8	- 4.5	- 3.0
Indirect	+ 0.9	+ 1.6		(seaborne)
Total	+ 1.0	+ 1.7		
Liège port complex				
Direct	- 16.1	- 2.1	+ 19.1	-15.3
Indirect	- 7.9	- 1.8		(inland)
Total	- 12.1	- 1.9		
Port of Brussels				
Direct	+ 0.1	+ 3.8	- 2.4	-5.1
Indirect	+ 0.8	+ 1.0		(inland)
Total	+ 0.4	+ 2.3		
Belgian ports				
Direct	- 0.5	+ 1.6	- 3.0	-3.9
Indirect	+ 0.4	+ 1.2		
Total	- 0.1	+ 1.4		

¹ Update of Mathys C. (July 2013), Economic importance of the Belgian ports: Flemish maritime ports, Liège port complex and the port of Brussels - Report 2011, NBB, Working Paper No. 242 (Document series). All figures have been updated. This paper is available at the following address <http://www.nbb.be/doc/ts/publications/wp/WP242En.pdf>.

Following the 2009 decline and the improvement in 2011, maritime traffic in the Flemish ports began falling again in 2012. That applies to all the Flemish ports. Value added was rising in the maritime cluster of the Flemish ports and falling in the non-maritime cluster where trade and industry were in decline. Direct value added has risen in the ports of Antwerp and Ostend whereas it has fallen in the ports of Zeebrugge and Ghent. Conversely, direct employment was expanding in both clusters in the Flemish ports viewed as a whole and in each port taken individually. The decline in investment in the Flemish ports continued in 2012. That trend is evident in all the Flemish ports except the port of Ostend where investment was maintained in 2012.

The volume of cargo handled in the port of Liège decreased in 2012. Direct value added and employment contracted in both clusters. The steel giant ArcelorMittal had idled two blast furnaces at the site in Liege. Investment increased in both clusters in the Liège port complex.

The volume of cargo handled at the port of Brussels declined in 2012. Value added and employment in the maritime cluster fell but rose in the non-maritime cluster. The drop in investment recorded since 2009 continued throughout 2012, albeit at a slowing pace.

This report provides a comprehensive account of these issues, giving details for each economic sector, although the comments are confined to the main changes that occurred in 2012.

This report is available for download at the following address <http://www.nbb.be>.

Key words: branch survey, maritime cluster, subcontracting, indirect effects, transport, intermodality, public investments.

JEL classification: C67, H57, J21, L22, L91, L92, R15, R34 and R41.

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Research results and conclusions expressed are those of the author and do not necessarily reflect the views of the National Bank of Belgium or any other institution to which the author is affiliated. All remaining errors are ours.

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Foreword

Every year the National Bank of Belgium publishes an update of the study of the economic importance of the Flemish maritime ports, the Liège port complex and the port of Brussels. Two aspects of the sector's economic impact are highlighted: the direct effects and the indirect effects. The former concerns the activities resulting from the presence of maritime and non-maritime enterprises and public services in or near the ports, while the latter relates to the value added and employment generated by suppliers and subcontractors serving these enterprises and based in Belgium.

The statistical data covers the period 2007 - 2012, but only the main developments recorded in the period 2011 - 2012 are discussed in detail. The number of annexes is limited to:

- the detailed social balance sheet for 2012
- the list of NACE-BEL 2008 branches.

The methodology remains mainly unchanged: the criteria for selecting firms and the analysis are the same as in previous editions. The NACE-BEL 2008 code is used to select and classify companies by sector.

In December 2013 the National Accounts Institute published a supply and use table and an input-output table for 2010 which we amalgamated to calculate the indirect effects. This does not imply any change of method but simply an updating of our sources; nevertheless, it has a visible impact on the results for the indirect effects.

Following a brief introduction, the study is split into six parts devoted to the four Flemish maritime ports, the Liège port complex, and the port of Brussels. The principal trends identified in the "flash estimates" published in October 2013³ are in line with this report.

³ See <http://www.nbb.be/doc/TS/Enterprise/Press/2013/cp131014En.pdf>

Introduction

Objectives of the study and some comments on the methodology

The economic importance of the ports examined is analysed from three angles, namely the purely economic angle, and the social and financial angles. The study only covers firms belonging to branches of activity which have an economic link with the ports. That link is defined in relation to both a functional and a geographical criterion.

The main developments in the period 2007 - 2012 concern the study of the following variables:

- value added at current prices⁴: the value which a firm adds to its inputs during the financial year via the production process. The value added of a firm indicates its contribution to the wealth of the country or region (in percentages of GDP). In accounting terms, this is calculated as the sum of staff costs, depreciation and value adjustments, the operating profit or loss, provisions for liabilities and charges, and certain operating expenses;
- employment in full-time equivalents (FTE): the average workforce during the financial year. Direct employment only covers employees on the payroll of the businesses concerned, indirect employment also includes self-employed workers.
- investment at current prices⁵: this corresponds to the tangible fixed assets acquired during the year, including capitalised production costs⁶.

The economic impact of the ports under review is described on the basis of these three variables. Employment and the social balance sheet are also taken into account in the analysis of the social impact. That section deals in particular with working time, labour costs, the extent to which use is made of external personnel, and the composition, movements and training of the labour force.

The financial analysis forms the third angle of the study; it is based on the examination of three financial ratios and a financial health indicator, using a model designed by the Bank⁷. The ratios in question are the return on equity after taxes, liquidity in the broad sense, and solvency. The current edition presents a financial analysis of Belgian ports taken as a whole. Readers wishing to compare the financial ratios of an individual company with its sector ratios can find this information in the company reports published by the Central Balance Sheet Office. These company reports are composed of five parts⁸, one of which is devoted to comparing the financial ratios of the company with those of its sector, and another of which is devoted to situating the company in one of the ten categories⁹ of financial health based on its composite financial health indicator. This comparison is more relevant than a comparison based principally on geographic location, which would include a variety of business activities. The financial health indicator is based on Belgian companies' annual accounts. This indicator is designed as a weighted combination of variables, created by means of a model constructed in the same way as a failure prediction model. The model takes the form of a logistic regression discriminating between failing and non-failing companies. The indicator summarizes each company's situation in a single value which takes account simultaneously of the solvency, liquidity and profitability dimensions.

⁴ Unless otherwise stated, the text always indicates value added at current prices. Developments at constant prices are explicitly mentioned. Value added at constant prices is calculated by means of the deflator of gross domestic product.

⁵ Unless otherwise stated, investment is always indicated at current prices in the text. Developments at constant prices are explicitly mentioned. Investment at constant prices is calculated by means of the deflator of gross fixed capital formation.

⁶ Decommissioning of assets is not taken into account.

⁷ See Vivet D. (2011), *Development of a financial health indicator based on companies' annual accounts*, NBB, Working Paper No. 213 (Document series), Brussels.

⁸ A new interactive online application "Company file" is available on the Central Balance Sheet Office's website. It will enable, based on several annual accounts drawn up according to a standard model for recent financial years, to analyze the financial situation of a company and to compare it with its sector. The five parts of the company report are: identifying company information, a survey of the major elements of the annual accounts, a survey of the cash flow, a comparison of company ratios with those of its economic sector, the company's positioning in one of the ten pre-defined categories of financial health based on its composite financial health indicator.

⁹ Financial health indicator with ten categories as in this report is introduced in the new version of the company report.

The microeconomic data used were obtained from the annual accounts filed with the Central Balance Sheet Office¹⁰ and from the statistics produced by the National Accounts Institute (NAI¹¹). The most recent annual accounts for the 2012 financial year included in this study were filed with the Central Balance Sheet Office in April 2014¹². The data necessary to estimate the indirect effects up to 2012, are also published by the NAI with a low frequency and after a certain time lag. The results of the indirect effects are approximations and should be interpreted with caution. The latest updates were included in the calculations, while the methodology remained unchanged. For more information, see the 2004 report published in June 2006¹³.

The NACE-BEL 2008 classification is used for the purposes of selecting and ranking the companies by sector. NACE-BEL 2008 is the new classification system for economic activities employed by the National Accounts Institute. The NACE-BEL 2008 is part of a major revision of international and European nomenclatures for economic activities and products (NACE Rev.2) done by the European Commission and approved by the European Parliament and the Council¹⁴. Mid 2011, National Accounts started to publish statistics in NACE-BEL 2008. Nevertheless, some data needed for the implementation of this study are still in NACE-BEL 2003 as for instance the input-output table for 2005 and the supply and use table for 2007. The new National Accounts aggregates on the contrary exist only in NACE-BEL 2008.

In December 2013 the National Accounts Institute published a supply and use table and an input-output table for 2010¹⁵. These were widely used for calculating the indirect effects in our study. They were the first tables of the type to be published by the National Accounts Institute in NACE-BEL 2008. We therefore made use of them to compare our data in detail with those of the national accounts and to refine our calculations on the representation of the ports in the various branches of the economy. In addition, between publication of the 2005 tables and those for 2010, the NAI made a number of adjustments concerning either the methodology or the change in NACE-BEL¹⁶. Now that the new tables have been published, these improvements can be taken into account. Finally, economic changes have taken place over the past five years, and the new supply and use table and input-output table give us the opportunity to incorporate those changes in our calculations. The overall outcome has been a small reduction in the level of the indirect effects.

The 2005 input-output table and the 2007 supply and use table were used to calculate the indirect effects for the years 2007 and 2008, while the 2010 input-output table and the 2010 supply and use table were used to produce estimates for the years 2009 to 2012. This caused a break in some of the series between 2008 and 2009. In most cases, that break is due to changes in the structure of the intermediate consumption of the branches, or in the distribution of the branches between the various activities following the switch from NACE-BEL 2003 to NACE-BEL 2008. It therefore seems necessary to reiterate that more than ever, the reader must keep in mind that indirect effects need to be interpreted

¹⁰ A service of the National Bank's Microeconomic Information Department. See www.nbb.be / Central Balance Sheet Office.

¹¹ The National Accounts Institute (NAI) set up by the law of 21 December 1994, links three institutions: the National Statistical Institute (NSI, now FPS Economy, SMEs, Self-employed and Energy – Directorate General of Statistics and Economic Information), the National Bank of Belgium and the Federal Planning Bureau. The NAI's duties include drawing up the real national accounts and the input-output tables which are needed to estimate the indirect effects. The latest available data for calculating the indirect effects in this study were the input-output table for 2010 and the supply and use table for 2010.

¹² Belgian firms are required to submit their annual accounts to the Central Balance Sheet Office by no later than seven months following the end of the financial year. A high proportion of firms -mainly small businesses or those in difficulties- fail to meet the obligation by that date. In April 2014, that percentage was close to zero and the impact on the figures is minimal.

¹³ The methodology is presented in the introduction by Lagneaux F. (2006), *Economic importance of the Belgian ports: Flemish maritime ports and Liège port complex* – report 2004, NBB, Working Paper nr. 86 (Document series) and set out in full in annexes 1 to 4. The study is available on the following address: <http://www.nbb.be/doc/ts/publications/wp/wp86En.pdf>.

¹⁴ Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains.

¹⁵ See http://www.plan.be/publications/publication_det.php?lang=en&KeyPub=1281 and <http://www.nbb.be/doc/DQ/F/DQ3/HISTO/NFDE10.PDF>

¹⁶ See C. Mathys, *Economic Importance of the Belgian ports: Flemish maritime ports, Liège port complex and the port of Brussels* – Report 2011, NBB, Working Paper N°242 (Document series), p.3., Brussels.

with caution, and should be regarded more as an indicator of the importance of the ports for the national and local economy rather than as an absolute value.

The indirect effects have been calculated for each port separately. For ports with economic linkages between them, a portion of the indirect effect calculated by port is cancelled out when the calculation is done at a more aggregate level, i.e. for a group of ports. The sum of the indirect effects by port is thus greater than the total indirect effects calculated for the ports as a whole.

As part of the strategic plans for the port areas, the Flemish Region has established several land banks. This acquired land is a compensation for land that disappears through the port development and includes other land or results from land exchanges with farmers concerned. In this publication, the amounts relating to these land banks are not included in the investments of the public sector. The investment by the public sector to improve the maritime access to the different Belgian ports is also not included.

International environment

Although economic growth gained momentum in the United States in 2012 and was positive in Japan, it stagnated in a number of major European economies and in a group of Asian developing countries, so that a slowdown in global economic growth was recorded at the end of the year. International trade also expanded much more slowly in 2012 owing to weaker import demand in the developed countries, with demand actually contracting in the case of the EU-27, and patchier demand in the developing countries, whereas the African continent displayed strong dynamism in 2012. In addition, exports from the developed economies recorded much slower growth, and even declined in Japan and Europe. The developing countries except for those on the African continent also experienced slower export growth than in 2010 and 2011.

Conversely, global maritime trade remained fairly buoyant in 2012, particularly as a result of Chinese domestic demand and the development of South-South trade and intra-Asian trade. The growth of dry bulk is also a key factor in the expansion of maritime trade. Conversely, containerised trade slowed down, as did trade in oil and petroleum products, as a result of the weakening of the economy, high oil prices and the development of new energy-saving technologies.

Transport of dry bulk by sea continued to grow steadily, primarily on account of the group of five main cargos: coal, iron ore, grain – though 2012 was a bad year for the grain trade – bauxite (down) and phosphate, this last item growing strongly. The weakness of demand in Europe had a negative impact on containerised traffic destined for the old continent. In contrast, trade between North America and Asia expanded further, as did trade from Europe to North America. Traffic on routes other than the main ones also stood up well in 2012.

Faced with a difficult market, notably on account of particularly low maritime transport tariffs, ship-owners looked for alternative solutions. Three major shipping companies - Maersk Line, MSC and CMA-CGM – formed an alliance (P3) to cope better with the excess supply on the containerised market. The year 2012 also brought the construction of new “triple E” class container vessels which entered service in 2013. The name “triple E” refers to “Economy of scale, Energy efficient and Environmentally improved”. As the name indicates, they offer lower costs per container, making it easier to withstand the fierce competition, though they also encourage it. At the closing date of this report the P3-initiative was blocked by the Chinese government.

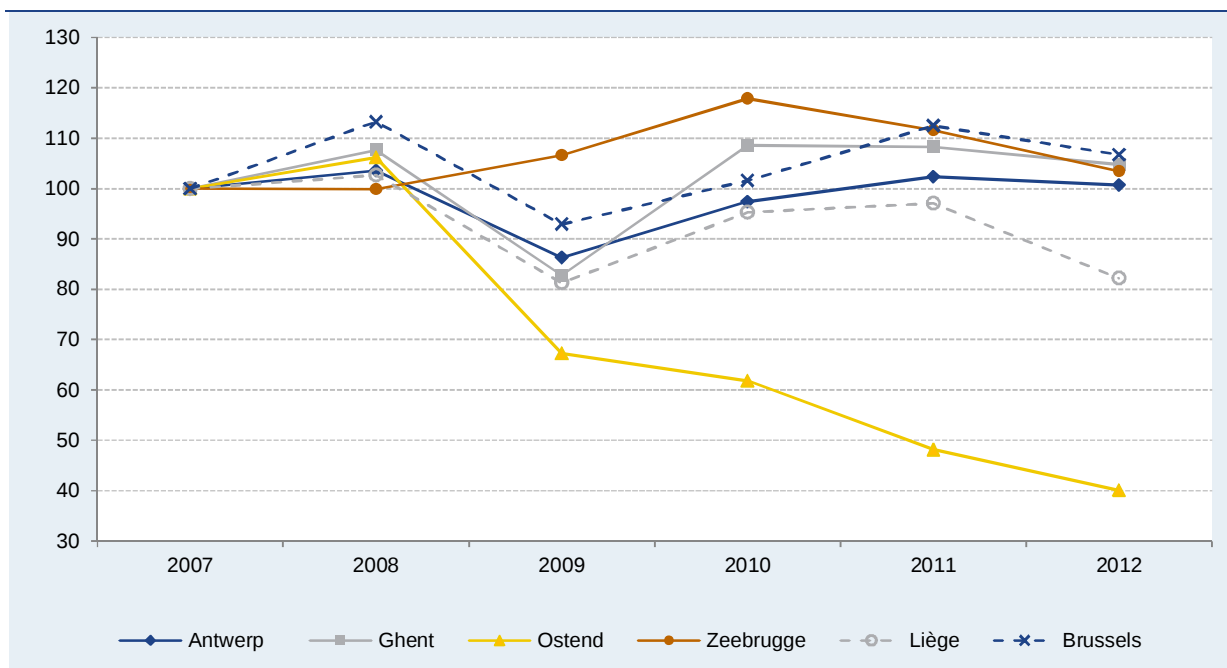
1 ECONOMIC IMPORTANCE OF THE BELGIAN PORTS

All maritime ports in Belgium lost traffic in 2012, with the highest downturns being logged by the port of Ostend (-16.8 %) and the Liège port complex (-15.3 %). On the other hand, the port of Antwerp managed to confine its slowdown to 1.6 %. Taken together, traffic in the Belgian maritime ports was down by 3.9 %.

1.1 Traffic in the Belgian ports

CHART 1 CARGO TRAFFIC IN THE BELGIAN PORTS

(indices 2007 = 100)



Sources: Port Authorities.

Container traffic expressed in tonnes showed a decline of 2.6 % in the Flemish ports. The port of Zeebrugge posted the sharpest fall at -10.7 %. Volumes transhipped in the port of Antwerp eased down 1 % while remaining well above the 100 million tonnes handled mark, at 104 million tonnes. In contrast, Ghent container traffic rose by 13.5 %. Expressed in TEU, container traffic went up by one-tenth in the port of Ghent, continued to be stable in Antwerp and dropped by more than one-tenth in the case of Zeebrugge.

General cargo excluding containers saw a decrease in all the Flemish ports, barring the port of Zeebrugge, where it rose by 18.2 %. This type of cargo lost 14.5 % in Antwerp, going below the 11 million tonnes mark once again. An examination of the changes in the overall performance of all the Flemish maritime ports over the last five years shows that general cargo has lost 8 % a year on average. This tonnage has shrunk by over one-fifth over the last 10 years. This obviously has to be weighed against the steady containerisation of cargoes.

Roll-on/roll-off traffic excluding containers expanded in the ports of Antwerp (+14.4 %) and Ghent (+3.8 %) in 2012 but contracted by one-fifth in the port of Ostend and 4.4 % in the port of Zeebrugge, with the latter port nonetheless continuing to be well above the 12 million tonnes mark. The ports of Antwerp and Zeebrugge recorded rises in the number of cars being transhipped.

Liquid bulk decreased in all the Flemish ports but the sharpest fall was in Ghent, at -10.6 % and the mildest one was in Antwerp with a 1.6 % downturn. Handled volumes of solid bulk held up well in the port of Antwerp, but declined in all the other ports. The port of Ostend was the worst hit, posting an 16.4 % decrease, while the fall was confined to 1.8 % in the two other Flemish maritime ports, Ghent and Zeebrugge.

TABLE 1 **MARITIME TRAFFIC IN THE FLEMISH PORTS IN 2012**
(in thousands of tonnes, unless otherwise stated)

	Antwerp	Ghent	Ostend	Zeebrugge	Total	Change from 2011 to 2012 (in p.c.)	Share in 2012 (in p.c.)
Containers	104,060	619	0	20,317	124,996	- 2.6	48.6
<i>Change 2011 - 2012 (p.c.)</i>	- 1.0	+ 13.5	n.	- 10.7			
Roll-on/roll-off ¹⁷	4,797	1,700	1,792	12,549	20,837	- 1.8	8.1
Conventional general cargo ¹⁸	10,895	3,187	0	1,360	15,441	- 11.1	6.0
Liquid bulk	45,276	3,977	0	7,695	56,948	- 3.1	22.1
Dry bulk	19,106	16,821	1,405	1,623	38,955	- 1.1	15.1
TOTAL	184,135	26,303	3,197	43,544	257,178	- 3.0	100.0
<i>Change 2011 - 2012 (p.c.)</i>	- 1.6	- 3.3	- 16.8	- 7.3			

Source: Port authorities.

The discontinuation of ArcelorMittal's hot-phase activities in the Liège area had an adverse impact on Liège port complex developments, with the port of Liège losing 15.3 % of its waterway traffic within the space of one year.

The port of Brussels was not left unscathed by the poor economic climate, as this port, too, reported fewer loading and unloading of cargo carried by waterway in 2012 but on a much lower scale: -5.1 %. Container traffic resumed its upward trend in this port (+14 %), construction materials were down by 8 %, whereas petroleum products remained stable.

1.2 Competitive position of the Belgian ports

To refine the analysis of the competitive position of the Flemish maritime ports, all cargo traffic is compared with that of the other ports in the Hamburg - Le Havre range¹⁹. The share of the four Flemish ports in that range decreased by approximately half a percentage point and was now below 23 % in 2012. The reduction in the volume transhipped was therefore more severe than the average for the range.

The 1.6 % rise in the **port of Rotterdam's** traffic in 2012 shows that the tonnage handled at this port increased by 7 million tonnes, while the traffic for the entire Hamburg – Le Havre range was down 0.2 %. The rises are mainly accounted for by exports (+4.5 %). The dry bulk and break bulk volumes contracted by 5 and 11 % respectively, while liquid bulk and containers, in contrast, were on the rise. The higher prices for agricultural products, the sudden drop in the level of business in the construction industry and the disappointing performance of the industrial production sector are to blame for these downturns. In the case of liquid bulk transport, port managers point to a 6 % increase in the transshipment of petroleum and 11 % for petroleum products. Conversely, LNG imports remained at a low level. The number of handled containers, expressed as TEU, remained much the same in 2012. The better economic climate in the United Kingdom underpinned the 3 % increase for roll-on/roll-off traffic. Lastly, lower steel imports resulted in a downturn for other general cargo (-24 %).

The **ports of Bremen** are the one reporting the highest traffic increases in 2012, up 4.2 %. Both bulk cargo and general cargo, including containers, saw an upturn, while bulk cargo experienced a faster rate of growth. The volume of containers loaded rose twice as fast as the volume of containers unloaded. The three leading partner countries for container traffic from the ports of Bremen are, in order of importance, the United States, China and Russia. The year 2011 was an outstanding year for the port, thanks to 2.1 million vehicles being handled, but 2012 saw a further improvement with almost 2.2 million vehicles handled. However the main category of cargo continues to be "ores, non-metallic minerals", while the "machinery and equipment" category experienced the highest level of growth.

¹⁹ For the purposes of this study, the range comprises the ports of Amsterdam, Antwerp, Bremen, Dunkirk, Ghent, Hamburg, Le Havre, Rotterdam, Zeebrugge, Ostend and the Zeeland Seaports complex (port of Terneuzen and Flessingue).

The **port of Amsterdam** is the third port reporting higher traffic in 2012 (+2.9 %), primarily accounted for by petroleum products, which increased 11 % within the space of a year, with the new Vopak terminal being brought into operation. The port of Amsterdam reached a new peak with 77.1 million tonnes being transhipped. Petroleum products account for just over half of the total and coal, which remained stable in 2012, represented one-fifth. Agribulk traffic lost over one million tonnes. Container loadings and unloadings went into a deep decline over the last two years but have now resumed an upward trend, unlike roll-on/roll-off traffic.

Traffic in the **port of Dunkirk** continued to be stable in 2012 (+0.2 %), in common with the number of vessels having docked in the port. Liquid bulk accounted for 14 % of the overall traffic in 2012, whereas petroleum products dropped 13 %, primarily because of the 22 % slump in crude petroleum volumes, and other liquids. In the case of solid bulk (+3 %), ores were up 6 %, at over 12 million tonnes. The transhipment of coal rose 8 % to reach 8 million tonnes handled. Roll-on/roll-off traffic perked up by 11 %. Container traffic slightly decreased (-4 %). In 2012, the first stone of Dunkirk's LNG Terminal was laid. This project comprises three main structures: the maritime structures and platform, built by Dunkerque-Port, the LNG Terminal built by Dunkerque LNG, a subsidiary of EDF Dunkerque LNG (EDF 65 %, Fluxys 25 %, Total 10 %), and the structures connecting it to the French and Belgian networks developed by the operators GRTgaz and Fluxys. It is scheduled to begin operating at the end of 2015.

The slight decline in the **port of Hamburg's** traffic in 2012 (-1 %) is attributed to unloadings in the port contracting by 3 %, while loadings expanded by 2 %. Bulk cargo handling remained comparatively stable: the mild downturn for grabbable and, to a lesser extent, suction cargo was offset by an increase for liquid cargo. General cargo accounted for 70 % of the port's aggregate traffic in 2012. This was down by 1 %. Both container and non-container volumes took a dip, with non-container operations experiencing a sharper fall, but representing only 2 % of overall general cargo. Expressed as TEU, container traffic dropped 2 %. The two leading partner regions for this kind of cargo continue to be North-East Asia, showing an 11 % decline, nonetheless, and the Baltic region, up by 6 %.

Maritime traffic at **Zeeland Seaports** dropped 4,2 % in 2012. Dry bulk is the type of cargo worst hit by the lower volumes (-9 %). Liquid bulk and roll-on/roll-off traffic are next in line, recording decreases of 6 and 5 % respectively. General cargo, on the other hand, rose 7 %. An examination of cargo trends by category shows the main items on an upward path in 2012 are metal products and fertilisers. Solid fuels remained stable. In this case, Zeeland Seaports can see the impact of opening the "Ovet's Kalootkade". The capacity of the terminal in the Kaloothaven has been expanded substantially. The former inland-navigation quay has been converted into a fully-fledged deep-sea terminal. However, agricultural products, petroleum products and chemicals diminished.

The **port of Le Havre's** traffic fell by 6 % in 2012. Better statistics were expected as in early 2011 the major maritime port of Le Havre was affected by several days of strikes in the wake of the port reform negotiations. Liquid bulk and solid bulk recorded downward swings of 11 and 13 % respectively in 2012. Liquid bulks suffered in particular from the stoppage, in early January, of Petroplus' Petit-Couronne refinery, near Rouen, and conversion work applied to other Basse-Seine refineries. Driven by imports, the transhipment of refined products is, in contrast, on the increase. In the case of solid bulk, coal unloading activities were down by over one-quarter as a result of the shutdown of the Havre power station. Sand, gravel and stones rose by 3 % on the other hand. General cargo advanced 5 % as a result of more container handling activities while roll-on/roll-off took a slight dip (-2 %).

TABLE 2 **TOTAL MARITIME TRAFFIC IN THE HAMBURG - LE HAVRE RANGE**
(INCLUDING OSTEND AND ZEELAND SEAPORTS)
(in millions of tonnes, unless otherwise stated)

Port	2007	2008	2009	2010	2011	2012	Annual average change from 2007 to 2012	Change from 2011 to 2012	Average share in the range from 2007 to 2012	Share in 2012
							(in p.c.)	(in p.c.)	(in p.c.)	(in p.c.)
Antwerp	182.9	189.4	157.8	178.2	187.2	184.1	+ 0.1	- 1.6	16.2	16.2
Ghent	25.1	27.0	20.8	27.3	27.2	26.3	+ 0.9	- 3.3	2.3	2.3
Ostend	8.0	8.5	5.4	4.9	3.8	3.2	- 16.7	- 16.8	0.5	0.3
Zeebrugge	42.1	42.0	44.9	49.6	47.0	43.5	+ 0.7	- 7.3	4.0	3.8
Total Flemish ports	258.1	266.9	228.8	260.0	265.1	257.2	- 0.1	- 3.0	23.1	22.6
Amsterdam ²²	67.9	75.8	73.4	72.7	74.9	77.1	+ 2.6	+ 2.9	6.6	6.8
Bremen	69.1	74.5	63.1	68.9	80.6	84.0	+ 4.0	+ 4.2	6.6	7.4
Dunkirk	57.1	57.7	45.0	42.7	47.5	47.6	- 3.6	+ 0.2	4.5	4.2
Hamburg	140.4	140.4	110.4	121.2	132.2	130.9	- 1.4	- 1.0	11.7	11.5
Le Havre	78.8	80.5	73.8	70.2	67.6	63.5	- 4.2	- 6.0	6.5	5.6
Rotterdam	409.1	421.1	387.0	430.2	434.6	441.5	+ 1.5	+ 1.6	38.0	38.9
Zeeland Seaports ²³	33.0	33.3	28.8	33.0	35.5	34.0	+ 0.6	- 4.2	3.0	3.0
<i>Total for the 11 ports</i>	<i>1,113.5</i>	<i>1,150.3</i>	<i>1,010.2</i>	<i>1,098.8</i>	<i>1,138.0</i>	<i>1,135.8</i>	<i>+ 0.4</i>	<i>- 0.2</i>		
<i>Total world traffic</i>	<i>8,034.1</i>	<i>8,229.5</i>	<i>7,858.0</i>	<i>8,408.9</i>	<i>8,784.3</i>	<i>9,165.0</i>	<i>+ 2.7</i>	<i>+ 4.3</i>		
Share for the 11 ports in world traffic (in p.c.)	13.9	14.0	12.9	13.1	13.0	12.4				

Sources: For the traffic in the range: port authorities; for world traffic (tonnes loaded): Unctad, *Review of Maritime Transport 2013*.

Table 3 reveals the major impact of the year 2012 on traffic at inland ports. The Ports of Paris are alone in reporting a higher level of traffic, whereas the other three inland ports record falls ranging from one-twentieth of the volumes handled for the port of Brussels to almost one-quarter for the port of Duisburg. The Liège port complex is somewhere in between with a downturn of 15 %.

TABLE 3 **CARGO TRAFFIC BY SHIP IN THE PORTS OF DUISBURG, PARIS, LIÈGE AND BRUSSELS**
(in thousands of tonnes, unless otherwise stated)

Port	2007	2008	2009	2010	2011	2012	Annual average change from 2007 to 2012	Change from 2011 to 2012
							(in p.c.)	(in p.c.)
Duisburg ²⁴	52,900	51,000	34,500	49,200	50,400	38,200	- 6.3	- 24.2
Paris	21,921	19,778	20,214	20,865	22,338	22,600	+ 0.6	+ 1.2
Liège ²⁵	20,039	20,574	16,287	19,095	19,455	16,477	- 3.8	- 15.3
Brussels	4,317	4,889	4,011	4,385	4,855	4,606	+ 1.3	- 5.1

Sources: Port of Duisburg, Port of Paris, Liège Port Authority and Brussels Port Authority.

During the same period, traffic in the Parisian region's ports rose by 1.2 %. Containers transported by water, expressed as TEU, grew by 7 %. Handled volumes of construction and public work waste reached their highest levels for 10 years, while volumes of petroleum and fuels may have had a challenging year in 2011 but they subsequently returned to levels close to those in 2010. Agrifood and the total for the construction and public work waste category are slightly lower.

