

Lagneaux, Frédéric

Working Paper

Economic Importance of the Belgian Ports: Report 2005. Flemish maritime ports and Liège port complex

NBB Working Paper, No. 115

Provided in Cooperation with:

National Bank of Belgium, Brussels

Suggested Citation: Lagneaux, Frédéric (2007) : Economic Importance of the Belgian Ports: Report 2005. Flemish maritime ports and Liège port complex, NBB Working Paper, No. 115, National Bank of Belgium, Brussels

This Version is available at:

<https://hdl.handle.net/10419/144328>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Economic importance of the Belgian ports:
Flemish maritime ports and
Liège port complex – report 2005



Working Paper Document

by Frédéric Lagneaux

May 2007 **No 115**

NATIONAL BANK OF BELGIUM
WORKING PAPERS - DOCUMENT SERIES

ECONOMIC IMPORTANCE OF THE BELGIAN PORTS: REPORT 2005

Flemish maritime ports and Liège port complex

Frédéric Lagneaux

Editorial Director

Jan Smets, Member of the Board of Directors of the National Bank of Belgium

Statement of purpose:

The purpose of these working papers is to promote the circulation of research results (Research Series) and analytical studies (Documents Series) made within the National Bank of Belgium or presented by external economists in seminars, conferences and conventions organised by the Bank. The aim is therefore to provide a platform for discussion. The opinions expressed are strictly those of the authors and do not necessarily reflect the views of the National Bank of Belgium.

Orders

For orders and information on subscriptions and reductions: National Bank of Belgium,
Documentation - Publications service, boulevard de Berlaimont 14, 1000 Brussels

Tel +32 2 221 20 33 - Fax +32 2 21 30 42

The Working Papers are available on the website of the Bank: <http://www.nbb.be>

© National Bank of Belgium, Brussels

All rights reserved.

Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

ISSN: 1375-680X (print)

ISSN: 1784-2476 (online)

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 - and the Autonomous Port of Liège 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 centres facilitating the commodity flow.

This update paper¹ provides an extensive overview of the economic importance and development of the Flemish maritime ports and the Liège port complex in the period 2000 - 2005, with an emphasis on 2005. Focusing on the three major variables of value added, employment and investment, the report also provides some information about the financial situation in each port. A global indication concerning the financial health of the companies studied is also provided. 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.

The developments concerning economic activity in the five ports in 2004 - 2005 are summarised in this table:

Changes from 2004 to 2005 (in percentages)	Value added (constant prices)	Employment (Full-Time Equivalents)	Investment (constant prices)	Tonnage (metric tonnes)
<u>Flemish maritime ports</u>				
Direct	+ 7.3	+ 0.4	+ 42.7	+ 3.7
Indirect	+ 3.8	+ 4.4	-	(seaborne)
Total	+ 5.6	+ 2.6	-	
<u>Liège port complex</u>				
Direct	+ 1.1	- 2.4	- 2.2	- 6.3
Indirect	+ 0.3	- 3.0	-	(inland)
Total	+ 0.7	- 2.8	-	

2005 was a year of steady growth for most Flemish maritime ports, in terms of quantity of cargo handled and value added, although there was a slight deceleration in comparison to the previous year. The employment situation was, by contrast, somewhat mixed, while investment soared, far exceeding the pace recorded since 2000. The current changes in world trade patterns are having a substantial impact on the operations of the Flemish and Liège ports, situated at the heart of one of the wealthiest and busiest trading regions of the world. To cope with the accelerating internationalisation of port competition and the tremendous growth of containerised seaborne transport, the ports concerned need to constantly adapt their infrastructures, through innovation and investment. As major logistic centres, they have to face the challenge of responding to increasing demand in terms of capacity, while adding as much value as possible to the goods passing through them. Accessibility and seamless connections with the hinterland are key to their success and

¹ Update of Lagneaux F. (2006), *Economic importance of the Belgian ports: Flemish maritime ports and Liège port complex - report 2004*, NBB, Working Paper No. 86 (Document series). All figures have been updated.

durability. This has become absolutely vital in a climate of growing regional and international competition, accentuated by the booming Asian economies.

The port of Liège is striving to turn a threat into an opportunity. In the wake of the Cockerill Sambre blast furnace closure, the Liège port complex is undergoing a major restructuring. Cargo figures were down sharply in 2005, while the economic situation of the area was dominated by stagnation or decline in terms of value added, employment and investment. However, this fall could be short-lived since the revival expected from the development of value-added logistics will also generate increased activity, traffic and demand for manpower.

The present report provides a comprehensive account of these issues, giving details per economic sector, though the comments are confined to the main changes that occurred in 2005.

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.

Corresponding author:

NBB, Microeconomic Information Department, e-mail: frederic.lagneaux@nbb.be

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

The author would like to thank the Flemish and Liège's ports experts and his colleagues from both the regional branches and the Microeconomic Information department for their support. Special thanks go to Messrs Luc Dufresne, head of department at the NBB, and George van Gastel, head of service at the NBB, for their comments on this paper, and to Mr Marc Van Kerckhoven for his unequalled experience and his personal commitment in searching for information and processing data. The help and advice given unstintingly by the Research and Statistics departments, i.e. Messrs Luc Dresse and Ghislain Poulet, were also greatly appreciated.

CONTENTS:

Foreword.....	1
Introduction	2
1 Economic Importance of the Flemish maritime ports	5
1.1 General Situation.....	5
1.1.1 Competitive position of the Flemish ports in the Hamburg - Le Havre range.....	5
1.1.2 Direct and indirect value added (VA) in the Flemish maritime ports: summary	7
1.1.3 Direct and indirect employment in the Flemish maritime ports: summary.....	8
1.1.4 Investment in the Flemish maritime ports: summary	8
1.1.5 Breakdown of findings by company size.....	9
1.1.6 Social balance sheet in the Flemish maritime ports.....	9
1.1.7 Financial situation in the Flemish maritime ports: summary	15
1.1.8 Sea freight traffic in the Flemish maritime ports: breakdown by type of packing	17
1.2 Port of Antwerp	19
1.2.1 Highlights in 2005.....	19
1.2.2 Value added	20
1.2.3 Employment	22
1.2.4 Investment.....	24
1.2.5 Financial ratios	26
1.3 Port of Ghent	28
1.3.1 Highlights in 2005.....	28
1.3.2 Value added	28
1.3.3 Employment	30
1.3.4 Investment.....	32
1.3.5 Financial ratios	34
1.4 Port of Ostend	37
1.4.1 Highlights in 2005.....	37
1.4.2 Value added	37
1.4.3 Employment	39
1.4.4 Investment.....	41
1.4.5 Financial ratios	43
1.5 Port of Zeebrugge.....	45
1.5.1 Highlights in 2005.....	45
1.5.2 Value added	45
1.5.3 Employment	48
1.5.4 Investment.....	50
1.5.5 Financial ratios	52
2 Economic importance of the Liège port complex	55
2.1 Port of Liège	55
2.1.1 Highlights in 2005.....	55
2.1.2 Value added	56
2.1.3 Employment	58
2.1.4 Investment.....	60
2.1.5 Breakdown of findings by company size.....	62
2.1.6 Social balance sheet at the Liège port complex	62
2.1.7 Financial situation.....	67
2.1.8 Freight traffic at the port of Liège.....	71
3 Summary.....	73

List of abbreviations	77
Annex 1: Detailed social balance sheet in 2005.....	79
Bibliography	85
National Bank of Belgium working paper series.....	87

FOREWORD

Every year the Bank publishes an update of the study on the economic importance of the Flemish maritime ports and the Liège port complex. Two aspects of the sector's economic impact are highlighted: the direct effects and the indirect effects. The former concern the activity resulting from the location of maritime and non maritime branches in the ports or in their immediate vicinity, while the latter relate to the value added and employment generated upstream of those branches, among suppliers and subcontractors based in Belgium.

The previous edition of the report² brought together for the first time the studies on the Flemish maritime ports - Antwerp, Ghent, Ostend and Zeebrugge - and on the Liège port complex. This issue offers the same comprehensive survey, but in more compact form, speeding up its publication. The statistical data cover the period 2000 - 2005, but the comments are confined to the main changes occurring between 2004 and 2005. The update of the annexes has not been included in this document, except for the detailed social balance sheet for 2005³. There have been no methodological changes, the tools used to select firms and conduct the analysis being the same as those employed in the previous issues.

The Flemish ports studied are the four main maritime ports in Flanders, and the Autonomous Port of Liège (PAL), which is the principal inland port of Belgium, and more particularly Wallonia. The port of Brussels, in view of its specific structural characteristics, recently formed the subject of a separate study, conducted jointly by ORBEm and the Bank⁴.

Following a brief introduction, the analysis is presented in two parts: one on the Flemish maritime ports and the other on the Liège port complex. The 2005 results confirm the aggregate estimates supplied by the "flash estimates" published for the first time in December 2006⁵. The findings obtained in the present research for the 2005 direct value added are only 0.2 p.c. higher than the results highlighted by those estimates. The gap didn't exceed 0.5 p.c. as regards the direct employment. The efforts to circulate the results at an earlier date will continue this year with an initial estimate of the 2006 results scheduled for the autumn of 2007, while the exhaustive, detailed data will again be presented in May of the following year.

² Lagneaux F. (2006), *Economic importance of the Belgian ports : Flemish maritime ports and Liège port complex - report 2004*, NBB, Working Paper n° 86 (Document series).

³ The other annexes are available on request. They are the methodological annexes, the detailed breakdown of the indirect effects by sector, the breakdown of results by size of firm, and statistics on the tonnages recorded in 2005. All requests should be sent to microeconomic.analysis@nbb.be.

⁴ ORBEm (2007), *Poids socio-économique des entreprises implantées sur le site du Port de Bruxelles*.

⁵ See <http://www.nbb.be/doc/ts/Enterprise/Press/2006/E/cp20061218En.pdf>.

INTRODUCTION

Objectives of the study

The changing economic importance of the ports under review is analysed from three angles: the strictly economic angle, the social angle and the financial angle. This study concerns only firms belonging to the branches of activity which have an economic link with the ports. That link is defined in relation to both functional and geographical criteria.

For the period 2000 – 2005, the main developments are analysed by studying the following variables:

- Value added (VA) at current prices⁶: the value which the firm adds to its inputs during the year via the production process. The firm's VA indicates its contribution to the wealth of the country or region (cf. percentages of GDP). From an accounting point of view, the VA is calculated by the sum of staff costs, depreciation and value adjustments, operating result, provisions for liabilities and charges and certain operating expenses.
- Employment in full-time equivalents (FTE): average workforce during the year, direct employment concerning only paid staff working in firms in the population under review, indirect employment also including self-employed workers.
- Investment at current prices⁷: this corresponds to tangible fixed assets acquired during the year, including capitalised production costs.

These three variables explain the economic impact of the ports under review. But employment, by the same token as the social balance sheet, also comes into the analysis of their social impact. This chapter deals in particular with the composition, movements and training of the labour force.

The financial analysis corresponds to the third angle considered by the study and is based on examination of three financial ratios and failure prediction, using a model designed by the Bank⁸. The ratios in question are the return on equity after tax, liquidity in the broad sense, and solvency. The first ratio concerns the ability of firms to generate profits, and gives an indication of the yield generated by the firm for its shareholders, after tax. The second relates to the firm's ability to mobilise the cash resources to meet its short-term commitments on time. Finally, the last ratio indicates the firm's ability to honour all its short- and long-term commitments. The failure prediction model analyses the differences in the financial risk profile between two types of firms: those which are not failing, and failing firms which are theoretically likely to become bankrupt or go into judicial composition in the ensuing three years. The firms are classified according to risk. Classes 3 and 4 correspond to firms in difficulty and firms in serious difficulty which have a well above-average risk of failing.

The microeconomic data used come from the accounts filed with the Central Balance Sheet Office⁹ and the statistics produced by the National Accounts Institute (NAI¹⁰). At the Central Balance Sheet Office, the final closure of the 2005 accounts took place in March 2007¹¹. Similarly, the NAI figures for VA and employment, necessary to estimate the indirect effects up to 2005, are published after a certain time lag. The latest updates have been included in all the calculations, while the methodology is exactly the same

⁶ Unless otherwise stated, value added is reported at current prices throughout the text. Changes at constant prices are clearly indicated. Value added at constant prices was calculated using the deflator of gross value added.

⁷ Unless otherwise stated, investment is reported at current prices throughout the text. Changes at constant prices are clearly indicated. Investment at constant prices was calculated using the deflator of gross fixed capital formation.

⁸ See Vivet D. (2005).

⁹ The Bank's Microeconomic Information Service. See www.nbb.be / Central Balance Sheet Office.

¹⁰ 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 – 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 necessary for the estimation of the indirect effects. The most recent data available at the time of estimating indirect effects were the 2000 IOT and the 2002 SUT.

¹¹ 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 proportion of firms – mainly small businesses or those in difficulties - fail to meet the obligation by that date. However, by March 2007 that percentage was close to zero and the impact on the figures is minimal.

as that used previously. For more information on this subject, the reader is requested to refer to the 2004 report published last year¹².

Context

At global level, the year 2005 was notable for continuing sustained growth of the activity, although the rate of expansion was slightly lower than in 2004. Growth was still driven by the Asian and North American economies, resilient to the steep rise in the price of commodities, and particularly oil. There was a slight pause in the growth of world trade, although it continued to expand at more or less twice the pace of world GDP. The European economy recovered its momentum in the second half of the year, bolstered both by domestic demand, e.g. in Ireland and Spain, and by exports, as in Germany. Belgium's cyclical profile matched that of the euro area, as its exports began rising again in the second half of the year¹³.

The European Union (EU) is dependent on the sea for 90 p.c. of the volume of its trade with the rest of the world. The increasingly open character¹⁴ of the Belgian economy also makes the country ever more dependent on its sea ports. The Belgian and European ports gain direct benefit from the growth of international trade. It is in this context of the globalisation of port activities that containerisation has confirmed its ascendancy over other methods of packing goods, as it is expanding inexorably. This trend is evident in Antwerp and Zeebrugge, but also throughout the Hamburg - Le Havre range (cf. point 1.1.1). The port of Liège, which is undergoing major changes, is increasingly taking on the role of Antwerp's inner port, and expects to handle a growing number of containers by 2009. The Belgian ports have gradually become more specialised on account of their geographical characteristics. Antwerp has developed its international and intercontinental activity and has also benefited from strong links with Rotterdam, Amsterdam and Liège; Ghent has developed close links with France and the Baltic countries; Zeebrugge, biggest port in the world for the transportation of new vehicles, and Ostend are leading ports for shortsea shipping¹⁵ (SSS), primarily with the United Kingdom. They are exposed not only to domestic competition but also – and above all – to competition from outside Belgium, particularly within the range, as each port tries to defend its position in relation to the Asian countries, which have now become major trading partners and have some of the world's top ports.

Impact

The reason why the Bank is interested in this sector is, of course, the major role which it plays in the national economy: no less than 5.2 p.c. of Belgian GDP comes from activities directly connected with the five ports under review, as does 3.1 p.c. of Belgium's domestic employment. If the indirect effects are added (subcontractors and companies supplying the firms under review), these percentages come to 9.8 and 7.3 p.c. respectively. In terms of evolution, while VA has tended to increase in recent years, following the growth in traffic, employment has remained relatively stable, and has actually declined in some ports. These differences highlight the complexity of deciding the future strategy for this economic sector. That question will also be discussed below.

¹² The methodology is presented in the introduction by Lagneaux F. (2006) and set out in full in annexes 1 to 4.

¹³ For more details, see Part 1 of the NBB Annual Report or Belgostat On-Line.

¹⁴ The share of imports and exports in Belgium's GDP has risen steadily since the creation of the Common Market. In 2005, the figures were 83 and 86 p.c. respectively.

¹⁵ Term commonly used for short distance sea transport: movement of cargo by sea between ports situated in Europe as well as between ports situated in Europe and ports situated in non-European countries having a coastline on the enclosed seas bordering Europe. Source: UN/ECE (2001), *Terminology on Combined Transport*. Note that over 40 p.c. of the European Union's internal trade takes place by sea. See also <http://europa.eu>.

1 ECONOMIC IMPORTANCE OF THE FLEMISH MARITIME PORTS

1.1 GENERAL SITUATION

In 2005, the direct VA attributable to the activity of firms located in the Flemish ports increased by 7.3 p.c. at constant prices, compared to the previous year. At 14.1 billion euro, it represented 8.2 p.c. of the Flemish Region's GDP and 4.7 p.c. of Belgium's GDP. The indirect effects, estimated at 12.8 billion euro, are additional to these figures.

Direct employment showed little change (+ 0.4 p.c.), totalling almost 106,700 FTEs. This population corresponds to 4.9 p.c. of employment in the Flemish Region and 2.8 p.c. of Belgian domestic employment. If indirect employment is included, the total comes to 247,200 FTEs. The expansion of part-time working, the decline in permanent contracts and the increasing proportion of female staff were again evident in the Flemish ports in 2005. Here, the average annual cost per FTE remained well above the national average, whereas expenditure on training showed a marked fall.

Investment in tangible fixed assets recorded an unprecedented rise over the period, three times the annual average recorded between 2000 and 2005, namely + 42.7 p.c. at constant prices, to reach 4.6 billion euro.

Return on equity after tax increased once again in the four Flemish ports in 2005, rising to twice the national average. Conversely, liquidity in the broad sense and solvency did not do so well, scoring less than Belgian non-financial corporations as a whole. The enterprises in the Flemish maritime ports are therefore more profitable than the national average, but appear to be grappling with more financial risks.

Sea freight continued to expand in 2005 (+ 3.7 p.c.), particularly in the ports of Antwerp and Zeebrugge, which benefited from the strong growth of container traffic.

1.1.1 Competitive position of the Flemish ports in the Hambourg - Le Havre range

The Flemish ports of Antwerp and Zeebrugge recorded significant increases in traffic in 2005, whereas the pace slowed somewhat at Ostend, and Ghent recorded a decline. Altogether, the four sea ports in the north of the country thus saw the volume of sea freight grow by 3.7 p.c. in one year, which was faster than the average for the period 2000 - 2005 (table 1). Setting a new record, at over 160 million tonnes of sea freight, and equalling Rotterdam in terms of percentage growth, the port of Antwerp, the second biggest in Europe and fourth largest sea port in the world in terms of international trade, held on to eleventh place in containerised cargo. On the other hand, taking all forms of packing and destinations together, it slipped from tenth to eleventh position, overtaken by the Chinese port of Dalian.

This fiercer competition is taking place against the background of the accelerating expansion of trade with the Asian countries, combined with the end of the supremacy of the European ports¹⁶. The ports of Shanghai and Singapore went into the lead in the world league table since 2004, relegating Rotterdam to third position. The question now is which ports in the range will end up as the winners in the face of this emerging traffic and an Asian continent which, strengthened by unprecedented development and growing demand for commodities, is triggering exponential growth of global maritime traffic.

¹⁶ All the same, the European ports still handle almost 2 billion tonnes a year, with shipping companies owned by EU nationals controlling almost 40 p.c. of the world fleet. Source: <http://europa.eu>.

TABLE 1

**TOTAL MARITIME TRAFFIC IN THE HAMBURG - LE HAVRE RANGE
(INCLUDING OSTEND)**

(millions of tonnes, unless otherwise stated)

Port	2000	2001	2002	2003	2004	2005	Average change 2000 - 2005 (in p.c.)	Change 2004 - 2005 (in p.c.)	Average share in the range 2000 - 2005 (in p.c.)	Share in the range in 2005 (in p.c.)
Hamburg	85.1	92.4	97.6	106.3	114.5	125.7	+ 8.1	+ 9.8	12.0	13.1
Bremen	44.8	46.0	46.5	48.9	52.3	54.3	+ 3.9	+ 3.8	5.7	5.7
Amsterdam ¹⁷	44.6	49.4	50.3	44.5	51.9	53.8	+ 3.8	+ 3.7	5.7	5.6
Rotterdam	322.3	314.7	321.9	328.1	352.4	370.2	+ 2.8	+ 5.1	38.9	38.7
Antwerp	130.5	130.1	131.6	142.9	152.3	160.1	+ 4.2	+ 5.1	16.4	16.7
Ghent	24.1	23.5	24.0	23.5	25.0	22.2	- 1.6	- 11.0	2.8	2.3
Ostend	4.3	4.8	6.2	7.2	7.5	7.7	+ 12.4	+ 1.8	0.7	0.8
Zeebrugge	35.5	32.1	32.9	30.6	31.8	34.6	- 0.5	+ 8.8	3.8	3.6
Total for the Flemish ports	194.4	190.5	194.7	204.2	216.6	224.6	+ 2.9	+ 3.7	23.7	23.5
Dunkirk	45.3	44.5	47.6	50.1	51.0	53.4	+ 3.3	+ 4.7	5.7	5.6
Le Havre	68.0	69.4	68.1	71.9	76.8	75.2	+ 2.0	- 2.1	8.3	7.9
<i>Total for the ten ports</i>	<i>804.5</i>	<i>806.8</i>	<i>826.8</i>	<i>854.1</i>	<i>915.5</i>	<i>957.2</i>	<i>+ 3.5</i>	<i>+ 4.6</i>	<i>100.0</i>	<i>100.0</i>
<i>Total world traffic</i>	<i>5,983</i>	<i>6,020</i>	<i>6,127</i>	<i>6,480</i>	<i>6,758</i>	<i>7,110</i>	<i>+ 3.5</i>	<i>+ 5.2</i>		
Share for the ten ports in world traffic (in p.c.)	13.4	13.4	13.5	13.2	13.5	13.5				

Sources: For traffic in the range: port authority data - including the port of Rotterdam statistics - and *Jaaroverzicht Vlaamse havens 2005* (Annual report 2005) of Vlaamse Havencommissie; for world traffic: UNCTAD, *Review of Maritime Transport 2006*.

The four Flemish ports have so far succeeded in holding onto almost 24 p.c. of the total tonnages recorded in the range (including Ostend), and over 3 p.c. of global traffic. With the continuing boom in traffic, the year 2006 confirms the rising trend seen in previous years: the Flemish ports taken as a whole achieved a new record, with containerised traffic playing a decisive role here, too. Infrastructures capable of taking the largest container vessels naturally have an advantage in the race for market share. Deep water ports such as Rotterdam, which can take ULCS (*Ultra Large Container Ships*), with a capacity of 12,000 TEU¹⁸ and more, have a major advantage over those whose sea access is limited to medium-large tonnages, such as the Flemish ports.¹⁹ But despite these limitations in terms of infrastructure accessibility and absorption capacity in the hinterland, the Flemish ports have some major strengths, as described in sections 1.2 to 1.5, and may find an effective solution by concentrating on shortsea shipping, for example, and combined transport.

¹⁷ 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.

¹⁸ Twenty-foot Equivalent Unit. Unit of measurement corresponding to a 20 foot ISO container (6.1 metres long), used to express transport capacities or flows. Source: UN/ECE (2001).

¹⁹ Up to VLCS -*Very Large Container Ships*- of 9,500 TEU at Antwerp and 11,000 TEU at Zeebrugge.

1.1.2 Direct and indirect value added (VA) in the Flemish maritime ports: summary

TABLE 2 **VALUE ADDED IN THE FLEMISH MARITIME PORTS**
(millions of euros - current prices)

	2000	2001	2002	2003	2004	2005	Relative share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change 2000 - 2005 (in p.c.)
1. DIRECT EFFECTS.....	10,808.9	10,688.8	11,032.3	11,315.0	12,875.6	14,089.2	100.0	+ 9.4	+ 5.4
Antwerp	6,938.3	6,919.3	7,070.7	7,338.8	8,250.6	9,273.7	65.8	+ 12.4	+ 6.0
Ghent.....	2,818.7	2,654.6	2,818.2	2,822.7	3,394.1	3,520.2	25.0	+ 3.7	+ 4.5
Ostend	258.1	312.1	323.1	337.1	360.4	410.6	2.9	+ 13.9	+ 9.7
Zeebrugge	715.9	727.0	748.1	723.8	791.0	783.8	5.6	- 0.9	+ 1.8
Outside the ports ²⁰	77.8	75.8	72.3	92.5	79.5	101.0	0.7	+ 27.1	+ 5.4
2. INDIRECT EFFECTS	10,359.1	10,894.6	11,079.5	11,091.2	12,131.9	12,844.9	-	+ 5.9	+ 4.4
Total value added.....	21,167.9	21,583.5	22,111.8	22,406.2	25,007.5	26,934.1	-	+ 7.7	+ 4.9

Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office, and the Belgian IOTs)²¹.

VA growth continued in 2005, although at a more modest pace than in the previous year (table 2). Sectors recording a good performance were the Antwerp and Zeebrugge shipping companies, Antwerp chemicals, Ghent trade and Ostend metalworking. These increases were partly offset by falls recorded in the following – mainly industrial – sectors: Ghent car manufacturing, Zeebrugge energy and electronics, and Antwerp and Ostend port construction and dredging.

Direct VA increased by 9.4 p.c. at current prices and 7.3 p.c. at constant prices in 2004 - 2005. In 2005, that VA was equivalent to 8.2 p.c. of Flanders GDP and 4.7 p.c. of Belgium's GDP.²² If indirect effects are taken into account, the percentages came to 15.7 and 9 p.c. respectively. It is worth noting that these percentages exceed those recorded in the previous year, i.e. the economic activity of the Flemish ports has expanded faster during that period than the economy as a whole.

²⁰ These figures, belonging to maritime companies which have no branch in the strictly defined port areas, are stated per Flemish port (cf. points 1.2, 1.3, 1.4 et 1.5) according to the breakdown of VA.

²¹ This methodological framework entails that some data, such as those related to foreign firms, are not taken into account.

²² Source: National Accounts Institute (2007), *Regional accounts 1995 - 2005*.

1.1.3 *Direct and indirect employment in the Flemish maritime ports: summary*

TABLE 3 **EMPLOYMENT IN THE FLEMISH MARITIME PORTS**
(FTE)

	2000	2001	2002	2003	2004	2005	Relative share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change 2000 - 2005 (in p.c.)
1. DIRECT EFFECTS	103,918	106,511	105,231	104,327	106,212	106,683	100.0	+ 0.4	+ 0.5
Antwerp.....	60,166	62,174	61,814	60,769	61,498	61,821	57.9	+ 0.5	+ 0.5
Ghent	28,064	28,215	27,582	27,493	28,081	28,272	26.5	+ 0.7	+ 0.1
Ostend	3,844	4,039	4,197	4,353	4,389	4,431	4.2	+ 1.0	+ 2.9
Zeebrugge.....	10,502	10,792	10,348	10,028	10,598	10,422	9.8	- 1.7	- 0.2
Outside the ports ²³	1,341	1,290	1,290	1,685	1,646	1,736	1.6	+ 5.5	+ 5.3
2. INDIRECT EFFECTS	140,387	147,314	139,321	132,468	134,645	140,540	-	+ 4.4	+ 0.0
Total employment....	244,305	253,825	244,552	236,796	240,857	247,223	-	+ 2.6	+ 0.2

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

Employment remained remarkably stable in the Flemish ports in 2005 (table 3). Moderate rises were offset by moderate falls. The expansion in the maritime cluster and in the chemicals and energy sectors in Antwerp were offset by a decline in car manufacturing and construction. In Ghent, job losses in electronics and land transport negated the effects of recruitment in car manufacturing. At Ostend, there was higher employment in metalworking, in contrast to the decline in the maritime cluster. Finally, at Zeebrugge, only cargo handling recorded a definite increase in the workforce, while employment was down in most of the other maritime branches and in industry.

The four Flemish ports represented 4.9 p.c. of the Region's domestic employment and 2.8 p.c. of Belgium's domestic employment²⁴. If employment by subcontractors is included, the figures come to 11.4 and 6.6 p.c. respectively.

1.1.4 *Investment in the Flemish maritime ports: summary*

TABLE 4 **INVESTMENT IN THE FLEMISH MARITIME PORTS**
(millions of euros - current prices)

	2000	2001	2002	2003	2004	2005	Relative share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change 2000 - 2005 (in p.c.)
Antwerp.....	1,389.5	1,558.6	1,451.4	1,829.0	2,559.7	3,739.1	80.7	+ 46.1	+ 21.9
Ghent	572.1	596.5	788.3	751.2	342.1	363.2	7.8	+ 6.1	- 8.7
Ostend	99.3	60.0	53.5	61.2	79.4	101.1	2.2	+ 27.2	+ 0.4
Zeebrugge.....	172.8	134.3	157.1	149.8	191.9	351.3	7.6	+ 83.1	+ 15.3
Outside the ports ²⁵	50.6	41.3	38.2	46.5	40.5	77.9	1.7	+ 92.6	+ 9.0
Direct investment	2,284.3	2,390.7	2,488.6	2,837.7	3,213.7	4,632.6	100.0	+ 44.2	+ 15.2

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

²³ These figures are stated per Flemish port (cf. points 1.2, 1.3, 1.4 et 1.5) according to the breakdown of VA.

²⁴ Source: National Accounts Institute (2007), *Regional accounts 1995 - 2005*.

²⁵ These figures are stated per Flemish port (cf. points 1.2, 1.3, 1.4 et 1.5) according to the breakdown of VA.

Investment expanded considerably in 2005 (table 4), an impressive acceleration compared to the previous year: + 44.2 p.c. at current prices, or + 42.7 p.c. at constant prices, far above the annual average for the period 2000 - 2005. The most notable increases last year were recorded in the case of shipping companies and cargo handling, taking all ports together, with Zeebrugge and Antwerp in the lead. Port construction and dredging also made good progress at Antwerp. But except in the energy sector, all industrial firms in those two ports cut their investment expenditure. However, chemicals at Ostend, car manufacturing at Ghent and land transport at Zeebrugge did not follow suit.

1.1.5 *Breakdown of findings by company size*²⁶

TABLE 5 BREAKDOWN OF FINDINGS IN THE FLEMISH MARITIME PORTS IN 2005

Ports	Number of firms ²⁷		Direct VA (in millions of euros)		Direct employment (in FTE)		Direct investment (in millions of euros)	
	Large firms	SMEs	Large firms	SMEs	Large firms	SMEs	Large firms	SMEs
Antwerp	369	1,443	8,762.4	511.2	55,219	6,602	3,487.2	251.9
Ghent	148	495	3,335.3	184.9	25,791	2,480	306.1	57.1
Ostend	29	251	333.0	77.5	3,368	1,063	67.0	34.0
Zeebrugge	78	345	645.5	138.3	8,358	2,064	323.6	27.8
Outside the ports	18	328	44.7	56.3	1,071	665	62.2	15.8
TOTAL	642	2,862	13,121.0	968.3	93,808	12,875	4,246.0	386.6

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

In 2005, SMEs represented 81. p.c. of the number of firms in the Flemish maritime ports, but only 6.9 p.c. of their VA, 12.1 p.c. of their employment and 8.3 p.c. of their direct investment (table 5).

1.1.6 *Social balance sheet in the Flemish maritime ports*²⁸

The social balance sheet covers various aspects of employment in the firm: recruitment and composition of the workforce, the contractual status and standard of education of the employees, staff costs, training policy, and reasons for terminating contracts. The results set out below for direct employment in the four Flemish ports are not exhaustive. They relate to a constant sample²⁹ which was defined for all five ports studied and covered the period 2003 - 2005.

²⁶ Enterprises are deemed large if their annual average number of workers exceeds 100 persons or if they exceed more than one of the following three limits: annual average number of workers – 50 units; annual turnover (excluding VAT) – 7.3 million euro; balance sheet total – 3.65 million euro. These are the criteria applicable from the 2005 financial year. Section 15 of the Companies Code (law of 7 May 1999).

²⁷ For each port, this is the number of firms located in the port zone. The same port may in fact be recorded in more than one port. That is why the total number of firms stated in tables 5 and 43 exceeds 3,622, namely the total number of firms (or VAT numbers) actually considered in the study of the five ports in 2005. In that year, 69 firms were present in two or more ports.

²⁸ The national data mentioned here were taken from Heuse P. and Ph. Delhez (2006). The comparisons are merely an indication, since only firms filing their social balance sheet for a 12-month year ending on 31 December were taken into account in the Social Balance Sheet 2005. This is a smaller population.

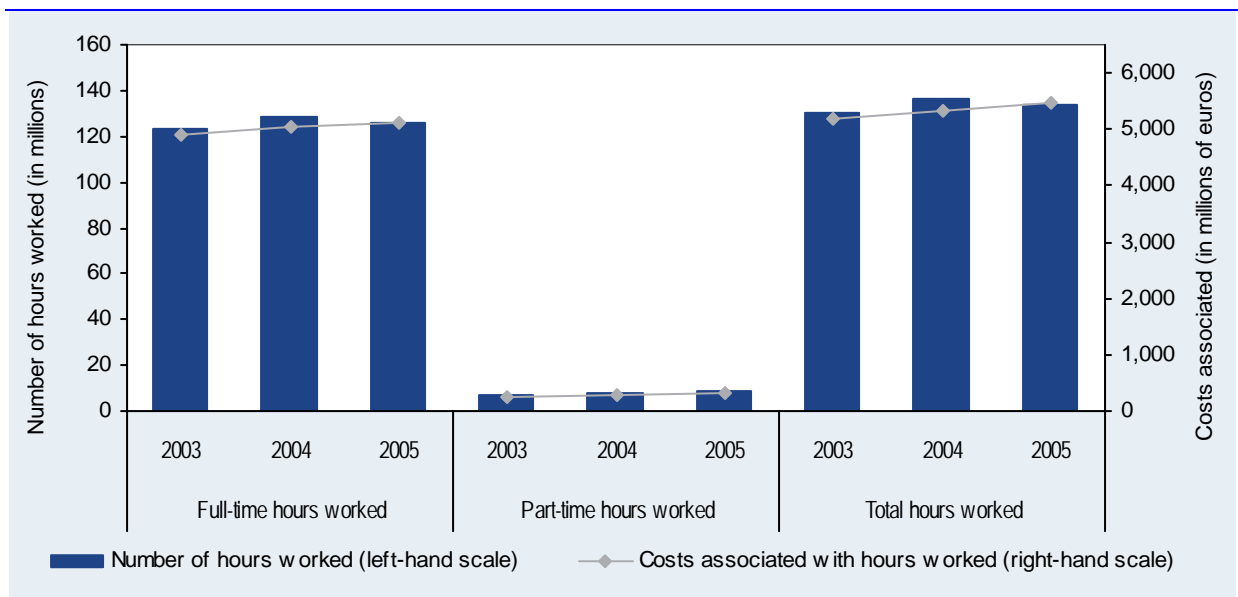
²⁹ The constant sample was defined for all the ports studied, both Flemish and Liège ports, on the basis of the firms which, throughout the period 2003 – 2005, filed their accounts in accordance with the full format and completed the items in the “social balance sheet” annex to the annual accounts necessary for this study. The constant sample covers 828 enterprises and 98,622 FTEs, or 22.9 p.c. of the population of enterprises under review in 2005 and 83.2 p.c. of the direct employment considered in that study.

The comments focus on the changes recorded in the past three years under review. The detailed figures for 2005 may be found in Annex 1.

1.1.6.1 Type of contract and human resource

At the end of the 2005 financial year, the ratio of white-collar to blue-collar workers stood at 66.6 p.c., or 1.6 p.c. above the previous year's figure. This ratio is relatively stable in the long term.

CHART 1 INTERNAL HUMAN RESOURCES³⁰: HOURS WORKED AND ASSOCIATED COSTS



Source: NBB (full presentation accounts only).

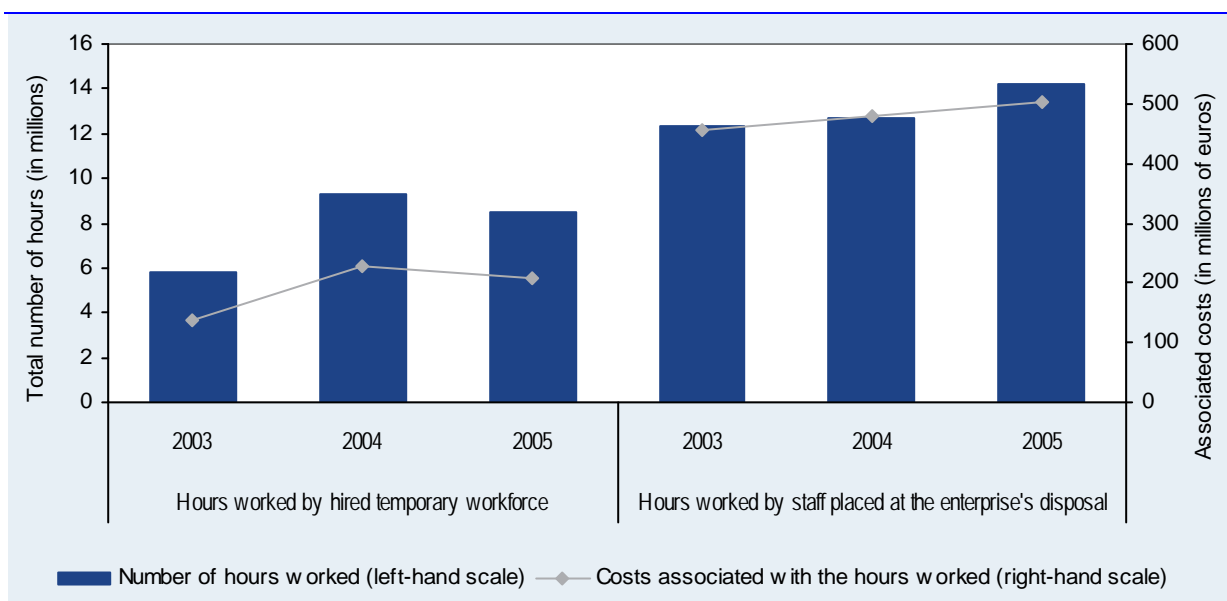
The number of hours worked declined by a total of 1.8 p.c., that fall being due to full-time working which was down by 2.4 p.c., while part-time working continued to rise (+ 7 p.c., chart 1). The branches where part-time working showed the largest increase were trade, energy, car manufacturing, food, and road transport, while full-time working declined in most of the non-maritime branches studied. Full-time working thus represented 93.7 p.c. in 2005, against 94.3 p.c. a year earlier. Conversely, staff costs continued their upward trend, rising by a total of 2.3 p.c., namely 1.6 p.c. for full-timers and 13.8 p.c. for part-timers. This last rise contrasts with the more moderate increase in the corresponding hours worked, a fact observed in industries such as chemicals and metalworking. Taking all categories together, hourly labour costs came to 40.7 euro, against 39 euro in 2004. The average annual cost per FTE totalled 63,226 euro, or 2.7 p.c. more than in 2004 and well above the national level (48,764 euro in 2005³¹).