²² The figures stated here refer to the port of Amsterdam only, and not the entire complex which also includes the ports of Beverwijk, Velsen/IJmuiden and Zaanstad.

²³ Zeeland Seaports = Vlissingen and Terneuzen

²⁴ The traffic considered here is the total of the cargo handled in all Duisburg Ports, thus, totalling the duisport Group and the private company ports.

²⁵ The traffic considered here is the total of the cargo handled on the public and the private quays.

Unlike the Ports de Paris, volumes handled in the port of Duisburg in 2012 fell drastically (-24.2 %). The port is experiencing the impact of the gloomy economic climate and the development of alternative sources of energy. Accordingly, coal, chemicals, ferrous and non-ferrous metals are significantly lower.

1.3 Direct and indirect value added in the Belgian ports

Following two years of growth, economic activity in Belgium has started to slow down and fell back slightly in 2012 (-0.1 %). The downturn was particularly strong in industry (-2.4 %) but also affected other major sectors of activity such as trade and repairs, transport and accommodation (-1 %) and even financial services and real estate (-0.4 %). Agriculture, construction, general government, health and social work were the only sectors to register a positive growth figure of 1 % or more during the course of 2012. The slowdown in the building industry was nevertheless quite spectacular, with growth falling from 8.1 % in 2011 to just 1 % the following year. The Belgian economy's loss of momentum in 2012 stems from weak domestic demand; non-profit institutions and household final consumption expenditure as well as gross fixed capital formation were down. Furthermore, over the same period, external demand also grew much less robustly²⁶.

The direct value added generated in the Belgian ports was down by 0.5 % in 2012. This is the second year of decline. It was up in the maritime cluster and decreased in the non-maritime cluster. The value added in trade and industry in the Belgian ports fell, while for land transport and other logistic services, it rose up. In the non-maritime cluster of the port of Antwerp, value added held steady even if the industry sector was down, while value added in the maritime cluster increased. Every segment in the maritime cluster recorded a rise except shipping agents and forwarders and shipbuilding and repairs. In the ports of Ghent and Zeebrugge, direct value added increased in the maritime cluster and reduced in the non-maritime cluster. Industry and land transport sectors recorded a drop in both ports and trade contracted in the port of Ghent. Value added in the port of Ostend was up in both cluster. The decline in the maritime cluster of the port of Brussels was offset by the rise in the non-maritime cluster thanks to industry and other logistic services. In the Liège port complex, value added fell in every segment except shipping companies, food industry and other logistic services.

Indirect value added was 0.4 % up, at € 13.5 billion. However, that figure needs to be taken as just a guide, because indirect value added is calculated on the basis of various estimates or even approximations. Indeed, in the absence of detailed data, the last year has to be estimated on the basis of an approximation. Moreover, the use of two input-output tables (2005 and 2010) and of two supply and use tables leads to a break in the series between years 2008 and 2009. More than ever, the reader must keep in mind that indirect effects must be cautiously handled, more as an indicator of the importance of the ports for the national and local economy than as an absolute value.

The value added of businesses located outside the ports remained stable in 2012. The decline in the shipping companies and shipbuilding and repair segments was offset by the rise in the auxiliary services for transport by waterway. Shipping companies recorded a drop in value added because of a big increase of costs in one company and a decrease of incomes in another one. The segment comprising auxiliary services for transport by waterway benefited from transfer of some activities of a few important enterprises and from a big rise of the turnover of one company. Value added for fishing remained stable.

By volume, the direct value added of the Belgian ports was down by 2.3 %. The total value added of the ports remained stable (-0.1 %), disregarding the price effect. In volume, value added declined by 1.9 %. The volume of indirect value added shrank with 1.4 %, and thus moderated the decline of the direct value added. The share of direct value added in Belgium's GDP was down by 0.1 percentage point at 4.4 %. Total value added represented 7.9 % of Belgium's GDP (-0.2 percentage point).

²⁶ Source: National Accounts Institute (2013), *National accounts. Part 2 - Detailed accounts and tables 2012*, National Bank of Belgium, October 2013.

TABLE 4 **VALUE ADDED IN THE BELGIAN PORTS**

(in € million - current prices)

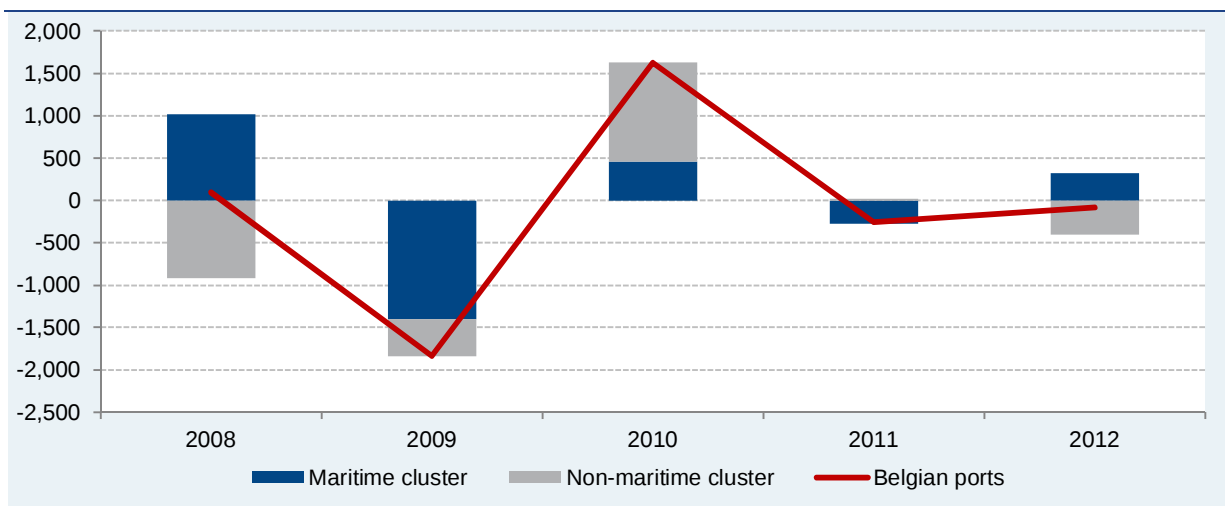
	2007	2008	2009	2010	2011	2012	Relative share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
1. DIRECT EFFECTS	16,859.9	16,953.0	15,113.1	16,740.7	16,485.2	16,403.5	100.0	- 0.5	- 0.5
Antwerp	9,852.9	10,192.5	8,751.9	9,960.9	9,655.7	9,971.7	60.8	+ 3.3	+ 0.2
Ghent	3,782.8	3,310.6	3,148.7	3,442.6	3,410.2	3,245.7	19.8	- 4.8	- 3.0
Ostend	429.1	469.8	449.9	494.3	468.6	483.0	2.9	+ 3.1	+ 2.4
Zeebrugge	921.9	1,014.5	924.9	954.3	970.3	956.1	5.8	- 1.5	+ 0.7
Liège	1,367.6	1,415.8	1,309.8	1,353.4	1,452.1	1,218.2	7.4	- 16.1	- 2.3
Brussels	505.5	549.8	528.0	535.3	528.2	528.7	3.2	+ 0.1	+ 0.9
Outside the ports (p.m.) ²⁷ ...	59.2	98.5	84.7	118.1	140.7	140.5	-	- 0.2	+ 18.9
2. INDIRECT EFFECTS	13,381.0	13,875.2	12,234.5	12,717.1	13,422.2	13,471.2	-	+ 0.4	+ 0.1
TOTAL VALUE ADDED	30,240.9	30,828.2	27,347.6	29,457.7	29,907.4	29,874.7	-	- 0.1	- 0.2

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).

The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

CHART 2 **CHANGE IN DIRECT VALUE ADDED**

(in € million, current prices)



Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

1.4 Direct and indirect employment in the Belgian ports

Domestic employment growth in Belgium slowed down considerably in 2012. Payroll employment stagnated while the employment rate among the self-employed rose by 1.2 %. The number of hours worked also remained stable. Payroll employment declined mainly in agriculture and industry (-1 %). The temporary agency work sector suffered a reduction in both employment levels and volume of labour, as did the construction sector which recorded a slight drop in employment and a more marked fall in the volume of labour.

²⁷ The firms in certain maritime branches may be selected from anywhere in the country, since their definition is sufficient in itself to link them to the port activity. These are branches directly connected with the activity of the seaports. Their results are therefore allocated among the Flemish ports, using the formula for the allocation of value added per branch. For each year and for each branch, this formula is calculated on the basis of the ratio between the direct value added generated in a given Flemish port and the direct value added generated in all the Flemish maritime ports. The line "Outside the ports (p.m.)" included in the tables 4, 5 and 6 collates these data, which are also allocated respectively in the tables showing value added, employment and investment in chapters 2 to 5 on the line entitled "Allocation (p.m.)".

Direct employment was up by 1.6 % in 2012 and total employment including indirect effects increased by 1.4 %. Indirect employment was up by 1.2 %. The segments with the largest number of job creations were port construction and dredging, car manufacturing, construction, other land transport. Job losses were highest in shipping companies, cargo handling and public sector. In contrast to the non-maritime cluster, most segments in the maritime cluster recorded a contraction.

In the port of Antwerp, the maritime cluster was down while the non-maritime cluster picked up sharply. Shipping companies and cargo handling suffered particularly heavy job losses, but employment nearly doubled in port construction and dredging. In the non-maritime cluster, chemicals, metalworking industry, other land transport and other logistic services recorded a rise by more than one hundred jobs each; the number of FTE (full-time equivalents) decreased only for energy, fuel production and other industries. In the port of Ghent, both clusters increased at the same rate thanks principally to cargo handling and car manufacturing. Nevertheless, employment in land transport fell noticeably. In the port of Ostend, both clusters expanded. The main drivers for the improvement were the port construction and dredging and construction segments. In the port of Zeebrugge, both clusters were slightly up. Employment remained stable in many segments of the maritime cluster in this port, while the rise in industry made up for job losses in trade, land transport and other logistic services. In the Liège port complex, the maritime cluster continued to contract for the sixth consecutive year. In the non-maritime cluster, employment in industry and land transport was down in 2012; the metalworking industry recorded the largest loss of FTE. In the port of Brussels, employment in the non-maritime cluster increased while it was plummeting in the maritime cluster. The shipping agents and forwarders and the cargo handling segments suffered from the bankruptcy of one company and the decision of other companies to move their place of business out of the port. On the contrary, the other logistic services segment benefited from employee relocations. In total, employment in this port was up by 3.8 %.

TABLE 5 **EMPLOYMENT IN THE BELGIAN PORTS**
(FTE)

	2007	2008	2009	2010	2011	2012	Relative share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
1. DIRECT EFFECTS	122,947	123,990	120,702	116,529	115,624	117,455	100.0	+ 1.6	- 0.9
Antwerp	64,514	64,368	63,222	61,360	59,965	60,873	51.8	+ 1.5	- 1.2
Ghent	27,468	27,865	26,921	26,022	26,695	27,200	23.2	+ 1.9	- 0.2
Ostend	4,712	4,891	4,999	4,950	4,808	5,185	4.4	+ 7.8	+ 1.9
Zeebrugge	10,569	11,021	10,700	10,157	9,995	10,073	8.6	+ 0.8	- 1.0
Liège	11,123	11,208	10,456	9,733	9,804	9,603	8.2	- 2.1	- 2.9
Brussels	4,562	4,637	4,404	4,307	4,357	4,521	3.8	+ 3.8	- 0.2
Outside the ports (p.m.) ²⁸ ..	2,335	2,437	2,454	2,337	2,166	2,168	-	+ 0.1	- 1.5
2. INDIRECT EFFECTS	142,579	147,767	135,716	137,485	139,014	140,689	-	+ 1.2	- 0.3
TOTAL EMPLOYMENT	265,526	271,757	256,418	254,014	254,638	258,144	-	+ 1.4	- 0.6

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs). The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

In 2011, the workers employed in the Belgian ports represented 2.9 % of Belgian domestic employment²⁹. That remained stable in 2012. Altogether (including indirect employment), the Flemish ports accounted for 9.9 % of employment in Flanders, and the Belgian ports represented 6.4 % of employment in Belgium. The first share was up 0.1 percentage point against 2011 while the second share is a status quo.

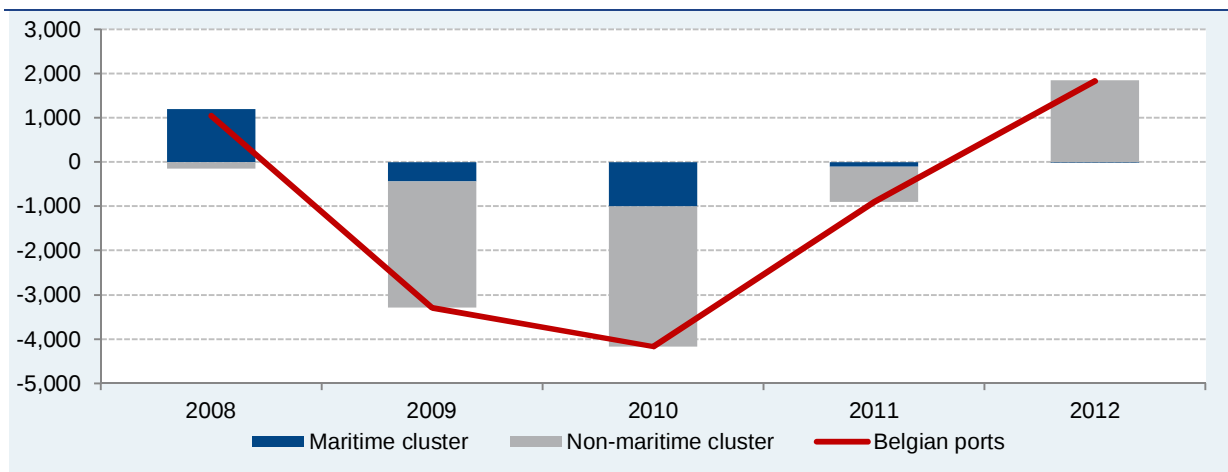
²⁸ These figures stand for the activity of the maritime enterprises located outside the port limits and are divided among the Flemish ports according to the breakdown of value added.

²⁹ Source: National Accounts Institute (2013), *National accounts. Part 2 - Detailed accounts and tables 2012*.

In companies located outside the ports, employment remained stable. The decline of employment for shipbuilding and repair – due to a bankruptcy –, shipping companies and fishing was offset by the increase in the auxiliary services for transport by waterway segment.

Indirect employment was up by 1.2 %. There were few significant variations between branches. Indirect employment declined sharply in shipping agents and forwarders, shipping companies, port authorities segments, but expanded in some segments such as cargo handling, port construction and dredging, and construction. However, the reader must keep in mind that indirect effects must be cautiously handled, more as an indicator of the importance of the ports for the national and local economy than as an absolute value.

CHART 3 CHANGE IN DIRECT EMPLOYMENT
(FTE)



Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

1.5 Investment in the Belgian ports

Direct investment in the Belgian ports was down by 3 %. The fall in investment in the ports slowed down in 2012 but this was the fourth consecutive year of decline. In the maritime cluster, the increase for the amount invested by the shipping companies and the port authorities couldn't make up with the fall in the port construction and dredging segment. In the non-maritime cluster, investment was up in land transport and slightly down in other logistics services after the pickup of 2011. In industry, investment held steady; five out of nine segments declined. The segment with the largest drop (in value) was energy, and the one with the greatest rise was metalworking industry. At the same time, investment in trade continued to fall.

In the port of Antwerp, the maritime cluster recorded the largest drop in investment. The rise in shipping companies and port authority segments couldn't offset the fall in port construction and dredging, but investment in this segment was substantial in 2011. In the non-maritime cluster, investment in trade was reduced by half while it was up in land transport and other logistic services. Investment in industry was at its lowest point for the last six years. In the port of Ghent, investment declined in both clusters. In the maritime cluster, every segment declined except cargo handling. In the non-maritime cluster, investment in industry and other logistic services was down by around 6 % and 59 % respectively but it was up in trade and land transport. Investment in both clusters was at its lowest point for the last six years. In the port of Ostend, investment in the maritime cluster increased thanks to the public sector, fishing and port construction and dredging segments. Conversely, investment in the non-maritime cluster recorded a slight downturn due to a drop in industry and land transport. In the port of Zeebrugge, it was mainly the maritime cluster that recorded a fall in investment; it was cut by half in public sector and was down by a fifth in cargo handling. Total investment in the maritime cluster was down by 20 %. In the non-maritime cluster, it grew in trade and industry while it dropped in land transport and other logistic services. The largest increase was in construction. After a sharp fall in 2010 and a pick-up in 2011, investment in the Liège port complex continued to rise in 2012. It expanded in the maritime cluster thanks to the cargo handling and port authority segments. In the non-maritime cluster, figures were mixed with a strong growth for industry and other logistic services and a sharp fall for trade and land transport. Finally, the port of Brussels recorded a lessening in the investment decline. In contrast to the non-maritime cluster,

the maritime cluster continued to reduce. Every segment of that cluster decreased. In the non-maritime cluster, investment expanded in trade and industry and contracted in land transport and other logistic services.

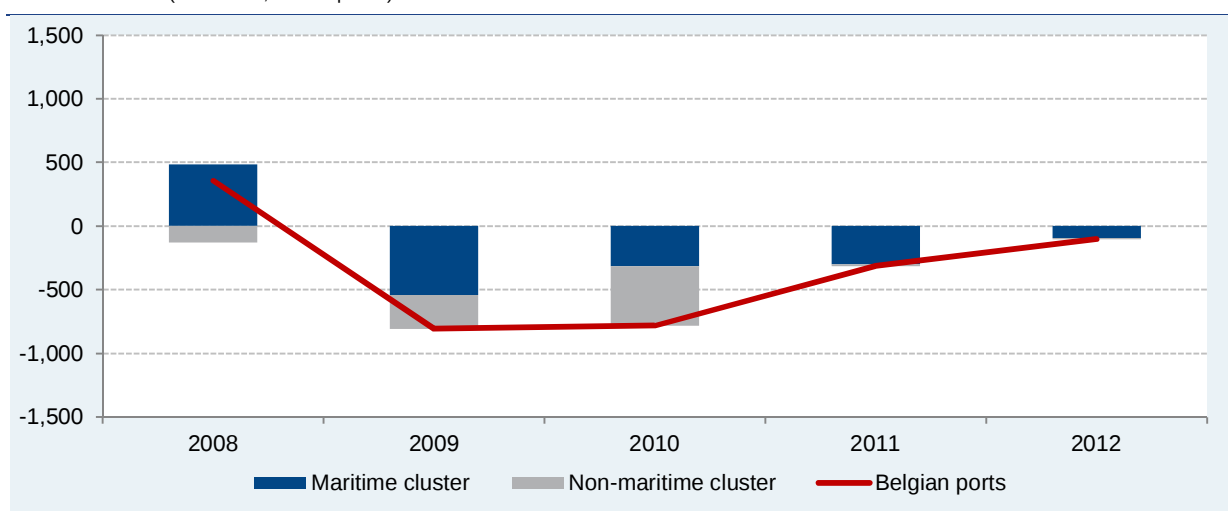
The downturn of 2011 was confirmed in 2012: the amount invested by firms located outside the ports contracted again. Investment was down in every segment of activity, but the fall in investment by shipping companies, maritime transport supporting activities and shipbuilding and repair was dramatic.

TABLE 6 INVESTMENT IN THE BELGIAN PORTS³⁰
(in € million - current prices)

	2007	2008	2009	2010	2011	2012	Relative share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
Antwerp	3,383.4	3,636.0	2,986.7	2,523.9	2,343.5	2,248.6	68.2	- 4.0	- 7.8
Ghent	703.1	711.4	591.9	504.8	437.5	419.8	12.7	- 4.1	- 9.8
Ostend	155.2	184.1	120.3	102.3	90.6	93.5	2.8	+ 3.2	- 9.6
Zeebrugge	311.0	263.4	171.0	336.3	270.0	238.2	7.2	- 11.8	- 5.2
Liège	344.9	436.9	564.4	188.4	209.2	249.1	7.6	+ 19.1	- 6.3
Brussels	54.1	74.2	63.2	59.0	50.7	49.5	1.5	- 2.4	- 1.7
<i>Outside the ports (p.m.)³¹ ...</i>	<i>242.8</i>	<i>196.2</i>	<i>245.4</i>	<i>485.6</i>	<i>303.4</i>	<i>213.0</i>	-	- 29.8	- 2.6
DIRECT INVESTMENT	4,951.8	5,306.0	4,497.4	3,714.7	3,401.5	3,298.8	-	- 3.0	- 7.8

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office and on surveys).

CHART 4 CHANGE IN DIRECT INVESTMENT
(in € million, current prices)



Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

1.6 Demography of the Belgian ports

The table entitled 'Demography of the Belgian Ports' gives an overview of changes in the sample population used for the study for the period 2007-2012. The public sector is not taken into consideration in this table. As a reminder, besides Belgian commercial enterprises, the study also covers a limited number of legal entities such as non-profit organizations or branches of foreign firms. The two columns, entitled '2007' and '2012', with the heading "Population" indicate the number of legal persons (regardless of the legal form of the entity) included in the study for the years 2007 and 2012 respectively. In both the maritime and non-maritime clusters, the number of entities is higher in 2012 than in 2007. The 'Migrate-

³⁰ Investment by the public authority Flemish Region is limited to the projects linked to a specific port.

³¹ These figures stand for the activity of the maritime enterprises located outside the port limits and are divided among the Flemish ports according to the breakdown of value added.

out' column lists firms that left the population during the period 2008 - 2012. Obviously, it is the other way round for the 'Migrate-in' column. There are several explanations justifying the exclusion from the survey population from one year to the next: the company has moved, changed activity, merged with another firm already established in the port (in which case, only the surviving company continues to feature in the study). The three last columns of the table give the number of firms affected by corporate restructuring (absorption, merger, takeover or split), by a stoppage or failure. The firms included in the 'Migrate-in' column can either be newly established firms (after 2007) coming into the population studied or existing companies that have, for instance, started activities or taken over an other enterprise in the port. The 'Missing account' column adds the number of firms that have not filed their annual accounts for the year 2012 and which, as far as we know, should not be excluded from the study³².

TABLE 7 DEMOGRAPHY OF THE BELGIAN PORTS FOR THE PERIOD 2007 - 2012
(Number of firms)

Sectors	Population ³³					Death		
	2007	Migrate-In	Migrate-Out	Missing account	2012	Restructuring	Stoppage	Failure
MARITIME CLUSTER	1,590	544	421	37	1,676	69	158	124
Shipping agents and forwarders	584	252	160	17	659	34	53	44
Cargo handling	335	93	77	4	347	23	32	10
Shipping companies	349	100	92	8	349	6	45	31
Shipbuilding and repair	115	66	41	3	137	2	12	23
Port construction and dredging	12	3	1	0	14	0	1	0
Fishing	138	18	29	3	124	4	12	13
Port trade	50	11	21	2	38	0	3	3
Port authority	7	1	0	0	8	0	0	0
Public sector	n.	n.	n.	n.	n.	n.	n.	n.
NON-MARITIME CLUSTER	2,032	1,069	910	18	2,173	138	206	204
TRADE	637	242	264	7	608	41	65	71
INDUSTRY	607	246	202	3	648	31	53	40
Energy	8	17	3	0	22	0	0	0
Fuel production	12	1	2	0	11	1	0	1
Chemicals	94	18	15	0	97	0	6	4
Car manufacturing	25	2	10	0	17	1	5	0
Electronics	19	5	5	0	19	0	0	2
Metalworking industry	117	40	35	1	121	7	10	7
Construction	188	117	82	1	222	8	13	17
Food industry	30	5	6	0	29	1	3	0
Other industries	114	41	44	1	110	13	16	9
LAND TRANSPORT	175	80	71	2	182	11	12	30
Road transport	173	78	71	2	178	11	12	30
Other land transport	2	2	0	0	4	0	0	0
OTHER LOGISTIC SERVICES..	613	501	373	6	735	55	76	63
TOTAL	3,622	1,613	1,331	55	3,849	207	364	328

Migrate-In = New in population after 2007.

Migrate-Out = Left the population in the period 2008-2012. This category includes the category 'Death', the enterprises who moved their activities outside the port area or whose NACE-BEL branch changed.

Death = legal situation at the closing date of this report

Restructuring = Absorption + Takeover + Merger + Split

Source: NBB (calculations based on the Crossroads Bank for Enterprises CBE).

It will be noted that, over the whole period surveyed, there were more firms coming into the research population than there were leaving. Three-tenths of the exits from the maritime cluster were due to bankruptcy. In the case of the non-maritime cluster, this accounted for just over one-fifth. Companies ceasing activities expressed as a percentage of total firm exits is nearly as high in the non-maritime cluster than in the maritime one. Looking at the proportion of bankruptcies to total exits per segment, the rate is particularly high in shipbuilding and repair, fuel production, fishing, road transport, electronics and shipping companies. The number of company restructuring peaked in 2009 in the maritime cluster and

³² See Coppens F., Verduyn F. (2009), *Analysis of business demography using markov chains: an application to Belgian data*, NBB, Working Paper No. 170 (Research series), Brussels.

³³ The results of the public sector are not included in this table.

in 2010 in the non-maritime cluster while the high point for firms ceasing activities and for bankruptcies was reached in 2012 in both clusters.

1.7 Breakdown of the variables by company size³⁴

Note that the distribution of the firms according to size depends on the format of the annual accounts filed by the firms. Thus, companies submitting their annual accounts to the Central Balance Sheet Office in the full format are considered to be large firms. The SME category covers companies submitting their annual accounts in an abbreviated format. In 2012, large firms represented 39.4 % of the total number of firms, 95.3 % of value added and 94.8 % of investment. In terms of jobs, they employed 92.4 % of workers. Compared to 2011, the number of large firms stabilised, whereas the number of small and medium sized enterprises decreased. The representativeness of large firms for value added, employment and the investment rose over a year. But the total amount of the value added and the investment were down while the total employment was up.

TABLE 8 BREAKDOWN OF FINDINGS IN THE BELGIAN PORTS IN 2012

Ports	Number of firms ³⁵		Direct value added (in € million)		Direct employment (FTE)		Direct investment (in € million)	
	Large firms	SMEs	Large firms	SMEs	Large firms	SMEs	Large firms	SMEs
Antwerp	829	1,027	9,399.9	330.5	54,107	3,309	1,967.6	58.2
Ghent	277	311	3,060.2	155.0	24,971	1,909	374.4	32.9
Ostend	58	149	389.1	40.7	3,773	566	54.2	24.3
Zeebrugge	147	253	737.4	94.9	7,044	1,128	172.8	20.0
Liège	95	81	1,189.6	28.6	9,159	443	241.5	7.6
Brussels	110	225	468.0	56.3	3,662	777	40.6	8.9
Outside the ports	34	334	84.8	55.7	1,752	416	198.4	14.5
TOTAL	1,550	2,380	15,329.1	761.7	104,468	8,549	3,049.6	166.5

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office and on surveys).

1.8 Social balance sheet in the Belgian ports³⁶

The social balance sheet presents a coherent set of data on various aspects of employment in firms: composition of the workforce, staff rotation, type of employment contracts, standard of education, working time, labour costs and training efforts. The results presented below concerning direct employment in the six Belgian ports are not exhaustive. The figures are based on a constant sample³⁷ relating to the period 2010 - 2012. The detailed figures for 2012 are shown in Annex 1. The national data is calculated from a constant sample of filed annual accounts with the Central Balance Sheet Office. The findings per individual port are also based on a constant sample.

1.8.1 Working time and labour costs

The findings on working time and labour costs are in line with the results at national level. Yet it has highlighted major divergences between branches of activity, notably a contraction of staff numbers in the

³⁴ Enterprises are deemed large if they use the full model to file their annual accounts.

³⁵ For each port, this is the number of firms located in the port zone. A firm may in fact be recorded in more than one port. The sample for the year 2012 comprises 1.471 large firms and 2.378 small and medium-sized firms, totalling 3.849 firms. The results of the public sector are not included in this table.

³⁶ The national data mentioned were taken from Heuse P., *2012 social balance sheet*, NBB, Economic Review, December 2013. The comparisons are merely an indication, since only firms filing their social balance sheet for a period of 12 months ending on 31 December were taken into account in that study. Moreover, NACE-BEL 78 branches (employment-related activities), 84 (public administration and defence; compulsory social security) and 85 (education) are excluded in that study.

³⁷ The constant sample was determined on the basis of the firms which filed full-format accounts throughout the period 2010 - 2012, and the financial year must comprise a period of twelve months. The employer's organisations (i.e. Cepa), with NACE-BEL 78200, are included in the constant sample. The constant sample comprises 955 firms and 98,377 FTEs, or 24.7 % of the firms considered for this study in 2012 and 83.8 % of the direct employment calculated in this study. As a result of the closure of the Antwerp car assembly plant in 2011, General Motors Belgium is not included in the constant sample.

shipping companies segment and to a lesser extent in chemical industry, cargo handling and land transport while it recorded a big rise in other logistic services, port construction and dredging and car manufacturing. The average number of employees in the port of Liège, decreased on the staff register, unlike in the five other ports taken individually. The ports of Zeebrugge and Liège posted a decline in the number of hours actually worked while it increased in the ports of Antwerp, Ostend and Brussels. On the whole, the average number of hours worked per annum per full-time equivalent remained stable. Due to a contraction in industry and trade, it decreased in the non-maritime cluster but it was counterbalanced by the rise in the maritime cluster.

Staff costs in the Belgian ports taken as a whole are on the rise. The rate of change is quite high in the construction and dredging segment and in other logistic services. In most segments of activity, the average staff costs per hour worked was slightly up. It rose up the most in the other logistic services and shipping companies segments. But as in shipping companies, the average number of employees on the staff register decreased, the fact that some staff costs were exceptional cannot be excluded. That's why the change in staff cost, the average annual staff costs per full-time equivalent and the average staff costs per hour worked should be interpreted with caution.

TABLE 9 HOURS WORKED AND ASSOCIATED COSTS OF INTERNAL HUMAN RESOURCES
(reduced population: constant population)
(percentage change compared with the previous year, unless otherwise stated)

	2010	2011	2012
Change in the average number of employees on the staff register (p.c.)		+2.9	+1.5
Change in the number of hours actually worked (p.c.)		+2.6	+1.6
Change in staff costs (p.c.)		+7.2	+3.9
Average number of hours worked per annum per full-time equivalent (<i>hours</i>)	1,514	1,510	1,512
Average annual staff costs per full-time equivalent (<i>euros</i>)	71,434	74,456	76,248
Average staff costs per hour worked (<i>euros</i>)	47	49	50

Source: NBB (full presentation accounts only).

1.8.2 Composition of the workforce

The proportion of blue-collar workers in the Belgian maritime ports has decreased to the benefit of white-collar workers. This tendency is more marked in the port of Antwerp. In the ports of Ghent and Ostend, the proportion of blue-collar workers increased and in the other ports, the proportions didn't change. Overall, the male/female proportion remained stable as it did in every port except in the ports of Ostend where it slightly contracted. The percentage of full-time staff was shrinking in the ports of Liège, Zeebrugge, Antwerp and Brussels.

In contrast to the previous year, among male staff, the proportion of those with primary education qualifications was shrinking in the ports taken as a whole and the proportion of those with secondary education rose up by about one percentage point. Within the female ranks, the proportion of those with diplomas of university education was increasing in every port except in the ports of Ostend and Liège.

TABLE 10 **INTERNAL WORKFORCE AT THE END OF THE FINANCIAL YEAR**
(reduced population: constant population)
(share as a percentage of the total)

	2010	2011	2012
By professional category			
<i>White-collar</i>	43	43	44
<i>Blue-collar</i>	53	53	52
<i>Other staff</i>	4	4	4
By sex			
<i>Males</i>	84	84	84
<i>Females</i>	16	16	16
By working time			
<i>Full-time</i>	90.3	90.2	90.1
<i>Part-time</i>	9.7	9.8	9.9
By educational level			
<i>Males</i>			
<i>Primary education (p.c.)</i>	20.4	21.1	19.8
<i>Secondary education (p.c.)</i>	54.9	53.9	55.0
<i>Higher non-university education (p.c.)</i>	16.6	16.3	16.4
<i>University education (p.c.)</i>	8.2	8.7	8.8
<i>Females</i>			
<i>Primary education (p.c.)</i>	8.1	7.0	6.9
<i>Secondary education (p.c.)</i>	44.8	45.0	45.1
<i>Higher non-university education (p.c.)</i>	32.9	32.8	32.2
<i>University education (p.c.)</i>	14.2	15.2	15.8

Source: NBB (full presentation accounts only).

1.8.3 External staff

In the ports of Ghent and Liège, the share of external staff in total employment was down in 2012, as was their number of hours actually worked. This tendency has so far not been confirmed in the port of Ostend and Zeebrugge where the proportion of external staff and their number of hours actually worked were expanding. In the ports of Antwerp and Brussels, the trend was less pronounced. All the segments of activity except shipping companies, cargo handling, port authority, chemicals industry and public transport recorded a decrease in the share of external staff. The number of hours actually worked was up in the maritime cluster thanks to the cargo handling segment and was down in the non-maritime cluster in which the vast majority of segments were declining. In the ports of Ghent and Liège, the change in costs has been negative.

TABLE 11 **HIRED TEMPORARY STAFF AND STAFF PLACED AT THE ENTERPRISE'S DISPOSAL**
(reduced population: constant population)
(percentage change compared with the previous year, unless otherwise stated)

	2010	2011	2012
Share of external staff in total employment (on the basis of the number of hours actually worked) (share as a percentage of the total)	12.3	13.6	13.1
Change in the number of hours actually worked		+ 14.6	- 2.7
Change in costs		+ 13.5	- 0.3

Source: NBB (full presentation accounts only).

1.8.4 Staff turnover

Staff turnover was positive in 2012, contrary to the national results. The number of entries was greater than the number of departures in the ports of Antwerp, Ghent and Ostend. The causes of staff departures from the company were still mainly classed in the "other reasons"³⁸ category. The

³⁸ Spontaneous departures, death in service, expiry of the period of fixed-term contracts, provided that they are not immediately followed by a new contract and the completion of the work for which the contract was concluded.

percentage of early retirement decreased while an upturn were recorded for retirement and redundancies. The proportion of early retirement contracted in half of the ports: Antwerp, Liège and Zeebrugge. The proportion of redundancies in the total is lowest in Liège and highest in Ghent. In the port of Liege, the proportion of ends of career (retirement and early retirement) in the reasons for departures was the highest of all ports with round 19 percent, which is higher than the national figures.

TABLE 12 STAFF TURNOVER
(reduced population: constant population)
(share as a percentage of the total, unless otherwise stated)

	2010	2011	2012
Net number of staff hired during the year (<i>FTE</i>)	+ 243	+ 2,614	+ 759
Staff leaving, by reason for termination of contract			
<i>Retirement</i>	6.3	5.6	7.0
<i>Early retirement</i>	5.8	5.1	4.5
<i>Dismissal</i>	18.7	14.7	18.2
<i>Other reason</i>	69.3	74.6	70.2

Source: NBB (full presentation accounts only).

1.8.5 Training³⁹

The percentage of firms reported training activities increased in 2012. On the contrary, the participation rate was slightly down. This trend is not observed at national level but the national rate of participation is lower. In the Belgian ports, the rate of participation in training was still higher among male staff members but the difference shrank. The net cost per hour of training continued to rise in 2012. This trend is not in line with developments noted at national level. The number of hours of training per person remained stable, just as is the case at national level. The end-result is a slight downturn in the percentage of hours worked actually spent training while the share of training costs in total staff costs continued to rise. It should be noted that the training course participation rate fell in the ports of Zeebrugge and Ghent.

TABLE 13 EFFORTS DEVOTED TO FORMAL TRAINING
(reduced population: constant population)
(share as a percentage of the total, unless otherwise stated)

	2010	2011	2012
P.c. of firms reporting training on the social balance sheet	57.1	58.8	64.0
Participation rate	51.8	57.0	56.7
<i>Males</i>	52.6	58.1	57.2
<i>Females</i>	48.1	52.0	54.6
Number of hours' training per person (<i>hours</i>)	33.8	32.5	32.5
<i>Males (hours)</i>	34.7	33.6	33.5
<i>Females (hours)</i>	29.1	26.6	27.4
Training costs per hour (euros)	63.7	66.7	73.1
<i>Males (euros)</i>	64.0	66.6	72.6
<i>Females (euros)</i>	62.3	67.8	76.2
P.c. of the number of hours worked devoted to training	1.2	1.3	1.2
Training costs as a percentage of total staff costs.....	1.6	1.7	1.8

Source: NBB (full presentation accounts only).

1.9 Financial ratios in the Belgian ports

The ratios presented below show the net return on equity after tax, liquidity in the broad sense, and solvency. The first ratio concerns the firms' ability to generate profits, and to give shareholders an idea of the firm's return after tax. The second ratio shows the firm's ability to mobilise in due time the cash

³⁹ Here, training is meant in the formal sense, i.e. courses in premises reserved for that purpose, within the firm or outside. For example, on-the-job training, mentoring and self-training study are outside the scope of this study.

resources that it needs in order to meet its short-term liabilities. Finally, the third ratio gives an idea of the firm's ability to honour all its financial commitments in the short and long term. This section gives information on the movement in the ratios for the six Belgian ports together⁴⁰.

The study of the financial ratios is based on a constant sample⁴¹ composed for the years 2010 to 2012. Consequently, the firms studied in the financial section of this report are not the same as those in the constant sample of the previous report, which may explain some discrepancies between the figures in the two publications. To permit comparison with the national data, i.e. all Belgian non-financial firms companies, the same calculation method – namely globalisation – was used.

Since last year, the population studied has reflected all the non-financial corporations as defined by the Central Balance Sheet Office, excluding head office activities (NACE-BEL 70100). This branch, previously made up of coordination centres, now contains several hundred companies that generally provide banking or treasury management services. In recent years, these companies have seen substantial capital inflows, following the introduction of the risk capital allowance ("notional interest"). Consequently, in 2011, the head office activities branch represented more than one third of corporate equity capital but barely more than 1 % of value added and employment. This means that this branch has a significant impact on certain aggregate financial statistics but a limited real economic effect. As a result, it has been excluded from the statistics featured in this article⁴².

After the downturn of 2011, the net return on equity of firms in the Belgian ports went on decreasing at the Belgian ports viewed overall whereas it held on at national level. Nevertheless, the picture varies from port to port. In the port of Antwerp, the ratio remained stable: the change is quite light as the result of a strong improvement in the maritime cluster counterbalanced by a decline in the non-maritime cluster. In the ports of Liège, Brussels, Ghent and Zeebrugge, the reduction was more severe. In the ports of Liège and Zeebrugge, the drop was very important in the non-maritime cluster. In the ports of Ghent and Brussels, both clusters were deeply down. In the port of Liège, half ratios for industry became negative. In port of Brussels, by segment, only four ratios out of thirteen improved. In the port of Zeebrugge, the result is quite similar. Conversely, in the port of Ostend, the ratio was up in the maritime cluster, especially in shipping agents and forwarders and port construction and dredging segments and fell in most segments of the non-maritime cluster. Regarded the ratio of net return on equity after taxes in all ports as a whole, only one segment of activity was negative in 2012: metalworking industry. The ratio declined in most segments of the non-maritime cluster, except in electronics, other industries and other land transport. In the maritime cluster, it improved in shipping companies, port construction and dredging, port trade and port authorities. Nevertheless, the ports' net return on equity still exceeded the national average.

The ratio of liquidity in the broad sense increased in 2012, while lightly rising at the national level. It actually picked up in every port except Ostend. The deterioration in the port of Ostend is strongest in the non-maritime cluster with trade, metalworking industry, other industries, road transport and other logistic services segments. In the port of Antwerp, the ratio of shipping companies recovered, it held on in trade and it increased in all the other non-maritime segments except food industry and road transport. In the port of Ghent, it remained quite stable in the maritime cluster and increased in the non-maritime cluster. In the port of Zeebrugge, it contracted a little in other logistic services and increased in land transport while it held on in the maritime cluster, trade and industry. In the port of Liège, both clusters contributed to the upwards trend; only shipbuilding and repair, fuel production, chemicals, construction, other industries and other logistic services segments recorded a drop. In Brussels, the ratio for the maritime cluster continued to decrease but was up in the non-maritime cluster.

⁴⁰ Note that readers wishing to compare the financial ratios of a firm with those in the sector where it operates can find that information in the company file published by the Central Balance Sheet Office.

⁴¹ The constant sample composed for the study of the ratios includes all firms which filed their annual accounts in 2010, 2011 and 2012 and whose annual accounts items meet the conditions for the calculation of these ratios. For example, for the purpose of calculating profitability, the financial year must comprise 12 months and the equity must be strictly positive. This constant sample covers 2,524 firms, € 14,871.5 million of value added and 102,119 FTEs, or 65.4 % of the firms considered for the Belgian ports in 2012, 90.7 % of the direct value added and 86.9 % of the direct employment examined here.

⁴² Source: http://www.nbb.be/doc/ts/publications/EconomicReview/2013/ecorevIII2013_H5.pdf

TABLE 14 FINANCIAL RATIOS IN THE BELGIAN PORTS FROM 2010 TO 2012
(reduced population: constant population)

Ports	Return on equity after taxes (in p.c.)			Liquidity in the broad sense			Solvency (in p.c.)		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Antwerp	16.3	10.2	10.3	0.90	0.93	1.19	37.0	41.6	44.1
Ghent	21.5	6.5	3.4	0.88	0.91	1.24	33.4	35.1	39.1
Ostend	17.9	8.2	11.4	1.29	1.02	0.88	47.6	46.4	46.8
Zeebrugge	8.4	6.4	4.3	1.02	1.06	1.13	50.1	49.7	51.8
Liège	4.6	6.5	-1.4	0.76	0.67	0.92	35.1	38.9	41.0
Brussels	8.1	9.3	4.7	1.23	1.24	1.30	34.2	32.8	35.5
Belgian ports	15.2	9.2	8.0	0.89	0.90	1.15	36.8	40.6	43.4
Non-financial corporations⁴³	8.8	6.7	6.9	1.18	1.19	1.28	41.3	42.9	43.7

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

The solvency ratio improved again in 2012. This trend is in line with the evolution of the globalised ratio of non-financial corporations. The increase was larger in the ports than at national level and so the ratio gets closer to the national one. The rise was particularly marked in the ports Ghent and Brussels. In the ports of Antwerp, Liège and Zeebrugge, it was less steep. The ratio held steady in the port of Ostend. In the port of Antwerp, the ratio decreased only in the shipping agents and forwarders, energy, car manufacturing and food industry segments. In the port of Liège, it increased in both clusters but the rise was especially great for electronics, metalworking industry and land transport. In the port of Ghent, the solvency ratio was down in the maritime cluster and on the contrary was up in most of the segments of the non-maritime cluster. In the port of Zeebrugge the ratio increased in both clusters, but decreased in industry and other logistic services sectors. In the port of Ostend, the increase in the maritime cluster was partly offset by the decrease in the non-maritime cluster due to industry and land transport sectors. In the port of Brussels, the solvency ratio remained stable in the maritime cluster but it was up in each sector of the non-maritime cluster.

1.10 Financial health in the Belgian ports

The financial health indicator is designed as a weighted combination of variables, created by means of a model constructed in the same way as a failure prediction model. The model takes the form of a logistic regression discriminating between failing and non-failing companies. The definition of failure is based on a legal criterion, namely that a company is considered to have failed if it has faced bankruptcy or judicial administration in the past.

The indicator summarises each company's situation in a single value which takes account simultaneously of the solvency, liquidity and profitability dimensions. Those dimensions are complementary in the establishment of a financial diagnosis, as a high debt level, for example, may be offset by a plentiful cash flow, and vice versa. The indicator also takes account of the companies' age and size, particularly through interaction variables.

The indicator constitutes a strictly financial assessment of the companies at a given moment. That assessment is based on data from the annual accounts, and therefore disregards any other fundamental elements, such as development prospects, competition, management calibre or shareholders' willingness to provide financial support. In that respect, it must be regarded as one of the factors enabling an overall appraisal of a firm's situation.

Classes 1, 2, 3 and 4 are associated with below-average failure rates, and therefore correspond to a favourable financial situation. However, the rates are not zero, which means that these classes are not totally risk free. Conversely, classes 6, 7, 8, 9 and 10 are associated with above-average failure rates, and therefore correspond to a situation of vulnerability. That is why belonging to one of these classes can be interpreted as a warning sign, which becomes stronger as we move from class 6 to class 10. Finally, class 5 corresponds to an average failure rate and is therefore neutral in terms of interpretation.

⁴³ See Vivet D., *Results and financial situation of firms in 2012*, NBB, Economic review, December 2013, Brussels.

The financial health classes are used in the enterprise files compiled by the Central Balance Sheet Office⁴⁴. The sample of firms for which the financial health index was calculated is naturally much smaller than in the national study. Consequently, the results are more volatile. The result for a particular firm can therefore be obtained from the company file⁴⁵ and compared to the distribution of firms by financial health class in the ports, or in Belgium as a whole.

TABLE 15 FINANCIAL HEALTH IN THE BELGIAN PORTS - IN % OF THE NUMBER OF COMPANIES
(reduced population)

	2007	2008	2009	2010	2011	2012
Class 1	7.0	7.7	8.6	8.5	8.2	8.9
Class 2	16.9	17.3	18.3	18.7	19.5	18.9
Class 3	19.6	19.3	17.6	18.2	18.5	18.2
Class 4	20.0	19.2	18.3	19.4	19.7	18.9
Class 5	18.0	19.0	17.9	17.9	17.5	18.2
Class 6	13.4	11.8	13.2	11.6	11.5	11.8
Class 7	3.2	3.5	3.5	3.5	2.7	2.9
Class 8	1.2	1.5	1.6	1.7	1.6	1.6
Class 9	0.5	0.4	0.6	0.4	0.4	0.4
Class 10	0.2	0.3	0.4	0.2	0.3	0.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

TABLE 16 FINANCIAL HEALTH IN THE BELGIAN PORTS - IN % OF WORKERS ENTERED IN THE STAFF REGISTER⁴⁶
(reduced population)

	2007	2008	2009	2010	2011	2012
Class 1	3.9	5.3	6.5	9.8	8.6	7.7
Class 2	28.9	19.3	23.6	23.0	18.8	15.3
Class 3	38.0	42.5	29.1	33.1	35.0	39.1
Class 4	15.7	13.1	24.7	20.9	18.6	16.7
Class 5	9.7	15.5	11.3	9.1	15.3	16.9
Class 6	3.1	3.4	3.7	3.2	3.0	3.6
Class 7	0.3	0.6	0.6	0.5	0.4	0.4
Class 8	0.2	0.3	0.3	0.3	0.2	0.3
Class 9	0.1	0.0	0.0	0.0	0.1	0.0
Class 10	0.0	0.1	0.1	0.0	0.0	0.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

⁴⁴ See Vivet D. (2011), Development of a financial health indicator based on companies' annual accounts, NBB, Working Paper No. 213 (Document series), Brussels.

⁴⁵ The company file compares the financial position of an enterprise with the financial position of the activity sector the enterprise belongs to. For more information, see introduction.

⁴⁶ Full-time equivalents (item 9087)

2 PORT OF ANTWERP

2.1 Port developments⁴⁷

The port of Antwerp has not been left unscathed by the sluggish demand in the euro area: the port's overall maritime traffic took a slight dip (-1.6 %) in the year 2012.

The number of sea-going vessels arriving in the port of Antwerp in 2012 was 684 units lower, or down by over 4 %, whereas their total gross tonnage rose by just under 1 %, hence the average tonnage is on the increase for the 12th year in a row. The number of vessels with a draught of 15 meter or more continues to be stable at 19 units, while the number with a draught between 14 and 15 m has fallen by almost one-fifth, a category that has suffered the sharpest decline, with the smallest category including sea-going vessels with a draught of between 9 and 10 m. Over one-third of these visiting vessels were flying the Liberian or Panamanian flag. The vessel breakdown by large type of cargo showed little difference between 2012 and 2011.

The slowdown in maritime traffic is attributed to unloading, whereas loaded volumes held up well. The level of general cargo, including containers, fell 1.9 % and liquid bulk 1.6 %. Liquid bulk was adversely affected by lower levels of petroleum being unloaded, compared with the rise of unloaded petroleum products. The traffic figures have therefore been driven down by the temporary closure of the oil refinery Belgian Refining Corporation (BRC), owned by the Swiss group Petroplus Holding AG, which filed for bankruptcy in Antwerp in early 2012. Specialising in trading, transporting and storing petroleum products, the Gunvor group revived activities in May 2012 under the name Independent Belgian Refinery. In contrast, solid bulk held up well.

In the bulk transport sector, solid and liquid combined, transhipped volumes of chemicals, ores, fertilisers, sand and gravel declined, while coal and cereals gained ground. In the case of non-containerized general cargo traffic, a lot less iron and steel, fertilizers and chemicals were handled in contrast to rolling stock, non-ferrous metals, paper and cellulose. The dip in the case of ferrous metals is partly ascribed to the crisis affecting the construction and automotive sectors.

Container transshipment activities eased off slightly (-1 %). The number of containers unloaded increased in contrast to the number loaded, but the tonnage of unloaded containers is on the decline whereas that of loaded containers is on the increase. The percentage of empty containers handled rose in 2012. Accordingly, it may be concluded that the number of empty containers unloaded showed an increase. Traffic with the rest of Europe, Africa and Asia dwindled but the level of traffic with America grew. Lastly, there was an increase in roll-on/roll-off container traffic and roll-on/roll-off traffic excluding containers, notably traffic involving rolling material and forest products in 2012.

A series of heavy investments made in earlier years in the port of Antwerp was continued in 2012: a programme for laying down railway lines for the Liefkenshoek underground railway link has got underway, as has the second phase of the Deurganck dock major lock construction project, on the left bank of the river Escaut and the third phase of the programme for deepening, the redevelopment and expansion of the Verrebroek dock. Of course, these major projects are not being undertaken to the exclusion of the customary maintenance and renovation activities the Port carries out every year.

In 2012, direct value added increased by 3.3 %, representing a volume growth of 1.4 %. Total value added (direct and indirect) by volume was up by 2.8 %. Direct value added represented 4.6 % of the GDP of the Flemish region, or 0.1 percentage point more than in 2011; total value added rose from 8.6 to 8.7 % in 2012. The share of direct and total value added in Belgian GDP was 2.7 and 5.0 % respectively.

Direct employment in the port of Antwerp was up by 1.5 % in 2012. The smaller growth in indirect employment resulted in a gain of 1.4 % for the total employment. In the year under review, direct and total employment represented respectively 2.6 and 6.3 % of employment in the Flemish Region.

⁴⁷ Sources: *Yearbook of Statistics 2012*, Port of Antwerp and *Annual Report 2012*, Port of Antwerp.

Employment represented 1.5 (direct) and 3.6 % (total) of Belgian employment. Both figures remained stable compared to the previous year.

2.2 Value added

Direct value added at the port of Antwerp increased by 10.8 % in the maritime cluster, while in the non-maritime cluster it remained stable. In the former, value added rose in most segments. Shipping companies benefited from an international group's restructuring which brought new activities in Belgium. A company of a big group in the port construction and dredging segment saw its business develop considerably in 2012. Many companies in the cargo handling segment posted an rise in their turnover or their operating income. In the non-maritime cluster, industry slightly contracted while trade, land transport and other logistic services sectors grew. The temporary closure of nuclear power stations, decrease of the average sales price and changes in legislation affected the income result of a large energy company working in the field of electricity. Value added in car manufacturing was up thanks to New Holland Tractor Ltd whose production volumes increased. In land transport, both segments saw a rise in value added.

2.3 Employment

Direct employment in the port of Antwerp slightly contracted by 0.3 % in the maritime cluster, while in the non-maritime cluster, it was up by 3.1 %. In the former, employment declined in half of the segments and rose in the other half. But, the increase in port construction and dredging could not make up for the decrease in cargo handling and shipping companies. Shipping companies suffered particularly heavy job losses (expressed as full-time equivalents) because of group's restructuring and lower business activity. In cargo handling, the number of dockers decreased. But port construction and dredging segments recorded a significant rise thanks to a large company that hired more staff in 2012. Port construction and dredging continued to be the only private branch of activity that has posted any growth in employment since 2007. In the non-maritime cluster, several of companies in metalworking industry increased staff. In chemicals industry, the expansion of Lanxess Rubber's glass fiber capacities and BASF reorganization benefited to the segment's employment. Indeed, end of March 2012, BASF Antwerpen sold its fertilizer activities Antfertia, a 100 % subsidiary of BASF created for this purpose. Thereafter, participation in Antfertia was sold to Russian group Eurochem, which continues the fertilizer production on the Antwerp site under the name EuroChem Antwerpen. Jobs in trade and road transport were up thanks to some new settlements of companies in the port. One of the large companies for the other land transport segment posted more than 250 extra jobs in the port of Antwerp.

2.4 Investment

Investment in the port of Antwerp was down by 4.0 % in 2012. In the maritime cluster, it fell by 4.6 %. In the port construction and dredging segment, the investment, which was huge in 2010 and 2011 declined sharply in 2012. Conversely, in shipping companies and port authority, investment was up. Several ships have been delivered during 2012, for example VLCC "Alsace" or Suezmax "Capt. Michael" wholly or partially owned by Euronav. Major maintenance works on both Zandvliet and Berendrecht locks explained the increase of public authority's investment. In the non-maritime cluster, investment was down. While trade collapsed, investment in land transport and other logistic services increased. In the latter, companies expanded their installations for storage and bought equipment and tools. In industry, chemicals remained the major segment. BASF has planned to build a butadiene extraction plant at its site in Antwerp. The plant will have an annual production capacity of 155,000 metric tons and is scheduled to start up during 2014. The international group has also made significant investments in MDI debottlenecking, expansion of capacity to superabsorbent polymers and infrastructure on the Antwerp's site. Total group, that has several companies in the port zone that are classified in the chemicals and fuel production segments, had decided in 2011 to merge its refining and petrochemical activities in order to maximize the potential synergies of the hydrocarbon value chain. It carried out modernization works and improved facility safety. It announced in 2012 big capital expenditure to adapt its Antwerp refinery and petrochemical complex to the market conditions. For the OPTARA project (OPTimization of The Antwerp-Rotterdam-Amsterdam area), it was planned to adapt the facilities to produce less heavy fuel oil and more diesel and gas oil with ultra-low sulfur content. Its preliminary works were started in 2012. The non-maritime cluster represented about 40 % of total investment in the Antwerp's port zone.

CHART 5 **CHANGE IN DIRECT VALUE ADDED**
(in € million, current prices)

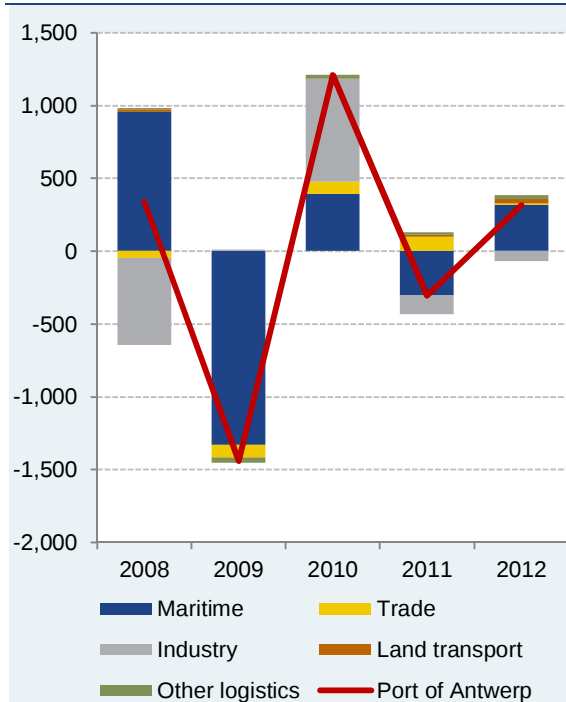
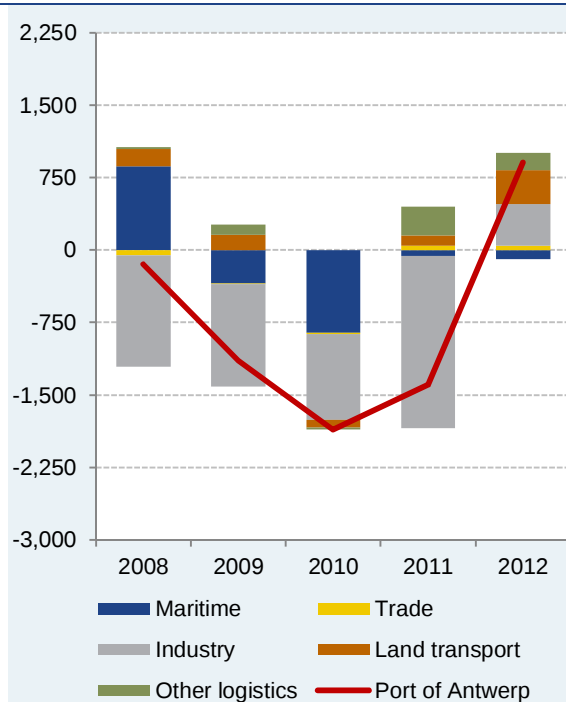


CHART 6 **CHANGE IN DIRECT EMPLOYMENT**
(FTE)



Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

TABLE 17 VALUE ADDED AT THE PORT OF ANTWERP FROM 2007 TO 2012
(in € million - current prices)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
DIRECT EFFECTS	9,852.9	10,192.5	8,751.9	9,960.9	9,655.7	9,971.7	100.0	+ 3.3	+ 0.2
MARITIME CLUSTER	3,228.8	4,186.6	2,857.4	3,250.0	2,950.5	3,267.9	32.8	+ 10.8	+ 0.2
Shipping agents and forwarders	543.9	620.4	572.6	580.6	615.0	613.1	6.1	- 0.3	+ 2.4
Cargo handling	1,239.7	1,352.7	1,157.7	1,244.9	1,305.2	1,417.4	14.2	+ 8.6	+ 2.7
Shipping companies	921.8	1,585.5	590.5	854.6	490.9	558.4	5.6	+ 13.8	- 9.5
Shipbuilding and repair	42.3	59.0	56.3	47.2	44.8	38.7	0.4	- 13.7	- 1.8
Port construction and dredging	111.4	177.8	103.0	139.5	108.6	223.9	2.2	+ 106.2	+ 15.0
Fishing	1.0	1.2	1.9	1.6	1.1	1.1	0.0	+ 0.6	+ 2.2
Port trade	13.3	17.1	17.4	18.2	17.4	19.2	0.2	+ 10.6	+ 7.7
Port authority	229.4	239.1	222.5	228.9	233.7	256.0	2.6	+ 9.5	+ 2.2
Public sector	126.0	133.8	135.5	134.5	133.9	140.0	1.4	+ 4.6	+ 2.1
Allocation (p.m.)	26.1	65.0	54.0	82.1	103.6	101.3	-	- 2.2	+ 31.2
NON-MARITIME CLUSTER	6,624.1	6,006.0	5,894.5	6,710.9	6,705.2	6,703.9	67.2	- 0.0	+ 0.2
TRADE	852.4	805.6	718.0	803.3	902.6	913.0	9.2	+ 1.1	+ 1.4
INDUSTRY	5,108.1	4,511.9	4,521.8	5,226.5	5,093.1	5,024.7	50.4	- 1.3	- 0.3
Energy	261.2	349.6	448.5	437.2	512.2	399.2	4.0	- 22.0	+ 8.9
Fuel production	1,061.1	1,054.9	766.3	978.5	912.4	987.6	9.9	+ 8.2	- 1.4
Chemicals	2,610.0	2,259.3	2,541.1	2,657.1	3,009.5	2,949.4	29.6	- 2.0	+ 2.5
Car manufacturing	692.7	327.7	263.3	611.5	89.4	107.4	1.1	+ 20.1	- 31.1
Electronics	8.5	8.5	16.1	16.7	17.2	23.3	0.2	+ 35.6	+ 22.2
Metalworking industry	207.0	220.7	191.1	198.6	209.6	227.0	2.3	+ 8.3	+ 1.9
Construction	119.9	118.7	128.6	143.5	156.8	160.7	1.6	+ 2.5	+ 6.0
Food industry	48.6	54.8	49.0	59.3	63.6	47.1	0.5	- 25.9	- 0.6
Other industries	98.9	117.8	117.7	124.2	122.4	123.0	1.2	+ 0.4	+ 4.5
LAND TRANSPORT	234.6	251.3	250.7	251.8	264.3	296.4	3.0	+ 12.1	+ 4.8
Road transport	131.3	139.5	123.5	120.6	125.1	137.5	1.4	+ 9.9	+ 0.9
Other land transport	103.3	111.8	127.3	131.2	139.2	158.9	1.6	+ 14.2	+ 9.0
OTHER LOGISTIC SERVICES ...	429.0	437.1	404.0	429.2	445.1	469.7	4.7	+ 5.5	+ 1.8
INDIRECT EFFECTS	8,675.2	8,857.7	7,998.6	8,446.9	8,660.8	8,853.5	-	+ 2.2	+ 0.4
MARITIME CLUSTER	2,968.0	3,281.1	2,873.2	3,054.6	2,996.6	3,306.6	-	+ 10.3	+ 2.2
NON-MARITIME CLUSTER	5,707.3	5,576.5	5,125.4	5,392.3	5,664.2	5,546.8	-	- 2.1	- 0.6
TOTAL VALUE ADDED	18,528.2	19,050.2	16,750.5	18,407.8	18,316.6	18,825.2	-	+ 2.8	+ 0.3

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).