³⁰ Employees recorded in the staff register of the firms considered.

³¹ Annual average calculated for a reduced population. Source: Heuse P. and Ph. Delhez (2006).

CHART 2

EXTERNAL HUMAN RESOURCES³²: HOURS WORKED AND ASSOCIATED COSTS



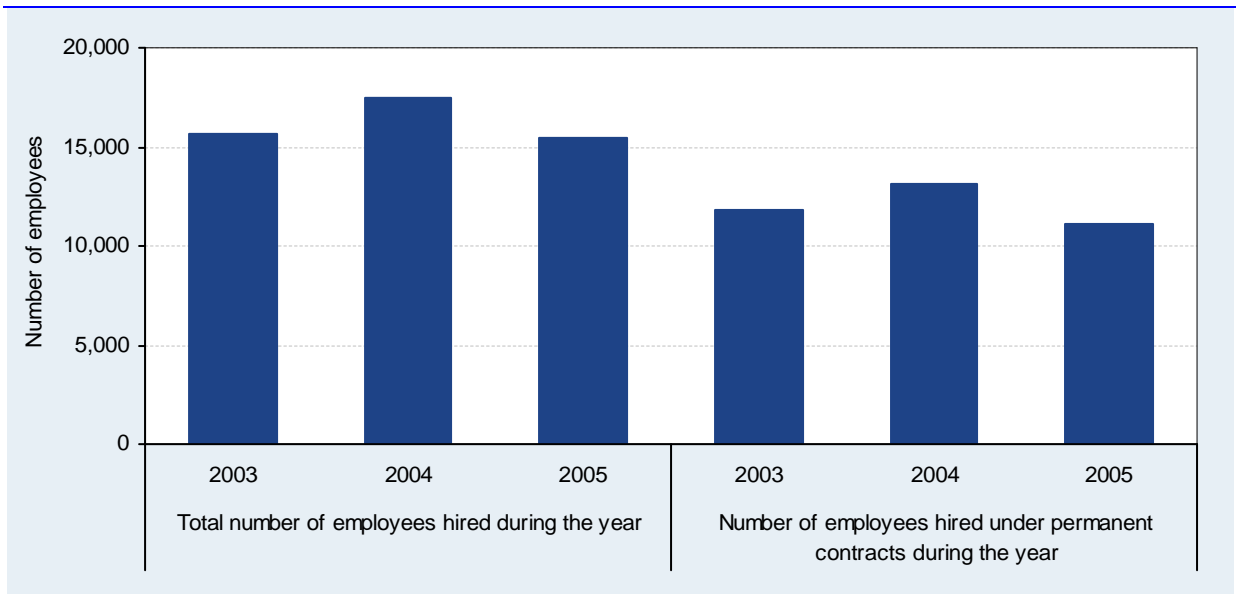
Source: NBB (full presentation accounts only).

The hours worked by external personnel presented a mixed picture in 2005, with a decline of 8.7 p.c. for temporary staff compared to the previous year, and an increase of 12.4 p.c. for staff made available to enterprises over the same period (chart 2). The costs corresponding to these two categories were down by 7.9 p.c. for the first and up by 4.8 p.c. for the second. The main decline in temporary work occurred in cargo handling, trade, car manufacturing, electronics and other land transport. The hours worked by staff made available to enterprises increased significantly in the case of cargo handling, shipping companies, trade, oil, chemicals and car manufacturing industries and other logistic services.

³² Hired temporary staff and staff placed at the enterprise's disposable. The latter refers to the workers an employer places at other users' disposal. Those users exercise part of the employer's authority over the workers, who remain contractually bound to their employer. Definition enshrined in the law of 24 July 1987 on "Temporary labour, hired temporary staff and staff placed at third users' disposal".

1.1.6.2 Staff turnover

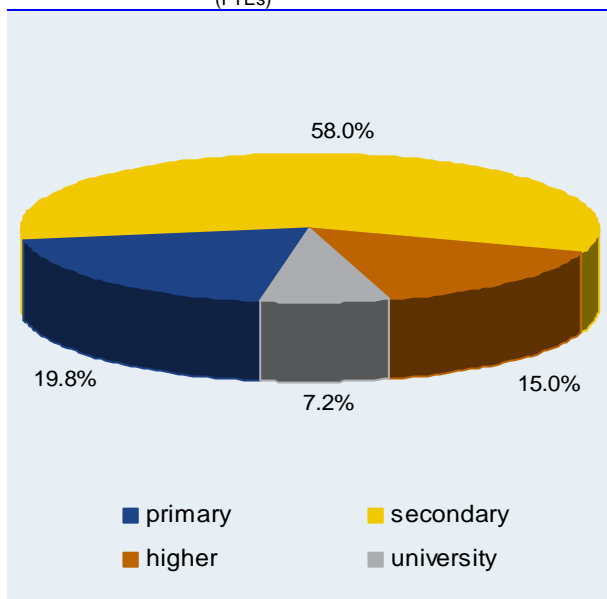
CHART 3 TOTAL PERSONNEL HIRED IN THE FLEMISH MARITIME PORTS (FTEs)



Source: NBB (full presentation accounts only).

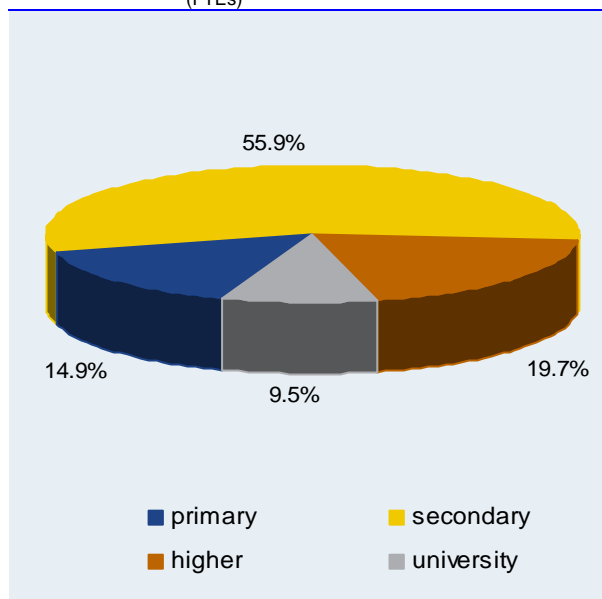
The picture presented by chart 3 should be analysed jointly with that shown in chart 6. The total number of employees taken on during the year was 11.7 p.c. lower than in 2004. That decline is due mainly to a cut in recruitment of permanent staff (- 15.2 p.c.). This applied to shipping companies and non maritime branches in general, except for the energy and construction industries and other industries.

CHART 4 STANDARD OF EDUCATION OF MALE STAFF HIRED IN 2005 (FTEs)



Source: NBB (full presentation accounts only).

CHART 5 STANDARD OF EDUCATION OF FEMALE STAFF HIRED IN 2005 (FTEs)



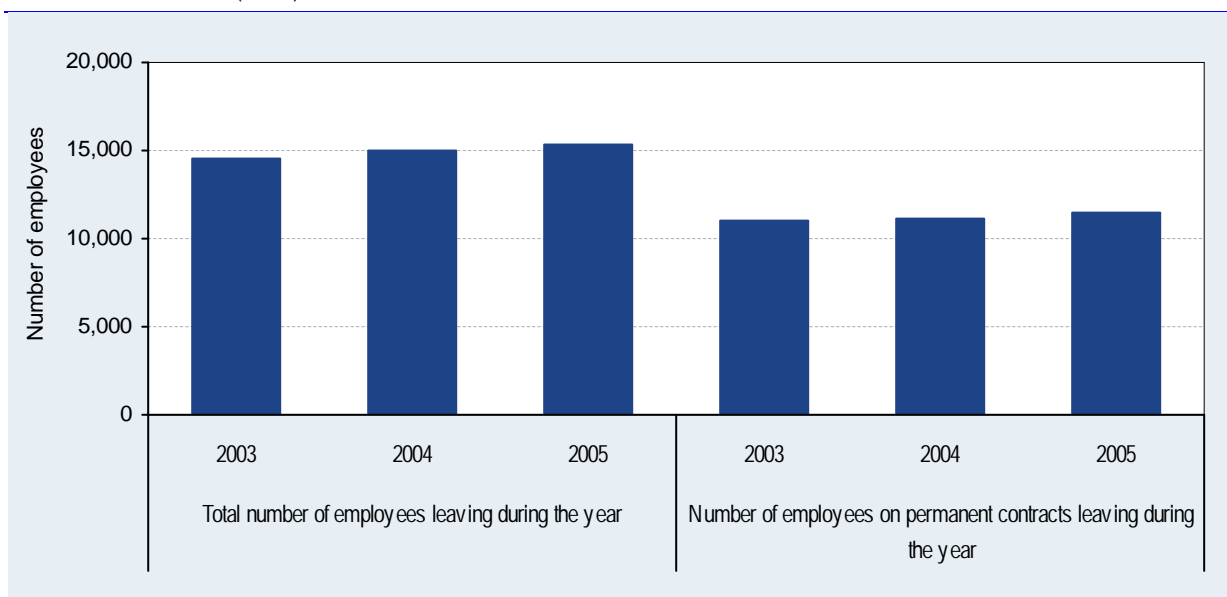
Source: NBB (full presentation accounts only).

The proportion of women increased in enterprises in the Flemish ports, since it totalled 16.2 p.c., or 0.4 point more than in 2004. The proportion of men was therefore down to 83.8 p.c.

The proportion of men recruited in 2005 was down in the case of the less skilled (primary and secondary education), dropping from 21.3 to 19.8 p.c. for those holding certificates of primary education and from 60.3 to 58 p.c. for those with secondary education qualifications (chart 4). Conversely, it increased in the case of those holding higher education and university qualifications, up from 12.1 to 15 p.c. and 6.3 to 7.2 p.c. respectively.

The situation for their female colleagues presents stronger contrasts, since the proportion of women recruited increased in the case of those holding secondary and university education qualifications, whereas it declined for the others (chart 5). Only 14.9 p.c. of those taken on were in the least skilled group, compared to 16.3 p.c. a year earlier, and 19.7 p.c. in the case of those with higher qualifications compared to 22.3 p.c. in 2004. At the same time, the share of recruitment represented by women with secondary level qualifications and university degrees increased from 53 to 55.9 p.c. for the former and from 8.4 to 9.5 p.c. for the latter.

CHART 6 TOTAL NUMBER OF TERMINATED CONTRACTS IN THE FLEMISH MARITIME PORTS (FTEs)



Source: NBB (full presentation accounts only).

The total number of employees who left their job increased by 2.3 p.c. between 2004 and 2005 (chart 6). Once again, it seems that the termination of permanent contracts was the dominant feature, since their number increased by 3.4 p.c. over the same period. Such increases were evident in the majority of the maritime branches except for shipping companies, in the food industry and other services. Substantial reductions of the number of terminated contracts were noted in most industries. These figures should be compared with those in chart 3.

TABLE 6 REASONS STATED FOR TERMINATING THE CONTRACT
(percentages)

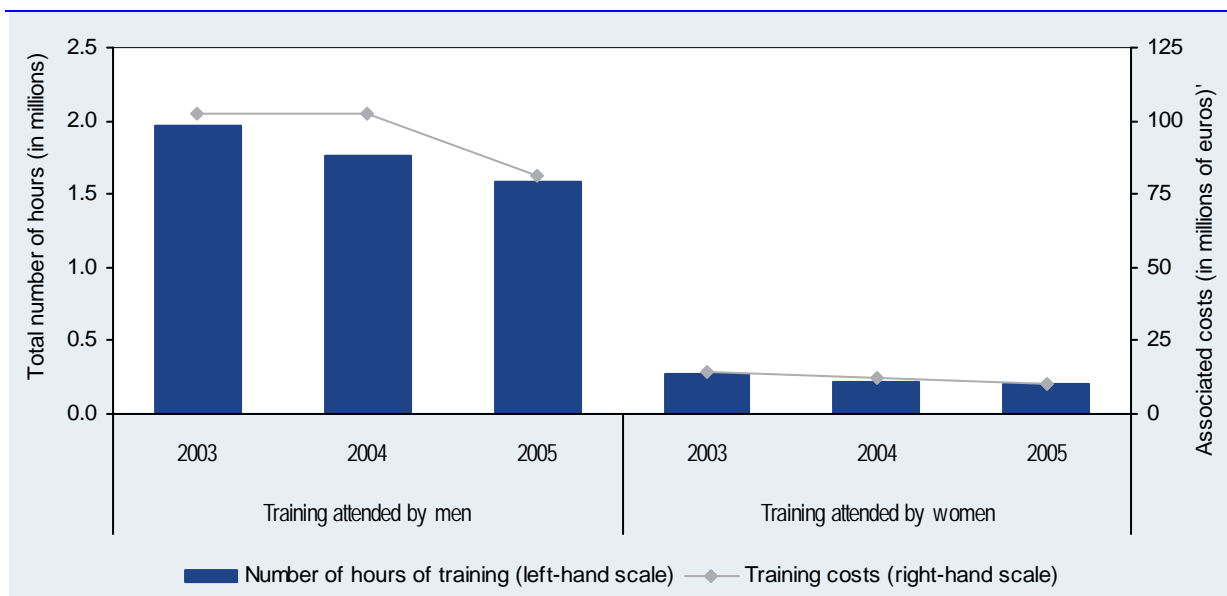
	2003	2004	2005
Retirement	3.8	4.1	4.3
Early retirement	8.5	7.0	6.0
Dismissal.....	17.2	17.1	19.1
Other reason.....	70.5	71.8	70.5

Source: NBB (full presentation accounts only).

Among the contracts terminated, the proportion of redundancies seems to have increased in 2005 (table 6). The percentage of early retirements continued to fall, as in the economy as a whole. There was only a marginal increase in the percentage attributed to normal retirement, while departures for other reasons – expiry of temporary contracts and spontaneous departures – remained at their 2003 level.

1.1.6.3 Training³³

CHART 7 HOURS OF TRAINING AND ASSOCIATED COSTS



Source: NBB (full presentation accounts only).

Although the proportion of men attending training remained steady in relation to 2004, at 55.2 p.c., the number of hours spent on training declined by 10.3 p.c. (chart 7), primarily in trade and in a substantial proportion of industries. The number of women receiving training was proportionately greater in 2005, at 45 p.c. as opposed to 44.1 p.c. a year earlier. Nonetheless, the number of hours was down here, too, by 7.5 p.c., and that was true in all branches, except for a few maritime sectors, industries and other services. The costs associated with this training declined by 20.6 p.c. for men and 17.6 p.c. for women. Those reductions are proportionately larger than the cuts in the number of hours. The share of these costs in total staff costs thus dropped from 2.1 to 1.7 p.c. between 2004 and 2005, falling below the target of 1.9 p.c. set by the generation pact. That ratio declined in port enterprises and in the non maritime branches as a whole, though with the exception of the electronics industry, construction and road transport.

³³ Here training is meant in the formal sense, i.e. courses in premises reserved for that purpose, within the firm or outside. It therefore excludes on-the-job training, for example, mentoring and self-training.

1.1.7 *Financial situation in the Flemish maritime ports: summary*

1.1.7.1 Financial ratios

The ratios for return on equity after tax, liquidity in the broad sense and solvency are presented in two parts. This section summarises the movement in the ratios for all four Flemish ports, permitting certain comparisons, and gives an indication of the financial risks incurred by companies based in the Flemish ports over the period 2003 - 2005. The rest of chapter 1, which analyses each Flemish port separately, collates the detailed movements in the three ratios per sector over the same period and according to the same procedure.

The study of the financial ratios concerns a constant sample³⁴ defined for the years 2003 to 2005 and common to the five ports under review. The enterprises examined in the financial section of this report therefore differ from those included in the constant sample in the previous report, which may explain some of the differences in the figures between the two publications. For the comparison with the national data, i.e. Belgian non-financial corporations in general, the same method of calculation, namely globalisation³⁵, is applied in both cases.

TABLE 7 FINANCIAL RATIOS IN THE FLEMISH MARITIME PORTS FROM 2003 TO 2005

Ports	Return on equity after taxes (in p.c.)			Liquidity in the broad sense			Solvency (in p.c.)		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
Antwerp	13.4	17.4	26.1	1.36	0.85	0.85	36.8	31.3	36.5
Ghent	6.2	20.8	25.2	1.05	1.19	1.23	45.7	47.5	46.0
Ostend	7.5	6.9	9.5	1.39	1.39	1.42	46.2	45.3	43.5
Zeebrugge	7.1	9.4	7.1	1.19	1.21	1.17	49.3	48.3	46.7
Weighted average	11.2	17.6	24.6	1.27	0.95	0.95	39.3	35.5	38.8
Non-financial corporations³⁶	7.6	6.8	10.1	1.22	1.24	1.29	40.6	41.6	43.4

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

The movement in the three ratios presented in table 7 clearly shows the constant rise in the return on equity after tax: by 2005 it was more than double the average figure for Belgian non-financial corporations. The most significant increases were recorded at Antwerp and Ostend. Liquidity in the broad sense showed only a small increase at Ghent and Ostend in the same year, remaining static at Antwerp and falling slightly at Zeebrugge. The ability of the enterprises under review to honour their short-term financial commitments remained below the average score for the country. Average net working capital was actually negative at Antwerp for the second year running. Solvency did better than liquidity, but here, too, the score was below the average for Belgian enterprises, despite a significant increase at Antwerp. Enterprises in the Flemish maritime ports are therefore proving to be more profitable than the national average, but are more inclined to take financial risks, as the next section confirms.

³⁴ The constant sample developed for studying the ratios is common to the five ports under review. It contains all the enterprises which filed their accounts in 2003, 2004 and 2005, and which meet certain conditions necessary for taking account of the items involved in the calculation of these ratios. For example, for the purpose of calculating profitability, all the data must correspond to a 12-month financial year and the denominator, namely the equity, must be strictly positive. This constant sample concerns 2,268 enterprises and 96,311 FTEs, or 62.6 p.c. of the population of enterprises under review in 2005 and 81.3 p.c. of the direct employment considered in this study.

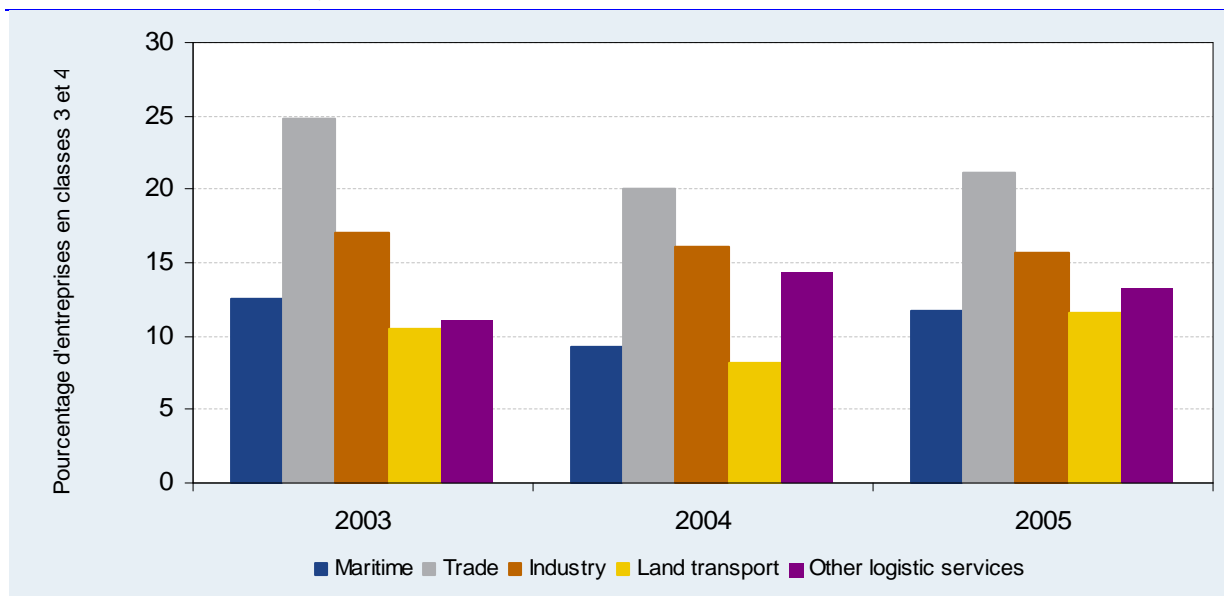
³⁵ In Lagneaux F. and D. Vivet (2006), both the median ratio method and the globalisation method are used.

³⁶ These figures relate to the situation of all Belgian non-financial corporations. They were recalculated in the beginning of 2007 according to the globalisation method, and therefore differ from those published in the 2004 report. See Lagneaux F. and D. Vivet (2006).

1.1.7.2 Financial health assessment

The bankruptcy prediction model used here applies to firms in the constant sample employing more than five workers³⁷.

CHART 8 FINANCIAL RISKS IN THE FLEMISH MARITIME PORTS FROM 2003 TO 2005
(percentages)



Source: NBB.

The percentage of firms in financial difficulty, i.e. those in risk classes 3 and 4, increased between 2004 and 2005, rising from 13.2 to 14.5 p.c. It was the large firms that were most affected by this increase, as their percentage was up from 10.2 to 12.6, while for SMEs the increase was only small, from 15.3 to 16 p.c. This picture contrasts with the situation of non-financial corporations which, taking the economy as a whole, enjoyed better financial health, especially in the case of SMEs, as the percentage of firms encountering difficulties remained steady in the case of large firms.

Chart 8 represents the percentages of enterprises which, in each segment of activity in the Flemish maritime ports, were more exposed to financial risks than the average (classes 3 and 4). It is evident that the number of enterprises in the maritime, trade and land transport branches in this situation in 2005 was proportionately greater than in 2004. In contrast, the financial health of industries and other logistic services improved slightly during that time. The car manufacturing and food industries, in particular, saw the most marked improvement in their financial situation. In trade, although the level of risk taking was higher than in 2004, it was still well below the record level attained in 2003.

Translated into the number of jobs concerned, the situation may seem less worrying. Thus, the enterprises experiencing financial difficulties represented proportionately fewer jobs in the case of shipping companies, shipping agents and forwarders, chemicals and trade than in 2004. On completing this analysis, it is evident that the proportion of enterprises in the chemical and food industries which are prone to financial difficulties in the Flemish ports is below the score for the rest of the country. The opposite is true in the case of other services, trade, construction, metalworking and transport. On the other hand, the percentages which these firms in difficulty represent in terms of employment are systematically lower in the Flemish ports, in all the sectors just mentioned, which mitigates somewhat a financial situation which at first sight appears critical.

³⁷ This constant sample comprises 1,071 enterprises and 97,875 FTEs, or 29.6 p.c. of the population of enterprises under review in 2005 and 82.6 p.c. of the direct employment considered in this study. It permits comparison from one year to the next, but may also have a positive influence on the result of that analysis.

1.1.8 Sea freight traffic in the Flemish maritime ports: breakdown by type of packing

TABLE 8 **MARITIME TRAFFIC IN THE FLEMISH PORTS IN 2005**
(thousands of tonnes, unless otherwise stated)

	Antwerp	Ghent	Ostend	Zeebrugge	Total ports	Change 2004 - 2005 (in p.c.)	Share in 2005 (in p.c.)
Containers	74,593	230	44	15,604	90,471	+ 9.5	40.3
<i>Change 2004 - 2005 (p.c.)</i>	+ 9.2	- 12.9	- 43.9	+ 11.4	+ 9.5	-	-
Roll-on/roll-off ³⁸	3,646	1,719	6,146	11,777	23,288	+ 3.8	10.4
Conventional general cargo ³⁹ .	17,855	1,882	24	1,011	20,772	+ 2.0	9.2
Liquid bulk	37,030	2,795	52	4,480	44,357	+ 4.6	19.8
Solid bulk	26,931	15,596	1,415	1,719	45,661	- 6.4	20.3
TOTAL	160,054	22,223	7,681	34,591	224,549	+ 3.7	100.0
<i>Change 2004 - 2005 (p.c.)</i>	+ 5.1	- 11.0	+ 1.8	+ 8.8	+ 3.7	-	-

Source: *Jaaroverzicht Vlaamse havens 2005* of Vlaamse Havencommissie and ports concerned.

The year 2005 once again confirmed a clear trend in the Flemish ports, as in the rest of the Hamburg - Le Havre range: containerised traffic is continuing its strong expansion, at least in the two ports best placed for this highly competitive segment, namely Antwerp and Zeebrugge, up by a around 10 p.c. again in one year (table 8). This growth contrasts with the decline seen in solid bulk, where volumes were down by a total of 6.4 p.c. against 2004, owing to the decline at Ghent. Between these two extremes, ro-ro continued to expand by 3.8 p.c., sustained by Ostend and Zeebrugge, while liquid bulk began growing again, in contrast to conventional general cargo, which recorded a slight deceleration, especially noticeable at Antwerp.

Of the four ports, Zeebrugge was the one which made the most notable headway in 2005, with an increase in its total sea traffic of almost 9 p.c., while Antwerp passed the 160 million tonne mark following growth of over 5 p.c., headed by containers. As for the ports of Ghent and Ostend, the former had a difficult year while the latter saw slight expansion. Overall, short sea shipping (SSS) is constantly expanding in the Flemish ports, growing by 5.3 p.c. in 2005, outpacing the rise in total maritime traffic. This mode of transport, which represents about half of the tonnages handled in the port infrastructures of northern Belgium, is a way of overcoming their inability to take the largest bulk carriers (ULCS, capesize⁴⁰, etc.). The latter are reserved for long distance routes between deep water ports. The ports of Ostend and Zeebrugge, where much of the port activity is historically concentrated on SSS, are gradually being joined by Antwerp and Ghent in this respect. That bears witness to the growing success of this mode, considered by increasing numbers of users as particularly reliable compared to other modes, as far as delivery time performance is concerned.

However, the restricted sea access is still a considerable handicap for the Flemish ports, especially Antwerp and Ghent. Despite its constantly growing traffic, Antwerp's share of the Asian market has been falling for a number of years, compared to its two main rivals, Rotterdam and Hamburg. Their better sea access is due to ambitious infrastructure investment projects which encountered no major political obstacles, unlike some of the Flemish ports. The port of Ghent went through a year of declining traffic in 2005, as it dropped to a level comparable to the 1996 figure. These developments indicate the necessity of improving sea access in these two ports; their image also depends on it.

³⁸ Abbreviated as ro-ro. Horizontal handling of goods using wheeled equipment inside and outside the ship, unlike lo-lo (lift-on/lift-off), which entails vertical handling. The ro-ro data presented in this report do not take into account containerised cargo, were it handled horizontally, this category of goods being included in the line entitled "containers".

³⁹ The term "general cargo" comprises the following categories: containerised goods, ro-ro and conventional general cargo.

⁴⁰ In particular, capesize corresponds to a draught of over 17 metres or a width of over 70 metres (sizes accepted by the Suez canal). The maximum load of such a vessel exceeds 150.000 tonnes.

The links with the hinterland have been the focus of special attention, particularly in the case of inland waterway transport, on the part of the competent regional and European authorities.⁴¹ While road transport is continuing its inexorable advance, despite ever increasing congestion on the major arteries, inland waterway transport has produced the strongest growth in the past six years (1999 - 2005), thus gradually making up lost ground, according to the statistical service of FPS Economy.⁴² The Seine-Northern Europe link project is providing new dynamism in this area. This link between the Seine basin and the Northern European waterway network, including Lys and Scheldt rivers, should be operational by 2012, generating river traffic totalling 18 million tonnes by 2020, which should benefit all the Flemish ports. Ghent is already in a very good position in relation to France and will play its part as major hub for the region. The ports of Antwerp and Zeebrugge should directly benefit from these improvements as well: the former, where – despite a good modal balance – only 2 p.c. of river traffic currently operates to and from France; the latter which, since river traffic is lagging well behind road traffic, intends to take advantage of this major project to, among other things, ensure that the Noorderkanaal route, a wide gauge link with the Ghent – Terneuzen canal, is back on the agenda. The strong growth of traffic in these two ports justifies these improvements.

⁴¹ For more information on this subject, see also the conclusions of the BNRC Holding, FEB, FEBIAC symposium (2007), *Rail meets road 2007: Les rencontres de la mobilité et de l'intermodalité* (<http://www.railmeetsroad.be>).

⁴² Expressed in tonnes-kilometres (tkm), road transport and inland waterway transport recorded growth of 25 and more than 50 p.c. respectively over this period. In the same units, the breakdown for inland freight transport in Belgium is: 13 p.c. by river, 15 p.c. by rail and 75 p.c. by road. See <http://statbel.fgov.be>.

1.2 PORT OF ANTWERP

1.2.1 Highlights in 2005⁴³

2005 was a new record year for the port of Antwerp. Sea freight transshipment passed the 160 million tonnes mark, driven by the two-digit growth in the number of containers handled (i.e. + 9.2 p.c. in tonnage⁴⁴). This expansion is due both to the emergence of new lines and to the steady growth of world trade. However, although the port benefits directly from that growth in absolute terms, the share of trade with Asia secured by it in the Hamburg - Le Havre range declined in 2005, partly in favour of Rotterdam and Hamburg. But Antwerp maintained its expansion in regard to the American continent, for which it is still the unchallenged leader within the range. In the containerised segment, the port can once again expand since the Deurganckdok was opened in July 2005. This basin will ultimately double the capacity to accommodate and handle containers, which have already quadrupled in number in fifteen years and look set to reach 13 million TEU by 2010 - 2015. Following years of development on the right bank of the Scheldt, this project ushers in an era of deployment on the left bank of the river.

Other projects are under consideration, such as a second sea access to the port of Waasland, which should be in place by 2012, once the new lock enters service. A second rail access and entry into service of the new Liefkenshoek tunnel, together with the new Oosterweel road link, will help the flow of traffic in the port's immediate hinterland and open up the left bank. Accessibility is a central concern for the port authorities, which fear that the constant traffic growth may cause unmanageable congestion in and around Antwerp. Sea access will be improved for the port as a whole by the deepening of the Scheldt to 13.1 metres⁴⁵ at all states of the tide. That project will start in late 2007 and will be completed in 2009. It is the culmination of years of tough negotiations between the Flemish and Dutch governments. The agreement concluded in December 2005 sets this maximum draught. Another sensitive project is the reopening of the "Steel Rhine" rail link, out of service since 1993. The obstacles, which are on the Dutch side, have not yet all been eliminated but a 7-kilometre section between Budel and Weert went into service in March 2007, possibly heralding the complete reopening of this line linking Antwerp to the Ruhr basin.

The port of Antwerp aims to be at the heart of a new dynamism, in terms of accessibility and intermodality, but also in the creation of VA. This last point is vital for the port, which – while benefiting from the steady growth of containerised freight – has lost substantial tonnages in conventional mixed cargo, which generates more jobs and VA per tonne. To offset this, an additional effort is essential in regard to investment and innovation, and in the provision of port services. According to port officials, with appropriate branding this port can and must project the image of a real centre of excellence. Doubtless all these factors are behind the investment surge of almost 50 p.c. in 2005, partly thanks to the shipping company Euronav, with VA also rising strongly. Employment has not expanded at the same pace, and the picture is more variable between the branches of activity.

⁴³ Sources include Havenbedrijf Antwerpen, Vlaamse Havencommissie (2006) and Lloyd Special Report "Port of Antwerp".

⁴⁴ Despite these very positive trends in containerised freight, the number of empty containers at Antwerp is still small. For more information on this subject, see <http://www.portofantwerp.be>.

⁴⁵ The port of Antwerp operator aims eventually to increase this depth to 14.5 metres, but that has currently been postponed indefinitely.

1.2.2 Value added

TABLE 9 VALUE ADDED AT THE PORT OF ANTWERP FROM 2000 TO 2005
(millions of euros - current prices)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
1. DIRECT EFFECTS	6,986.5	6,959.5	7,110.9	7,395.4	8,298.4	9,342.7	100.0	+ 12.6	+ 6.0
MARITIME CLUSTER	1,784.4	1,728.7	1,686.2	1,968.7	2,410.4	2,912.0	31.2	+ 20.8	+ 10.3
Shipping agents and forwarders	484.9	466.5	470.5	482.7	582.4	646.5	6.9	+ 11.0	+ 5.9
Cargo handling	797.6	824.6	832.7	922.0	984.5	1,092.8	11.7	+ 11.0	+ 6.5
Shipping companies	193.5	134.6	59.7	220.5	490.7	820.3	8.8	+ 67.2	+ 33.5
Shipbuilding and repair	23.5	26.5	25.6	26.1	27.2	34.2	0.4	+ 25.4	+ 7.7
Port construction and dredging	99.7	86.9	103.7	126.9	126.5	100.3	1.1	- 20.7	+ 0.1
Fishing	1.0	1.1	1.0	1.0	0.6	0.5	0.0	- 15.5	- 13.3
Port trade	9.4	8.3	9.1	12.0	12.7	13.7	0.1	+ 7.9	+ 7.8
Port authority	174.7	180.2	184.0	177.5	185.7	203.8	2.2	+ 9.7	+ 3.1
Public sector	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Allocation (p.m.)	48.1	40.2	40.3	56.6	47.7	69.0	-	+ 44.5	+ 7.5
NON MARITIME CLUSTER	5,202.1	5,230.9	5,424.7	5,426.6	5,888.0	6,430.7	68.8	+ 9.2	+ 4.3
TRADE	704.7	677.9	735.4	797.7	890.8	962.4	10.3	+ 8.0	+ 6.4
INDUSTRY	3,952.7	3,933.9	4,038.0	3,951.2	4,269.8	4,719.0	50.5	+ 10.5	+ 3.6
Energy	163.7	199.1	191.3	84.2	178.1	191.9	2.1	+ 7.8	+ 3.2
Oil industry	1,008.2	868.0	924.9	1,072.1	1,162.4	1,230.5	13.2	+ 5.9	+ 4.1
Chemicals	2,070.7	2,137.1	2,132.6	2,043.8	2,183.9	2,561.6	27.4	+ 17.3	+ 4.3
Car manufacturing	492.2	467.7	501.5	454.7	481.5	477.3	5.1	- 0.9	- 0.6
Electronics	13.2	16.5	16.0	10.9	10.5	10.9	0.1	+ 4.4	- 3.6
Metalworking industry	87.2	105.8	116.2	119.4	117.2	112.0	1.2	- 4.5	+ 5.1
Construction	71.0	92.9	98.4	110.3	96.5	87.0	0.9	- 9.9	+ 4.2
Food industry	14.8	17.2	24.6	25.7	21.8	28.8	0.3	+ 32.5	+ 14.3
Other industries	31.8	29.6	32.5	30.1	17.9	19.0	0.2	+ 5.9	- 9.8
LAND TRANSPORT	160.5	170.3	188.1	204.9	217.8	220.1	2.4	+ 1.1	+ 6.5
Road transport	80.5	73.1	79.4	85.5	90.7	101.1	1.1	+ 11.5	+ 4.7
Other land transport	79.9	97.2	108.7	119.3	127.1	119.0	1.3	- 6.3	+ 8.3
OTHER LOGISTIC SERVICES	384.2	448.8	463.3	472.9	509.6	529.1	5.7	+ 3.8	+ 6.6
Other services	292.9	353.4	369.2	383.0	416.1	429.6	4.6	+ 3.3	+ 8.0
Public sector	91.3	95.4	94.1	89.8	93.5	99.5	1.1	+ 6.4	+ 1.7
2. INDIRECT EFFECTS	6,807.2	7,116.7	7,175.7	7,057.8	7,629.9	8,361.5	-	+ 9.6	+ 4.2
MARITIME CLUSTER	2,545.2	2,756.3	2,576.6	2,594.7	2,817.5	3,120.0	-	+ 10.7	+ 4.2
NON MARITIME CLUSTER	4,262.0	4,360.3	4,599.0	4,463.1	4,812.4	5,241.4	-	+ 8.9	+ 4.2
TOTAL VALUE ADDED	13,793.7	14,076.2	14,286.6	14,453.1	15,928.3	17,704.1	-	+ 11.1	+ 5.1

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

1.2.2.1 Main developments in 2005

At constant prices, direct VA at the port of Antwerp increased by 10.4 p.c. in 2005 (+ 12.6 p.c. at current prices, table 9). Total VA, which also includes that generated upstream of the firms under review, increased by 9 p.c. at constant prices. The growth of Antwerp VA is also assessed against the growing share which it represents of the GDP of the Flemish Region: in 2005, direct VA represented 5.5 p.c. of that figure, against 5 p.c. a year earlier; these percentages came to 10.3 against 9.6 p.c. respectively in terms of total VA. In 2005, the direct and total VA respectively represented 3.1 and 5.9 p.c. of the Belgian GDP.

- Maritime cluster:

There was a substantial rise in VA at Cobelfret Bulk Carriers (shipping agents and forwarders), and at MSC Home Terminal and Havenbedrijf Antwerpen (cargo handling), Bocimar Belgium, Safmarine Container Lines and Euronav (shipping companies). At the same time, it declined at Dredging International (port construction and dredging), where operating profits were static.

- Non maritime cluster:

The increase recorded in trade is due essentially to Kuwait Petroleum-Belgium, where profits were up. This allowed to offset the falls recorded by Pioneer Europe and Compagnie Belge de Produits pétroliers.

The growth of VA in industry originates primarily from chemicals, especially BASF Antwerpen - higher staff costs and operating profits -, Fina Antwerp Olefins and Lanxess, and the increase at Electrabel (energy), which saw a sharp rise in operating profits, Exxonmobil Petroleum and Chemical, Total Raffinaderij Antwerpen, despite the decline at Belgian Refining Corporation (oil industry). Increases were also recorded in the food industry, while metalworking and construction showed a fall.

Road transport did well, unlike BNRC Holding (other land transport), created by restructuring the existing Belgian railway company⁴⁶. BNRC Holding was back in profit in 2005, but accounting changes caused a reduction in the amounts shown under depreciation and staff costs, which explains the fall in the company's VA; the same applies at all the ports under review (cf. infra). Tunnel Liefkenshoek and SGS Belgium achieved increases in other services, while the public sector's VA also increased by a few percentage points.