The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

TABLE 18 VALUE ADDED TOP 10 AT THE PORT OF ANTWERP IN 2012

Ranking	Company name	Sector
1	B.A.S.F. ANTWERPEN	Chemicals
2	EXXONMOBIL PETROLEUM & CHEMICAL	Fuel production
3	KUWAIT PETROLEUM (BELGIUM)	Trade
4	ELECTRABEL	Energy
5	TOTAL RAFFINADERIJ ANTWERPEN	Fuel production
6	ANTWERP PORT AUTHORITY	Port authority
7	M.S.C. HOME TERMINAL	Cargo handling
8	DREDGING INTERNATIONAL	Port construction and dredging
9	BAYER ANTWERPEN	Chemicals
10	STYROLUTION BELGIUM	Chemicals

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics.

The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics.

No individual figures are published as accurate data could not be obtained for all companies.

TABLE 19 EMPLOYMENT AT THE PORT OF ANTWERP FROM 2007 TO 2012
(FTE)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
DIRECT EFFECTS	64,514	64,368	63,222	61,360	59,965	60,873	100.0	+ 1.5	- 1.2
MARITIME CLUSTER	28,105	28,972	28,627	27,769	27,704	27,609	45.4	- 0.3	- 0.4
Shipping agents and forwarders	7,047	7,247	7,039	6,821	7,078	7,064	11.6	- 0.2	+ 0.0
Cargo handling	15,118	15,460	15,104	14,548	14,383	14,161	23.3	- 1.5	- 1.3
Shipping companies	1,029	1,114	1,149	1,154	1,155	919	1.5	- 20.4	- 2.2
Shipbuilding and repair	605	792	827	710	587	545	0.9	- 7.2	- 2.1
Port construction and dredging	562	645	699	781	849	1,245	2.0	+ 46.6	+ 17.3
Fishing	16	18	25	21	18	16	0.0	- 9.6	- 0.3
Port trade	156	169	195	200	154	159	0.3	+ 3.6	+ 0.4
Port authority	1,675	1,665	1,695	1,708	1,689	1,697	2.8	+ 0.5	+ 0.3
Public sector	1,897	1,862	1,896	1,825	1,791	1,802	3.0	+ 0.6	- 1.0
Allocation (p.m.)	1,803	1,936	2,004	1,808	1,681	1,655	-	- 1.5	- 1.7
NON-MARITIME CLUSTER	36,409	35,396	34,595	33,591	32,261	33,264	54.6	+ 3.1	- 1.8
TRADE	2,596	2,541	2,534	2,523	2,565	2,607	4.3	+ 1.6	+ 0.1
INDUSTRY	27,014	25,862	24,800	23,909	22,126	22,561	37.1	+ 2.0	- 3.5
Energy	946	1,036	1,101	1,075	1,042	1,030	1.7	- 1.2	+ 1.7
Fuel production	2,639	2,648	2,721	2,772	2,781	2,769	4.5	- 0.5	+ 1.0
Chemicals	10,979	10,915	10,654	10,680	10,794	10,907	17.9	+ 1.0	- 0.1
Car manufacturing	5,971	4,629	3,844	3,085	1,056	1,133	1.9	+ 7.3	- 28.3
Electronics	130	128	206	253	264	296	0.5	+ 12.3	+ 17.9
Metalworking industry	3,606	3,621	3,289	3,123	3,198	3,352	5.5	+ 4.8	- 1.5
Construction	1,390	1,401	1,438	1,490	1,508	1,576	2.6	+ 4.5	+ 2.6
Food industry	453	459	478	381	392	430	0.7	+ 9.8	- 1.1
Other industries	899	1,026	1,069	1,050	1,090	1,069	1.8	- 1.9	+ 3.5
LAND TRANSPORT	3,666	3,844	3,999	3,921	4,028	4,380	7.2	+ 8.7	+ 3.6
Road transport	1,831	1,946	1,923	1,763	1,794	1,887	3.1	+ 5.2	+ 0.6
Other land transport	1,835	1,898	2,076	2,158	2,234	2,493	4.1	+ 11.6	+ 6.3
OTHER LOGISTIC SERVICES	3,133	3,149	3,262	3,238	3,542	3,716	6.1	+ 4.9	+ 3.5
INDIRECT EFFECTS	84,292	86,855	82,523	84,580	84,306	85,392	-	+ 1.3	+ 0.3
MARITIME CLUSTER	29,213	31,249	32,715	33,118	33,309	33,264	-	- 0.1	+ 2.6
NON-MARITIME CLUSTER	55,078	55,606	49,808	51,462	50,997	52,128	-	+ 2.2	- 1.1
TOTAL EMPLOYMENT	148,806	151,224	145,745	145,940	144,271	146,265	-	+ 1.4	- 0.3

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).

The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

TABLE 20 EMPLOYMENT TOP 10 AT THE PORT OF ANTWERP IN 2012

Ranking	Company name	Sector
1	B.A.S.F. ANTWERPEN	Chemicals
2	BNRC GROUP	Other land transport
3	PUBLIC SECTOR	Public sector
4	ANTWERP PORT AUTHORITY	Port authority
5	EXXONMOBIL PETROLEUM & CHEMICAL	Fuel production
6	M.S.C. HOME TERMINAL	Cargo handling
7	DREDGING INTERNATIONAL	Port construction and dredging
8	PSA ANTWERP	Cargo handling
9	NEW HOLLAND TRACTOR LIMITED	Car manufacturing
10	TOTAL RAFFINADERIJ ANTWERPEN	Fuel production

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

TABLE 21 INVESTMENT AT THE PORT OF ANTWERP FROM 2007 TO 2012
(in € million - current prices)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
MARITIME CLUSTER	1,942.6	2,491.5	2,016.8	1,608.3	1,425.3	1,359.4	60.5	- 4.6	- 6.9
Shipping agents and forwarders	69.2	114.3	68.7	50.8	77.2	53.8	2.4	- 30.3	- 4.9
Cargo handling	592.9	701.5	671.1	593.7	646.8	592.1	26.3	- 8.5	- 0.0
Shipping companies	1,014.7	1,342.2	1,003.5	616.0	276.1	376.6	16.7	+ 36.4	- 18.0
Shipbuilding and repair	4.2	7.9	6.6	12.2	4.3	4.4	0.2	+ 2.3	+ 0.9
Port construction and dredging	170.5	189.7	178.7	264.1	338.2	91.9	4.1	- 72.8	- 11.6
Fishing	0.2	0.3	0.3	1.1	0.2	0.2	0.0	n.	+ 0.0
Port trade	1.9	2.5	1.7	0.9	0.9	1.1	0.0	+ 16.6	- 10.8
Port authority	61.9	91.6	44.7	33.9	45.0	194.8	8.7	+ 333.3	+ 25.8
Public sector	27.2	41.5	41.4	35.7	36.6	44.5	2.0	+ 21.7	+ 10.3
Allocation (p.m.)	208.8	169.5	221.5	437.6	260.9	178.3	-	- 31.6	- 3.1
NON-MARITIME CLUSTER	1,440.8	1,144.4	969.9	915.6	918.2	889.3	39.5	- 3.2	- 9.2
TRADE	59.0	63.3	39.2	56.2	56.1	25.8	1.1	- 54.0	- 15.2
INDUSTRY	1,260.2	929.5	779.8	762.5	766.3	754.4	33.5	- 1.6	- 9.8
Energy	42.6	69.3	149.9	86.0	69.0	71.7	3.2	+ 3.8	+ 11.0
Fuel production	166.3	200.2	185.4	199.6	124.8	146.3	6.5	+ 17.3	- 2.5
Chemicals	971.0	572.0	353.0	367.1	461.4	461.6	20.5	+ 0.1	- 13.8
Car manufacturing	29.2	18.9	9.7	6.0	8.8	8.1	0.4	- 7.4	- 22.6
Electronics	0.4	0.3	2.0	4.1	2.4	1.1	0.1	- 51.7	+ 22.9
Metalworking industry	7.0	11.7	10.5	11.3	9.6	13.2	0.6	+ 37.9	+ 13.5
Construction	17.9	22.1	23.7	11.7	14.6	12.2	0.5	- 16.7	- 7.4
Food industry	11.6	14.7	11.1	13.1	15.4	14.1	0.6	- 8.6	+ 3.9
Other industries	14.1	20.4	34.5	63.8	60.4	26.0	1.2	- 57.0	+ 13.0
LAND TRANSPORT	42.1	55.3	33.5	33.9	28.3	37.4	1.7	+ 32.0	- 2.4
Road transport	22.2	35.5	12.5	18.0	17.9	21.9	1.0	+ 22.7	- 0.3
Other land transport	19.8	19.8	21.0	16.0	10.4	15.4	0.7	+ 48.0	- 4.9
OTHER LOGISTIC SERVICES ...	79.5	96.3	117.4	62.9	67.5	71.8	3.2	+ 6.2	- 2.0
DIRECT INVESTMENT	3,383.4	3,636.0	2,986.7	2,523.9	2,343.5	2,248.6	100.0	- 4.0	- 7.8

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office and on surveys).

TABLE 22 INVESTMENT TOP 10 AT THE PORT OF ANTWERP IN 2012

Ranking	Company name	Sector
1	B.A.S.F. ANTWERPEN	Chemicals
2	ANTWERP PORT AUTHORITY	Port authority
3	EURONAV	Shipping companies
4	SEA-TANK 510	Cargo handling
5	DREDGING INTERNATIONAL	Port construction and dredging
6	NYK BULKSHIP (ATLANTIC)	Shipping companies
7	ELECTRABEL	Energy
8	TOTAL OLEFINS ANTWERP	Chemicals
9	CMB	Shipping companies
10	LANXESS	Chemicals

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

3 PORT OF GHENT

3.1 Port developments⁴⁸

The port of Ghent's traffic volumes were down by 3.3 % in 2012, falling below the 27 million tonnes mark again, a figure recorded in 2008, 2010 and 2011. A transhipped volume equal to 26 million tonnes was finally posted for 2012, its fourth best performance since the early part of the previous decade. Both loading and unloading saw a decline.

Transhipments of liquid bulk accounted for the sharpest decrease, a downturn of over 10 %. In the case of this type of cargo, exports dropped by nearly one-quarter to fall below the 4 million tonnes mark. Conversely, the lower volume of dry bulk was confined to 2 %, in contrast to the upward path taken by container transhipments (+14 %) and roll-on/roll-off traffic (+4 %), which reached 1.7 million tonnes. Unloading of conventional general cargo were down by one-quarter and loading increased by virtually as much but as the former were higher than the later, the aggregate volume shrank 7 %. However, this is the second best performance for this type of cargo over the entire decade.

As for per-product traffic, agricultural products recorded a very sharp upturn (+45 %). Significant increases were also reported for handled volumes of foodstuffs and animal feed and chemicals. On the other hand, volumes of crude minerals and building materials were down by one-third and petroleum products by over one-quarter. Lastly, solid mineral fuels and metallurgical products both showed a decline of 6 %.

The number of sea-going vessels docking at the port of Ghent in 2012 dropped by 223 units (-7 %). Their average tonnage rose 4 %. The volumes loaded accounted for 26 % of the overall maritime traffic handled in 2012, a level that was stable compared with 2011. The relative increase in the share of shortsea shipping continued, to achieve 65 %. Ghent port's three main partners are Sweden, via roll-on/roll-off traffic, Russia primarily via traffic in coal and steel plates and the United States via coal, petroleum cokes and wood pallets. Alongside maritime traffic, inland waterway traffic rose slightly in 2012, an increase attributed to conventional general cargo and dry bulk. As for cargo categories, the highest level of growth was recorded for fertilisers.

The port of Ghent pressed on with the development of the area around the Kluizen dock in 2012. The same applies to "De Nest" site. The first phase of the "Rieme-Nord" site redevelopment programme has now got underway. Located on the left bank, this 100-hectare industrial site is set on territory of the municipalities of Evergem and Zelzate next to the Kluizen dock. The port of Ghent is expecting the site mainly to attract firms specialising in distribution and logistical services.

Direct value added of the port of Ghent decreased by 4.8 % (-6.5 % by volume). With the indirect effects included, total value added by volume was down by 4.1 %. In 2012, the share of direct and total value added in Flemish GDP amounted to 1.5 and 2.9 % respectively. The share of direct value added in Belgian GDP remained stable at 0.9 %. In comparison with 2011, with a share of total value added of 1.7 % in Belgian GDP, a small 0.1 percentage point diminution was recorded.

Direct employment of the firms and the public sector in the port of Ghent grew by 1.9 % in 2012. As a result of the stabilization of the indirect employment (+0.1 %), total employment grew with 0.9 % in 2012. The proportion of direct and total employment in Flemish employment remained stable at 1.2 and 2.6 % respectively. In relation to employment in Belgium, the shares remained also stable at 0.7 and 1.5 % respectively.

3.2 Value added

Direct value added in the port of Ghent contracted by 4.8 % in 2012. In the maritime cluster, it was up by 2.1 %. The largest rise was recorded in the shipping companies segment. In the non-maritime cluster, value added was down in trade, industry and land transport while it expanded in other logistic services. In trade, some companies active in the oil products sector suffered from an increase of costs. In fuel

⁴⁸ Source: *Annual Report 2012*, Port of Ghent.

production, the turnover of companies that produced biofuel was up. The construction segment benefited from the moving of a company and the establishment of a new one in the port. In chemicals industry, the firm Kronos Europe saw its benefits decline due to an increase of operating costs and an unfavorable evolution in average selling prices. Falling steel prices had a negative impact on the operating benefits of ArcelorMittal Belgium and on value added of metalworking industry. In food industry, Cargill experienced some deterioration in gross operating margin due to increasing operating costs. A new entrant boosted the value added of the other logistic services sector. Total value added in the non-maritime cluster was down by 5.5 %.

3.3 Employment

Direct employment in the port of Ghent expanded by 1.9 %. Both clusters were up in an identical way. In the maritime cluster, it was once again the cargo handlers that registered the biggest increase with 60 more jobs expressed as full-time equivalents. The largest player in this evolution is DVS Solutions (Automotive). In the non-maritime cluster, employment in trade was slightly down (-14 FTEs). It increased in industry and other logistic services. Employment in the car manufacturing segment continued to grow thanks to Volvo Cars and Volvo Group Belgium. In the construction segment, a new entrant and a settlement in the port resulted in a higher level of jobs. The land transport sector fell with the loss of 59 FTEs. This was the third year of decline.

3.4 Investment

Investment in the port of Ghent was down in both the maritime and the non-maritime clusters. In the maritime cluster, it declined by 3.1 %, with every segment of the cluster contracting except cargo handling. Investment in the maritime cluster hit its lowest point for the last seven years. In the non-maritime cluster, while investment in trade and land transport was up, it dropped in industry and other logistic services. Investment in energy continued to fall even if Alco invested in a cogeneration plant. In car manufacturing, Volvo Cars updated its machinery and changed industrial robots while Volvo Group Belgium prepared its plant for the renewal of the truck range. In the end, investment in the port contracted by 4.1 %.

CHART 7 CHANGE IN DIRECT VALUE ADDED
(in € million, current prices)

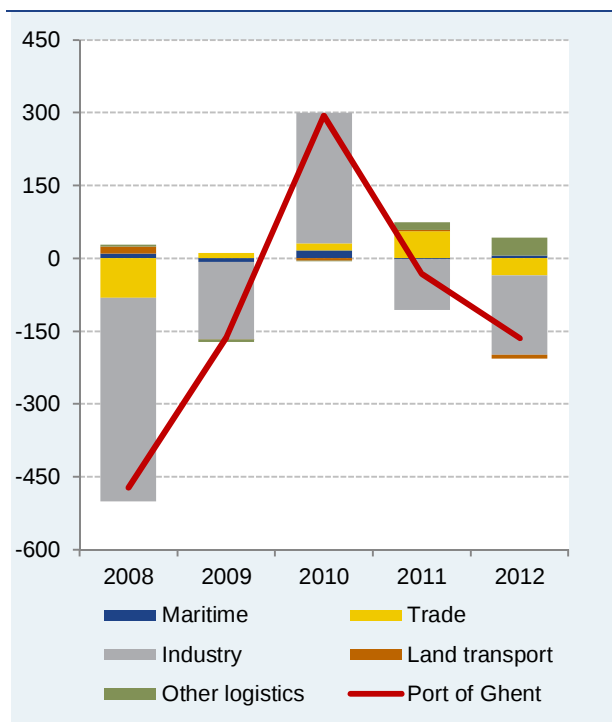
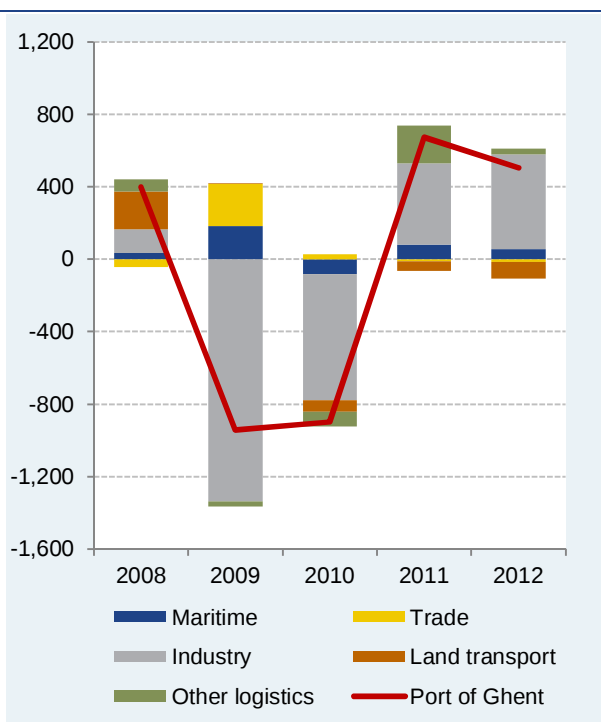


CHART 8 CHANGE IN DIRECT EMPLOYMENT
(FTE)



Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

TABLE 23 VALUE ADDED AT THE PORT OF GHENT FROM 2007 TO 2012
(in € million - current prices)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
DIRECT EFFECTS	3,782.8	3,310.6	3,148.7	3,442.6	3,410.2	3,245.7	100.0	- 4.8	- 3.0
MARITIME CLUSTER	269.0	279.0	271.6	287.5	286.0	291.9	9.0	+ 2.1	+ 1.7
Shipping agents and forwarders	58.2	55.2	50.2	49.3	45.5	46.9	1.4	+ 3.0	- 4.2
Cargo handling	152.2	158.8	156.2	172.7	176.9	175.3	5.4	- 0.9	+ 2.9
Shipping companies	10.6	15.6	14.4	13.8	12.4	18.2	0.6	+ 46.9	+ 11.4
Shipbuilding and repair	5.2	4.9	5.1	5.2	4.5	3.8	0.1	- 15.3	- 5.8
Port construction and dredging	-0.1	-0.1	-1.1	-0.7	-0.3	0.5	0.0	n.	- 230.1
Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0	n.	n.
Port trade	5.2	3.4	3.4	3.1	3.3	3.1	0.1	- 5.7	- 9.7
Port authority	22.3	24.0	23.6	25.5	24.7	23.6	0.7	- 4.5	+ 1.2
Public sector	15.5	17.2	19.7	18.6	18.9	20.5	0.6	+ 8.3	+ 5.7
Allocation (p.m.)	5.4	10.1	9.5	9.1	7.9	10.0	-	+ 25.9	+ 13.2
NON-MARITIME CLUSTER	3,513.8	3,031.6	2,877.1	3,155.1	3,124.2	2,953.8	91.0	- 5.5	- 3.4
TRADE	842.7	760.7	771.7	787.0	843.4	807.4	24.9	- 4.3	- 0.9
INDUSTRY	2,545.1	2,126.5	1,967.2	2,235.6	2,131.1	1,968.4	60.6	- 7.6	- 5.0
Energy	71.5	84.4	99.0	118.1	125.5	113.4	3.5	- 9.7	+ 9.7
Fuel production	11.0	9.3	32.9	52.2	38.9	59.1	1.8	+ 52.0	+ 40.0
Chemicals	316.2	324.1	254.2	338.6	380.0	299.6	9.2	- 21.2	- 1.1
Car manufacturing	665.0	649.5	572.1	677.9	652.2	647.8	20.0	- 0.7	- 0.5
Electronics	60.7	59.0	62.8	70.9	66.1	66.4	2.0	+ 0.5	+ 1.8
Metalworking industry	1,103.6	678.9	634.5	662.2	517.5	418.1	12.9	- 19.2	- 17.6
Construction	79.0	89.1	86.2	101.0	98.5	108.4	3.3	+ 10.1	+ 6.5
Food industry	76.4	65.8	63.6	88.2	82.3	74.0	2.3	- 10.1	- 0.6
Other industries	161.8	166.3	162.0	126.5	170.1	181.7	5.6	+ 6.8	+ 2.3
LAND TRANSPORT	55.4	69.1	68.4	63.6	65.7	57.9	1.8	- 11.9	+ 0.9
Road transport	42.2	53.0	50.2	45.8	51.3	45.2	1.4	- 12.0	+ 1.4
Other land transport	13.2	16.1	18.3	17.9	14.4	12.7	0.4	- 11.7	- 0.7
OTHER LOGISTIC SERVICES	70.5	75.3	69.7	68.9	84.0	120.2	3.7	+ 43.1	+ 11.2
INDIRECT EFFECTS	3,646.6	3,713.8	2,800.1	2,849.0	3,117.7	3,016.8	-	- 3.2	- 3.7
MARITIME CLUSTER	268.9	266.7	214.2	232.0	240.7	240.7	-	+ 0.0	- 2.2
NON-MARITIME CLUSTER	3,377.7	3,447.1	2,585.9	2,616.9	2,877.0	2,776.1	-	- 3.5	- 3.8
TOTAL VALUE ADDED	7,429.4	7,024.4	5,948.8	6,291.6	6,527.9	6,262.5	-	- 4.1	- 3.4

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).
The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

TABLE 24 VALUE ADDED TOP 10 AT THE PORT OF GHENT IN 2012

Ranking	Company name	Sector
1	TOTAL BELGIUM	Trade
2	VOLVO CARS	Car manufacturing
3	ARCELORMITTAL BELGIUM	Metalworking industry
4	VOLVO GROUP BELGIUM	Car manufacturing
5	BELGIAN SHELL	Trade
6	STORA ENSO LANGERBRUGGE	Other industries
7	TAMINCO	Chemicals
8	EDF LUMINUS	Energy
9	HONDA MOTOR EUROPE LOGISTICS	Trade
10	RÜTGERS BELGIUM	Chemicals

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

TABLE 25 EMPLOYMENT AT THE PORT OF GHENT FROM 2007 TO 2012
(FTE)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
DIRECT EFFECTS	27,468	27,865	26,921	26,022	26,695	27,200	100.0	+ 1.9	- 0.2
MARITIME CLUSTER	2,663	2,698	2,881	2,800	2,880	2,936	10.8	+ 1.9	+ 2.0
Shipping agents and forwarders	654	612	545	526	536	530	1.9	- 1.1	- 4.1
Cargo handling	1,448	1,509	1,734	1,683	1,779	1,839	6.8	+ 3.4	+ 4.9
Shipping companies	62	73	76	80	63	73	0.3	+ 14.7	+ 3.3
Shipbuilding and repair	84	72	84	79	70	65	0.2	- 7.6	- 5.1
Port construction and dredging	0	0	0	0	0	0	0.0	n.	n.
Fishing	0	0	0	0	0	0	0.0	n.	n.
Port trade	25	34	37	31	28	29	0.1	+ 5.1	+ 3.2
Port authority	150	150	155	160	156	156	0.6	+ 0.1	+ 0.9
Public sector	241	248	250	242	249	245	0.9	- 1.5	+ 0.3
Allocation (p.m.)	68	87	97	92	67	75	-	+ 11.5	+ 2.0
NON-MARITIME CLUSTER	24,805	25,168	24,040	23,222	23,815	24,264	89.2	+ 1.9	- 0.4
TRADE	2,010	1,967	2,198	2,225	2,214	2,200	8.1	- 0.6	+ 1.8
INDUSTRY	21,185	21,317	19,979	19,281	19,730	20,254	74.5	+ 2.7	- 0.9
Energy	277	320	283	285	274	282	1.0	+ 2.9	+ 0.3
Fuel production	59	79	87	91	92	95	0.4	+ 3.1	+ 10.2
Chemicals	2,116	2,116	1,946	1,951	1,994	1,995	7.3	+ 0.0	- 1.2
Car manufacturing	8,798	8,907	8,123	7,756	8,283	8,726	32.1	+ 5.4	- 0.2
Electronics	728	708	647	614	633	622	2.3	- 1.8	- 3.1
Metalworking industry	6,403	6,364	6,030	5,727	5,689	5,687	20.9	- 0.0	- 2.3
Construction	1,097	1,091	1,223	1,265	1,179	1,224	4.5	+ 3.8	+ 2.2
Food industry	562	590	604	600	581	585	2.1	+ 0.6	+ 0.8
Other industries	1,146	1,142	1,037	993	1,005	1,038	3.8	+ 3.3	- 2.0
LAND TRANSPORT	757	966	972	911	855	764	2.8	- 10.7	+ 0.2
Road transport	523	693	675	616	623	564	2.1	- 9.5	+ 1.5
Other land transport	235	273	298	295	232	200	0.7	- 14.0	- 3.2
OTHER LOGISTIC SERVICES ...	852	917	890	806	1,016	1,046	3.8	+ 3.0	+ 4.2
INDIRECT EFFECTS	37,998	39,800	30,925	30,963	32,534	32,559	-	+ 0.1	- 3.0
MARITIME CLUSTER	2,842	2,959	3,022	3,045	3,121	3,227	-	+ 3.4	+ 2.6
NON-MARITIME CLUSTER	35,155	36,841	27,903	27,918	29,413	29,332	-	- 0.3	- 3.6
TOTAL EMPLOYMENT	65,465	67,665	57,847	56,986	59,229	59,759	-	+ 0.9	- 1.8

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).

The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

TABLE 26 EMPLOYMENT TOP 10 AT THE PORT OF GHENT IN 2012

Ranking	Company name	Sector
1	ARCELORMITTAL BELGIUM	Metalworking industry
2	VOLVO CARS	Car manufacturing
3	VOLVO GROUP BELGIUM	Car manufacturing
4	DSV SOLUTIONS (AUTOMOTIVE)	Cargo handling
5	DENYS	Construction
6	HONDA MOTOR EUROPE LOGISTICS	Trade
7	STORA ENSO LANGERBRUGGE	Other industries
8	GE INDUSTRIAL BELGIUM	Electronics
9	TAMINCO	Chemicals
10	TOWER AUTOMOTIVE BELGIUM	Car manufacturing

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

TABLE 27 INVESTMENT AT THE PORT OF GHENT FROM 2007 TO 2012
(in € million - current prices)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
MARITIME CLUSTER	121.0	97.9	89.2	85.9	58.1	56.3	13.4	- 3.1	- 14.2
Shipping agents and forwarders	8.9	5.1	2.6	9.4	4.8	2.8	0.7	- 41.9	- 20.9
Cargo handling	47.7	37.9	44.9	37.4	26.8	35.8	8.5	+ 33.6	- 5.6
Shipping companies	10.5	21.3	11.5	9.1	5.6	2.7	0.6	- 53.0	- 24.0
Shipbuilding and repair	0.6	0.6	0.9	3.5	0.9	0.4	0.1	- 55.4	- 6.7
Port construction and dredging	0.0	0.0	0.0	0.0	0.5	0.2	0.0	- 66.8	+ 29.9
Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Port trade	0.2	0.0	0.0	0.0	0.0	0.0	0.0	n.	- 100.0
Port authority	27.0	19.3	21.6	15.2	9.9	6.7	1.6	- 31.8	- 24.2
Public sector	26.2	13.7	7.7	11.2	9.6	7.8	1.9	- 19.0	- 21.5
Allocation (p.m.)	10.7	10.4	7.9	12.0	7.0	4.6	-	- 33.8	- 15.3
NON-MARITIME CLUSTER	582.2	613.5	502.8	418.9	379.4	363.4	86.6	- 4.2	- 9.0
TRADE	40.3	47.4	40.9	34.0	33.4	37.4	8.9	+ 12.1	- 1.5
INDUSTRY	510.0	537.6	432.4	358.2	310.1	290.3	69.2	- 6.4	- 10.7
Energy	61.1	125.4	166.9	115.4	38.6	20.4	4.9	- 47.2	- 19.7
Fuel production	72.0	55.9	11.7	3.9	4.2	5.7	1.4	+ 34.5	- 39.8
Chemicals	76.5	65.1	35.5	35.0	52.6	58.1	13.8	+ 10.6	- 5.3
Car manufacturing	114.8	99.0	56.0	53.8	86.7	72.5	17.3	- 16.4	- 8.8
Electronics	5.2	6.3	3.0	5.1	4.2	2.8	0.7	- 33.0	- 11.5
Metalworking industry	113.4	77.0	56.0	59.2	63.9	71.3	17.0	+ 11.4	- 8.9
Construction	11.5	15.8	21.0	18.8	30.2	23.8	5.7	- 21.1	+ 15.7
Food industry	29.4	30.2	21.0	12.0	15.0	16.1	3.8	+ 7.4	- 11.3
Other industries	26.1	62.9	61.2	54.8	14.6	19.6	4.7	+ 34.3	- 5.6
LAND TRANSPORT	14.2	15.8	11.1	9.4	16.0	27.5	6.5	+ 71.5	+ 14.1
Road transport	11.9	12.3	9.9	3.7	4.6	3.6	0.9	- 21.1	- 21.1
Other land transport.....	2.3	3.5	1.2	5.7	11.4	23.9	5.7	+ 109.0	+ 59.4
OTHER LOGISTIC SERVICES	17.7	12.7	18.4	17.3	19.9	8.2	2.0	- 58.7	- 14.2
DIRECT INVESTMENT	703.1	711.4	591.9	504.8	437.5	419.8	100.0	- 4.1	- 9.8

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office and on surveys).

TABLE 28 INVESTMENT TOP 10 AT THE PORT OF GHENT IN 2012

Ranking	Company name	Sector
1	ARCELORMITTAL BELGIUM	Metalworking industry
2	VOLVO CARS	Car manufacturing
3	BNRC GROUP	Other land transport
4	TAMINCO	Chemicals
5	KLUIZENDOK TANK TERMINAL	Cargo handling
6	VOLVO GROUP BELGIUM	Car manufacturing
7	KRONOS EUROPE	Chemicals
8	ALCO ENERGY	Energy
9	OLEON	Chemicals
10	PUBLIC SECTOR	Public sector

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

4 PORT OF OSTEND

4.1 Port developments⁴⁹

The decline in the level of traffic in the port of Ostend not very surprisingly continued in 2012, as the port authorities have decided to focus their efforts on catering for industries specialising in offshore and renewable energy. As a result, the port of Ostend reports increased activity within its sphere, in spite of recording fewer transshipment operations.

Logging a 16.8 % fall in traffic, the port of Ostend is moving towards 3 million tonnes being handled per annum. Loaded and unloaded roll-on/roll-off volumes fell by one-fifth, whereas dry bulk was down by nearly 9 %. The port made a series of investments in 2012 focused on storage capacities with a view to reversing the downward trend. The number of cruise liners calling into the port was disappointing, with solely 12 moorings during the year.

Subsequent to the withdrawal of LD Lines in 2011, the only route being operated from the port in 2012 was the Ostend-Ramsgate one, with the company Transeuropa Ferries using two ferries to make the crossing between the two ports. The company unfortunately ceased providing services during the second half of April 2013 and filed for bankruptcy shortly afterwards, owing huge sums to employees, several suppliers, including the owner of the vessels operated by Transeuropa Ferries and the fuel suppliers, the Belgian and UK public authorities. No scheduled roll-on/roll-off services have been handled from Ostend since then.

In view of the port of Ostend's firm commitment to renewable energy, investments have been made in consolidating the bearing capacity of one of its existing terminals in order to achieve a 20T/m² capacity. A new terminal has also been created in order to be able to handle even heavier and more impressive turbine components. The buildings are gradually being refurbished to offer firms appropriate facilities. The port is also hoping to attract firms in the business of building and maintaining offshore wind farms. Meanwhile, the "Greenbridge Incubation Centre" is being expanded in the inner harbour in order to develop new renewable energy techniques.

The direct value added produced by the port of Ostend was up by 3.1 % in 2012 (+1.2 % by volume). The greater contribution of the indirect effects extended the growth of total value added to 3.5 % (1.7 % by volume). As in previous years direct value added and total value added represented respectively 0.2 and 0.4 % of Flemish GDP. In 2012, the share of direct and total value added in Belgian GDP amounted to 0.1 and 0.3 % respectively.

Direct employment in the port of Ostend expanded by 7.8 %. It was at its highest point for the last six years. The total of direct and indirect employment was up by 13.1 % in 2012. As in the previous year, the workforce in the firms under review at the port corresponded to 0.2 % of employment in the Flemish Region. Total employment – direct plus indirect employment – came to 0.5 % of Flemish employment, 0.1 percentage point more than in 2011. In 2012, direct and total employment represented 0.1 and 0.3 % respectively of Belgian employment.

4.2 Value added

Direct value added in the port of Ostend was up by 3.1 % in 2012. The maritime cluster enjoyed an increase in value added. The value added generated in the port construction and dredging segment remained huge while in cargo handling the company "Renewable Energy base Ostend" recorded a rise of its turnover. In the non-maritime cluster, trade, land transport and other logistic services declined. In road transport, some companies suffered from depressed profit margins. In other logistics services, Tractebel Engineering set up a new business unit in the port zone. It lessened the negative impact of the operating losses of Electrawinds. In this segment, value added was down by 14.3 %. In the industry sector, energy, food industry and other industries were the only segments to post a downward trend in their value added. In the construction segment, Verhelst Aannemingen moved into the port and boosted

⁴⁹ Sources: *Annual Report 2012*, Port of Ostend and *De Vlaamse havens. Feiten, statistieken en indicatoren voor 2012*, Jean-Pierre Merckx and Dirk Neyts, Vlaamse Havencommissie.

value added of the segment. In total, value added in industry and in the non-maritime cluster was up by 5.9 and 3 % respectively.

4.3 Employment

Direct employment in the port of Ostend expanded by 7.8 % in 2012. The maritime cluster was up by 5.8 %. Cargo handling and port construction and dredging were the main segments accounting for the rise. Baggerwerken Decloedt en zoon, an important dredging company in Ostend, boosted its staff number. In the shipping companies segment, Transeuropa Ferries went into bankruptcy in 2013. In the non-maritime cluster, every sector was up. In industry, employment in the chemicals segment contracted due to the restructuring of Bonar Xirion. Construction benefited from Verhelst Aannemingen moving into the port zone. Employment in the other industries segment was hit by the collapse of Metco Recycling. In road transport, two companies took on staff and a third one moved into the port zone. Employment in the non-maritime cluster was up by 9.3 %.

4.4 Investment

In 2012, investment in the maritime cluster at the port of Ostend was up by 14.1 %. In the port construction and dredging segment, investment increased by a third thanks to Baggerwerken Decloedt en zoon. The public sector had ordered the building of two new outer harbour dams in order to improve access to the port. They were finished mid-2012. In the non-maritime cluster, investment was slightly down. The increase in trade and other logistic services was offset by the decrease in industry and land transport. Daikin Europe in metalworking industry adapted its production lines to produce its new models. In other logistic services, two main investors were Electrawinds and Greenbridge Incubatie-en Innovatiecentrum Gent-Oostende. Investment in the port of Ostend was up by 3.2 %.

CHART 9 CHANGE IN DIRECT VALUE ADDED
(in € million, current prices)

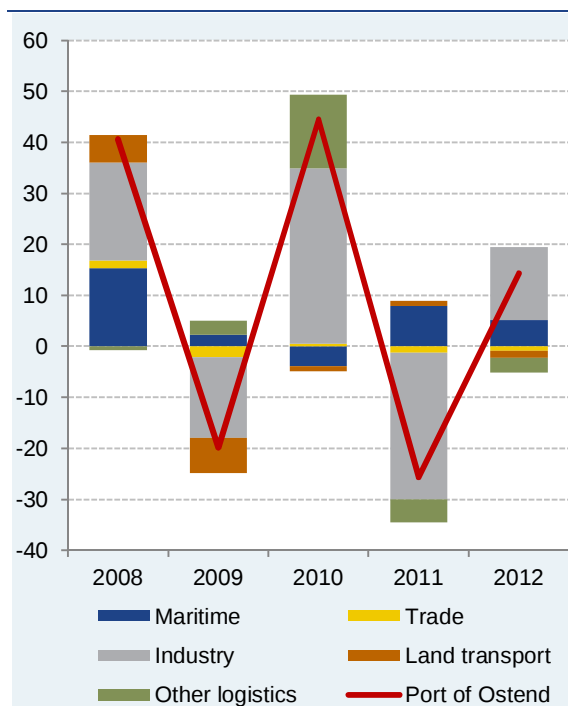
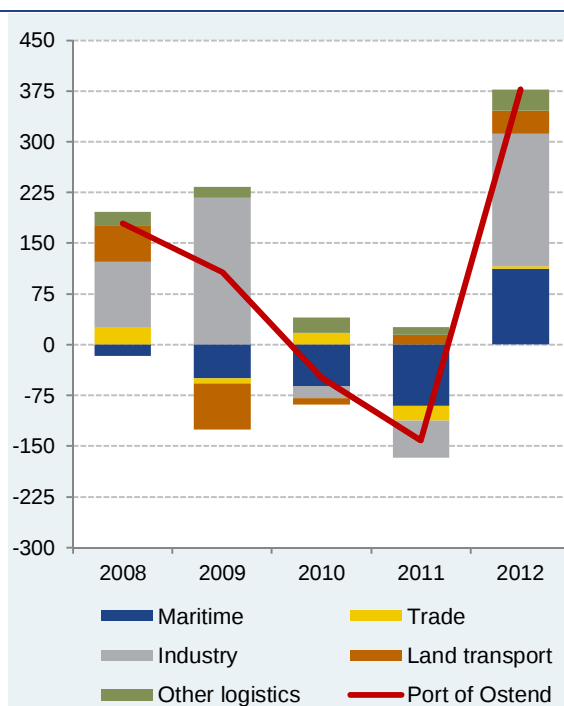


CHART 10 CHANGE IN DIRECT EMPLOYMENT
(FTE)



Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

TABLE 29 **VALUE ADDED AT THE PORT OF OSTEND FROM 2007 TO 2012**
(in € million - current prices)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
DIRECT EFFECTS	429.1	469.8	449.9	494.3	468.6	483.0	100.0	+ 3.1	+ 2.4
MARITIME CLUSTER	142.6	158.0	160.2	156.3	164.3	169.4	35.1	+ 3.1	+ 3.5
Shipping agents and forwarders	3.7	3.7	5.2	5.2	5.0	7.7	1.6	+ 54.4	+ 16.0
Cargo handling	5.8	7.1	2.6	2.6	2.1	3.9	0.8	+ 90.7	- 7.4
Shipping companies	-1.0	9.0	0.2	0.2	0.5	0.2	0.0	- 63.1	- 171.6
Shipbuilding and repair	14.0	11.8	12.6	13.4	12.7	12.4	2.6	- 1.8	- 2.3
Port construction and dredging	30.2	41.9	55.4	47.7	61.1	63.1	13.1	+ 3.3	+ 15.9
Fishing	42.7	36.6	38.4	40.2	36.2	34.1	7.1	- 5.8	- 4.4
Port trade	0.2	0.3	0.4	0.4	0.4	0.5	0.1	+ 21.3	+ 19.9
Port authority	4.7	4.6	3.0	3.2	2.0	3.6	0.7	+ 82.0	- 5.2
Public sector	42.4	43.0	42.5	43.3	44.3	43.8	9.1	- 1.2	+ 0.7
Allocation (p.m.)	14.3	11.0	11.3	12.7	11.1	9.4	-	- 15.9	- 8.1
NON-MARITIME CLUSTER	286.5	311.8	289.7	338.0	304.4	313.6	64.9	+ 3.0	+ 1.8
TRADE	18.2	19.6	17.4	17.8	16.6	15.7	3.2	- 5.4	- 2.9
INDUSTRY	234.8	254.1	238.3	272.8	244.0	258.4	53.5	+ 5.9	+ 1.9
Energy	3.7	-6.1	13.6	28.5	23.0	19.9	4.1	- 13.6	+ 40.3
Fuel production	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Chemicals	33.3	34.5	38.5	39.3	33.3	36.2	7.5	+ 8.8	+ 1.7
Car manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Electronics	0.7	1.0	1.0	1.2	0.7	0.8	0.2	+ 2.7	+ 0.4
Metalworking industry	175.8	203.0	154.9	174.5	151.0	151.9	31.5	+ 0.6	- 2.9
Construction	5.8	6.2	16.0	16.5	19.4	36.3	7.5	+ 87.0	+ 44.1
Food industry	6.7	6.1	6.2	5.3	7.5	6.9	1.4	- 7.9	+ 0.6
Other industries	8.7	9.4	8.1	7.5	9.0	6.4	1.3	- 29.6	- 6.1
LAND TRANSPORT	25.6	31.0	24.0	23.0	24.0	22.5	4.7	- 5.9	- 2.6
Road transport	22.9	28.9	24.0	23.0	24.0	21.9	4.5	- 8.4	- 0.8
Other land transport	2.8	2.1	0.0	0.0	0.0	0.6	0.1	n.	- 26.4
OTHER LOGISTIC SERVICES ...	7.9	7.2	10.0	24.4	19.8	17.0	3.5	- 14.3	+ 16.6
INDIRECT EFFECTS	358.8	412.0	420.5	431.4	461.7	480.1	-	+ 4.0	+ 6.0
MARITIME CLUSTER	101.1	124.2	177.4	163.5	198.5	198.5	-	+ 0.0	+ 14.4
NON-MARITIME CLUSTER	257.7	287.8	243.1	267.8	263.2	281.5	-	+ 7.0	+ 1.8
TOTAL VALUE ADDED	788.0	881.8	870.4	925.7	930.3	963.0	-	+ 3.5	+ 4.1

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).

The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

TABLE 30 **VALUE ADDED TOP 10 AT THE PORT OF OSTEND IN 2012**

Ranking	Company name	Sector
1	DAIKIN EUROPE	Metalworking industry
2	BAGGERWERKEN DECLOEDT EN ZOON	Port construction and dredging
3	PUBLIC SECTOR	Public sector
4	PROVIRON FUNCTIONAL CHEMICALS	Chemicals
5	ELECTRAWINDS BIOSTOOM	Energy
6	VERHELST AANNEMINGEN	Construction
7	MORUBEL	Fishing
8	ALGEMENE ONDERNEMINGEN SOETAERT	Construction
9	BELGIAN NAVY	Public sector
10	PROVIRON BASIC CHEMICALS	Chemicals

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics.

The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics.

No individual figures are published as accurate data could not be obtained for all companies.

TABLE 31 EMPLOYMENT AT THE PORT OF OSTEND FROM 2007 TO 2012
(FTE)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
DIRECT EFFECTS	4,712	4,891	4,999	4,950	4,808	5,185	100.0	+ 7.8	+ 1.9
MARITIME CLUSTER	2,159	2,142	2,092	2,032	1,941	2,053	39.6	+ 5.8	- 1.0
Shipping agents and forwarders	50	55	72	68	67	61	1.2	- 9.8	+ 3.9
Cargo handling	174	163	125	91	59	70	1.4	+ 18.8	- 16.6
Shipping companies	5	34	1	1	1	0	0.0	- 80.8	- 45.8
Shipbuilding and repair	259	237	232	228	207	192	3.7	- 7.2	- 5.8
Port construction and dredging	328	352	348	352	370	531	10.2	+ 43.7	+ 10.1
Fishing	515	498	505	496	425	423	8.2	- 0.5	- 3.9
Port trade	4	5	6	6	7	8	0.2	+ 11.1	+ 14.9
Port authority	47	46	44	40	43	44	0.9	+ 3.5	- 1.4
Public sector	776	752	759	750	761	723	13.9	- 5.0	- 1.4
Allocation (p.m.)	191	171	156	155	132	123	-	- 6.9	- 8.4
NON-MARITIME CLUSTER	2,553	2,749	2,906	2,918	2,867	3,132	60.4	+ 9.3	+ 4.2
TRADE	178	203	195	213	191	195	3.8	+ 2.3	+ 1.9
INDUSTRY	1,922	2,020	2,238	2,220	2,165	2,360	45.5	+ 9.0	+ 4.2
Energy	22	34	50	59	68	69	1.3	+ 1.6	+ 26.2
Fuel production	0	0	0	0	0	0	0.0	n.	n.
Chemicals	417	416	440	393	336	325	6.3	- 3.3	- 4.9
Car manufacturing	0	0	0	0	0	0	0.0	n.	n.
Electronics	11	12	12	23	11	10	0.2	- 10.7	- 1.3
Metalworking industry	1,222	1,293	1,322	1,317	1,319	1,318	25.4	- 0.1	+ 1.5
Construction	103	105	229	246	256	475	9.2	+ 85.2	+ 35.7
Food industry	87	88	107	105	104	101	1.9	- 2.5	+ 3.1
Other industries	62	73	77	78	70	62	1.2	- 12.2	+ 0.1
LAND TRANSPORT	369	421	352	342	357	391	7.5	+ 9.6	+ 1.2
Road transport	320	385	352	342	357	381	7.4	+ 6.9	+ 3.6
Other land transport	49	35	0	0	0	9	0.2	n.	- 28.1
OTHER LOGISTIC SERVICES	84	105	121	143	154	186	3.6	+ 20.7	+ 17.3
INDIRECT EFFECTS	4,054	4,501	4,622	4,773	4,657	5,521	-	+ 18.5	+ 6.4
MARITIME CLUSTER	1,353	1,593	1,624	1,707	1,606	1,940	-	+ 20.8	+ 7.5
NON-MARITIME CLUSTER	2,701	2,907	2,998	3,066	3,052	3,581	-	+ 17.3	+ 5.8
TOTAL EMPLOYMENT	8,766	9,392	9,621	9,722	9,466	10,706	-	+ 13.1	+ 4.1

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).

The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

TABLE 32 EMPLOYMENT TOP 10 AT THE PORT OF OSTEND IN 2012

Ranking	Company name	Sector
1	DAIKIN EUROPE	Metalworking industry
2	PUBLIC SECTOR	Public sector
3	BAGGERWERKEN DECLOEDT EN ZOON	Port construction and dredging
4	VERHELST AANNEMINGEN	Construction
5	PROVIRON FUNCTIONAL CHEMICALS	Chemicals
6	BELGIAN NAVY	Public sector
7	WIM BOSMAN LOGISTIC SERVICES	Road transport
8	ALGEMENE ONDERNEMINGEN SOETAERT	Construction
9	CLEMACO CONTRACTING	Shipbuilding and repair
10	MORUBEL	Fishing

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

TABLE 33 INVESTMENT AT THE PORT OF OSTEND FROM 2007 TO 2012
(in € million - current prices)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
MARITIME CLUSTER	85.3	90.3	76.6	49.4	24.5	27.9	29.8	+ 14.1	- 20.0
Shipping agents and forwarders	1.8	1.5	1.3	0.4	0.6	0.4	0.4	- 35.9	- 26.4
Cargo handling	1.5	3.2	0.9	0.2	5.5	2.1	2.3	- 61.2	+ 7.5
Shipping companies	24.4	2.9	0.0	0.1	0.4	0.1	0.1	- 88.1	- 70.9
Shipbuilding and repair	2.1	2.0	1.4	1.3	2.4	0.6	0.6	- 77.3	- 23.4
Port construction and dredging	39.6	55.7	28.9	24.8	2.6	3.4	3.7	+ 34.2	- 38.6
Fishing	7.0	7.8	5.5	9.6	6.7	8.9	9.6	+ 34.3	+ 5.0
Port trade	0.0	0.0	0.0	0.0	0.1	0.0	0.0	- 46.8	+ 15.9
Port authority	4.0	3.0	1.6	0.9	2.0	2.0	2.1	- 0.3	- 13.0
Public sector	4.9	14.1	37.0	12.1	4.2	10.3	11.1	+ 147.9	+ 16.3
Allocation (p.m.)	3.8	3.9	3.8	5.3	4.1	4.6	-	+ 12.2	+ 4.0
NON-MARITIME CLUSTER	69.9	93.8	43.7	52.9	66.2	65.6	70.2	- 0.9	- 1.3
TRADE	6.3	4.0	2.6	3.2	4.7	5.7	6.1	+ 20.9	- 1.9
INDUSTRY	48.6	80.4	30.6	39.8	44.3	37.3	39.9	- 15.8	- 5.1
Energy	7.0	56.3	8.9	21.4	13.2	2.1	2.3	- 83.8	- 21.3
Fuel production	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Chemicals	25.6	7.1	1.8	3.5	5.6	9.2	9.9	+ 64.7	- 18.5
Car manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Electronics	0.1	0.0	0.1	0.1	0.5	0.1	0.1	- 79.9	- 6.2
Metalworking industry	10.9	12.6	13.8	6.9	12.8	13.2	14.1	+ 2.9	+ 3.9
Construction	1.3	1.1	4.1	5.3	5.8	10.8	11.5	+ 87.3	+ 53.7
Food industry	0.5	0.7	0.2	0.6	0.8	0.8	0.8	- 6.7	+ 8.5
Other industries	3.1	2.6	1.7	2.1	5.7	1.2	1.2	- 79.6	- 17.8
LAND TRANSPORT	8.7	4.1	1.8	4.1	6.0	5.7	6.1	- 4.4	- 8.0
Road transport	7.4	4.1	1.8	3.0	5.6	5.7	6.1	+ 2.3	- 4.9
Other land transport	1.3	0.0	0.0	1.2	0.4	0.0	0.0	- 100.0	- 100.0
OTHER LOGISTIC SERVICES ...	6.3	5.3	8.7	5.9	11.1	16.8	18.0	+ 51.5	+ 21.5
DIRECT INVESTMENT	155.2	184.1	120.3	102.3	90.6	93.5	100.0	+ 3.2	- 9.6

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office and on surveys).

TABLE 34 INVESTMENT TOP 10 AT THE PORT OF OSTEND IN 2012

Ranking	Company name	Sector
1	DAIKIN EUROPE	Metalworking industry
2	PUBLIC SECTOR	Public sector
3	ELECTRAWINDS	Other services
4	GREENBRIDGE INCUBATIE-EN INNOVATIECENTRUM GENT-OOSTENDE	Other services
5	TOPAN	Construction
6	PROVIRON FUNCTIONAL CHEMICALS	Chemicals
7	BAGGERWERKEN DECLOEDT EN ZOON	Port construction and dredging
8	DE BRUYCKER	Trade
9	VERHELST AANNEMINGEN	Construction
10	OSTEND PORT AUTHORITY	Port authority

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

5 PORT OF ZEEBRUGGE

5.1 Port developments⁵⁰

Maritime traffic in the port of Zeebrugge saw a 7.3 % decline in 2012. This was the port's fall for the second year running. It may be said that all the Flemish ports lost ground in 2012 but the lower level of traffic in the port of Zeebrugge fell short of its performance in 2009 and 2010, hence it was the worst of the last four years for the Flemish port. The tonnage handled was nonetheless higher than the tonnage reported during the period prior to 2009.

Container traffic narrowed to just under 11 %. The volume of containers handled travelling to and from the Far East plummeted, having a particularly negative impact on the aggregate figures because this destination provides the port with a significant market share. TEU container traffic fell by 11 %. Liquid bulk traffic also declined sharply (-7 %). Higher natural gas prices in Asia as a result of the Fukushima disaster in Japan and the decommissioning of nuclear power stations adversely affected gas imports in Europe. Natural gas prices differed significantly from one part of the world to another during that period. For example, there has been a lasting decline in gas prices in the United States with the growth in unconventional natural gas developments, while Asian prices rocketed after the March 2011 tsunami in Japan. European prices remained at an intermediate level. Qatar redirected its exports to Europe in 2011, scaling down forecasts for trade with the United States. The level of demand for gas expanded in Asia, while Indonesian exports contracted. Qatar has therefore once again been compelled to review its export policy. Furthermore, lower European consumption in 2012 coincided with the continent's higher natural gas pipeline imports and much lower level of imports using maritime transport systems. All of these factors are to blame for the fall in gas imports to Zeebrugge by sea.

In the case of roll-on/roll-off traffic, the number of lorries has declined (-5 %) while the number of handled new cars held up and was even close to 1.75 million vehicles but the roll-on/roll-off trade with the United Kingdom shrank and the higher level of traffic with Ireland and Southern Europe did not fully compensate for the downturn. Ultimately, roll-on/roll-off traffic excluding containers into and from the port of Zeebrugge, expressed in tonnes, was virtually 4 % lower. The same trend applies to dry bulk. Conversely, general cargo saw a very strong increase, chiefly as a result of transshipments of wood pulp, paper and cardboard, most of which came from Scandinavia and the east coast of the American continent.

The direct value added of the port of Zeebrugge declined by 1.5 % against 2011 (-3.2 % by volume). As a result of a rise of indirect value added, the total value added grew by 0.7 %. Direct and total value added in 2012 represented 0.4 and 0.8 % respectively of the GDP of the Flemish Region. In relation to Belgian GDP, the figures for 2012 remained unchanged at 0.3 and 0.5 % respectively.

Direct employment at the port of Zeebrugge was up by 0.8 % in 2012. Indirect employment increased by 3.4 %. The proportion of direct and total employment in Flemish employment remained stable at 0.4 and 0.9 % respectively. The share of direct employment in Belgian employment rose 0.1 percentage point to 0.3 %, while the share of total employment remained stable at 0.5 %.

5.2 Value added

Direct value added in the port of Zeebrugge was up by 4.8 % in the maritime cluster but down by 8.1 % in the non-maritime cluster. In the former, value added in shipping companies, driven by Cobelfret Ferries, and in shipping agents and forwarders expanded by 30 and 25.5 % respectively. In shipping agents and forwarders, several companies recorded a growth of value added. In port construction and dredging, the turnover of Artes Depret increased. In the non-maritime cluster, value added in trade and other logistic services expanded, while in land transport and industry it was down. In the latter, it fell by 14.7 %. The energy segment has been strongly influenced by the drop in value added generated by firms belonging to the Fluxys group. In electronics, the local plant of Philips Innovative Applications was taken over by TP Vision Belgium and the value added generated by the business unit in 2012 fell. The results of food industry must be handled cautiously as data is lacking after the takeover of Confiserie

⁵⁰ Source: *Annual Report 2012* of the Zeebrugge Port Authority.

Kathy by Baronie and the implementation of a new organization. In land transport, it fell to the lowest point for the last seven years.

5.3 Employment

After three years of decline, employment expanded in the port of Zeebrugge in both the maritime and non-maritime clusters. In the maritime cluster, cargo handlers and shipping agents and forwarders increased staff by more than 60 full-time equivalents. By contrast, the public sector and the navy reduced their staff in the port zone. In the non-maritime cluster, only employment in industry expanded. In trade, land transport and other logistic services, it declined. The jobs cut in one company and the moving of another firm out of the port zone has had a negative influence on the trade segment. The increase in employment in electronics industry is largely attributable to TP Vision Belgium. The construction segment continued to lost jobs due to the restructuring of AGC Seapane. The results of food industry must be handled cautiously as data is lacking after the takeover of Confiserie Kathy by Baronie and the implementation of a new organization. In road transport, several companies have made job cuts while following the reorganization of a firm in other logistic services, the number of staff working at the port of Zeebrugge site was trimmed down.

5.4 Investment

After a sharp decline in investment in 2011, the maritime cluster at the port of Zeebrugge recorded once again a decrease of one-fifth in 2012. Most of segments for this cluster were down. Investment in cargo handling had fallen by a fifth and in public sector was cut by half. Only investment for fishing was significantly up. Among other works, the port authority invested in deepening the eastern quay wall of the western peninsula (CHZ quay), in building a second landing stage in the LNG dock and in finishing the southern quay wall (262 m) and the landside crane beam (386 m) of the Albert II dock in the western port. In the non-maritime cluster, investment in trade and industry expanded, while it declined in land transport and other logistic services. In food industry, the largest investment was recorded by P.B.I. Fruit Juice Company. The firm has enlarged its manufacturing plant and fit up a new production line. In the other industries segment, Intergemeentelijk samenwerkingsverband voor Vuilverwijdering en-Verwerking in Brugge en Ommeland (IVBO) operated its new condensing turbine with an electrical capacity of 12MWe (Megawatt electric) and nominal 16MWe up. Thanks to this, IVBO has provided not only its own electricity and heat demand, but also enough electricity to the grid for an average consumption of 20,000 families. Overall, the non-maritime cluster recorded a 1.5 % contraction.