⁴⁶ Since 1 January 2005, BNRC has been restructured in order to conform to the European directives which require the infrastructure to be separated from the operation of the railways. The Belgian railways now comprise three separate entities, each enterprise having independent status: (1) Infrabel manages the infrastructure. It acts independently in managing everything relating to the railway infrastructure (such as the railway lines and the safety systems); (2) BNRC is the network operator, responsible for everything concerning the running of passenger and freight trains. It is therefore a railway operator in the same way as other private companies operating on the network; (3) responsible for coordinating the activities of Infrabel and the BNRC, BNRC Holding is also the parent company. This last entity was included in the port study. For more information on this subject: <http://www.belrail.be>.

1.2.2.2 VA top 10 at the port of Antwerp in 2005

TABLE 10 **VA TOP 10 AT THE PORT OF ANTWERP IN 2005**
(millions of euros)

Ranking	Name of company	Sector	Value added
1	B.A.S.F. ANTWERPEN	Chemicals	1,198.1
2	EXXONMOBIL PETROLEUM & CHEMICAL	Oil industry	754.2
3	KUWAIT PETROLEUM-BELGIUM	Trade	693.0
4	GENERAL MOTORS BELGIUM	Car manufacturing	309.4
5	TOTAL RAFFINADERIJ ANTWERPEN	Oil industry	243.5
6	HESSE - NOORD NATIE	Cargo handling	220.4
7	EURONAV	Shipping companies	211.3
8	BOCIMAR INTERNATIONAL	Shipping companies	209.5
9	GEMEENTELIJK AUTONOOM HAVENBEDRIJF ANTWERPEN	Entreprise portuaire	203.8
10	BELGIAN REFINING CORPORATION	Oil industry	200.9
TOTAL of top 10			4,244.1

Source: NBB.

1.2.3 Employment

1.2.3.1 Main developments in 2005

The surge in employment in maritime branches such as shipping companies and cargo handling, generally heavily dependent on subcontracting, explains the relatively sizeable increase in indirect employment as opposed to direct employment at the port of Antwerp in 2005 (table 11). In the same year, direct employment there represented 2.9 p.c. of the Flemish Region's employment, the same percentage as that recorded a year earlier, whereas the share represented by total employment, including indirect effects, came to 7 p.c., a rise of 0.2 point. In 2005, the direct and total employment respectively represented 1.7 and 4.1 p.c. of the Belgian domestic employment.

- Maritime cluster:

The majority of the employment indicators have risen in the case of shipping agents and forwarders, such as MSC Belgium and Logisport. Some growth was recorded at Tabaknatie, Belgian New Fruit Wharf and P&O Ports Antwerp (cargo handling). The workforce of URS Ocean Towage (classed among the shipping companies) expanded, while at Dredging International (port construction and dredging) there were job losses.

- Non maritime cluster:

Employment expanded slightly at Kuwait Petroleum Belgium and Pioneer Europe (trade).

The situation was more patchy in industry. While the workforce expanded at Electrabel⁴⁷ (energy), BASF Antwerpen (chemicals) and Rob-Montagebedrijf (metalworking), it remained steady in the oil industry but contracted at Degussa Antwerpen, Lanxess and Bayer Antwerpen (chemicals), and at General Motors Belgium, GM Automotive Services Belgium and New Holland Tractor Limited (car manufacturing), Fabricom GTI (metalworking), Mourik and BPB Belgium (construction).

⁴⁷ In 2005, Electrabel took on more than 1,200 staff at group level, compared to over 900 the year before.

TABLE 11 EMPLOYMENT AT THE PORT OF ANTWERP FROM 2000 TO 2005
(FTEs)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
1. DIRECT EFFECTS.....	61,012	62,977	62,623	61,896	62,578	63,080	100.0	+ 0.8	+ 0.7
MARITIME CLUSTER.....	22,111	22,401	22,624	23,399	23,918	24,609	39.0	+ 2.9	+ 2.2
Shipping agents and forwarders.....	6,453	6,379	6,509	6,683	6,650	7,024	11.1	+ 5.6	+ 1.7
Cargo handling	11,877	12,316	12,455	12,759	13,310	13,562	21.5	+ 1.9	+ 2.7
Shipping companies	711	653	593	615	682	760	1.2	+ 11.4	+ 1.3
Shipbuilding and repair.....	544	530	543	556	507	548	0.9	+ 8.1	+ 0.2
Port construction and dredging.....	603	720	757	987	954	888	1.4	- 6.9	+ 8.0
Fishing	15	13	12	14	12	11	0.0	- 4.5	- 5.9
Port trade	133	121	141	170	183	168	0.3	- 8.5	+ 4.8
Port authority	1,775	1,669	1,615	1,614	1,619	1,650	2.6	+ 1.9	- 1.5
Public sector	0	0	0	0	0	0	0.0	n.	n.
Allocation (p.m.).....	846	803	808	1,127	1,080	1,259	-	+ 16.5	+ 8.3
NON MARITIME CLUSTER	38,901	40,576	39,998	38,497	38,661	38,471	61.0	- 0.5	- 0.2
TRADE	2,359	2,460	2,500	2,871	2,973	3,117	4.9	+ 4.8	+ 5.7
INDUSTRY	27,730	28,626	28,184	26,604	26,089	25,758	40.8	- 1.3	- 1.5
Energy	1,022	1,075	954	857	858	949	1.5	+ 10.6	- 1.5
Oil industry.....	2,797	2,780	3,137	3,146	2,920	2,894	4.6	- 0.9	+ 0.7
Chemicals.....	11,920	12,217	11,740	10,996	10,751	10,812	17.1	+ 0.6	- 1.9
Car manufacturing.....	8,158	7,883	7,523	6,696	6,957	6,698	10.6	- 3.7	- 3.9
Electronics	182	208	162	130	127	127	0.2	+ 0.2	- 6.9
Metalworking industry.....	1,797	2,244	2,317	2,408	2,276	2,196	3.5	- 3.5	+ 4.1
Construction	1,247	1,591	1,626	1,610	1,536	1,371	2.2	- 10.8	+ 1.9
Food industry.....	281	302	382	405	411	424	0.7	+ 3.1	+ 8.6
Other industries	326	327	343	356	251	288	0.5	+ 14.3	- 2.5
LAND TRANSPORT.....	3,275	3,342	3,373	3,348	3,580	3,556	5.6	- 0.7	+ 1.7
Road transport.....	1,462	1,259	1,320	1,256	1,376	1,475	2.3	+ 7.2	+ 0.2
Other land transport	1,813	2,084	2,053	2,092	2,204	2,081	3.3	- 5.6	+ 2.8
OTHER LOGISTIC SERVICES..	5,538	6,148	5,941	5,673	6,019	6,040	9.6	+ 0.3	+ 1.8
Other services	3,398	4,032	3,855	3,710	4,039	4,047	6.4	+ 0.2	+ 3.6
Public sector	2,140	2,116	2,086	1,963	1,980	1,993	3.2	+ 0.7	- 1.4
2. INDIRECT EFFECTS.....	90,677	95,190	88,398	82,621	83,661	89,551	-	+ 7.0	- 0.2
MARITIME CLUSTER.....	35,922	37,261	33,668	31,900	32,107	33,476	-	+ 4.3	- 1.4
NON MARITIME CLUSTER	54,755	57,928	54,730	50,721	51,554	56,075	-	+ 8.8	+ 0.5
TOTAL EMPLOYMENT.....	151,690	158,167	151,020	144,517	146,239	152,631	-	+ 4.4	+ 0.1

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

Employment in road transport expanded, particularly at EKB Container Logistics Belgium and Anné Gebroeders, whereas it diminished at BNRC Holding. In other logistic services it remained stable.

1.2.3.2 Employment top 10 at the port of Antwerp in 2005

TABLE 12 EMPLOYMENT TOP 10 AT THE PORT OF ANTWERP IN 2005
(FTEs)

Ranking	Name of company	Sector	Employment
1	GENERAL MOTORS BELGIUM	Car manufacturing	3,905
2	B.A.S.F. ANTWERPEN	Chemicals	3,377
3	HESSE - NOORD NATIE	Cargo handling	2,694
4	PUBLIC ADMINISTRATION	Public sector	1,993
5	B.N.R.C. HOLDING	Other land transport	1,789
6	GEMEENTELIJK AUTONOMOOM HAVENBEDRIJF ANTWERPEN	Entreprise portuaire	1,650
7	EXXONMOBIL PETROLEUM & CHEMICAL	Oil industry	1,572
8	GM AUTOMOTIVE SERVICES, BELGIUM	Car manufacturing	1,249
9	DEGUSSA ANTWERPEN	Chemicals	1,056
10	LANXESS	Chemicals	1,036
TOTAL of top 10			20,321

Source: NBB.

1.2.4 Investment

1.2.4.1 Main developments in 2005

At constant prices, investment at the port of Antwerp expanded by 45.8 p.c. in 2005, compared to the previous year's figures (+ 47.2 p.c. at current prices, table 13). This was the strongest rise at any time in the period.

o Maritime cluster:

Investment tripled at Hesse-Noord Natie between 2004 and 2005, thanks to the opening of the Deurganck terminal, and there was more moderate growth at MSC Home Terminal and Tabaknatie (cargo handling). In contrast, in the same sector, there was a sharp reduction in the amounts invested at Belgian New Fruit Wharf. The development seen at Euronav (shipping companies) is the main factor explaining the investment surge at Antwerp in 2005. No less than 1.3 billion euro was recorded as tangible fixed assets, owing to its fleet expansion (new tankers). Safmarine also stepped up its investment, while Bocimar Belgium and Exmar Shipping cut theirs back. Investments at Dredging Environmental and Marine Engineering (DEME), which expanded its fleet to cater for the boom in the sector, particularly in the Middle East, and Dredging International (port construction and dredging) were well up, whereas a sizeable reduction was recorded by the port operator.

o Non maritime cluster:

Sharp cuts at Kuwait Petroleum-Belgium and Pioneer Europe explain the decline in the trade sector, the increase at Motrac Handling being insufficient to reverse the trend.

In industry, the decline is due to cuts in the chemical and car manufacturing industries. In the former, this concerns reductions at BASF Antwerpen and Eval Europe, which were not offset by the increases at Degussa Antwerpen and Bayer Antwerpen. General Motors Belgium is the primary cause of the latter. In energy and oil the increases are due respectively to Electrabel – continuing investments in cooling towers and steam generators at Doel - and Exxonmobil Petroleum & Chemical, moderated by cuts at Total Raffinaderij Antwerpen – which recorded substantial investments last year- and Belgian Refining Corporation.

TABLE 13 INVESTMENT AT THE PORT OF ANTWERP FROM 2000 TO 2005
(millions of euros - current prices)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
MARITIME CLUSTER.....	417.9	431.7	465.9	786.1	1,467.7	2,599.0	68.3	+ 77.1	+ 44.1
Shipping agents and forwarders.....	88.5	92.4	82.5	75.3	149.1	184.6	4.8	+ 23.8	+ 15.8
Cargo handling	167.9	177.4	138.2	180.6	274.8	445.7	11.7	+ 62.1	+ 21.6
Shipping companies	70.5	47.6	68.9	391.3	933.3	1,866.3	49.0	+ 100.0	+ 92.5
Shipbuilding and repair.....	3.2	3.4	2.6	2.0	5.5	2.6	0.1	- 53.2	- 4.2
Port construction and dredging.....	14.9	24.1	86.6	57.7	13.4	48.4	1.3	+ 260.6	+ 26.6
Fishing	0.6	0.2	0.2	0.1	0.1	0.0	0.0	- 83.4	- 49.0
Port trade.....	2.0	1.3	2.5	2.8	3.3	1.0	0.0	- 70.7	- 13.5
Port authority	70.2	85.2	84.5	76.4	88.2	50.5	1.3	- 42.8	- 6.4
Public sector	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
<i>Allocation (p.m.).....</i>	<i>25.4</i>	<i>26.1</i>	<i>25.1</i>	<i>35.0</i>	<i>27.9</i>	<i>68.8</i>	-	+ 146.6	+ 22.0
NON MARITIME CLUSTER	997.0	1,153.1	1,010.7	1,077.8	1,119.9	1,208.9	31.7	+ 7.9	+ 3.9
TRADE	38.8	46.7	55.7	65.8	60.0	52.1	1.4	- 13.2	+ 6.1
INDUSTRY	724.5	893.2	771.3	787.1	850.6	822.7	21.6	- 3.3	+ 2.6
Energy	17.7	23.3	5.5	5.7	61.0	99.5	2.6	+ 63.2	+ 41.2
Oil industry.....	154.1	98.0	108.9	112.8	170.8	174.4	4.6	+ 2.1	+ 2.5
Chemicals.....	485.9	707.0	550.9	478.4	485.0	472.2	12.4	- 2.6	- 0.6
Car manufacturing.....	41.7	23.8	72.9	165.0	99.4	54.8	1.4	- 44.9	+ 5.6
Electronics	2.8	0.6	0.3	0.2	0.1	0.0	0.0	- 72.1	- 57.1
Metalworking industry.....	5.3	3.2	3.1	5.2	9.0	3.7	0.1	- 58.8	- 6.9
Construction	8.4	13.9	13.8	8.4	16.6	9.6	0.3	- 42.0	+ 2.6
Food industry.....	4.8	3.6	7.3	5.0	4.8	6.3	0.2	+ 30.1	+ 5.7
Other industries	3.7	19.9	8.6	6.3	3.9	2.2	0.1	- 43.8	- 10.0
LAND TRANSPORT.....	79.3	56.8	42.5	66.7	38.4	48.0	1.3	+ 25.1	- 9.5
Road transport.....	18.4	16.1	9.9	41.8	16.5	14.0	0.4	- 15.4	- 5.4
Other land transport	60.8	40.7	32.6	24.9	21.9	34.0	0.9	+ 55.7	- 11.0
OTHER LOGISTIC SERVICES..	154.4	156.3	141.1	158.3	170.8	286.1	7.5	+ 67.5	+ 13.1
Other services	107.7	118.3	71.3	89.2	92.4	225.7	5.9	+ 144.4	+ 16.0
Public sector	46.7	38.0	69.9	69.1	78.5	60.3	1.6	- 23.1	+ 5.2
DIRECT INVESTMENT.....	1,414.9	1,584.7	1,476.6	1,864.0	2,587.6	3,807.9	100.0	+ 47.2	+ 21.9

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

The growth of investments in the railways more than offset the cuts in road transport investments. The increase in other services is due to Antwerp Gateway, TIP Trailer Rentals, Cuypers Vorkliften and Indaver, whereas the public sector reduced its investment spending.

1.2.4.2 Investment top 10 at the port of Antwerp in 2005

TABLE 14 INVESTMENT TOP 10 AT THE PORT OF ANTWERP IN 2005
(millions of euros)

Ranking	Name of company	Sector	Investment
1	EURONAV	Shipping companies	1,314.4
2	SAFMARINE CONTAINER LINES	Shipping companies	180.8
3	ANTWERP GATEWAY	Other services ⁴⁸	155.2
4	B.A.S.F. ANTWERPEN	Chemicals	141.1
5	DEGUSSA ANTWERPEN	Chemicals	132.2
6	HESSE - NOORD NATIE	Cargo handling	121.5
7	BOCIMAR INTERNATIONAL	Shipping companies	95.3
8	M.S.C. HOME TERMINAL	Cargo handling	95.3
9	EXXONMOBIL PETROLEUM & CHEMICAL	Oil industry	79.6
10	SLIB-EN CO - VERWERKINGS CENTRALE	Energy	73.9
TOTAL of top 10			2,389.4

Source: NBB.

1.2.5 Financial ratios

- There was a steep rise in the return on equity after tax at the port of Antwerp in 2005, in both the maritime and the non maritime cluster (table 15). In the case of shipping agents and forwarders, the increase is due to the profits recorded by Cobelfret and SDV Transami. The reductions in handling and in port construction and dredging correspond respectively to the losses recorded at Katoen-Natie and Hesse-Noord Natie, on the one hand, and the lower profits at DEME and Herbosch-Kiere. In trade, this ratio increased, e.g. at Firms Leon Van Parys, Belgische Olie Maatschappij and Kuwait-Petroleum Belgium, as it did in industry at Electrabel (energy), Exxon Petroleum & Chemical (oil industry), despite falls at Bayer Antwerpen, Total Petrochemicals Antwerpen (chemicals) and New Holland Tractor Limited (car manufacturing). The losses were adjusted downwards at BNRC Holding, boosting the ratio in other land transport.
- Liquidity remained at its 2004 level, in which year it had fallen sharply. The net working capital of maritime enterprises increased, whereas it was several points down in the non maritime sector. Cobelfret (shipping agents and forwarders) achieved a major increase in its ability to meet its short-term financial commitments, whereas that ability diminished at URS (cargo handling) and Cobelfret Ferries (shipping companies). In trade it declined slightly, but - with the exception of oil - it gained several points in industry, e.g. at New Holland Tractor Limited (car manufacturing), Stork Mercantile Engineers and Contractors, and Fabricom GTI (metalworking). The rise in road transport was not enough to offset the fall in other land transport. The increase recorded in other services is attributable mainly to the Bayer International coordination centre.
- Solvency more or less regained its 2003 level, following an increase in both the maritime and non maritime branches. Cobelfret and Mediterranean Shipping Company Belgium account for the increase in the case of shipping agents and forwarders, whereas in cargo handling the decline is due to Hesse-Noord Natie. The sharp increases recorded in chemicals, car manufacturing, food and other industries are attributable respectively to Solvay, Bayer Antwerpen, Cargill and Lumpaper. There were also large increases in land transport and other logistic services.

⁴⁸ This company is classified in the other services by the national accounts, although it actually belongs to the cargo handling sector.