CHART 11 CHANGE IN DIRECT VALUE ADDED
(in € million, current prices)

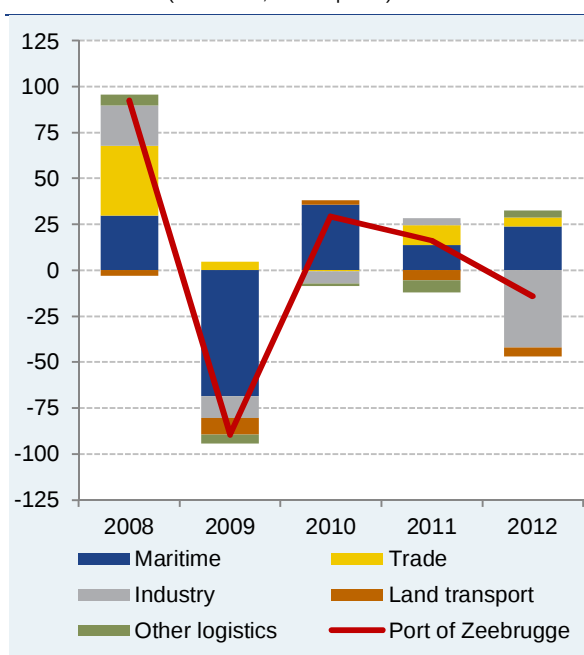
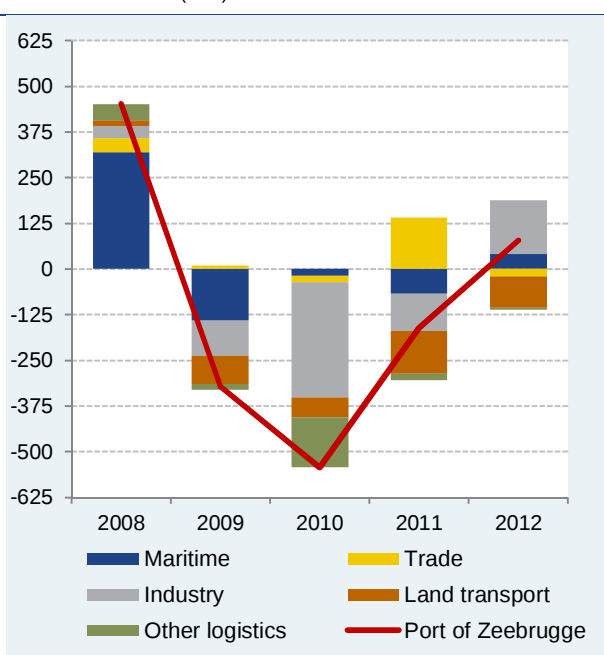


CHART 12 CHANGE IN DIRECT EMPLOYMENT
(FTE)



Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

TABLE 35 **VALUE ADDED AT THE PORT OF ZEEBRUGGE FROM 2007 TO 2012**
(in € million - current prices)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
DIRECT EFFECTS	921.9	1,014.5	924.9	954.3	970.3	956.1	100.0	- 1.5	+ 0.7
MARITIME CLUSTER	485.4	515.4	446.9	482.6	496.4	520.5	54.4	+ 4.8	+ 1.4
Shipping agents and forwarders	49.0	51.7	55.4	41.3	43.2	54.2	5.7	+ 25.5	+ 2.0
Cargo handling	196.5	211.8	184.7	201.5	204.2	205.1	21.5	+ 0.4	+ 0.9
Shipping companies	39.0	53.0	8.4	24.0	33.4	43.5	4.5	+ 30.0	+ 2.2
Shipbuilding and repair	8.5	8.7	7.8	9.3	9.1	9.6	1.0	+ 5.2	+ 2.5
Port construction and dredging	12.8	13.6	13.8	18.9	16.6	20.9	2.2	+ 25.5	+ 10.2
Fishing	45.9	43.1	42.7	47.7	48.7	48.3	5.1	- 0.8	+ 1.0
Port trade	0.5	0.6	0.6	0.6	0.5	0.6	0.1	+ 17.4	+ 5.3
Port authority	29.1	31.1	31.8	33.5	35.2	34.1	3.6	- 2.9	+ 3.3
Public sector	104.1	101.9	101.8	105.6	105.4	104.1	10.9	- 1.3	- 0.0
Allocation (p.m.)	13.4	12.5	9.8	14.2	18.0	19.8	-	+ 9.5	+ 8.1
NON-MARITIME CLUSTER	436.5	499.1	477.9	471.6	473.9	435.7	45.6	- 8.1	- 0.0
TRADE	47.4	85.1	89.7	89.0	99.9	104.6	10.9	+ 4.7	+ 17.1
INDUSTRY	278.6	300.8	288.8	282.2	285.8	243.7	25.5	- 14.7	- 2.6
Energy	53.0	80.0	92.1	97.6	107.4	95.0	9.9	- 11.6	+ 12.4
Fuel production	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Chemicals	28.9	29.4	27.6	30.2	31.3	28.6	3.0	- 8.5	- 0.2
Car manufacturing	0.4	0.5	0.3	0.4	0.5	0.7	0.1	+ 52.5	+ 12.0
Electronics	73.0	69.9	70.2	52.6	55.1	25.0	2.6	- 54.6	- 19.3
Metalworking industry	9.3	8.2	6.9	9.0	9.0	8.5	0.9	- 4.9	- 1.7
Construction	44.6	43.2	35.4	34.1	25.7	22.7	2.4	- 11.5	- 12.6
Food industry	27.4	30.0	20.2	24.5	24.3	32.1	3.4	+ 32.1	+ 3.2
Other industries	42.0	39.6	36.2	33.9	32.6	31.0	3.2	- 4.9	- 5.9
LAND TRANSPORT	86.6	83.5	74.6	77.1	71.4	66.6	7.0	- 6.7	- 5.1
Road transport	72.1	68.0	60.3	63.4	60.4	57.1	6.0	- 5.4	- 4.6
Other land transport	14.5	15.5	14.2	13.6	11.0	9.5	1.0	- 13.7	- 8.0
OTHER LOGISTIC SERVICES	23.9	29.8	24.8	23.4	16.8	20.7	2.2	+ 23.3	- 2.8
INDIRECT EFFECTS	761.8	805.2	666.5	698.1	763.8	790.0	-	+ 3.4	+ 0.7
MARITIME CLUSTER	413.5	423.0	329.6	373.8	419.2	447.2	-	+ 6.7	+ 1.6
NON-MARITIME CLUSTER	348.3	382.2	336.9	324.3	344.6	342.8	-	- 0.5	- 0.3
TOTAL VALUE ADDED	1,683.8	1,819.7	1,591.4	1,652.3	1,734.2	1,746.2	-	+ 0.7	+ 0.7

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).
The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

TABLE 36 **VALUE ADDED TOP 10 AT THE PORT OF ZEEBRUGGE IN 2012**

Ranking	Company name	Sector
1	BELGIAN NAVY	Public sector
2	FLUXYS LNG	Energy
3	TOTAL BELGIUM	Trade
4	ZEEBRUGGE PORT AUTHORITY	Port authority
5	INTERNATIONAL CAR OPERATORS	Cargo handling
6	COBELFRET FERRIES	Shipping companies
7	FLUXYS BELGIUM	Energy
8	C.RO PORTS ZEEBRUGGE	Cargo handling
9	PUBLIC SECTOR	Public sector
10	CONTAINER HANDLING ZEEBRUGGE	Cargo handling

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

TABLE 37 EMPLOYMENT AT THE PORT OF ZEEBRUGGE FROM 2007 TO 2012
(FTE)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
DIRECT EFFECTS	10,569	11,021	10,700	10,157	9,995	10,073	100.0	+ 0.8	- 1.0
MARITIME CLUSTER	5,973	6,292	6,152	6,133	6,065	6,106	60.6	+ 0.7	+ 0.4
Shipping agents and forwarders	578	550	555	531	556	610	6.1	+ 9.8	+ 1.1
Cargo handling	2,498	2,682	2,622	2,659	2,597	2,659	26.4	+ 2.4	+ 1.3
Shipping companies	219	261	269	216	191	190	1.9	- 0.6	- 2.9
Shipbuilding and repair	141	133	131	135	130	132	1.3	+ 1.6	- 1.3
Port construction and dredging	171	189	180	177	181	180	1.8	- 0.7	+ 1.0
Fishing	646	622	579	585	606	608	6.0	+ 0.4	- 1.2
Port trade	9	10	9	9	9	10	0.1	+ 5.4	+ 0.6
Port authority	144	141	138	133	134	132	1.3	- 1.3	- 1.7
Public sector	1,566	1,705	1,669	1,687	1,663	1,586	15.7	- 4.6	+ 0.2
Allocation (p.m.)	272	244	197	283	286	315	-	+ 10.2	+ 2.9
NON-MARITIME CLUSTER	4,596	4,729	4,548	4,024	3,930	3,967	39.4	+ 0.9	- 2.9
TRADE	574	613	622	605	747	726	7.2	- 2.8	+ 4.8
INDUSTRY	2,400	2,434	2,337	2,021	1,919	2,068	20.5	+ 7.7	- 2.9
Energy	117	122	114	127	127	129	1.3	+ 1.6	+ 1.9
Fuel production	0	0	0	0	0	0	0.0	n.	n.
Chemicals	244	267	260	239	248	255	2.5	+ 3.0	+ 0.9
Car manufacturing	15	12	12	10	10	10	0.1	+ 7.4	- 7.0
Electronics	540	541	524	324	358	371	3.7	+ 3.5	- 7.2
Metalworking industry	145	144	136	143	142	136	1.4	- 4.2	- 1.3
Construction	457	463	461	450	373	364	3.6	- 2.3	- 4.4
Food industry	304	307	305	285	260	396	3.9	+ 52.1	+ 5.4
Other industries	578	578	526	443	401	406	4.0	+ 1.1	- 6.8
LAND TRANSPORT	1,323	1,338	1,262	1,208	1,091	1,007	10.0	- 7.7	- 5.3
Road transport	1,066	1,075	1,030	983	914	857	8.5	- 6.2	- 4.3
Other land transport	257	263	232	225	177	149	1.5	- 15.8	- 10.3
OTHER LOGISTIC SERVICES ...	299	344	327	190	173	167	1.7	- 3.5	- 11.0
INDIRECT EFFECTS	10,391	11,253	11,133	10,547	10,350	10,700	-	+ 3.4	+ 0.6
MARITIME CLUSTER	6,003	6,666	6,633	6,417	6,112	6,414	-	+ 4.9	+ 1.3
NON-MARITIME CLUSTER	4,387	4,587	4,500	4,131	4,238	4,286	-	+ 1.1	- 0.5
TOTAL EMPLOYMENT	20,960	22,274	21,833	20,704	20,345	20,773	-	+ 2.1	- 0.2

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).

The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

TABLE 38 EMPLOYMENT TOP 10 AT THE PORT OF ZEEBRUGGE IN 2012

Ranking	Company name	Sector
1	BELGIAN NAVY	Public sector
2	INTERNATIONAL CAR OPERATORS	Cargo handling
3	C.RO PORTS ZEEBRUGGE	Cargo handling
4	MARINE HARVEST PIETERS	Fishing
5	TP VISION BELGIUM	Electronics
6	PUBLIC SECTOR	Public sector
7	WALLENIUS WILHELMSSEN LOGISTICS ZEEBRUGGE	Cargo handling
8	I.V.B.O.	Other industries
9	CONTAINER HANDLING ZEEBRUGGE	Cargo handling
10	BELGIAN NEW FRUIT WHARF	Cargo handling

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics.

The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics.

No individual figures are published as accurate data could not be obtained for all companies.

TABLE 39 INVESTMENT AT THE PORT OF ZEEBRUGGE FROM 2007 TO 2012
(in € million - current prices)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
MARITIME CLUSTER	197.7	129.5	93.4	214.7	150.5	120.5	50.6	- 19.9	- 9.4
Shipping agents and forwarders	8.3	7.3	6.4	17.0	5.5	5.6	2.3	+ 0.3	- 7.7
Cargo handling	73.6	42.8	25.0	106.2	53.3	42.0	17.6	- 21.2	- 10.6
Shipping companies	63.7	2.0	1.0	7.9	1.9	1.1	0.5	- 40.4	- 55.5
Shipbuilding and repair	0.6	4.8	1.2	1.1	1.3	1.0	0.4	- 19.7	+ 11.6
Port construction and dredging	1.9	2.1	2.0	2.1	2.3	2.5	1.0	+ 7.7	+ 5.9
Fishing	7.3	10.5	9.4	13.2	10.4	14.3	6.0	+ 37.1	+ 14.5
Port trade	0.1	0.1	0.1	0.1	0.2	0.0	0.0	- 90.1	- 23.9
Port authority	21.6	30.4	27.3	34.2	33.6	34.0	14.3	+ 1.3	+ 9.6
Public sector	20.7	29.5	21.0	32.9	42.0	20.0	8.4	- 52.4	- 0.7
Allocation (p.m.)	19.5	12.5	12.2	30.7	31.3	25.3	-	- 19.1	+ 5.4
NON-MARITIME CLUSTER	113.3	133.9	77.6	121.5	119.5	117.7	49.4	- 1.5	+ 0.8
TRADE	3.9	5.8	9.6	10.6	10.6	12.5	5.2	+ 17.6	+ 26.2
INDUSTRY	67.7	84.7	50.1	72.7	64.2	69.5	29.2	+ 8.3	+ 0.5
Energy	34.7	38.3	14.8	38.1	27.1	24.4	10.2	- 10.1	- 6.9
Fuel production	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Chemicals	2.9	5.3	1.7	3.1	4.9	3.6	1.5	- 26.5	+ 4.2
Car manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Electronics	4.4	7.5	5.8	7.3	5.9	4.9	2.1	- 16.3	+ 2.0
Metalworking industry	3.1	1.1	0.9	0.3	0.3	0.4	0.2	+ 27.9	- 32.3
Construction	7.3	8.0	6.2	6.6	5.6	3.9	1.6	- 31.5	- 12.0
Food industry	8.5	18.8	14.9	6.7	4.5	15.2	6.4	+ 241.4	+ 12.3
Other industries	6.7	5.8	5.8	10.6	15.9	17.0	7.2	+ 7.4	+ 20.6
LAND TRANSPORT	27.4	28.2	11.6	25.8	39.7	32.3	13.6	- 18.5	+ 3.4
Road transport	22.1	25.7	10.3	15.4	14.6	7.1	3.0	- 51.3	- 20.3
Other land transport	5.2	2.6	1.2	10.4	25.0	25.2	10.6	+ 0.6	+ 37.0
OTHER LOGISTIC SERVICES	14.4	15.1	6.4	12.4	5.0	3.4	1.4	- 31.5	- 24.9
DIRECT INVESTMENT	311.0	263.4	171.0	336.3	270.0	238.2	100.0	- 11.8	- 5.2

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office and on surveys).

TABLE 40 INVESTMENT TOP 10 AT THE PORT OF ZEEBRUGGE IN 2012

Ranking	Company name	Sector
1	ZEEBRUGGE PORT AUTHORITY	Port authority
2	BNRC GROUP	Other land transport
3	PUBLIC SECTOR	Public sector
4	FLUXYS LNG	Energy
5	I.V.B.O.	Other industries
6	P.B.I. FRUIT JUICE COMPANY	Food industry
7	C.RO PORTS ZEEBRUGGE	Cargo handling
8	FLUXYS BELGIUM	Energy
9	ZEEMANSBLIK	Fishing
10	ZEEBRUGGE INTERNATIONAL PORT	Cargo handling

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

6 LIÈGE PORT COMPLEX

6.1 Port developments⁵¹

As the port of Liège's waterway traffic was hard hit by the discontinuation of ArcelorMittal's hot-phase activities in the Liège area, down 15.3 % within the space of one year, volumes being handled are once again similar to the levels recorded in 2009, when the crisis was felt the most severely in the Belgian maritime ports. The level of transhipped ore traffic understandably plummeted, while intra-port steel transfers were sharply reduced. However, discounting the volumes handled by ArcelorMittal and, by extension, losses owing to the closure of the Ougrée blast furnaces, the port of Liège's share of waterway traffic fell by 4 %, compared to 6 % for road traffic and the 5 % increase for tonnage carried by rail.⁵² River container traffic expressed as TEU declined by 14 %, which for the port is the outcome of a Liège operator cutting back the provision of container transport services as a reaction to the challenging economic climate.

The downturn in the Liège area's steelmaking activities prompted the Liège Port Authority to continue to step up its traffic network and diversification strategy. The Authority also pressed on with its maintenance and enhancement work policy for its port areas, including quay wall repair and surface improvement schemes for the ports of Ivoz-Ramet, Ehein, Hermalle-sous-Huy, Awirs and Loën, and renovating the area upstream of the port of Renory container terminal.

Officially founded on 21 June 1937, the Liège Port Authority, as a state body, was chiefly assigned the task of overseeing to the administration of the various public port facilities in the Liège region used by merchant shipping. The Albert canal was officially inaugurated in 1939 to allow the Liège-Antwerp route to be plied by 2000-tonne boats. It may be observed that at the same time, the Juliana canal was dug, while the ports of Rotterdam and Antwerp were competing to handle the Liège river traffic. The port therefore celebrated its 75th anniversary in 2012.

Late June 2013 was the date work got underway on building and developing the Liège Trilogiport multimodal platform. The work was scheduled to last 12 months, thus being completed for the autumn of 2014. Priority was granted to delivering materials by waterway in order to minimise the inconvenience the work causes to local residents and, more generally speaking, to road users. Forming part of the project's phase II, the work involved in building and developing the north bridge should be completed by the autumn of 2015, by which time the Liège Trilogiport should be operational.

The direct value added of the Liège port complex in 2012 fell by 16.1 % (-17.6 % by volume). Total value added, which includes the part generated upstream of the firms under review, declined by 12.1 %. The share of direct value added in the GDP of the Walloon Region was 1.4 %, this figure being down by 0.3 percentage point against 2011. It represented 0.3 % of the Belgian GDP, 0.1 percentage point less than in 2011. Total value added of the Liège port complex accounted for 2.8 % of the GDP of the Walloon Region. The share of total value added in Belgian GDP decreased 0.1 percentage point to 0.7 %.

Direct employment in the Liège port complex recorded a drop of 2.1 %. It represented 0.9 % of domestic employment in the Walloon Region of 2012. Total employment remained stable at 2.2 % of Walloon employment. In relation to employment in Belgium, the shares held steady at 0.2 % (direct employment) and 0.6 % (total employment).

6.2 Value added

Direct value added in both the maritime and non-maritime clusters of the Liège port complex dropped by 11.1 and 16.2 % respectively in 2012. The largest decline for the maritime cluster was recorded in the shipping agents and forwarders segment. Value added generated by Magetra fell as a result of the contraction of business activities. In the non-maritime cluster, the other logistic services' value added expanded by 6.4 % while it decreased in trade, industry and land transport. In the trade sector, the operating profit of Total Belgium deteriorated as a result of increasing costs. In industry, every segment

⁵¹ Source: *Press release 4 February 2013* from the Liège Port Authority.

⁵² Estimates made by the Liège Port Authority.

declined except food industry thanks to Raffinerie Tirlémontoise. In metalworking industry, the growth of Cockerill Maintenance & Ingenierie's value added couldn't offset the sharp fall of ArcelorMittal Belgium's value added. In energy, both Electrabel and EDP Luminus were down. In other industries, Intradel's operating costs increased. Value added in industry was 17.2 % down. In road transport, Cuypers Logistics suffered from the closure of ArcelorMittal's blast furnaces and from the international competition and was restructuring.

6.3 Employment

Direct employment in the Liège port complex declined by 2.1 % in 2012. It was down by 7.1 % in the maritime cluster and by 1.9 % in the non-maritime cluster. In the maritime cluster, employment was hit by the job losses in every segment except public sector. In cargo handling, Euroports Inland Terminal and Société Industrielle de Renory observed a slowdown in economic activity. Magetra's job losses exerted a downward influence on the shipping agents and forwarders segment. In the non-maritime cluster, employment was up in trade and other logistic services and down in industry and land transport. In the industry sector, every segment recorded loss of jobs except energy and other industries. In energy, Electrabel's staff number increased. In the chemicals industry, restructuring BFAN laid off part of the workforce under a collective redundancy procedure. Employment in other industries was hit by overtake of Alpha Print by Snel Graphics. In metalworking industry, the decision of ArcelorMittal group to shut down production units in Liège resulted in heavy job losses. Restructuring Cuypers Logistics has had a negative on road transport's employment.

6.4 Investment

Investment in the Liège port complex was 19.1 % up in 2012. The maritime cluster recorded an increase, due to the cargo handling and port authority segments. The rise in the non-maritime cluster is smaller in percentage terms (+19 %) but bigger in total amount. Investment in industry and other logistic services grew while it dropped in trade and land transport. In industry, investment increased in every segment except energy and construction. The energy segment benefited from maintenance work by energy producer and supplier Electrabel. Growth in investment in the metalworking industry was largely attributable to ArcelorMittal group and to Engineering Steel Belgium which installed a secondary dedusting system in order to greatly reduce dust emissions. Overall, investment in industry was up by one fifth in 2012.

CHART 13 CHANGE IN DIRECT VALUE ADDED
(in € million, current prices)

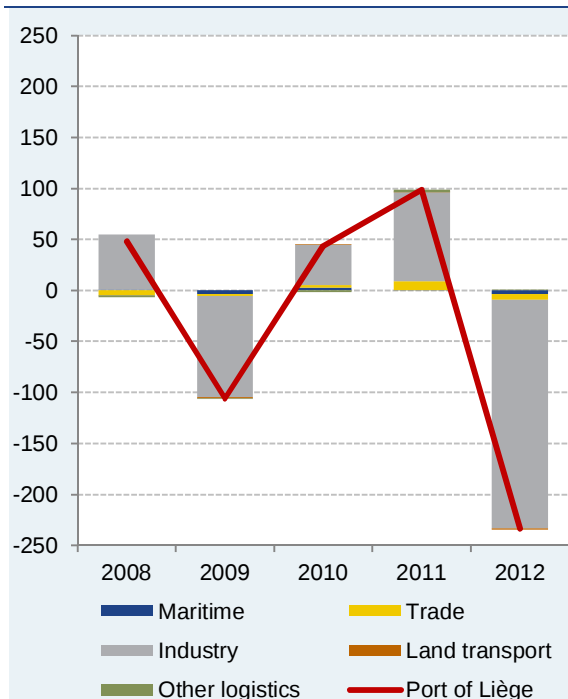
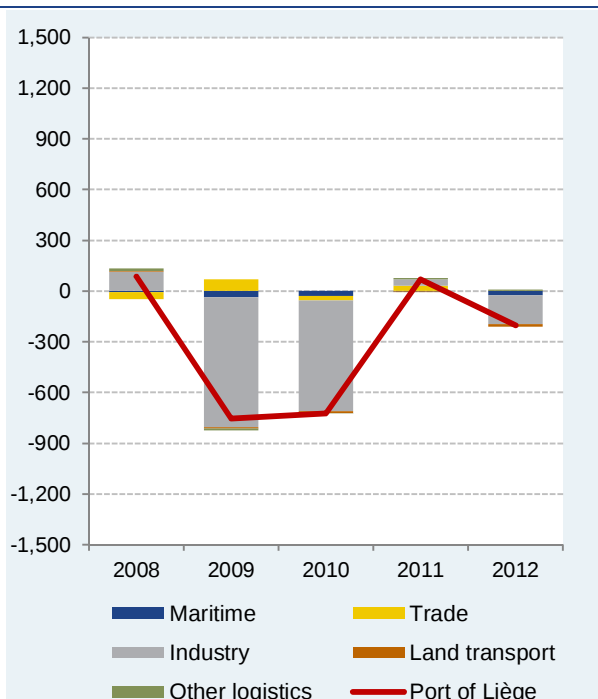


CHART 14 CHANGE IN DIRECT EMPLOYMENT
(FTE)



Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

TABLE 41 VALUE ADDED IN THE LIÈGE PORT COMPLEX FROM 2007 TO 2012
(in € million - current prices)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
DIRECT EFFECTS	1,367.6	1,415.8	1,309.8	1,353.4	1,452.1	1,218.2	100.0	- 16.1	- 2.3
MARITIME CLUSTER	32.5	33.2	29.7	32.5	32.9	29.2	2.4	- 11.1	- 2.1
Shipping agents and forwarders	8.5	8.5	9.2	11.6	11.7	8.9	0.7	- 23.9	+ 0.9
Cargo handling	16.6	16.2	14.4	14.2	14.4	13.3	1.1	- 7.7	- 4.4
Shipping companies	4.5	5.7	3.4	3.9	3.8	4.0	0.3	+ 6.5	- 2.4
Shipbuilding and repair	0.6	0.6	0.4	0.4	0.5	0.5	0.0	- 15.1	- 5.9
Port construction and dredging	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Port trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Port authority	2.2	2.4	2.4	2.4	2.5	2.6	0.2	+ 3.3	+ 2.9
Public sector	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Allocation (p.m.)									
NON-MARITIME CLUSTER	1,335.1	1,382.6	1,280.1	1,320.9	1,419.2	1,189.0	97.6	- 16.2	- 2.3
TRADE	85.7	81.2	79.3	82.1	91.1	85.6	7.0	- 6.0	- 0.0
INDUSTRY.....	1,223.0	1,276.9	1,178.0	1,217.1	1,304.2	1,079.6	88.6	- 17.2	- 2.5
Energy	305.8	342.0	450.5	453.1	536.0	421.3	34.6	- 21.4	+ 6.6
Fuel production	-2.7	-3.9	-10.7	-5.3	42.4	34.6	2.8	- 18.2	- 266.3
Chemicals	104.8	192.4	62.3	126.5	119.7	97.8	8.0	- 18.3	- 1.4
Car manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Electronics	7.2	8.6	7.7	8.5	10.3	9.4	0.8	- 8.6	+ 5.5
Metalworking industry	597.9	499.5	444.8	412.0	383.8	339.0	27.8	- 11.7	- 10.7
Construction	142.6	150.5	143.5	133.2	128.8	104.7	8.6	- 18.7	- 6.0
Food industry	20.8	33.3	25.1	22.8	20.5	23.1	1.9	+ 12.8	+ 2.1
Other industries	46.7	54.5	54.9	66.2	62.8	49.8	4.1	- 20.7	+ 1.3
LAND TRANSPORT	9.9	9.7	8.3	8.5	8.5	7.3	0.6	- 14.4	- 5.9
Road transport	8.6	8.6	7.2	7.5	7.5	6.4	0.5	- 15.2	- 5.8
Other land transport	1.3	1.1	1.1	1.0	1.0	0.9	0.1	- 7.7	- 6.7
OTHER LOGISTIC SERVICES ...	16.4	14.7	14.5	13.2	15.5	16.5	1.4	+ 6.4	+ 0.0
INDIRECT EFFECTS	1,204.3	1,365.5	1,202.0	1,188.8	1,378.3	1,268.8	-	- 7.9	+ 1.0
MARITIME CLUSTER	37.9	37.8	26.3	29.4	29.6	25.9	-	- 12.7	- 7.4
NON-MARITIME CLUSTER.....	1,166.4	1,327.7	1,175.7	1,159.5	1,348.7	1,242.9	-	- 7.8	+ 1.3
TOTAL VALUE ADDED	2,571.9	2,781.3	2,511.8	2,542.2	2,830.4	2,487.0	-	- 12.1	- 0.7

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).

The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

TABLE 42 VALUE ADDED TOP 10 AT THE LIÈGE PORT COMPLEX IN 2012

Ranking	Company name	Sector
1	ELECTRABEL	Energy
2	ARCELORMITTAL BELGIUM	Metalworking industry
3	COCKERILL MAINTENANCE & INGENIERIE	Metalworking industry
4	EDF LUMINUS	Energy
5	PRAYON	Chemicals
6	TOTAL BELGIUM	Trade
7	CIMENTERIES CBR CEMENTBEDRIJVEN	Construction
8	BIOWANZE	Fuel production
9	CARRIERES ET FOURS A CHAUX DUMONT-WAUTIER	Construction
10	IMERYS MINERAUX BELGIQUE	Chemicals

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

TABLE 43 EMPLOYMENT IN THE LIÈGE PORT COMPLEX FROM 2007 TO 2012
(FTE)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
DIRECT EFFECTS	11,123	11,208	10,456	9,733	9,804	9,603	100.0	- 2.1	- 2.9
MARITIME CLUSTER	428	422	387	359	356	330	3.4	- 7.1	- 5.0
Shipping agents and forwarders	112	109	107	100	86	79	0.8	- 7.4	- 6.6
Cargo handling	186	182	170	162	169	150	1.6	- 11.1	- 4.2
Shipping companies	78	78	63	52	55	54	0.6	- 2.4	- 7.2
Shipbuilding and repair	13	14	9	9	10	9	0.1	- 8.3	- 6.3
Port construction and dredging	0	0	0	0	0	0	0.0	n.	n.
Fishing	0	0	0	0	0	0	0.0	n.	n.
Port trade	0	0	0	0	0	0	0.0	n.	n.
Port authority	39	39	37	36	36	38	0.4	+ 5.6	- 0.5
Public sector	0	0	0	0	0	0	0.0	n.	n.
Allocation (p.m.)									
NON-MARITIME CLUSTER	10,695	10,786	10,070	9,374	9,449	9,272	96.6	- 1.9	- 2.8
TRADE	342	299	369	341	372	373	3.9	+ 0.4	+ 1.8
INDUSTRY	9,993	10,109	9,340	8,687	8,727	8,558	89.1	- 1.9	- 3.1
Energy	1,209	1,265	1,300	1,283	1,281	1,298	13.5	+ 1.3	+ 1.4
Fuel production	0	13	92	128	124	122	1.3	- 1.3	n.
Chemicals	1,003	1,060	1,071	1,078	1,085	1,075	11.2	- 0.9	+ 1.4
Car manufacturing	0	0	0	0	0	0	0.0	n.	n.
Electronics	146	134	120	116	127	127	1.3	- 0.1	- 2.8
Metalworking industry	5,989	5,980	5,165	4,439	4,461	4,336	45.2	- 2.8	- 6.3
Construction	1,002	987	905	921	900	880	9.2	- 2.2	- 2.6
Food industry	107	113	90	83	94	98	1.0	+ 5.2	- 1.7
Other industries	536	558	597	639	656	622	6.5	- 5.1	+ 3.0
LAND TRANSPORT	176	177	170	158	156	142	1.5	- 9.5	- 4.2
Road transport	153	158	152	141	140	127	1.3	- 9.4	- 3.6
Other land transport	23	19	18	17	16	14	0.1	- 10.0	- 8.9
OTHER LOGISTIC SERVICES	186	201	190	189	193	199	2.1	+ 2.9	+ 1.4
INDIRECT EFFECTS	16,119	16,192	13,639	13,896	14,168	13,917	-	- 1.8	- 2.9
MARITIME CLUSTER	629	635	479	458	456	434	-	- 4.7	- 7.1
NON-MARITIME CLUSTER	15,490	15,558	13,160	13,438	13,712	13,483	-	- 1.7	- 2.7
TOTAL EMPLOYMENT	27,242	27,400	24,095	23,629	23,972	23,520	-	- 1.9	- 2.9

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).
The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

TABLE 44 EMPLOYMENT TOP 10 AT THE LIÈGE PORT COMPLEX IN 2012

Ranking	Company name	Sector
1	ARCELORMITTAL BELGIUM	Metalworking industry
2	ELECTRABEL	Energy
3	COCKERILL MAINTENANCE & INGENIERIE	Metalworking industry
4	PRAYON	Chemicals
5	INTRADEL	Other industries
6	CIMENTERIES CBR CEMENTBEDRIJVEN	Construction
7	EDF LUMINUS	Energy
8	CARRIERES ET FOURS A CHAUX DUMONT-WAUTIER	Construction
9	SEGAL	Metalworking industry
10	ENGINEERING STEEL BELGIUM	Metalworking industry

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

TABLE 45 INVESTMENT IN THE LIÈGE PORT COMPLEX FROM 2007 TO 2012
(in € million - current prices)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
MARITIME CLUSTER	5.1	10.6	3.5	4.0	10.0	12.2	4.9	+ 22.0	+ 18.9
Shipping agents and forwarders	1.0	4.2	0.8	1.1	1.3	0.5	0.2	- 62.4	- 13.1
Cargo handling	3.1	4.7	2.4	2.3	7.7	8.1	3.3	+ 5.6	+ 21.5
Shipping companies	0.8	0.8	0.2	0.3	0.7	0.5	0.2	- 24.9	- 8.2
Shipbuilding and repair	0.1	0.1	0.0	0.0	0.0	0.0	0.0	n.	n.
Port construction and dredging	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Port trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Port authority	0.1	0.9	0.1	0.3	0.2	3.0	1.2	+ 1,153.7	+ 83.4
Public sector	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
<i>Allocation (p.m.)</i>									
NON-MARITIME CLUSTER	339.8	426.3	560.9	184.4	199.2	237.0	95.1	+ 19.0	- 7.0
TRADE	7.2	3.2	7.0	5.0	6.9	4.6	1.8	- 34.1	- 8.8
INDUSTRY	327.2	417.0	551.3	174.8	186.6	224.4	90.1	+ 20.3	- 7.3
Energy	55.5	41.5	131.5	63.4	86.0	84.4	33.9	- 1.9	+ 8.7
Fuel production	91.1	142.8	51.8	16.8	6.4	6.7	2.7	+ 3.7	- 40.8
Chemicals	28.3	41.8	41.3	36.4	20.2	26.6	10.7	+ 31.7	- 1.2
Car manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Electronics	0.7	0.6	0.3	0.5	0.7	2.4	1.0	+ 235.0	+ 27.0
Metalworking industry	63.0	58.8	35.1	24.6	41.3	71.3	28.6	+ 72.6	+ 2.5
Construction	23.7	23.0	14.0	23.8	20.4	17.2	6.9	- 15.7	- 6.2
Food industry	4.2	4.2	1.4	1.1	1.3	1.8	0.7	+ 36.7	- 15.4
Other industries	60.5	104.3	275.8	8.1	10.2	14.1	5.6	+ 37.7	- 25.3
LAND TRANSPORT	2.5	4.4	1.7	1.6	2.6	1.0	0.4	- 59.3	- 16.0
Road transport	1.7	3.6	0.9	1.0	1.8	0.5	0.2	- 72.3	- 22.2
Other land transport	0.8	0.8	0.8	0.6	0.8	0.5	0.2	- 29.7	- 6.5
OTHER LOGISTIC SERVICES ...	2.8	1.7	0.9	3.0	3.1	6.9	2.8	+ 124.4	+ 19.5
DIRECT INVESTMENT	344.9	436.9	564.4	188.4	209.2	249.1	100.0	+ 19.1	- 6.3

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office and on surveys).

TABLE 46 INVESTMENT TOP 10 AT THE LIÈGE PORT COMPLEX IN 2012

Ranking	Company name	Sector
1	ELECTRABEL	Energy
2	ARCELORMITTAL BELGIUM	Metalworking industry
3	ENGINEERING STEEL BELGIUM	Metalworking industry
4	PRAYON	Chemicals
5	SOCIETE INDUSTRIELLE LIEGEOISE DES OXYDES	Chemicals
6	COCKERILL MAINTENANCE & INGENIERIE	Metalworking industry
7	CARRIERES ET FOURS A CHAUX DUMONT-WAUTIER	Construction
8	BIOWANZE	Fuel production
9	SEGAL	Metalworking industry
10	DEPOTS PETROLIERS CONTERN	Cargo handling

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

7 PORT OF BRUSSELS

7.1 Port developments⁵³

Own traffic (excluding transit flows) carried by waterway and handled in the port of Brussels fell by 5.1 % in 2012. The poor economic climate put heavy pressure on transit traffic and, to a lesser extent, volumes loaded and unloaded in the port. As a result of transshipping 4.6 million tonnes within the space of a year, the port of Brussels nonetheless succeeded in recording its third largest annual tonnage over the last decade.

The situation for traffic by cargo category is quite a patchwork. The transshipment of construction materials, which rose by one-quarter in 2011 and accounting for 59 % of the cargo handled in the port, declined by 8 %. Loading and unloading of petroleum products remained stable, whereas agricultural products were up by 5 %. Conversely, foodstuffs plummeted 21 %, the second downturn in a row on this scale for this kind of product. Accordingly, the handled volume of foodstuffs is comparable to the volume of ores and scrap, which nonetheless took a 4 % dip during 2012.

In the wake of the year 2011, a challenging year for container transport, this traffic expressed as TEU resumed its upward trend (+14 %), thus moving beyond 16,000 TEU handled.

The Netherlands continues to be the port of Brussels' leading partner, accounting for just under six-tenths of the tonnage exchanged. Hydrocarbons, sand, clinker and milling residues help to explain the scale of these exchanges. Belgium comes in second place boasting virtually three-tenths of the tonnage, while Germany is at the tail end of the leading trio with just under one-tenth of the exchanges.

The Brussels government and the Brussels Port Authority plus the Brussels-Capital Regional Development Company (SDRB) have decided to earmark the free zone between the city distribution centre (TIR) and Tour & Taxis for economic and sustainable transport activities that should be directly related to provisioning the capital and to its economy. Roughly two-thirds of the zone is set aside for urban companies integrated into the immediate environment, while the remaining one-third will be deployed to create an innovative logistical warehouse. The current TIR centre is set to be extensively renovated to enhance its status as a sustainable city distribution centre. There is a plan for zero-emissions vehicles to be made available. Again on the subject of developing this zone, the non-profit organization Médecins Sans Frontières (Doctors without Borders) has been granted a concession to establish its international training and innovation centre.

The port of Brussels has used a long-term lease as a means of transferring land located on the left bank of the Béco dock to the Brussels Region, in order for it to create a park there, as part of its continuing policy to develop green spaces in the district. At the same time the funds the port of Brussels takes out of the long-term lease will be earmarked for acquiring land in the outer harbour to develop port and logistical activities there, so that the port activities will be shifted from the centre of the capital to its edge.

The direct value added of the port of Brussels held steady in 2012 (-1.7 % by volume). Direct value added represented 0.7 % of the GDP of the Brussels Capital Region, or 0.1 percentage point less than in 2011 and total value added remained stable at 1.4 %. The share of direct and total value added in the national GDP was 0.1 and 0.3 % respectively.

Direct employment in the port of Brussels grew by 3.8 % in 2012. The share of direct and total employment in the employment in the Brussels Region remained at the same level, with 0.7 and 1.5 % respectively. Also the share in Belgian domestic employment remained unchanged at 0.1 % for direct and 0.2 % for total employment.

⁵³ Sources: *Annual Report 2012* of the Brussels Port Authority and press release.

7.2 Value added

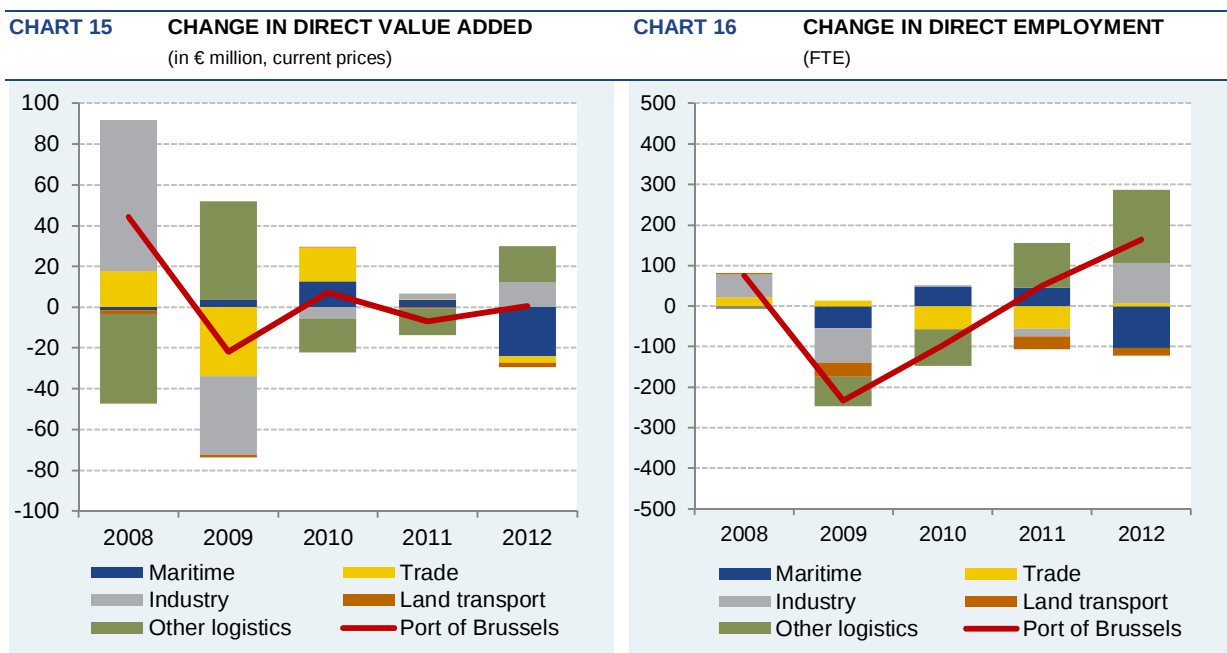
Direct value added in the port of Brussels increased by 0.1 %. In the maritime cluster, value added was nearly halved, while it expanded by 5.2 % in the non-maritime cluster. In the maritime cluster, the sharp drop of the main segment, shipping agents and forwarders, stemmed from the bankruptcy of Pavan and from the moving of Xpedys out of the port zone. The decision of D.D. Shipping to stop its business unit in the port zone had a negative impact on the value added of cargo handling. In the non-maritime cluster, value added in industry and other logistic services increased, while trade and land transport contracted. The biggest decline in value added was in the land transport sector with a fall of 11 % due to the fall of turnover or operating benefits of several firms. In industry, the value added of the other industries segment increased thanks to Sita Waste Services and Aquiris. Restructuring Solvay group had a positive impact on the value added in other logistics services.

7.3 Employment⁵⁴

Employment in the port of Brussels increased in 2012 in the non-maritime cluster. Employment in the maritime cluster fell by 17.7 %; it contracted in every segment. Job losses in the shipping agents and forwarders segment is largely attributable to the bankruptcy of Pavan and to the Xpedys' moving out of the port zone. The stoppage of the D.D. Shipping's business unit in the port zone exerted a downward influence on the employment of cargo handlers. In the non-maritime cluster, employment in the trade, industry and other logistic services sectors increased. It declined in land transport. The biggest job gain was recorded in other logistics services thanks to restructuring Solvay group and Inergy Automotive Systems Research which hired staff to support its research program. In industry, construction and other industries benefited from several firms increasing their staff numbers. Lower employment of a business unit in the port zone had a negative impact on land transport. Employment in the non-maritime cluster was up by 7.1 %.

7.4 Investment

Investment in the port of Brussels was down by 2.4 %, to its lowest point for the last six years. Investment in the maritime cluster dropped by 13.3 %. Every segment decreased in that cluster. In the non-maritime cluster, investment increased by 1.8 %. Trade and industry recorded a growth while land transport and other logistic services fell. Most of the industrial segments were down but the increase in other industries offset the decline. The biggest investor in other logistic services was Solvay.



Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

⁵⁴ For the calculation of the employment figures data from the annual accounts and the results of the enquiries done by the "Observatoire bruxellois du marché du travail et des qualifications" for the study "Poids socio-économique des entreprises implantées sur le site du port de Bruxelles" (2010) were used.

TABLE 47 VALUE ADDED AT THE PORT OF BRUSSELS FROM 2007 TO 2012
(in € million - current prices)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
DIRECT EFFECTS	505.5	549.8	528.0	535.3	528.2	528.7	100.0	+ 0.1	+ 0.9
MARITIME CLUSTER	31.7	30.4	33.8	46.4	49.9	25.8	4.9	- 48.4	- 4.1
Shipping agents and forwarders	9.5	16.0	20.3	31.1	33.6	15.1	2.8	- 55.3	+ 9.7
Cargo handling	11.7	10.6	6.6	8.4	9.1	6.5	1.2	- 28.3	- 11.1
Shipping companies	0.0	1.1	0.2	0.5	0.4	0.6	0.1	+ 38.2	n.
Shipbuilding and repair	0.1	0.1	0.0	0.0	0.0	0.1	0.0	+ 32.7	- 14.7
Port construction and dredging	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Port trade	0.6	0.6	0.7	0.7	0.5	0.0	0.0	- 89.8	- 38.5
Port authority	4.9	-2.3	1.8	1.4	1.9	-0.9	-0.2	- 145.2	- 170.7
Public sector	4.9	4.2	4.3	4.3	4.3	4.4	0.8	+ 1.5	- 2.3
Allocation (p.m.)									
NON-MARITIME CLUSTER	473.8	519.5	494.1	488.8	478.3	502.9	95.1	+ 5.2	+ 1.2
TRADE	174.8	192.4	158.4	175.2	175.6	172.5	32.6	- 1.8	- 0.3
INDUSTRY	81.2	155.4	117.0	111.5	114.4	126.6	24.0	+ 10.7	+ 9.3
Energy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Fuel production	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Chemicals	10.8	11.6	10.2	7.0	5.6	5.9	1.1	+ 5.6	- 11.4
Car manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Electronics	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Metalworking industry	1.2	1.0	1.1	1.1	1.5	1.6	0.3	+ 10.9	+ 6.8
Construction	35.5	36.7	34.9	33.4	35.8	41.1	7.8	+ 14.7	+ 2.9
Food industry	8.8	15.3	21.5	15.2	16.8	14.8	2.8	- 12.3	+ 11.0
Other industries	24.9	90.8	49.2	54.8	54.7	63.3	12.0	+ 15.7	+ 20.5
LAND TRANSPORT	24.5	22.7	21.4	21.8	21.3	18.9	3.6	- 11.0	- 5.1
Road transport	24.5	22.7	21.3	21.7	21.1	18.7	3.5	- 11.1	- 5.3
Other land transport	0.0	0.0	0.1	0.1	0.2	0.2	0.0	+ 0.2	n.
OTHER LOGISTIC SERVICES	193.2	149.0	197.3	180.4	167.1	184.9	35.0	+ 10.7	- 0.9
INDIRECT EFFECTS	469.8	521.9	453.1	436.9	465.3	468.9	-	+ 0.8	- 0.0
MARITIME CLUSTER	37.5	35.7	32.5	44.4	49.2	26.6	-	- 46.0	- 6.7
NON-MARITIME CLUSTER	432.3	486.1	420.6	392.5	416.2	442.3	-	+ 6.3	+ 0.5
TOTAL VALUE ADDED	975.3	1,071.7	981.0	972.2	993.6	997.6	-	+ 0.4	+ 0.5

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).

The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

TABLE 48 VALUE ADDED TOP 10 AT THE PORT OF BRUSSELS IN 2012

Ranking	Company name	Sector
1	SOLVAY	Other services
2	SOLVAY CHEMICALS INTERNATIONAL	Other services
3	TOTAL BELGIUM	Trade
4	AQUIRIS	Other industries
5	INEOS SERVICES BELGIUM	Other services
6	SOLVIN	Trade
7	INERGY AUTOMOTIVE SYSTEMS RESEARCH	Other services
8	SPIE BELGIUM	Construction
9	BRUXELLES ENERGIE - BRUSSEL ENERGIE	Other industries
10	CERES	Food industry

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies

TABLE 49 EMPLOYMENT AT THE PORT OF BRUSSELS FROM 2007 TO 2012
(FTE)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
DIRECT EFFECTS	4,562	4,637	4,404	4,307	4,357	4,521	100.0	+ 3.8	- 0.2
MARITIME CLUSTER	553	550	496	544	590	486	10.7	- 17.7	- 2.5
Shipping agents and forwarders	158	167	162	187	237	166	3.7	- 29.9	+ 1.0
Cargo handling	163	171	116	140	133	111	2.4	- 16.9	- 7.5
Shipping companies	0	0	0	0	0	0	0.0	n.	n.
Shipbuilding and repair	3	2	0	0	0	0	0.0	n.	- 100.0
Port construction and dredging	0	0	0	0	0	0	0.0	n.	n.
Fishing	0	0	0	0	0	0	0.0	n.	n.
Port trade	6	5	5	6	6	0	0.0	- 100.0	- 100.0
Port authority	123	122	130	130	132	127	2.8	- 3.6	+ 0.7
Public sector	100	82	82	82	82	82	1.8	+ 0.0	- 3.9
Allocation (p.m.)									
NON-MARITIME CLUSTER	4,009	4,087	3,908	3,763	3,767	4,035	89.3	+ 7.1	+ 0.1
TRADE	1,307	1,329	1,342	1,286	1,230	1,239	27.4	+ 0.7	- 1.1
INDUSTRY	1,153	1,210	1,124	1,127	1,108	1,205	26.7	+ 8.8	+ 0.9
Energy	0	0	0	0	0	0	0.0	n.	n.
Fuel production	0	0	0	0	0	0	0.0	n.	n.
Chemicals	104	96	73	41	40	45	1.0	+ 12.9	- 15.3
Car manufacturing	0	0	0	0	0	0	0.0	n.	n.
Electronics	0	0	0	0	0	0	0.0	n.	n.
Metalworking industry	18	18	19	13	19	27	0.6	+ 44.2	+ 9.1
Construction	581	573	563	553	562	614	13.6	+ 9.3	+ 1.1
Food industry	162	150	151	153	148	148	3.3	- 0.1	- 1.8
Other industries	289	374	318	368	339	371	8.2	+ 9.3	+ 5.2
LAND TRANSPORT	391	394	360	359	327	308	6.8	- 5.8	- 4.7
Road transport	391	394	358	358	324	305	6.7	- 5.8	- 4.9
Other land transport	0	0	2	1	3	3	0.1	- 2.3	n.
OTHER LOGISTIC SERVICES ...	1,157	1,154	1,082	991	1,102	1,283	28.4	+ 16.5	+ 2.1
INDIRECT EFFECTS	5,367	5,611	4,928	4,690	4,873	4,922	-	+ 1.0	- 1.7
MARITIME CLUSTER	508	544	466	528	586	468	-	- 20.1	- 1.7
NON-MARITIME CLUSTER	4,859	5,067	4,461	4,162	4,287	4,454	-	+ 3.9	- 1.7
TOTAL EMPLOYMENT	9,929	10,248	9,332	8,997	9,230	9,443	-	+ 2.3	- 1.0

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs).

The data necessary to estimate the indirect effects are published by the NAI with a low frequency and after a certain time lag. The indirect effects for the period 2007-2008 are based on IOT 2005 and SUT 2007. The indirect effects for the period 2009-2012 are based on IOT 2010 and SUT 2010. The use of different sources causes a break in the time series. The calculated indirect effects are approximations and should be interpreted with caution.

TABLE 50 EMPLOYMENT TOP 10 AT THE PORT OF BRUSSELS IN 2012

Ranking	Company name	Sector
1	SOLVAY	Other services
2	SPIE BELGIUM	Construction
3	SCANIA BELGIUM	Trade
4	CERES	Food industry
5	SITA WASTE SERVICES	Other industries
6	BRUSSELS PORT AUTHORITY	Port authority
7	INEOS SERVICES BELGIUM	Other services
8	SOLVIN	Trade
9	ZIEGLER	Road transport
10	BINJE ACKERMANS	Trade

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics.

The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies.

TABLE 51 INVESTMENT AT THE PORT OF BRUSSELS FROM 2007 TO 2012
(in € million - current prices)

Sectors	2007	2008	2009	2010	2011	2012	Share in 2012 (in p.c.)	Change from 2011 to 2012 (in p.c.)	Annual average change from 2007 to 2012 (in p.c.)
MARITIME CLUSTER	6.5	21.2	17.5	19.2	14.2	12.3	24.9	- 13.3	+ 13.6
Shipping agents and forwarders	0.6	4.2	4.2	9.7	7.4	6.9	14.0	- 6.2	+ 63.5
Cargo handling	0.3	1.1	0.1	0.6	1.6	0.8	1.5	- 51.9	+ 18.2
Shipping companies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Shipbuilding and repair	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Port construction and dredging	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Port trade	0.1	0.0	0.0	0.0	0.0	0.0	0.0	n.	- 100.0
Port authority	5.5	15.8	13.2	8.9	5.3	4.6	9.4	- 11.7	- 3.5
Public sector	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
<i>Allocation (p.m.)</i>									
NON-MARITIME CLUSTER	47.6	53.0	45.7	39.7	36.5	37.2	75.1	+ 1.8	- 4.8
TRADE	14.5	17.7	22.1	16.4	9.2	11.6	23.5	+ 26.8	- 4.4
INDUSTRY	21.0	17.4	14.5	12.3	9.1	10.3	20.7	+ 12.6	- 13.3
Energy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Fuel production	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Chemicals	3.3	2.0	0.8	0.4	0.6	0.2	0.5	- 59.0	- 41.6
Car manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Electronics	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Metalworking industry	0.2	0.2	0.1	0.4	0.1	0.2	0.4	+ 74.4	+ 4.0
Construction	3.8	3.7	7.1	5.2	4.5	4.0	8.1	- 11.0	+ 1.0
Food industry	1.2	0.7	4.3	3.4	2.3	1.9	3.8	- 17.9	+ 8.8
Other industries	12.4	10.9	2.2	2.9	1.7	4.0	8.0	+ 138.0	- 20.4
LAND TRANSPORT	1.8	3.2	1.2	1.4	3.7	2.0	4.1	- 44.4	+ 2.1
Road transport	1.8	3.2	1.1	1.3	3.5	2.0	4.0	- 44.4	+ 1.3
Other land transport.....	0.0	0.0	0.1	0.0	0.1	0.1	0.2	- 45.3	n.
OTHER LOGISTIC SERVICES	10.2	14.6	7.9	9.7	14.6	13.3	26.8	- 8.9	+ 5.4
DIRECT INVESTMENT	54.1	74.2	63.2	59.0	50.7	49.5	100.0	- 2.4	- 1.7

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office and on surveys).

TABLE 52 INVESTMENT TOP 10 AT THE PORT OF BRUSSELS IN 2012

Ranking	Company name	Sector
1	SOLVAY	Other services
2	REIBEL	Shipping agents and forwarders
3	BRUSSELS PORT AUTHORITY	Port authority
4	HAVELANGE	Trade
5	FENKO	Other industries
6	CERES	Food industry
7	GROND- EN AFBRAAKWERKEN G. EN A. DE MEUTER	Construction
8	INTER- BETON	Construction
9	LOXAM	Other services
10	DIAMOND EUROPE	Trade

Source: NBB. The estimates for the multi-regional firms are based on surveys, annual reports and allocation formulas based on regional statistics. The top ten tables are based on information from annual accounts, surveys, annual reports and allocation formulas based on regional statistics. No individual figures are published as accurate data could not be obtained for all companies

8 SUMMARY

After the slowdown in 2011, all the Flemish ports saw their shipping traffic volumes drop off in 2012. The port of Antwerp was the least badly affected, with a drop of just 1.6 %. Container, liquid bulk and general cargo transshipment volumes were behind this decline. The port of Ghent (-3.3 %) registered a drop in its non-containerised general cargo and bulk shipping traffic. The port of Zeebrugge (-7.3 %) observed the same trend in all the major types of cargo except for non-containerised general cargo. The port of Ostend was the worst hit among the Flemish ports with a huge 16.8 % drop in traffic. The reduction in the number of daily crossings on the last remaining ferry route has had a negative impact on its roll-on/roll-off traffic but dry bulk was down as well. The port of Liège has been very badly hit by several plant closures in the metalworking sector and has lost 15.3 % of its inland waterway traffic. Lastly, the port of Brussels could not entirely escape the gloomy economic climate and posted a 5.1 % drop in waterway traffic.

CHART 17 CHANGE IN DIRECT VALUE ADDED
(in € million, by volume)

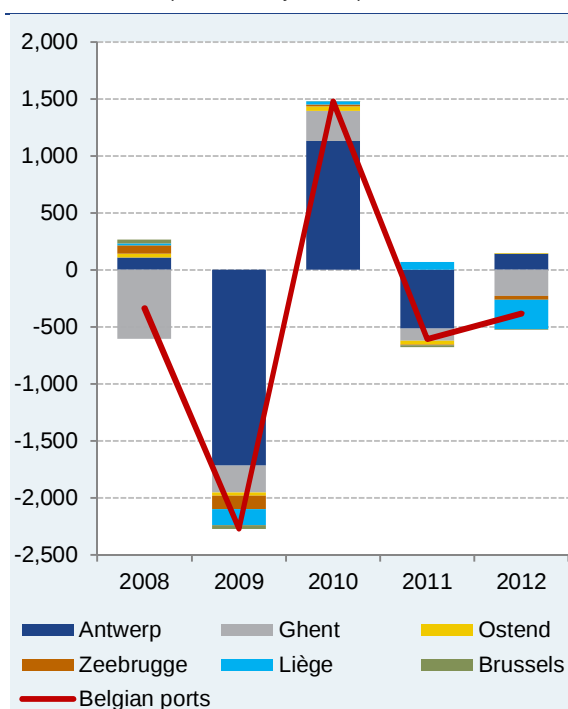
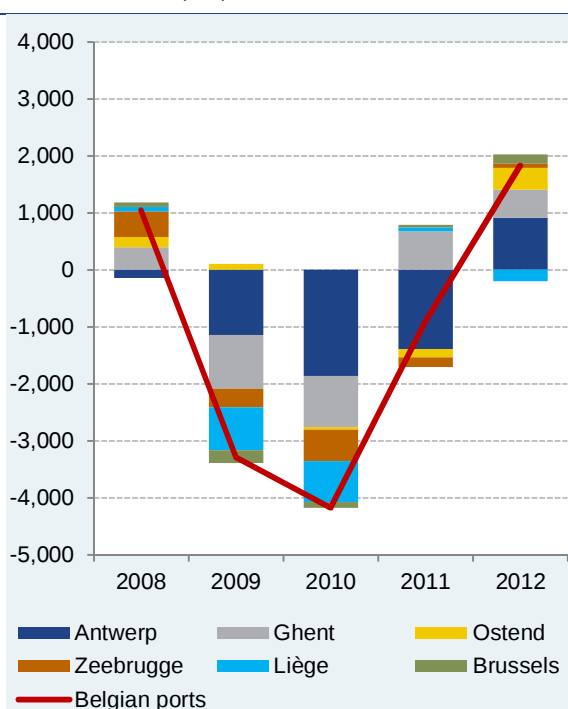


CHART 18 CHANGE IN DIRECT EMPLOYMENT
(FTE)



Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

Direct value added generated in the Belgian maritime ports contracted by 0.5 % in 2012. Three ports enjoyed an upward trend (Antwerp, Ostend and Brussels) while the other three ports saw their value added drop. In Antwerp, after a difficult year in 2011, the maritime cluster recovered during the course of 2012; value added in cargo handling continued to rise, the shipping companies managed to record an upward trend in their still-very-low value added and port construction and dredging doubled their figures. In the non-maritime cluster, increases in trade, land transport and other logistic services were offset by the decline in the industrial sector. As a result, the cluster's overall value added remained unchanged. Value added in the port of Ostend expanded in both the maritime and the non-maritime clusters. In the former, port construction and dredging once again produced excellent results. As for the non-maritime cluster, value added fell back in the trade, land transport and other logistic services sectors while it increased in industry mainly on the back of strong growth in construction. Value added in the port of Brussels held up well thanks to the contribution from the non-maritime cluster; industry and other logistic services posted increases of more than 10 %. Despite the positive trend in the maritime cluster, value added in the port of Zeebrugge contracted by 1.5 %. Declines in industry and land transport could not be counterbalanced by increases in the other sectors. The port of Ghent suffered a sharp slowdown in activity, with the trade sector, chemicals and metalworking industries reporting a particularly heavy loss of value added. The growth of value added in the maritime cluster and other logistic services was not enough to prevent a fall in Ghent's total direct value added. Lastly, the Liège port complex has been

very badly affected by the economic slowdown, with most of its sectors of activity posting negative results, but the energy and metalworking industries running up the biggest losses of value added. Taking all the ports together, value added generated by the maritime cluster rose by 8.2 % while that produced by the non-maritime cluster contracted by 3.2 %.

Direct employment in the Belgian maritime ports grew by 1.6 % in 2012. Only the Liège port complex saw a drop in employment. The port of Ostend recorded the strongest growth (+7.8 %). The number of jobs increased in both the maritime and non-maritime clusters, with the port construction and dredging segment as well as construction enjoying the strongest employment growth in the Ostend port zone, in each case exceeding the 100-FTE mark. The port of Brussels boasted the second highest growth rate. Yet, employment in the maritime cluster plummeted by 17.7 %; with all segments in this cluster reporting reductions in the number of FTEs. In the non-maritime cluster, on the other hand, only land transport suffered net job losses. In the port of Ghent, direct employment grew by 1.9 %, the same figure as for the two clusters considered separately. Cargo handling gained 60 FTEs. In the non-maritime cluster, trade and land transport suffered job losses, while industry and other logistic services created more jobs. Most of the new staff was hired in the car manufacturing industry, where well over 400 more FTEs were taken on. Employment in the port of Antwerp grew by 1.5 %. It was nevertheless down in the maritime cluster, where job losses among cargo handlers and shipping companies were not totally offset by gains in port construction and dredging. In the non-maritime cluster, only energy, fuel production and other industries saw a fall in the number of workers expressed as FTEs. The chemicals and metalworking industries, other land transport and other logistic services each gained more than 100 FTEs. In the port of Zeebrugge, employment was up by 0.8 %. In the maritime cluster, hiring by cargo handlers, shipping agents and forwarders exceeded reductions in the public sector. The non-maritime sector expanded under the impetus of industry, since the other sectors all suffered job losses. The Liège port complex was severely hit by the closure of production facilities in the metalworking industry and the subsequent slowdown in economic activity. 124 FTEs were lost in the port zone's metalworking industry. Both the maritime and non-maritime clusters are shedding workers. All in all, employment in the port fell back by 2.1 %. For all Belgian maritime ports taken together, it can be seen that, in 2012, employment held steady in the maritime cluster thanks to strong growth in port construction and dredging. In the non-maritime cluster, trade held up well and the other three sectors enjoyed increases in employment ranging from 2 to 7 %. Car manufacturing and construction, both of which had suffered job losses in 2011, accounted for more than 70 % of the new jobs created in industry. Lastly, more than 400 FTE jobs opened up in other logistic services. All in all, direct employment in the Belgian maritime ports' non-maritime cluster grew by 2.4 %.