TABLE 15 FINANCIAL RATIOS AT THE PORT OF ANTWERP FROM 2003 TO 2005

Sectors	Return on equity after taxes (in p.c.)			Liquidity in the broad sense			Solvency (in p.c.)		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
MARITIME CLUSTER.....	5.8	16.8	22.9	0.83	0.98	1.12	40.4	39.6	42.1
Shipping agents and forwarders.....	13.2	16.6	43.9	0.97	1.01	1.48	27.4	25.9	39.7
Cargo handling.....	5.0	7.7	5.9	0.74	1.03	0.96	42.4	41.7	38.6
Shipping companies.....	4.5	55.7	46.9	0.89	1.23	1.08	40.5	39.7	40.3
Shipbuilding and repair.....	13.3	15.1	23.7	1.27	1.13	1.17	26.8	21.8	21.1
Port construction and dredging.....	12.3	15.8	10.2	0.65	0.68	0.68	31.4	37.1	34.2
Fishing.....	11.0	- 2.2	- 12.3	1.27	0.84	0.59	38.1	38.9	39.2
Port trade.....	9.8	0.9	8.5	1.67	1.44	1.35	38.0	32.0	27.9
Port authority.....	0.4	0.4	4.9	0.42	0.48	0.55	65.5	60.2	66.0
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
NON MARITIME CLUSTER	14.9	17.6	26.8	1.57	0.83	0.80	36.1	29.9	35.5
TRADE	6.5	6.7	9.6	1.25	1.29	1.27	32.0	30.6	30.1
INDUSTRY	20.6	24.3	35.6	1.36	0.57	0.60	29.7	24.1	30.4
Energy.....	31.5	14.2	19.2	1.23	1.32	1.60	36.1	34.4	34.9
Oil industry.....	20.2	34.6	91.3	1.09	0.99	0.27	24.9	21.3	19.7
Chemicals.....	19.4	15.1	7.3	1.57	0.43	0.73	39.1	26.9	43.4
Car manufacturing.....	35.7	25.6	13.4	0.88	0.92	1.04	20.0	20.9	27.2
Electronics.....	1.4	3.7	7.7	0.74	0.78	0.81	18.5	20.6	22.9
Metalworking industry.....	9.8	5.8	- 1.3	1.03	0.94	1.25	27.6	24.8	25.4
Construction.....	12.1	11.4	- 0.4	1.09	1.17	1.21	14.4	22.5	22.1
Food industry.....	- 7.0	- 109.3	- 71.6	0.74	0.65	0.80	20.3	9.4	20.8
Other industries.....	8.6	8.2	7.5	0.79	1.12	1.16	46.2	30.9	39.5
LAND TRANSPORT.....	- 5.1	- 5.0	4.7	0.87	0.67	0.66	25.4	15.5	20.7
Road transport.....	9.1	13.9	9.4	1.21	1.06	1.18	29.4	31.7	31.2
Other land transport.....	- 8.3	- 13.4	2.1	0.76	0.58	0.53	24.7	12.7	17.4
OTHER LOGISTIC SERVICES..	4.3	5.0	5.0	3.34	3.17	3.65	72.9	69.6	72.7
Other services.....	4.3	5.0	5.0	3.34	3.17	3.65	72.9	69.6	72.7
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
WEIGHTED AVERAGE	13.4	17.4	26.1	1.36	0.85	0.85	36.8	31.3	36.5

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

1.3 PORT OF GHENT

1.3.1 Highlights in 2005⁴⁹

The port of Ghent had a difficult year, as far as the maritime traffic evolution is concerned. The slump in tonnages (- 12 p.c.) was due to incidental events virtually unconnected with the port's strategic options and operational management. The decline occurred primarily in solid bulk, particularly coal and coke, which still make up the largest volume of sea freight. A substantial proportion of these cargoes is in fact carried via Rotterdam on board capesize units, then rerouted to Ghent by pushed barge trains.

2005 was also primarily a year of transition, with the inauguration of the Kluizendok, followed by a marked revival in handling activities the next year. This new basin is bordered by 4.2 kilometres of quays and 200 hectares of land, part of which is reserved for industries connected with the water. Substantial resources are to go into improving sea access. The Ghent - Terneuzen Canal will probably get a second sea lock, 16 metres deep, before 2018. Pending this project, a draught of 12.5 metres is ensured in the west dock and throughout the canal. That is still well below the 17 metres formerly quoted. Another project is therefore receiving attention: completion of the Sluiskil tunnel with a depth of 16 metres.

To safeguard its future, this port of importation, where four-fifths of the sea freight is inward traffic, must also encourage the diversification of the industrial activities based there, since excessive dependence on the Arcelor Steel Belgium steelworks, the biggest employer better known as Sidmar, is not without its risks. Many consider that development of a logistics and distribution centre is one way of attaining that objective. An offensive economic strategy, geared to the development of containerised transport and modal transfer for transport to the hinterland, is also necessary to rectify the inertia exhibited lately by the port, and to stimulate VA and job creation. From that point of view, 2005 was certainly not a bad year, since VA showed a modest improvement, as did employment and investment.

1.3.2 Value added

1.3.2.1 Main developments in 2005

At constant prices, direct VA was 1.7 p.c. higher than in 2004 (+ 3.7 p.c. at current prices, table 16). Total VA - which adds together the direct and indirect effects - was 0.6 p.c. down at constant prices. The former represented 2.1 p.c. of Flemish GDP, the same as in 2004, whereas the latter was only equal to 4.1 p.c. of that GDP, a decline of 0.2 point. In 2005, the direct and total VA respectively represented 1.2 and 2.4 p.c. of the Belgian GDP.

- Maritime cluster:

The maritime cluster, proportionally less important at Ghent than in the other Flemish seaports, owes the decline in its VA to Belgotank and Euro-Silo, although the performance of Ghent Handling and Distribution, Ghent Stevedoring Terminal and Stukwerkers Havenbedrijf (cargo handling) did help to maintain some stability. The growth recorded by shipping agents and forwarders is due to Furness Logistics.

- Non maritime cluster:

VA increased at Total Belgium and Honda Europe, owing to the expansion in trade, and despite the decline at Belgian Shell and BP Belgium.

⁴⁹ Sources include Havenbedrijf Gent GAB, Vlaamse Havencommissie (2006) and Lloyd Special Report "Port of Ghent".

TABLE 16 **VALUE ADDED AT THE PORT OF GHENT FROM 2000 TO 2005**
(millions of euros - current prices)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
1. DIRECT EFFECTS.....	2,822.2	2,659.4	2,822.8	2,830.4	3,401.2	3,528.1	100.0	+ 3.7	+ 4.6
MARITIME CLUSTER.....	170.9	176.6	181.6	183.2	203.5	198.7	5.6	- 2.4	+ 3.1
Shipping agents and forwarders.....	36.0	43.9	50.8	40.1	43.1	44.9	1.3	+ 4.2	+ 4.5
Cargo handling	104.2	99.1	96.0	107.6	119.0	115.3	3.3	- 3.1	+ 2.0
Shipping companies	9.9	10.3	10.4	11.3	10.8	8.3	0.2	- 23.2	- 3.6
Shipbuilding and repair.....	3.5	4.4	4.4	4.1	3.9	4.1	0.1	+ 5.0	+ 3.4
Port construction and dredging.....	0.0	2.0	0.9	0.0	2.3	1.6	0.0	- 31.3	n.
Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	- 4.8	n.
Port trade	2.1	1.6	2.6	5.8	6.2	8.0	0.2	+ 28.6	+ 30.6
Port authority	15.2	15.5	16.5	14.3	18.3	16.6	0.5	- 9.2	+ 1.8
Public sector	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Allocation (p.m.).....	3.5	4.8	4.6	7.6	7.2	7.9	-	+ 10.1	+ 17.8
NON MARITIME CLUSTER	2,651.3	2,482.8	2,641.3	2,647.2	3,197.7	3,329.4	94.4	+ 4.1	+ 4.7
TRADE	537.1	601.2	574.5	603.6	768.4	805.9	22.8	+ 4.9	+ 8.5
INDUSTRY	1,964.6	1,744.5	1,916.7	1,888.5	2,266.2	2,364.7	67.0	+ 4.3	+ 3.8
Energy	145.0	169.4	165.2	74.2	144.6	150.7	4.3	+ 4.2	+ 0.8
Oil industry.....	3.8	5.9	6.8	8.1	7.8	6.6	0.2	- 15.0	+ 11.8
Chemicals.....	215.8	208.2	203.2	206.1	206.5	230.2	6.5	+ 11.5	+ 1.3
Car manufacturing.....	493.3	492.3	512.4	501.8	655.3	629.4	17.8	- 4.0	+ 5.0
Electronics	99.4	57.2	56.5	66.4	46.0	39.0	1.1	- 15.3	- 17.1
Metalworking industry.....	751.8	511.1	689.3	768.2	955.0	1,027.4	29.1	+ 7.6	+ 6.4
Construction	108.1	129.6	112.8	112.4	85.8	90.6	2.6	+ 5.5	- 3.5
Food industry.....	56.1	58.7	70.9	69.3	57.8	61.1	1.7	+ 5.8	+ 1.7
Other industries	91.3	112.1	99.5	81.9	107.4	129.7	3.7	+ 20.8	+ 7.3
LAND TRANSPORT.....	61.1	55.6	61.2	59.9	63.6	55.4	1.6	- 13.0	- 2.0
Road transport.....	40.6	33.0	34.7	35.2	35.9	36.4	1.0	+ 1.4	- 2.2
Other land transport	20.5	22.7	26.5	24.7	27.8	19.0	0.5	- 31.5	- 1.5
OTHER LOGISTIC SERVICES..	88.4	81.5	88.9	95.2	99.4	103.5	2.9	+ 4.1	+ 3.2
Other services	79.5	72.4	77.8	83.3	87.6	91.3	2.6	+ 4.2	+ 2.8
Public sector	8.9	9.1	11.1	11.9	11.8	12.2	0.3	+ 3.3	+ 6.5
2. INDIRECT EFFECTS.....	2,691.9	2,888.1	3,022.2	3,146.9	3,559.9	3,527.1	-	- 0.9	+ 5.6
MARITIME CLUSTER.....	212.7	226.8	253.3	222.3	259.1	241.8	-	- 6.7	+ 2.6
NON MARITIME CLUSTER	2,479.2	2,661.2	2,768.9	2,924.6	3,300.7	3,285.2	-	- 0.5	+ 5.8
TOTAL VALUE ADDED	5,514.1	5,547.5	5,845.0	5,977.3	6,961.1	7,055.2	-	+ 1.4	+ 5.1

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

A larger contribution to GDP was recorded at S.P.E. (energy), Taminco, Rhodia Eco-Services and Oleon (chemicals), and at Arcelor Steel Belgium and Sadaci (metalworking), and Stora Enso Langerbrugge (other industries), accounting for the increased VA in industry. It would have been higher still except for the static figures at Volvo Cars, and reductions at Volvo Europa Truck and Plastal (car manufacturing), and at GE Power Controls Belgium (electronics).

In land transport, the fall is due mainly to BNRC Holding, as a result of the group's demerger, the substantial increases at Frans Maas and Kintrans (road transport) being insufficient to reverse the trend. Organic Waste Systems, as well as the new Locks International branch in Ghent, boosted the VA of other logistic services, despite the reductions recorded, for example, at G4S Security Services.

1.3.2.2 VA top 10 at the port of Ghent in 2005

TABLE 17 **VA TOP 10 AT THE PORT OF GHENT IN 2005**
(millions of euros)

Ranking	Name of company	Sector	Value added
1	ARCELOR STEEL BELGIUM	Metalworking industry	928.3
2	TOTAL BELGIUM	Trade	421.4
3	VOLVO CARS	Car manufacturing	368.0
4	VOLVO EUROPA TRUCK	Car manufacturing	157.1
5	BELGIAN SHELL	Trade	117.2
6	ELECTRABEL	Energy	108.7
7	HONDA EUROPE	Trade	88.6
8	STORA ENSO LANGERBRUGGE	Other industries	87.5
9	SADACI	Metalworking industry	51.1
10	TAMINCO	Chemicals	50.9
TOTAL of top 10			2,378.8

Source: NBB.

1.3.3 Employment

1.3.3.1 Main developments in 2005

The enterprises under review and their subcontractors both record the same moderate employment expansion: + 0.7 p.c. against 2004 (table 18). That increase roughly corresponds to the employment growth in the Flemish Region, since direct employment and total employment represented 1.3 and 3 p.c. respectively in 2005, figures which were actually the same as those recorded the previous year. Direct and total employment represented, in 2005, respectively 0.8 and 1.7 p.c. of the Belgian domestic employment.

- o Maritime cluster:

Furness Logistics (Ghent) and Tailormade Logistics account for the expansion in the workforce at shipping agents and forwarders. Frans Maas Automotive Belgium and Stukwerkers-Havenbedrijf are responsible for the recruitment in cargo handling.

TABLE 18 EMPLOYMENT AT THE PORT OF GHENT FROM 2000 TO 2005
(FTEs)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
1. DIRECT EFFECTS.....	28,124	28,284	27,646	27,611	28,199	28,395	100.0	+ 0.7	+ 0.2
MARITIME CLUSTER.....	1,862	1,899	1,814	1,829	2,008	2,082	7.3	+ 3.7	+ 2.3
Shipping agents and forwarders.....	472	523	573	574	554	568	2.0	+ 2.5	+ 3.8
Cargo handling.....	1,046	1,000	861	894	1,026	1,092	3.8	+ 6.4	+ 0.9
Shipping companies.....	102	89	102	97	104	97	0.3	- 6.8	- 1.1
Shipbuilding and repair.....	71	85	83	70	72	72	0.3	- 0.2	+ 0.4
Port construction and dredging.....	0	29	11	0	47	43	0.2	- 7.1	n.
Fishing.....	0	0	0	0	0	0	0.0	- 23.2	n.
Port trade.....	22	23	38	49	55	62	0.2	+ 13.4	+ 23.1
Port authority.....	149	150	146	145	150	148	0.5	- 1.5	- 0.2
Public sector.....	0	0	0	0	0	0	0.0	n.	n.
<i>Allocation (p.m.).....</i>	<i>60</i>	<i>69</i>	<i>64</i>	<i>118</i>	<i>117</i>	<i>123</i>	<i>-</i>	<i>+ 4.7</i>	<i>+ 15.3</i>
NON MARITIME CLUSTER	26,263	26,386	25,831	25,782	26,190	26,312	92.7	+ 0.5	+ 0.0
TRADE	2,458	2,617	2,679	2,641	2,658	2,592	9.1	- 2.5	+ 1.1
INDUSTRY	21,474	21,551	20,878	20,883	21,106	21,491	75.7	+ 1.8	+ 0.0
Energy.....	871	890	935	654	634	629	2.2	- 0.7	- 6.3
Oil industry.....	70	63	56	58	63	59	0.2	- 5.6	- 3.4
Chemicals.....	1,771	1,835	1,779	1,772	1,712	1,714	6.0	+ 0.1	- 0.7
Car manufacturing.....	6,540	6,903	6,857	7,382	8,365	8,831	31.1	+ 5.6	+ 6.2
Electronics.....	1,493	1,185	1,099	990	899	765	2.7	- 14.9	- 12.5
Metalworking industry.....	7,300	7,229	6,775	6,535	6,473	6,538	23.0	+ 1.0	- 2.2
Construction.....	1,844	1,772	1,687	1,807	1,372	1,342	4.7	- 2.2	- 6.2
Food industry.....	509	523	508	515	490	503	1.8	+ 2.8	- 0.2
Other industries.....	1,074	1,152	1,180	1,171	1,099	1,110	3.9	+ 1.0	+ 0.7
LAND TRANSPORT.....	963	933	953	937	975	815	2.9	- 16.4	- 3.3
Road transport.....	536	455	480	474	429	449	1.6	+ 4.6	- 3.5
Other land transport.....	427	478	473	462	546	366	1.3	- 32.9	- 3.0
OTHER LOGISTIC SERVICES..	1,368	1,285	1,323	1,321	1,451	1,415	5.0	- 2.5	+ 0.7
Other services.....	1,130	1,041	1,046	1,047	1,183	1,156	4.1	- 2.3	+ 0.5
Public sector.....	238	244	277	274	268	259	0.9	- 3.4	+ 1.7
2. INDIRECT EFFECTS	35,242	36,857	35,888	35,575	36,858	37,107	-	+ 0.7	+ 1.0
MARITIME CLUSTER.....	2,624	2,591	2,523	2,315	2,658	2,640	-	- 0.7	+ 0.1
NON MARITIME CLUSTER	32,618	34,266	33,365	33,261	34,200	34,467	-	+ 0.8	+ 1.1
TOTAL EMPLOYMENT	63,366	65,141	63,533	63,187	65,056	65,502	-	+ 0.7	+ 0.7

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

- Non maritime cluster:

Moderate cuts were recorded in trade, e.g. at Honda Europe, Rousselot, Total Belgium and BP Belgium.

A marked rise in employment was recorded at Volvo Cars and Tower Automotive Belgium, and a more modest increase at Bentler Automotive Belgium (car manufacturing). The increase at Arcelor Steel Belgium outstripped the decline due to the takeover of Decosteel II by the Ghent port's leading employer. There was also growth at Bouchard-L'Escaut (food) and Mareen (other industries), largely offsetting the decline at Algist Bruggeman and Stora Enso Langerbrugge in the same sectors.

The expansion at Hallens and Kintrans was not enough to offset the job cuts at BNRC Holding. The situation in other services is mixed: job cuts at G4S Security Services but setting up of Alpha Classical Cleaning's branch, along with its 32 FTEs, and some recruitment at General Industrial Assistance Cataro.

1.3.3.2 Employment top 10 at the port of Ghent in 2005

TABLE 19 **EMPLOYMENT TOP 10 AT THE PORT OF GHENT IN 2005**
(FTEs)

Ranking	Name of company	Sector	Employment
1	ARCELOR STEEL BELGIUM	Metalworking industry	5,614
2	VOLVO CARS	Car manufacturing	4,982
3	VOLVO EUROPA TRUCK	Car manufacturing	2,374
4	HONDA EUROPE	Trade	594
5	ELECTRABEL	Energy	526
6	GE POWER CONTROLS BELGIUM	Electronics	499
7	STORA ENSO LANGERBRUGGE	Other industries	445
8	TOWER AUTOMOTIVE BELGIUM	Car manufacturing	427
9	DENYS	Construction	385
10	TAMINCO	Chemicals	322
TOTAL of top 10			16,167

Source: NBB.

1.3.4 Investment

1.3.4.1 Main developments in 2005

At constant prices, investment at the port of Ghent increased by 5.2 p.c. in 2005 compared to the previous year's figures (+ 6.2 p.c. at current prices, table 20). Investment, which had been declining since 2003, therefore seems to be gradually picking up.

- Maritime cluster:

Transuniverse Cargo and Franco-Belge de Navigation Fluviale recorded investment cuts - reduction in fixed assets in the form of land and buildings, and in furniture and vehicles - while Sea-Rail, Ghent Transport and Storage, Sea-Tank Terminal and Euro-Silo (cargo handling), Vlaamse Tankvaart Maatschappij and Marbia Shipping (shipping companies) and the port operator contributed to the strong rise in maritime investment at the port of Ghent.