The reduction in the amount of money invested in the Belgian maritime ports that began back in 2009 continued throughout the year 2012. Investment in the maritime cluster contracted by 5.6 % mainly as a result of a sharp decline in the port construction and dredging segment, while the reduction was limited to just 0.5 % in the case of the non-maritime cluster. Investment expanded in two ports, namely Liège and Ostend. In the Liège port complex, investment increased in the maritime cluster, largely thanks to the port authority segment, and also in the non-maritime cluster on the back of a 20 % growth rate in industry, with the bulk of this extra investment coming from the metalworking industry. Overall, investment in the Liège port complex grew by 19.1 %. The port of Ostend saw a smaller increase of 3.2 %; with the maritime cluster clocking up a rise of 14.1 % and the non-maritime cluster shrinking by 0.9 %, owing mainly to the collapse of investment in energy; conversely, construction and other logistic services enjoyed a strong expansion. The port of Brussels recorded a 2.4 % drop in investment. There was less money invested in the maritime cluster, land transport and other logistic services, but more in trade and industry. A 4 % drop in funds invested was observed in the port of Antwerp and a 4.1 % decline in the port of Ghent. In Antwerp, both the maritime and the non-maritime clusters suffered setbacks, partly under the impact of a sharp reduction in port construction and dredging following two years of particularly good results. The non-maritime cluster, in particular, incurred major investment cuts in trade and other industries. Both clusters suffered a decline in the port of Ghent as well. Cargo handling was the only segment that made any progress in the maritime cluster. More divergent trends could be seen in the non-maritime cluster, with trade and land transport reporting a rise while industry, and notably energy and car manufacturing, as well as other logistic services, saw a fall in investment. Lastly, the port of Zeebrugge recorded the biggest contraction with a drop of 11.8 %. Investment in the maritime cluster was down by one-fifth; cargo handling and the public sector lost out the most. The non-maritime cluster was much less affected, with a 1.5 % fall-off in investment, attributable to land transport and other logistic services, since both industry and trade showed an increase. Investment in all the port

zones considered as a whole thus unfortunately hit its lowest point for the last six years in both the maritime and non-maritime clusters.

LIST OF ABBREVIATIONS

BNRC	Belgian National Railway Company
EU	European Union
FTE	Full-time equivalent
GDP	Gross domestic product
IOT	Input-Output Table
NAI	National Accounts Institute
NBB	National Bank of Belgium
NSI	National Statistical Institute, now FPS Economy, SMEs, independent Professions and Energy - Directorate General of Statistics and Economic Information
SMEs	Small and medium-sized enterprises
SUT	Supply and Use Table
TEU	Twenty-foot Equivalent Unit

CONVENTIONAL SIGNS

-	the datum does not exist or is meaningless
n.	not available
p.c.	per cent
p.m.	pro memoria

ANNEX 1: DETAILED SOCIAL BALANCE SHEET IN 2012

TABLE 53

DETAILED SOCIAL BALANCE SHEET OF THE BELGIAN PORTS - 2012
(reduced population: constant population)

Sectors	AVERAGE NUMBER OF EMPLOYEES																At the enterprise's disposal					
	Number			Hours actually worked (1)			Personnel costs (2)			Hired temporary staff			costs									
	full-time	part-time	total	full-time	part-time	total	full-time	part-time	total	number	hours	costs	number	hours	costs							
MARITIME CLUSTER	28,265	2,628	30,200	42.8	2.8	45.5	1,866.0	121.8	1,987.9	2,434	4.56	142.4	6,494	10.85	479.2							
Shipping agents and forwarders	5,772	1,080	6,570	9.3	1.2	10.5	365.7	51.1	416.8	726	1.40	33.8	452	0.73	27.6							
Cargo handling	16,748	1,132	17,587	23.5	1.1	24.5	1,052.0	48.8	1,100.9	1,506	2.77	98.0	6,032	10.10	450.9							
Shipping companies	854	68	902	1.5	0.1	1.6	72.4	4.7	77.1	18	0.03	1.1	0	0.00	0.0							
Shipbuilding and repair	433	41	461	0.7	0.0	0.8	25.9	1.6	27.5	37	0.07	2.0	0	0.00	0.0							
Port construction and dredging	1,864	70	1,917	4.0	0.1	4.1	166.7	4.8	171.5	30	0.06	1.7	0	0.00	0.0							
Fishing	451	105	532	0.7	0.1	0.8	23.8	3.9	27.8	105	0.19	5.0	0	0.00	0.0							
Port trade	101	21	116	0.2	0.0	0.2	8.6	1.1	9.7	3	0.00	0.2	0	0.00	0.0							
Port authority	2,043	112	2,116	3.0	0.1	3.1	150.7	5.8	156.6	10	0.02	0.7	10	0.02	0.7							
Public sector	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.							
NON-MARITIME CLUSTER	62,608	7,440	68,152	94.9	8.3	103.1	5,065.2	445.5	5,511.2	3,441	6.45	203.0	286	0.48	21.0							
TRADE	4,558	731	5,088	7.3	0.8	8.1	353.2	37.4	391.0	201	0.38	11.5	51	0.09	5.3							
INDUSTRY	48,840	5,063	52,601	72.5	5.6	78.1	4,003.5	314.7	4,318.3	2,805	5.27	165.5	141	0.24	10.1							
Energy	2,608	258	2,808	3.8	0.3	4.1	278.6	22.1	300.8	11	0.02	0.6	0	0.00	0.0							
Fuel production	2,553	304	2,783	4.2	0.4	4.6	357.4	26.9	384.3	38	0.07	2.5	0	0.00	0.0							
Chemicals	12,676	1,598	13,826	18.8	1.8	20.6	1,269.2	116.2	1,385.4	333	0.62	24.4	10	0.01	0.7							
Car manufacturing	9,053	985	9,796	13.1	1.0	14.1	551.6	45.2	596.8	1,464	2.75	81.3	0	0.00	0.0							
Electronics	926	138	1,028	1.4	0.1	1.6	61.0	6.4	67.3	49	0.10	2.8	0	0.00	0.0							
Metalworking industry	13,367	1,026	14,150	19.5	1.1	20.6	977.8	61.1	1,038.9	417	0.77	26.8	10	0.02	1.0							
Construction	3,649	319	3,883	5.5	0.3	5.8	239.1	15.8	254.9	146	0.26	8.7	8	0.01	0.7							
Food industry	1,279	171	1,403	2.0	0.2	2.2	90.1	8.5	98.5	160	0.32	8.6	98	0.16	6.6							
Other industries	2,727	265	2,924	4.3	0.3	4.6	178.8	12.6	191.4	186	0.35	9.7	16	0.03	1.1							
LAND TRANSPORT	4,760	861	5,428	7.8	0.9	8.7	262.7	39.2	301.9	112	0.21	5.5	81	0.14	4.7							
Road transport	2,425	215	2,575	4.4	0.2	4.7	124.4	8.0	132.3	108	0.20	5.2	73	0.12	4.1							
Other land transport	2,334	646	2,853	3.3	0.7	4.0	138.3	31.3	169.6	5	0.01	0.2	9	0.02	0.6							
OTHER LOGISTIC SERVICES	4,451	784	5,034	7.3	0.9	8.2	445.8	54.2	500.0	323	0.58	20.6	12	0.02	0.8							
TOTAL	90,873	10,067	98,351	137.6	11.0	148.7	6,931.3	567.4	7,499.1	5,875	11.00	345.4	6,780	11.33	500.2							

Source: NBB. The figures are based on a constant sample of firms which filed full-format accounts throughout the period 2010 - 2012.

TABLE 53 (continued)

DETAILED SOCIAL BALANCE SHEET OF THE BELGIAN PORTS - 2012

(reduced population: constant population)

Sectors	NUMBER OF PERSONS EMPLOYED						TRAINING			ENTERED			RESIGNED		
	primary	secondary	Women		Men		Women		Men		Number (in FTE)	Indefinite period	Number (in FTE)	Indefinite period	
			higher	university	number	hours (1)	costs (2)	number	hours (1)	costs (2)					
	12103	12113	12123	12133	5801	5802	5803	5811	5812	5813	2053	2103	3053	3103	
MARITIME CLUSTER	574	3,464	1,369	520	9,286	0.29	16.7	3,008	0.07	3.5	5,680	4,488	5,278	4,216	
Shipping agents and forwarders	102	1,710	777	155	1,602	0.03	1.5	1,191	0.03	1.0	1,267	915	1,281	972	
Cargo handling	368	1,197	328	174	4,788	0.13	10.0	993	0.02	1.3	2,828	2,458	2,784	2,502	
Shipping companies	4	82	54	23	238	0.01	0.4	78	0.00	0.1	434	100	663	304	
Shipbuilding and repair	5	17	4	0	171	0.01	0.2	5	0.00	0.0	74	50	81	58	
Port construction and dredging	0	73	78	68	1,143	0.09	3.5	144	0.01	0.4	802	746	240	185	
Fishing	35	123	32	7	356	0.01	0.1	214	0.00	0.1	62	51	66	62	
Port trade	2	14	12	7	6	0.00	0.0	8	0.00	0.0	34	33	14	12	
Port authority	57	248	85	86	983	0.02	1.0	374	0.01	0.6	180	137	150	121	
Public sector	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	
NON-MARITIME CLUSTER	539	3,790	3,820	2,021	38,377	1.31	98.9	6,484	0.19	16.3	8,551	5,431	8,195	6,003	
TRADE	78	560	502	214	1,788	0.04	2.6	818	0.02	1.0	912	606	972	686	
INDUSTRY	352	2,473	2,615	1,272	32,283	1.06	83.9	4,537	0.13	11.9	5,468	3,260	5,048	3,700	
Energy	1	142	405	147	1,747	0.11	11.5	611	0.02	2.0	137	85	221	123	
Fuel production	1	46	223	185	2,069	0.11	11.7	303	0.01	1.1	241	205	204	189	
Chemicals	27	444	824	388	10,396	0.31	25.4	1,410	0.04	3.6	1,294	791	1,387	1,013	
Car manufacturing	191	688	307	122	4,125	0.13	8.3	559	0.02	2.3	1,206	378	694	476	
Electronics	29	87	56	21	457	0.02	0.9	86	0.00	0.2	99	67	115	80	
Metalworking industry	49	600	393	270	9,304	0.30	20.6	948	0.02	1.6	1,183	730	1,218	883	
Construction	4	141	165	58	1,785	0.04	2.1	163	0.01	0.3	654	536	567	466	
Food industry	29	138	84	26	591	0.01	0.8	141	0.00	0.1	238	170	221	150	
Other industries	21	186	157	54	1,809	0.04	2.7	315	0.01	0.7	415	299	420	321	
LAND TRANSPORT	93	324	118	84	2,576	0.15	7.8	318	0.02	1.0	1,148	782	1,236	882	
Road transport	61	179	45	19	543	0.01	0.3	89	0.00	0.1	876	616	936	681	
Other land transport	32	146	73	65	2,033	0.14	7.5	229	0.02	0.9	271	165	300	201	
OTHER LOGISTIC SERVICES	16	433	586	451	1,730	0.05	4.6	811	0.02	2.4	1,024	783	939	734	
TOTAL	1,113	7,254	5,189	2,541	47,663	1.59	115.7	9,492	0.26	19.8	14,231	9,919	13,472	10,219	

Source: NBB. The figures are based on a constant sample of firms which filed full-format accounts throughout the period 2010 - 2012.

(1) The time actually worked in terms of millions of hours.

(2) The personnel costs and training costs in terms of € million.

ANNEX 2: LIST OF NACE-BEL BRANCHES ⁵⁵

TABLE 54 LIST OF NACE-BEL BRANCHES (NACE-BEL 2008)

SUT	NACE-BEL	Cluster	Sector	AN	GN	OO	ZB	LG	BR	Definition
03A	03110	MA	VI	*	*	*	*	*	*	Marine fishing
08A	08121	IN	AI					*		Quarrying of gravel
08A	08122	IN	AI	*	*					Quarrying of sand
08A	08910	IN	AI		*	*				Mining of chemical and fertiliser minerals
08A	08990	IN	AI		*					Other mining and quarrying n.e.c.
10A	10130	IN	VO		*		*			Production of meat and poultry meat products
10B	10200	MA	VI			*	*			Processing and preserving of fish, crustaceans and molluscs
10C	10320	IN	VO				*			Manufacture of fruit and vegetable juice
10D	10410	IN	VO	*	*					Manufacture of oils and fats
10E	10510	IN	VO	*	*	*	*	*	*	Operation of dairies and cheese making
10E	10520	IN	VO						*	Manufacture of ice cream
10F	10610	IN	VO					*	*	Manufacture of grain mill products
10H	10810	IN	VO					*		Manufacture of sugar
10H	10820	IN	VO		*	*	*		*	Manufacture of cocoa, chocolate and sugar confectionery
10I	10890	IN	VO		*					Manufacture of other food products n.e.c.
10J	10910	IN	VO		*		*			Manufacture of prepared feeds for farm animals
11A	11010	IN	VO		*					Distilling, rectifying and blending of spirits
11A	11060	IN	VO	*						Manufacture of malt
13A	13100	IN	AI			*	*			Preparation and spinning of textile fibres
13B	13929	IN	AI	*		*				Manufacture of other textiles, except wearing apparel
16A	16100	IN	AI		*	*			*	Sawmilling and planing of wood
16A	16230	IN	AI	*	*			*	*	Manufacture of other builders' carpentry and joinery
16A	16240	IN	AI	*	*	*	*	*	*	Manufacture of wooden containers
17A	17120	IN	AI		*		*			Manufacture of paper and paperboard
17A	17210	IN	AI		*			*		Manufacture of corrugated paper and paperboard and of containers of paper and paperboard
17A	17290	IN	AI	*						Manufacture of other articles of paper and paperboard
18A	18120	IN	AI	*	*	*	*	*	*	Other printing
18A	18130	IN	AI	*	*			*	*	Pre-press and pre-media services
19A	19200	IN	PE	*	*	*	*	*	*	Manufacture of refined petroleum products
20A	20110	IN	CH	*	*					Manufacture of industrial gases
20A	20120	IN	CH		*			*		Manufacture of dyes and pigments
20B	20130	IN	CH	*	*	*		*		Manufacture of other inorganic basic chemicals
20A	20140	IN	CH	*	*	*	*	*	*	Manufacture of other organic basic chemicals
20A	20150	IN	CH	*	*		*	*		Manufacture of fertilisers and nitrogen compounds
20A	20160	IN	CH	*	*		*			Manufacture of plastics in primary forms
20A	20170	IN	CH	*						Manufacture of synthetic rubber in primary forms
20C	20200	IN	CH	*				*		Manufacture of pesticides and other agrochemical products
20D	20300	IN	CH	*			*	*		Manufacture of paints, varnishes and similar coatings, printing ink and mastics
20F	20520	IN	CH		*					Manufacture of glues
20F	20590	IN	CH	*	*			*		Manufacture of other chemical products n.e.c.
20G	20600	IN	CH			*				Manufacture of man-made fibres
21A	21100	IN	CH	*						Manufacture of basic pharmaceutical products
22A	22110	IN	CH	*						Manufacture of rubber tyres and tubes; retreating and rebuilding of rubber tyres
22A	22190	IN	CH	*	*		*			Manufacture of other rubber products
22B	22210	IN	CH	*				*		Manufacture of plastic plates, sheets, tubes and profiles
22B	22220	IN	CH	*	*			*		Manufacture of plastic packing goods
22B	22290	IN	CH	*	*	*	*	*	*	Manufacture of other plastic products
23A	23110	IN	CS		*		*			Manufacture of flat glass
23A	23120	IN	CS		*		*		*	Shaping and processing of flat glass
23B	23322	IN	CS					*		Manufacture of tiles and construction products, in baked clay
23C	23510	IN	CS	*	*	*		*	*	Manufacture of cement
23C	23520	IN	CS					*		Manufacture of lime and plaster
23D	23610	IN	CS		*		*	*		Manufacture of concrete products for construction purposes

⁵⁵ The nomenclature in this list is in accordance with the NACE-BEL revision having taken place in 2008 (Rev.2).

TABLE 54 (continued) LIST OF NACE-BEL BRANCHES (NACE-BEL 2008)

SUT	NACE-BEL	Cluster	Sector	AN	GN	OO	ZB	LG	BR	Definition
23D	23620	IN	CS	*						Manufacture of plaster products for construction purposes
23D	23630	IN	CS	*	*	*	*	*	*	Manufacture of ready-mixed concrete
23D	23640	IN	CS	*						Manufacture of mortars
23D	23700	IN	CS		*	*	*			Cutting, shaping and finishing of stone
23D	23990	IN	CS	*	*					Manufacture of other non-metallic mineral products n.e.c.
24A	24100	IN	ME	*	*	*	*	*	*	Manufacture of basic iron and steel and of ferro-alloys
24A	24200	IN	ME					*		Manufacture of tubes, pipes, hollow profiles and related fittings, of steel
24B	24310	IN	ME					*		Cold drawing of bars
24B	24510	IN	ME		*	*				Casting of iron
25A	25110	IN	ME	*	*		*			Manufacture of metal structures and parts of structure
25A	25120	IN	ME	*	*			*		Manufacture of doors and windows of metal
25A	25210	IN	ME	*						Manufacture of central heating radiators and boilers
25A	25290	IN	ME	*	*	*		*	*	Manufacture of other tanks, reservoirs and containers of metal
25A	25300	IN	ME	*	*			*		Manufacture of steam generators, except central heating hot water boilers
25A	25501	IN	ME	*			*		*	Forging of metal
25B	25610	IN	ME	*	*		*	*	*	Treatment and coating of metals
25B	25620	IN	ME	*	*	*	*	*		Machining
25C	25930	IN	ME	*						Manufacture of wire products, chain and springs
25C	25940	IN	ME		*					Manufacture of fasteners and screw machine products
25C	25999	IN	ME		*		*	*	*	Manufacture of other fabricated metal articles
26A	26110	IN	MP					*		Manufacture of electronic valves and tubes and other electronic components
26B	26300	IN	MP				*			Manufacture of communication equipment
26B	26400	IN	MP	*	*		*			Manufacture of consumer electronics
26C	26510	IN	MP	*	*	*				Manufacture of instruments and appliances for measuring, testing and navigation
27A	27110	IN	MP	*	*	*	*	*	*	Manufacture of electric motors, generators and transformers
27A	27120	IN	MP		*		*			Manufacture of electricity distribution and control apparatus
27B	27510	IN	MP					*		Manufacture of electric domestic appliances
27B	27900	IN	MP	*				*		Manufacture of other electrical equipment
28A	28110	IN	ME	*	*					Manufacture of engines and turbines, except aircraft, vehicle and cycle engines
28A	28120	IN	ME	*						Manufacture of fluid power equipment
28A	28220	IN	ME	*			*			Manufacture of lifting and handling equipment
28A	28250	IN	ME	*	*	*	*	*	*	Manufacture of non-domestic cooling and ventilation equipment
28A	28295	IN	ME	*						Manufacture of filter equipment
28A	28299	IN	ME		*		*			Manufacture of other general-purpose machinery n.e.c.
29A	29100	IN	AU	*	*	*	*	*	*	Manufacture of motor vehicles
29B	29201	IN	AU	*						Manufacture of bodies (coachwork) for motor vehicles
29B	29202	IN	AU	*						Manufacture of trailers and semi-trailers and caravans
29B	29320	IN	AU	*	*			*		Manufacture of other parts and accessories for motor vehicles
30A	30110	MA	SB	*	*	*				Building of ships and floating structures
30B	30200	IN	AI					*		Manufacture of railway locomotives and rolling stock
32B	32990	IN	AI	*			*			Other manufacturing n.e.c.
33A	33110	IN	ME	*			*			Repair of fabricated metal products
33A	33120	IN	ME	*	*	*	*	*		Repair of machinery
33A	33150	MA	SB	*	*	*	*	*	*	Repair and maintenance of ships and boats
33A	33170	IN	ME	*			*			Repair and maintenance of other transport equipment
35A	35110	IN	EN	*	*	*	*	*	*	Production of electricity
35B	35220	IN	EN				*			Distribution of gaseous fuels through mains
37A	37000	IN	AI	*					*	Sewerage
38A	38110	IN	AI	*	*		*	*	*	Collection of non-hazardous waste
38A	38219	IN	AI	*	*	*	*	*	*	Other processing and disposal of non-hazardous waste
38B	38310	IN	AI					*	*	Dismantling of wrecks
38B	38321	IN	AI		*					Sorting of non-hazardous waste for recycling
38B	38322	IN	AI	*	*	*	*	*	*	Recovery of waste metal
38B	38323	IN	AI	*	*		*	*	*	Recovery of inert waste
39A	39000	IN	AI	*	*		*			Remediation activities and other waste management services
41A	41102	IN	CS	*	*	*	*		*	Non-residential development projects
41A	41203	IN	CS	*	*	*	*	*	*	Construction of other non-residential buildings

TABLE 54 (continued) LIST OF NACE-BEL BRANCHES (NACE-BEL 2008)

SUT	NACE-BEL	Cluster	Sector	AN	GN	OO	ZB	LG	BR	Definition
42A	42110	IN	CS	*	*	*	*	*	*	Construction of roads and motorways
42A	42130	IN	CS		*	*				Construction of bridges and tunnels
42A	42211	IN	CS		*					Construction of water and gas supply networks
42A	42219	IN	CS	*						Civil engineering works relating to fluids n.e.c.
42A	42220	IN	CS	*	*					Construction of utility projects for electricity and telecommunications
42A	42911	MA	DR	*	*	*	*			Dredging
42A	42919	MA	DR	*	*	*	*	*	*	Construction of water projects, except dredging
43A	43110	IN	CS	*	*	*	*	*	*	Demolition
43A	43120	IN	CS	*	*		*	*	*	Site preparation
43B	43211	IN	CS	*	*	*	*	*	*	Electrical engineering installations in buildings
43B	43221	IN	CS	*		*	*	*	*	Plumbing
43B	43222	IN	CS	*	*			*	*	Heat and air conditioning installation
43B	43291	IN	CS	*						Insulation work activities
43C	43320	IN	CS	*	*	*	*		*	Joinery installation
43C	43341	IN	CS	*	*	*	*	*	*	Painting of buildings
43D	43910	IN	CS	*	*	*	*		*	Roofing activities
43D	43999	IN	CS	*	*	*	*	*	*	Other specialised construction activities
45A	45111	CO	CO	*	*	*	*	*	*	Wholesale of cars and light motor vehicles
45A	45191	CO	CO	*			*		*	Wholesale of other motor vehicles (> 3,5 ton)
45A	45193	CO	CO	*						Retail sale of other motor vehicles (> 3,5 ton)
45A	45202	CO	CO	*	*	*	*	*		Maintenance and general repair of motor vehicles
45A	45205	CO	CO	*			*		*	Tyre specialists
45A	45310	CO	CO	*	*	*	*	*	*	Wholesale trade and intermediary of motor vehicle parts and accessories
46A	46110	CO	CO	*						Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods
46A	46120	CO	CO	*	*				*	Agents involved in the sale of fuels, ores, metals and industrial chemicals
46A	46140	CO	CO	*				*	*	Agents involved in the sale of machinery, industrial equipment, ships and aircraft
46A	46170	CO	CO	*	*					Agents involved in the sale of food, beverages and tobacco
46A	46180	CO	CO	*	*		*	*	*	Agents specialised in the sale of other particular products
46A	46190	CO	CO	*	*			*	*	Agents involved in the sale of a variety of goods
46A	46216	CO	CO	*	*		*	*	*	Wholesale of animal feeds and agricultural raw materials
46A	46319	CO	CO	*		*	*		*	Wholesale of fruit and vegetables, except potatoes
46A	46332	CO	CO	*						Wholesale of edible oils and fats
46A	46349	CO	CO	*	*	*	*	*	*	Wholesale of alcoholic and other beverages, general assortment
46A	46381	CO	CO		*	*	*		*	Wholesale of fish, crustaceans and molluscs
46A	46389	CO	CO	*	*	*	*		*	Wholesale of other food n.e.c.
46A	46391	CO	CO	*			*		*	Non-specialised wholesale of frozen food
46A	46392	CO	CO	*		*	*		*	Non-specialised wholesale of non-frozen food, beverages and tobacco
46A	46412	CO	CO	*	*		*		*	Wholesale trade in household textiles and bedding
46A	46423	CO	CO	*	*		*	*	*	Wholesale trade in clothing other than work clothes and underwear
46A	46431	CO	CO	*	*	*	*	*	*	Wholesale trade in domestic electrical appliances and audio and video equipment
46A	46442	CO	CO	*	*		*		*	Wholesale of cleaning materials
46A	46460	CO	CO	*	*	*	*	*	*	Wholesale of pharmaceutical goods
46A	46499	CO	CO	*	*	*	*	*	*	Wholesale of other household goods n.e.c.
46A	46510	CO	CO	*	*		*		*	Wholesale of computers, computer peripheral equipment and software
46A	46620	CO	CO	*	*		*		*	Wholesale of machine tools
46A	46630	CO	CO	*		*	*	*	*	Wholesale of mining, construction and civil engineering machinery
46A	46693	CO	CO	*	*	*	*	*	*	Wholesale trade in electrical equipment, including installation materials
46A	46694	CO	CO	*					*	Wholesale trade in lifting and transport equipment
46A	46695	CO	CO	*			*		*	Wholesale trade in pumps and compressors
46A	46699	CO	CO	*	*	*	*	*	*	Wholesale of other machinery and equipment n.e.c
46B	46710	CO	CO	*	*	*	*	*	*	Wholesale of solid, liquid and gaseous fuels and related products
46A	46720	CO	CO	*	*		*	*	*	Wholesale of metals and metal ores
46A	46731	CO	CO	*	*	*	*	*	*	Wholesale of construction materials, general assortment
46A	46732	CO	CO	*	*	*	*	*	*	Wholesale of wood
46A	46733	CO	CO		*		*		*	Wholesale trade in wallpapers, paints and household textiles
46A	46741	CO	CO	*	*		*			Wholesale of hardware

TABLE 54 (continued) LIST OF NACE-BEL BRANCHES (NACE-BEL 2008)

SUT	NACE-BEL	Cluster	Sector	AN	GN	OO	ZB	LG	BR	Definition
46A	46751	CO	CO	*	*	*	*	*	*	Wholesale of industrial chemical products
46A	46769	CO	CO	*	*		*		*	Wholesale trade in other intermediate products n.e.c.
46A	46772	CO	CO		*		*	*		Wholesale trade in iron and steel scrap and non-ferrous scrap metals
46A	46900	MA	CP	*	*	*	*	*	*	Non-specialised wholesale trade
47A	47230	CO	CO	*		*	*		*	Retail sale of fish, crustaceans and molluscs in specialised stores
47B	47300	CO	CO	*	*	*	*	*	*	Retail sale of automotive fuel in specialised stores
47A	47410	CO	CO	*	*		*		*	Retail sale of computers, peripheral units and software in specialised stores
47A	47521	CO	CO	*	*	*	*	*	*	Specialist retail trade in building materials and DIY supplies, general range
47A	47781	CO	CO	*	*	*	*	*	*	Specialist retail trade in fuels other than road fuel
49A	49200	TR	TP	*	*	*	*	*	*	Freight rail transport
49C	49410	TR	WE	*	*	*	*	*	*	Freight transport by road, except removal
49C	49420	TR	WE	*					*	Removal services
49C	49500	TR	WE	*			*			Transport via pipelines
50A	50200	MA	RE	*	*	*	*	*	*	Sea and coastal freight water transport
50B	50400	MA	RE	*	*	*	*	*		Inland freight water transport
52A	52100	MA	GO	*	*	*	*	*	*	Warehousing and storage, including refrigerating
52A	52210	LO	AD	*		*			*	Service activities incidental to land transportation
52A	52220	MA	GO	*	*	*	*	*	*	Service activities incidental to water transportation
52A	52241	MA	GO	*	*	*	*	*	*	Cargo handling in sea ports
52A	52249	MA	GO	*	*	*	*	*	*	Cargo handling except sea ports
52A	52290	MA	SE	*	*	*	*	*	*	Other transportation support activities
53A	53200	TR	WE	*	*	*			*	Other postal and courier activities
62A	62010	LO	AD	*	*	*	*		*	Computer programming activities
66A	66210	LO	AD	*	*		*			Risk and damage evaluation
66A	66220	LO	AD	*	*	*	*	*	*	Activities of insurance agents and brokers
66A	66290	LO	AD		*					Other activities auxiliary to insurance and pension funding
68B	68203	LO	AD	*	*	*	*		*	Renting and operating of own or leased non residential real estate, except lands
68A	68321	LO	AD	*	*	*	*			Management of residential real estate on a fee or contract basis
68A	68322	LO	AD	*	*	*				Management of non-residential real estate on a fee or contract basis
69A	69201	LO	AD	*			*		*	Accountants and fiscal advisors
70A	70100	LO	AD	*	*	*	*	*	*	Activities of head offices
70A	70220	LO	AD	*	*	*	*	*	*	Business and other management consultancy activities
71A	71121	LO	AD	*	*	*	*	*	*	Engineering activities and related technical consultancy, except surveyor
71A	71209	LO	AD	*	*		*			Other technical testing and analysis
72A	72190	LO	AD						*	Other research and experimental development on natural sciences and engineering
73A	73110	LO	AD	*	*	*	*	*	*	Advertising agencies
77A	77120	LO	AD	*	*	*	*	*	*	Renting and leasing of trucks
77C	77320	LO	AD	*	*		*		*	Renting and leasing of construction and civil engineering machinery and equipment
77C	77340	LO	AD	*	*	*				Renting and leasing of water transport equipment
77C	77399	LO	AD	*	*		*	*	*	Renting and leasing of other machinery, equipment and tangible goods
80A	80100	LO	AD	*	*	*	*		*	Private security activities
81A	81100	LO	AD	*	*		*	*	*	Combined facilities support activities
81B	81220	LO	AD	*	*	*	*	*	*	Other building and industrial cleaning activities
81B	81290	LO	AD	*		*				Other cleaning activities
82A	82110	LO	AD	*	*		*	*	*	Combined office administrative service activities
82A	82920	LO	AD	*	*					Packaging activities
82A	82990	LO	AD	*	*	*	*	*	*	Other business support service activities n.e.c.
84B	84220	MA	PU			*	*			Defence activities

Source:NBB.

The asteriks denote the presence of the activity branches in the ports for at least one year over the period 2007 - 2012. For instance the branch 52241 (Cargo handling in sea ports) is or was present in the six ports, at the same time or at least one year in each of these ports between 2007 and 2012, while the branch 30110 (Building of ships and floating structures) was only present in Antwerp and Ostend.

Legend:

Port code	Port
AN	Port of Antwerp
GN	Port of Ghent
OO	Port of Ostend

Port code	Port
ZB	Port of Zeebrugge
LG	Liège port complex
BR	Port of Brussels

Cluster code	Cluster definition
MA	Maritime
CO	Trade
IN	Industrie
TP	Land transport
LO	Other logistic services

Sector code	Sector definition
SE	Shipping agents and forwarders
GO	Cargo handling
RE	Shipping companies
SB	Shipbuilding and repair
DR	Port construction and dredging
VI	Fishing
CP	Port trade
HB	Port authority
PU	Public sector
CO	Trade
EN	Energy
PE	Fuel production
CH	Chemicals
AU	Car manufacturing
MP	Electronics
ME	Metalworking industry
CS	Construction
VO	Food industry
AI	Other industries
WE	Road transport
TP	Other land transport
AD	Other services

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