TABLE 20 INVESTMENT AT THE PORT OF GHENT FROM 2000 TO 2005
(millions of euros - current prices)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
MARITIME CLUSTER.....	39.0	34.8	49.1	48.1	38.1	68.1	18.6	+ 78.8	+ 11.8
Shipping agents and forwarders.....	3.1	4.5	4.3	8.4	7.3	2.4	0.6	- 67.7	- 5.5
Cargo handling	17.7	9.2	8.5	20.5	10.2	21.5	5.9	+ 110.7	+ 4.0
Shipping companies	4.2	4.0	12.0	5.4	2.3	22.7	6.2	+ 866.3	+ 40.1
Shipbuilding and repair.....	0.5	0.6	0.7	0.6	1.2	0.2	0.1	- 82.3	- 14.3
Port construction and dredging.....	0.0	0.3	0.1	0.0	0.0	0.0	0.0	- 34.0	n.
Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	- 66.3	n.
Port trade.....	0.2	0.0	0.2	0.2	0.3	0.5	0.1	+ 69.3	+ 16.7
Port authority	13.3	16.1	23.2	12.9	16.6	20.8	5.7	+ 25.0	+ 9.4
Public sector	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
<i>Allocation (p.m.).....</i>	<i>1.8</i>	<i>2.6</i>	<i>2.8</i>	<i>3.6</i>	<i>2.6</i>	<i>2.9</i>	<i>-</i>	<i>+ 11.4</i>	<i>+ 10.5</i>
NON MARITIME CLUSTER	534.9	564.2	742.0	706.8	306.7	298.0	81.4	- 2.8	- 11.0
TRADE	49.3	62.8	62.3	47.7	37.5	38.3	10.5	+ 2.0	- 4.9
INDUSTRY	428.7	456.1	645.5	627.5	236.4	219.1	59.8	- 7.3	- 12.6
Energy	15.3	18.7	5.5	5.0	7.5	8.6	2.4	+ 14.9	- 10.9
Oil industry.....	1.6	0.3	0.1	5.0	1.1	1.2	0.3	+ 4.9	- 6.2
Chemicals.....	29.0	45.6	38.1	30.1	23.4	26.1	7.1	+ 11.7	- 2.1
Car manufacturing.....	90.7	77.3	148.2	188.5	64.7	80.6	22.0	+ 24.6	- 2.3
Electronics	12.3	13.8	9.6	4.6	4.6	3.7	1.0	- 19.7	- 21.3
Metalworking industry.....	224.1	219.2	121.0	156.8	90.9	63.5	17.4	- 30.1	- 22.3
Construction	21.3	25.6	11.7	10.0	6.6	9.3	2.5	+ 39.8	- 15.3
Food industry.....	14.0	12.9	16.9	11.0	10.6	6.0	1.6	- 43.2	- 15.6
Other industries	20.5	42.7	294.4	216.4	27.0	20.0	5.5	- 25.7	- 0.5
LAND TRANSPORT.....	8.1	8.8	9.0	12.7	11.8	6.4	1.8	- 45.3	- 4.4
Road transport.....	5.2	7.0	6.8	9.9	9.5	3.6	1.0	- 61.6	- 7.1
Other land transport	2.8	1.8	2.2	2.8	2.3	2.8	0.8	+ 21.8	- 0.1
OTHER LOGISTIC SERVICES..	48.8	36.5	25.3	18.8	21.0	34.2	9.3	+ 62.6	- 6.9
Other services	34.8	26.0	12.8	7.8	8.3	18.6	5.1	+ 124.8	- 11.7
Public sector	14.1	10.5	12.5	11.1	12.8	15.6	4.3	+ 22.1	+ 2.1
DIRECT INVESTMENT.....	573.8	599.1	791.1	754.9	344.7	366.1	100.0	+ 6.2	- 8.6

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

o Non maritime cluster:

The increase in investment at PVS Chemicals Belgium and Ghent Coal Preparation Plant was not enough to offset the cuts at Belgian Shell, Oiltanking Ghent and BP Belgium (trade).

Increases were recorded at Electrabel, SPE (energy), CRI Catalyst Company Belgium - increase in fixed assets under construction and payments on account -, Vyncolit, Oleon (chemicals), Volvo Europa

Truck - development of new models, such as the VT880 and the FH/FM range - Tower Automotive Belgium (car manufacturing) and MBI Beton België (construction). Conversely, there were cuts at Taminco (chemicals), Arcelor Steel Belgium (metalworking) - second consecutive year of decline following the major investment programme at the Ghent site completed in 2003 -, Algist Bruggeman (food), Stora Enso Langerbrugge - following heavy investments in 2002 and 2003 - and SCA Packaging Belgium (other industries).

In road transport, the main cuts occurred at Hallens and Kintrans, despite a big increase at Frans Maas. Almetal Holding, DAF Group and Sita Recycling Services account for the increase in other services, even outpacing the public sector expansion.

1.3.4.2 Investment top 10 at the port of Ghent in 2005

TABLE 21 INVESTMENT TOP 10 AT THE PORT OF GHENT IN 2005
(millions of euros)

Ranking	Name of company	Sector	Investment
1	ARCELOR STEEL BELGIUM	Metalworking industry	53.2
2	VOLVO CARS	Car manufacturing	41.7
3	HET HAVENBEDRIJF GENT GAB	Entreprise portuaire	20.8
4	TOWER AUTOMOTIVE BELGIUM	Car manufacturing	20.3
5	PUBLIC ADMINISTRATION	Public sector	15.6
6	VLAAMSE TANKVAART MAATSCHAPPIJ	Shipping companies	13.9
7	VOLVO EUROPA TRUCK	Car manufacturing	12.0
8	STORA ENSO LANGERBRUGGE	Other industries	9.7
9	SEA-RAIL	Cargo handling	7.9
10	ELECTRABEL	Energy	7.9
TOTAL of top 10			203.0

Source: NBB.

1.3.5 Financial ratios

- Return on equity after tax increased at Ghent in 2005, particularly in the non maritime cluster (table 22). The only significant increase posted by the maritime cluster was due to shipping agents and forwarders, with Lalemant, Furness Logistics and Agence Maritime Minne producing a very good performance. Conversely, Manuport and Sabeen (cargo handling) sustained losses, while profits were down at Rederij Intermas and Rederij Lalemant (shipping companies). The profitability of trading companies such as Total Belgium, BP Belgium and Honda Europe continued to improve. The industries recording higher profitability were metalworking, in view of a substantial decline of the Arcelor Steel Belgium's capital, which means an increase of this ratio, Rogers (electronics), and Cimenteries CBR (construction). In contrast, Plastal made a loss and Volvo Europa Truck (car manufacturing) saw its profits decline, while at Adpo-Ghent (oil industry) losses increased. The reduction in losses at BNRC Holding was enough to offset the decline in profitability of H en S Transport and Hallens (road transport). The increase in other logistic services is due to Sidarsteel.

TABLE 22 FINANCIAL RATIOS AT THE PORT OF GHENT FROM 2003 TO 2005

Sectors	Return on equity after taxes			Liquidity in the broad sense			Solvency		
	(in p.c.)						(in p.c.)		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
MARITIME CLUSTER.....	2.1	3.7	3.5	1.13	1.19	1.28	62.9	63.6	61.6
Shipping agents and forwarders.....	10.2	17.3	25.5	1.08	1.07	1.12	23.0	21.6	25.5
Cargo handling.....	2.8	4.7	1.0	0.91	1.19	1.36	55.8	60.7	53.3
Shipping companies.....	3.7	13.5	10.7	1.05	1.16	1.30	31.0	37.2	40.2
Shipbuilding and repair.....	20.1	13.4	12.1	1.37	1.44	1.64	45.4	53.5	59.1
Port construction and dredging.....	n.	- 1.1	11.7	n.	7.95	4.06	n.	31.8	78.1
Fishing.....	n.	5.1	- 9.6	n.	1.35	1.52	n.	44.0	46.8
Port trade.....	4.8	28.5	16.8	1.14	0.76	1.07	12.5	10.3	7.8
Port authority.....	0.9	1.5	2.2	2.36	1.78	1.53	83.7	81.3	81.3
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
NON MARITIME CLUSTER	6.5	22.0	26.7	1.05	1.19	1.23	44.8	46.7	45.2
TRADE	4.0	17.7	20.8	0.80	0.77	0.93	38.5	40.4	47.1
INDUSTRY	10.6	33.2	45.8	1.01	1.03	0.95	31.2	32.4	26.0
Energy.....	27.1	12.0	14.0	1.37	1.50	1.70	41.8	39.1	39.2
Oil industry.....	7.7	- 4.2	- 12.2	1.30	2.07	2.83	46.0	50.7	53.1
Chemicals.....	8.3	18.8	14.9	1.71	1.44	1.63	46.4	46.0	49.6
Car manufacturing.....	39.8	13.2	7.2	0.74	0.75	0.79	23.2	21.3	22.9
Electronics.....	13.4	6.8	23.2	1.38	1.52	1.68	58.6	60.7	56.3
Metalworking industry.....	- 16.0	58.8	140.7	1.08	1.14	0.79	27.1	32.1	16.1
Construction.....	10.3	4.0	11.2	1.10	1.11	1.19	36.3	42.9	40.0
Food industry.....	10.6	- 1.5	- 0.6	0.95	0.89	1.01	31.4	27.3	31.6
Other industries.....	15.3	6.9	- 6.6	1.41	1.24	1.20	44.9	41.8	36.5
LAND TRANSPORT.....	- 5.1	2.9	9.3	0.90	0.73	0.82	26.2	17.9	26.7
Road transport.....	8.6	25.4	16.4	1.19	1.26	1.36	31.4	37.4	40.5
Other land transport.....	- 11.2	- 13.6	- 0.7	0.73	0.58	0.54	24.4	13.0	18.1
OTHER LOGISTIC SERVICES..	3.7	13.6	16.7	2.20	7.14	6.73	84.7	89.0	87.1
Other services.....	3.7	13.6	16.7	2.20	7.14	6.73	84.7	89.0	87.1
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
WEIGHTED AVERAGE	6.2	20.8	25.2	1.05	1.19	1.23	45.7	47.5	46.0

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

- o Liquidity increased in both clusters, but not in industry or other logistic services. The increases in the maritime branches were substantial, e.g. at Transuniverse Cargo (shipping agents and forwarders), Belgotank and Sabeen (cargo handling), Rederij Intermas (shipping companies) and in all enterprises active in shipbuilding and repair. The rise recorded by trade is due to BP Belgium and Honda Europe. While increases were recorded by Electrabel (energy), Adpo-Ghent (oil industry), Rogers (electronics) and Cargill (food), Arcelor Steel Belgium's net working capital became negative, and that was sufficient to cause a decline in the liquidity ratio for industry in general. At Hallens and Shanks Transport (road transport), liquidity increased, whereas in other land transport and other services it contracted.

- Solvency did not do as well as the previous two ratios. It was several points down in both the maritime and the non maritime branches. Cargo handling, with URS and Sabeen, and port trade were among those that depressed the solvency of the maritime cluster, whereas increases were recorded at Furness Logistics, Transuniverse Cargo (shipping agents and forwarders), Rederij Intermas (shipping companies) and Verica (shipbuilding and repair). BP Belgium and Honda Europe (trade) increased their ability to meet their short- and long-term financial commitments, as did Kronos Europe (chemicals), Volvo Cars (car manufacturing), Cargill (food), Hallens (road transport) and BNRC Holding (other land transport). At the same time, that ability declined at Arcelor Steel Belgium (metalworking), and at SCA Packaging Belgium (other industries).

1.4 PORT OF OSTEND

1.4.1 Highlights in 2005⁵⁰

For the sixth year running, the port of Ostend recorded an increase in its maritime traffic in 2005, setting a new all-time record of almost 8 million tonnes. Roll-on/roll-off (ro-ro) traffic continued to expand (+ 3.7 p.c.), with about fifteen daily services to Britain offered by Transeuropa Ferries and Ferryways, shipping companies which have been expanding steadily for a number of years. The sharp fall in containers, due mainly to the transfer of some of the feeder services⁵¹ to Zeebrugge, and the decline in bulk were therefore largely offset. In addition, there was a big increase in passenger and car transport.

Despite these good results, the pace of growth of sea traffic has slackened, and that is due to the saturation level affecting the port and its development. The provision of new berths and the widening of the access channel by 2007 should make it possible for the port to continue expanding, with the main emphasis still on shortsea shipping. The extension of certain terminals and the recent construction of a two-level pontoon also provide this seafront port with essential additional space. Other major infrastructure projects, such as the enlargement of the turning basin at Zeewezendok, are vital for improving access to the port. That is also a central aim of the "Strategic Plan 2005/2020 for the port of Ostend", which focuses on three priorities: making the port accessible to 200 metre long vessels; a zone reserved for the construction of a future sea lock on the approach to the area south of the channel and Plassendale 1; and better access for the port on the land side.

The port authorities also intend to promote the port's main strength – the highly competitive turnaround time for cargoes – to potential users, particularly in the feeder service and distribution. The good results achieved by the Plassendale enterprise zones endorse the strategy for developing the port and the industries based there. Even if it means that industry is finally overtaking maritime activities, that performance is making an active contribution to the growth of VA and employment, the latter recording quite a notable increase in 2005.

1.4.2 Value added

1.4.2.1 Main developments in 2005

At constant prices, direct and total VA increased respectively by 11 and 9.1 p.c. in one year (+ 13.2 and + 11.2 p.c. at current prices, table 23). The former represented 0.2 p.c. of the Flemish Region's GDP, the latter 0.4 p.c., matching the figures for 2004. In relation to the Belgian GDP they represent respectively 0.1 and 0.3 p.c.

- o Maritime cluster:

VA declined in the maritime branches at Ostend. The increases recorded by Transeuropa Ferries - due to expansion in employment -, Cool Solutions (shipping agents and forwarders), Morubel - higher operating profits, but also higher staff costs and depreciation -, Marine Harvest Belgium (fishing) - which was back in profit - and the port operator were not enough to offset the reductions recorded at Searoad Stevedores (cargo handling), Baggerwerken Decloedt en Zoon (port construction and dredging) - sharp fall in employment and depreciation - and the Navy (public sector).

⁵⁰ Sources include AG Haven Oostende and Vlaamse Havencommissie (2006).

⁵¹ Short-distance shipping service which links at least two ports in order to collate or redistribute the freight (generally in containers) carried from or to an ocean-going service calling at one of them. Source: UN/ECE (2001).

TABLE 23 VALUE ADDED AT THE PORT OF OSTEND FROM 2000 TO 2005
(millions of euros - current prices)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
1. DIRECT EFFECTS	266.6	322.5	332.1	346.2	369.8	418.8	100.0	+ 13.2	+ 9.5
MARITIME CLUSTER	69.5	71.1	69.6	78.0	116.1	101.5	24.2	- 12.5	+ 7.9
Shipping agents and forwarders	5.8	2.6	4.2	3.0	3.6	4.1	1.0	+ 13.0	- 6.9
Cargo handling	3.1	3.9	4.8	6.4	7.2	6.5	1.5	- 9.9	+ 16.1
Shipping companies	0.0	- 1.4	- 3.9	1.0	3.4	3.3	0.8	- 2.0	- 394.6
Shipbuilding and repair	5.0	5.1	4.8	6.5	6.8	6.0	1.4	- 11.7	+ 3.6
Port construction and dredging	19.5	21.4	28.8	29.9	47.6	31.6	7.6	- 33.5	+ 10.1
Fishing	24.4	28.7	16.2	17.1	31.1	33.3	8.0	+ 7.3	+ 6.4
Port trade	0.2	0.2	0.2	0.2	0.2	0.2	0.1	- 1.8	+ 7.1
Port authority	2.8	2.9	3.2	3.1	4.8	5.2	1.2	+ 7.6	+ 13.4
Public sector	8.7	7.8	11.2	10.8	11.4	11.3	2.7	- 1.2	+ 5.2
<i>Allocation (p.m.)</i>	<i>8.5</i>	<i>10.4</i>	<i>9.0</i>	<i>9.0</i>	<i>9.4</i>	<i>8.2</i>	<i>-</i>	<i>- 13.3</i>	<i>- 0.7</i>
NON MARITIME CLUSTER	197.1	251.4	262.5	268.2	253.7	317.2	75.8	+ 25.0	+ 10.0
TRADE	26.1	24.0	21.3	21.9	22.4	23.5	5.6	+ 5.3	- 2.0
INDUSTRY	120.1	166.4	169.6	167.6	162.0	219.1	52.3	+ 35.2	+ 12.8
Energy	1.0	0.8	0.6	0.2	0.4	1.8	0.4	+ 395.7	+ 12.2
Oil industry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Chemicals	22.6	23.6	36.6	35.1	33.8	34.1	8.2	+ 1.2	+ 8.6
Car manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Electronics	0.7	0.8	0.8	0.7	0.7	0.7	0.2	- 4.9	- 0.6
Metalworking industry	85.0	125.6	115.2	110.7	103.2	157.8	37.7	+ 52.9	+ 13.2
Construction	5.7	6.4	5.7	6.1	6.5	8.6	2.1	+ 31.6	+ 8.6
Food industry	0.6	3.9	6.0	6.4	9.7	8.2	1.9	- 15.9	+ 69.4
Other industries	4.5	5.4	4.7	8.3	7.7	7.9	1.9	+ 2.0	+ 11.7
LAND TRANSPORT	13.3	20.1	20.9	22.6	24.3	21.9	5.2	- 9.9	+ 10.4
Road transport	12.2	16.8	17.3	18.3	18.6	19.0	4.5	+ 2.2	+ 9.3
Other land transport	1.1	3.3	3.6	4.3	5.6	2.8	0.7	- 50.1	+ 19.8
OTHER LOGISTIC SERVICES	37.5	40.9	50.7	56.1	45.1	52.7	12.6	+ 17.1	+ 7.1
Other services	14.0	16.9	26.0	34.6	24.6	27.3	6.5	+ 11.0	+ 14.3
Public sector	23.5	24.0	24.7	21.5	20.5	25.4	6.1	+ 24.4	+ 1.6
2. INDIRECT EFFECTS	304.6	279.4	201.1	283.4	310.4	337.9	-	+ 8.9	+ 2.1
MARITIME CLUSTER	58.2	56.6	- 32.7	70.1	110.6	97.0	-	- 12.3	+ 10.7
NON MARITIME CLUSTER	246.4	222.8	233.8	213.3	199.8	240.9	-	+ 20.6	- 0.4
TOTAL VALUE ADDED	571.3	601.9	533.2	629.6	680.2	756.7	-	+ 11.2	+ 5.8

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

- o Non maritime cluster:

The contribution of Ostend trade to GDP increased, boosted partly by the good performance at Oswald De Bruycker and Total Belgium.

The strong rise in VA in metalworking, which is the reason for the large increase in industry, stems from the profits surge at Daikin Europe. Sizeable increases were also recorded at Electrawinds-Biomassa (energy) - the latest Ostend producer of renewable energy - and De Vierterre (construction), Xirion and Goekint Graphics (other industries), tempered by the decline in the food industry, particularly at Chocolaterie Jacali.

In land transport, the reductions were small despite the sharp decline at BNRC Holding, thanks to the growth at Transport Maenhout and Maenhout Logistics (road transport). VA recorded sustained growth in other services, e.g. at Intergemeentelijke Vereniging voor het Afvalbeheer voor Oostende en Ommeland and Grondmaatschappij van België (I.V.O.O.).

1.4.2.2 VA top 10 at the port of Ostend in 2005

TABLE 24 VA TOP 10 AT THE PORT OF OSTEND IN 2005
(millions of euros)

Ranking	Name of company	Sector	Value added
1	DAIKIN EUROPE	Metalworking industry	155.6
2	PROVIRON FINE CHEMICALS	Chemicals	26.66
3	BAGGERWERKEN DECLOEDT EN ZOON	Port construction and dredging	26.4
4	PUBLIC ADMINISTRATION	Public sector	25.8
5	MORUBEL	Fishing	15.6
6	DEFENCE (NAVY)	Public sector	11.3
7	TRANSPORT MAENHOUT	Road transport	7.7
8	CHOCOLATERIE JACALI	Food industry	7.7
9	OSWALD DE BRUYCKER	Trade	6.7
10	I.V.O.O.	Other services	5.6
TOTAL of top 10			288.9

Source: NBB.

1.4.3 Employment

1.4.3.1 Main developments in 2005

Indirect employment expanded faster in proportionate terms than direct employment (+ 2.4 against + 0.2 p.c.), thanks to the growth of the maritime branches known to be highly dependent on subcontracting (table 25). The workforce of the Ostend firms under review corresponded to 0.2 p.c. of employment in the Flemish Region. In terms of total employment, the sum of direct and indirect jobs, it represented 0.4 p.c. of the region's employment. These scores are the same as last year's. In 2005 direct and total employment represented respectively 0.1 and 0.2 p.c. of the Belgian domestic employment.

- o Maritime cluster:

The decline in shipbuilding and repair, and in port construction and dredging, particularly at Baggerwerken Decloedt en Zoon, depressed employment in the Ostend maritime cluster in 2005. These cuts were partly offset by recruitment on the part of firms such as Exploitatie Vismijn Oostende (fishing).

TABLE 25 EMPLOYMENT AT THE PORT OF OSTEND FROM 2000 TO 2005
(FTEs)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
1. DIRECT EFFECTS	3,973	4,169	4,320	4,479	4,539	4,550	100.0	+ 0.2	+ 2.7
MARITIME CLUSTER	1,044	1,040	1,069	1,209	1,434	1,376	30.2	- 4.1	+ 5.7
Shipping agents and forwarders	78	27	55	46	54	62	1.4	+ 15.4	- 4.6
Cargo handling	84	71	87	121	131	135	3.0	+ 2.5	+ 9.8
Shipping companies	0	12	15	15	18	25	0.5	+ 36.2	+ 638.6
Shipbuilding and repair	100	105	99	114	110	82	1.8	- 25.2	- 3.9
Port construction and dredging	166	201	257	324	397	353	7.8	- 11.0	+ 16.3
Fishing	350	382	244	284	411	413	9.1	+ 0.4	+ 3.4
Port trade	1	1	2	2	3	4	0.1	+ 28.0	+ 49.3
Port authority	28	28	28	35	41	42	0.9	+ 4.2	+ 8.3
Public sector	237	212	282	268	269	260	5.7	- 3.3	+ 1.9
<i>Allocation (p.m.)</i>	<i>130</i>	<i>130</i>	<i>123</i>	<i>127</i>	<i>151</i>	<i>119</i>	<i>-</i>	<i>- 21.3</i>	<i>- 1.7</i>
NON MARITIME CLUSTER	2,930	3,129	3,251	3,270	3,105	3,174	69.8	+ 2.2	+ 1.6
TRADE	417	408	364	337	324	322	7.1	- 0.5	- 5.0
INDUSTRY	1,568	1,724	1,813	1,810	1,762	1,855	40.8	+ 5.3	+ 3.4
Energy	5	4	3	1	1	6	0.1	+ 452.3	+ 1.5
Oil industry	0	0	0	0	0	0	0.0	n.	n.
Chemicals	369	307	408	405	403	380	8.3	- 5.7	+ 0.6
Car manufacturing	0	0	0	0	0	0	0.0	n.	n.
Electronics	11	11	12	12	12	10	0.2	- 9.6	- 1.5
Metalworking industry	945	1,109	1,142	1,051	997	1,127	24.8	+ 13.1	+ 3.6
Construction	136	151	127	114	112	119	2.6	+ 6.4	- 2.5
Food industry	11	56	62	63	79	86	1.9	+ 8.5	+ 49.7
Other industries	91	86	59	166	159	127	2.8	- 20.2	+ 6.9
LAND TRANSPORT	180	297	290	310	328	310	6.8	- 5.7	+ 11.5
Road transport	163	231	226	233	237	244	5.4	+ 3.1	+ 8.5
Other land transport	17	66	65	77	91	65	1.4	- 28.4	+ 30.2
OTHER LOGISTIC SERVICES	764	701	784	813	692	688	15.1	- 0.6	- 2.1
Other services	195	197	273	291	197	160	3.5	- 18.8	- 3.9
Public sector	569	504	511	522	495	528	11.6	+ 6.7	- 1.5
2. INDIRECT EFFECTS	4,169	4,508	4,817	4,723	4,026	4,122	-	+ 2.4	- 0.2
MARITIME CLUSTER	900	1,107	1,007	1,120	1,367	1,439	-	+ 5.3	+ 9.8
NON MARITIME CLUSTER	3,269	3,400	3,810	3,603	2,659	2,683	-	+ 0.9	- 3.9
TOTAL EMPLOYMENT	8,143	8,677	9,137	9,202	8,565	8,672	-	+ 1.3	+ 1.3

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

- o Non maritime cluster:

Moderate job losses were recorded in a number of trading companies such as Oswald De Bruycker and Vanden Berghe Gebroeders.

The growth of employment in industry is due primarily to Daikin Europe (metalworking), together with, more modestly though, Chocolaterie Jacali (food) and Electrawinds-Biomassa (energy). However, there were reductions at Proviron Fine Chemicals and Orac (chemicals), not to mention the bankruptcy of Rail Services International (other industries), which entailed 55 job losses in terms of FTEs.

The strong figures in road transport are due to recruitment at Maenhout Logistics and Transport Maenhout, while employment on the railways remained steady at the 2002 level, following the restructuring of the BNRC group. In other logistic services, the increases and reductions cancelled one another out.

1.4.3.2 Employment top 10 at the port of Ostend in 2005

TABLE 26 **EMPLOYMENT TOP 10 AT THE PORT OF OSTEND IN 2005**
(FTEs)

Ranking	Name of company	Sector	Employment
1	DAIKIN EUROPE	Metalworking industry	1,090
2	PUBLIC ADMINISTRATION	Public sector	528
3	PROVIRON FINE CHEMICALS	Chemicals	288
4	BAGGERWERKEN DECLOEDT EN ZOON	Port construction and dredging	261
5	DEFENCE (NAVY)	Public sector	260
6	MORUBEL	Fishing	96
7	VANHUELE GEBROEDERS	Port construction and dredging	81
8	CHOCOLATERIE JACALI	Food industry	75
9	EXPLOITATIE VISMIJN OOSTENDE	Fishing	71
10	MARINE HARVEST BELGIUM	Fishing	62
TOTAL of top 10			2,812

Source: NBB.

1.4.4 Investment

1.4.4.1 Main developments in 2005

Investment soared by 23.2 p.c. at constant prices (+ 24.4 p.c. at current prices, table 27). This was the most notable increase for the period, the total coming close to the score for the year 2000.

- o Maritime cluster:

Investment in the maritime cluster at Ostend virtually doubled as a result of the substantial amounts invested by Ferryways (shipping companies) - furniture and vehicles - in 2005, but also by Morubel (fishing), Baggerwerken Decloedt en Zoon (port construction and dredging), Searoad Stevedores (cargo handling) and the port operator. Only the cuts in investment by shipping agents and forwarders, particularly Cool Solutions, and fishing, at Rederij Rudo and Exploitatie Vismijn Oostende, temper this picture.

TABLE 27 INVESTMENT AT THE PORT OF OSTEND FROM 2000 TO 2005
(millions of euros - current prices)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
MARITIME CLUSTER.....	35.7	15.4	9.8	12.0	20.1	38.6	37.8	+ 92.3	+ 1.6
Shipping agents and forwarders.....	0.5	0.3	0.3	0.4	1.5	0.8	0.8	- 44.1	+ 9.1
Cargo handling.....	0.1	0.4	0.4	0.2	0.2	0.6	0.6	+ 153.4	+ 37.0
Shipping companies.....	0.0	0.0	0.8	0.1	0.2	14.0	13.7	+ 8684.4	+ 370.3
Shipbuilding and repair.....	2.4	0.8	0.4	0.5	1.2	0.4	0.4	- 62.1	- 28.5
Port construction and dredging.....	6.2	0.6	0.8	1.0	5.1	11.8	11.5	+ 130.6	+ 13.7
Fishing.....	17.7	6.8	3.1	4.7	5.6	3.7	3.6	- 33.6	- 26.9
Port trade.....	0.2	0.0	0.1	0.0	0.1	0.1	0.1	+ 5.0	- 11.0
Port authority.....	8.5	4.7	3.9	5.0	6.3	7.2	7.0	+ 14.8	- 3.4
Public sector.....	0.0	1.7	0.0	0.0	0.0	0.0	0.0	n.	n.
<i>Allocation (p.m.).....</i>	<i>6.0</i>	<i>3.4</i>	<i>1.9</i>	<i>1.2</i>	<i>2.7</i>	<i>1.1</i>	<i>-</i>	<i>- 58.1</i>	<i>- 28.7</i>
NON MARITIME CLUSTER.....	69.7	48.0	45.6	50.3	62.0	63.5	62.2	+ 2.5	- 1.8
TRADE.....	7.5	4.3	6.0	5.9	20.8	5.8	5.6	- 72.3	- 5.1
INDUSTRY.....	38.2	30.3	17.8	22.6	21.5	41.3	40.4	+ 92.4	+ 1.6
Energy.....	0.2	0.1	0.0	0.0	1.0	17.0	16.6	+ 1529.2	+ 147.1
Oil industry.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Chemicals.....	20.6	7.6	7.3	7.5	5.7	6.9	6.7	+ 19.7	- 19.7
Car manufacturing.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Electronics.....	0.0	0.0	0.1	0.1	0.0	0.1	0.1	+ 25.4	+ 14.1
Metalworking industry.....	13.9	17.3	7.7	10.5	9.3	10.8	10.5	+ 16.0	- 5.0
Construction.....	0.4	0.6	0.6	0.7	0.9	0.9	0.8	- 4.4	+ 14.9
Food industry.....	0.3	4.0	1.0	0.9	2.6	0.7	0.7	- 74.0	+ 21.5
Other industries.....	2.8	0.8	1.0	3.0	1.8	5.1	5.0	+ 178.4	+ 12.7
LAND TRANSPORT.....	3.7	4.8	5.3	1.8	2.8	5.5	5.4	+ 93.5	+ 8.3
Road transport.....	3.7	4.5	3.4	1.3	2.3	3.3	3.2	+ 47.0	- 2.0
Other land transport.....	0.0	0.3	1.9	0.5	0.6	2.2	2.1	+ 274.8	+ 152.6
OTHER LOGISTIC SERVICES.....	20.3	8.6	16.6	20.0	16.9	11.0	10.8	- 34.9	- 11.5
Other services.....	2.9	2.4	4.6	11.4	10.3	7.2	7.0	- 30.1	+ 19.8
Public sector.....	17.4	6.2	12.0	8.6	6.7	3.8	3.8	- 42.4	- 26.1
DIRECT INVESTMENT.....	105.3	63.4	55.4	62.4	82.1	102.2	100.0	+ 24.4	- 0.6

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

- o Non maritime cluster:

In trade, the sharp fall is due to Autonom Gemeentebedrijf Vismijn Oostende and Houthandel Kina Kesteloot.

Almost 17 million euro was invested at Electrawinds-Biomassa in 2005, with entry into service of a new power station on the Plassendale 2 site with a capacity of 93,000 MWh per annum. That accounts for

the strong rise in investments in industry, and particularly in energy. Other large increases were recorded at Proviron Fine Chemicals (chemicals), Daikin Europe (metalworking), Goekint Graphics and Xirion (other industries), moderated somewhat by a steep reduction at Chocolaterie Jacali (food).

All the indicators are favourable in the case of land transport, where investment surged by almost 50 p.c. in road transport, thanks to Transport Maenhout and Maenhout Logistics, and increased fivefold at BNRC Holding. Conversely, other logistic services showed a sharp fall, e.g. I.V.O.O. and Macrifi.

1.4.4.2 Investment top 10 at the port of Ostend in 2005

TABLE 28 INVESTMENT TOP 10 AT THE PORT OF OSTEND IN 2005
(millions of euros)

Ranking	Name of company	Sector	Investment
1	ELECTRAWINDS - BIOMASSA	Energy	16.7
2	FERRYWAYS	Shipping companies	13.5
3	BAGGERWERKEN DECLOEDT EN ZOON	Port construction and dredging	11.1
4	DAIKIN EUROPE	Metalworking industry	9.9
5	AUTONOOM GEMEENTEBEDRIJF HAVEN OOSTENDE	Entreprise portuaire	7.2
6	PROVIRON FINE CHEMICALS	Chemicals	5.5
7	PUBLIC ADMINISTRATION	Public sector	3.8
8	OSWALD DE BRUYCKER	Trade	3.7
9	GOEKINT GRAPHICS	Other industries	2.5
10	TRANSPORT MAENHOUT	Road transport	2.1
TOTAL of top 10			76.0

Source: NBB.

1.4.5 Financial ratios

- The return on capital after tax increased in 2005 in the non maritime branches, whereas it declined in the maritime cluster (table 29). Substantial falls were recorded by Baggerwerken Decloedt en Zoon (port construction and dredging) and Rederij Tacomina (fishing). In the case of shipping agents and forwarders, the fall is due to Transeuropa Ferries, Cross Channel Storage Services, and the losses at TMC Belgium, but these changes were not really significant overall. The return to profitability at Ostend Transport, Transshipment and Trading (cargo handling) limited the decline in the maritime sector. In the non maritime sector, the rise is due to the surge in profits at Daikin Europe (metalworking), Total Belgium and Oswald De Bruycker (trade), Electrabel (energy) and De Vierterre (construction), and to the curbing of losses at BNRC Holding. The losses at JM Huber Belgium (chemicals), H. Deweert (other industries) and Luctor and Emergo (other services), and the decline in profits at Chocolaterie Jacali (food) and Bretrans (road transport) were insufficient to alter the picture.
- Liquidity showed a more modest improvement. Increases were recorded at SKB Life Saving Equipment and Damen België (shipbuilding and repair), Electrabel (energy), Orac (chemicals), Daikin Europe (metalworking), Chocolaterie Jacali (food), Transport Maenhout and European Freight Services (road transport). They were tempered by the reductions at Baggerwerken Decloedt en Zoon (port construction and dredging) and in most trade enterprises.
- Solvency declined overall, particularly in companies in the trade branch such as Oswald De Bruycker, and other logistic services, such as Daikin Europe Coordination Center. Conversely, it increased at Cross Channel Storage Services and Transeuropa Ferries (shipping agents and forwarders), Baggerwerken Decloedt en Zoon (port construction and dredging), Morubel (fishing), Chocolaterie Jacali (food), Continental Cargo Carriers and European Freight Services (road transport), and at BNRC Holding (other land transport).

TABLE 29 FINANCIAL RATIOS AT THE PORT OF OSTEND FROM 2003 TO 2005

Sectors	Return on equity after taxes (in p.c.)			Liquidity in the broad sense			Solvency (in p.c.)		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
MARITIME CLUSTER.....	4.9	9.4	7.0	1.23	1.55	1.50	39.8	39.2	41.7
Shipping agents and forwarders	4.3	26.4	19.1	1.04	0.92	0.91	22.0	11.4	13.5
Cargo handling	0.4	0.0	9.0	0.78	1.01	1.22	61.7	60.7	65.0
Shipping companies	7.8	5.5	8.9	1.14	1.11	1.14	32.7	30.3	30.5
Shipbuilding and repair	10.6	12.4	13.6	0.94	0.92	1.06	18.6	14.4	14.3
Port construction and dredging	9.1	6.7	5.0	1.56	2.19	1.94	30.5	31.2	33.0
Fishing	1.8	24.1	15.7	1.17	1.88	1.84	44.1	42.8	48.8
Port trade	29.7	32.8	10.5	1.65	2.20	1.32	33.3	43.8	28.7
Port authority	0.5	3.8	2.3	1.33	1.33	1.03	85.3	86.9	87.8
Public sector	n.	n.	n.	n.	n.	n.	n.	n.	n.
NON MARITIME CLUSTER.....	8.0	6.3	10.1	1.42	1.36	1.41	47.5	46.9	44.0
TRADE	5.7	4.8	11.8	1.55	1.53	1.45	38.5	39.5	38.7
INDUSTRY	8.2	7.4	15.3	0.76	0.78	0.85	35.2	34.3	35.5
Energy	7.9	2.2	9.0	1.27	1.43	1.95	66.9	66.7	66.8
Oil industry	n.	n.	n.	n.	n.	n.	n.	n.	n.
Chemicals	- 0.1	- 3.3	- 8.0	2.22	1.76	1.93	63.4	47.7	47.6
Car manufacturing	n.	n.	n.	n.	n.	n.	n.	n.	n.
Electronics	13.7	7.5	1.9	1.31	1.20	1.24	23.3	18.3	20.2
Metalworking industry	11.2	9.0	22.6	0.60	0.59	0.68	28.9	30.2	32.6
Construction	15.4	17.1	30.5	1.15	1.10	1.02	23.8	25.4	24.0
Food industry	28.9	55.1	19.5	1.84	2.13	3.15	33.7	41.0	52.5
Other industries	17.7	27.6	- 8.0	1.94	1.63	1.63	44.1	38.3	33.4
LAND TRANSPORT	5.7	11.6	12.2	1.60	1.37	1.58	44.1	36.7	49.3
Road transport	18.4	17.4	14.2	1.78	1.79	2.05	50.1	50.7	58.5
Other land transport	- 39.3	- 11.1	- 2.0	1.08	0.72	0.73	30.8	17.6	23.4
OTHER LOGISTIC SERVICES	8.2	5.1	5.3	3.90	3.80	2.80	66.4	69.7	55.3
Other services	8.2	5.1	5.3	3.90	3.80	2.80	66.4	69.7	55.3
Public sector	n.	n.	n.	n.	n.	n.	n.	n.	n.
WEIGHTED AVERAGE	7.5	6.9	9.5	1.39	1.39	1.42	46.2	45.3	43.5

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

1.5 PORT OF ZEEBRUGGE

1.5.1 Highlights in 2005⁵²

The European leader in the shortsea ro-ro, the port of Zeebrugge had an exceptional year in 2005 as regards the tonnages. Beating all records in terms of sea traffic, with the strongest expansion in the past ten years, the growth of container traffic was for the first time strong enough to match the rise in the number of new cars transhipped at the port. Zeebrugge is the biggest port in the world for the transportation of new vehicles. Nevertheless, it must be remembered that a significant percentage of ro-ro traffic is now containerised, owing to the globalisation of trade, and that distorts the statistics somewhat.⁵³

To achieve that expansion, major projects were launched all round: for instance, APM Terminals began operating its terminal at the Albert II dock in April 2006, and by 2007 that should represent additional traffic totalling around one million TEU; PSA also installed three extra gantries at the OCHZ terminal. Other expansion projects have also already been completed or are under way, e.g. the extension of the outer harbour terminal for the benefit of Stora Enso, and, in the inner harbour, the entry into service of a deepsea ro-ro terminal and a maritime logistics area destined to cover 120 hectares. Furthermore, the extension of the storage capacity at the gas terminal went on. The gas is supplied in two forms: liquid (LNG), carried by tankers and stored at the Fluxys terminal towards Belgian and European markets, and as gas, from Norway via the Statoil *Zeepipe* and from Britain via the Bacton *Interconnector*, destined for continental Europe. However, the United Kingdom has progressively become a net importer, which entails a more and more frequent flow inversion.

The initiative taken by the manager of the port of Zeebrugge, MBZ, with PortConnect once again produced results. Helping to open up the port on the river side and step up ocean containerisation for the feeder service, it catered for an extra volume of around 150,000 TEU in 2005. Those results provide encouragement for persevering with the efforts to open up the inland waterways, where the improvements to the Seine-Nord and Noorderkanaal links could make an active contribution. Accessibility from the hinterland is central. It is also evident in regard to road transport, with priority accorded to the upgrading of the N31 and N49 express roads, which link Bruges and Zeebrugge, all crossroads being replaced by tunnels.

The rapid acceleration of growth at this coastal port, accompanying substantial investments such as those in 2005, which had risen sharply, will certainly have a favourable impact in the near future on the creation of VA and employment, where a temporary decline has occurred.

1.5.2 Value added

1.5.2.1 Main developments in 2005

The decline in VA at Zeebrugge, at constant prices, came to 2.7 p.c. for businesses in the port and 3.3 p.c. overall (- 0.8 and - 1.4 p.c. at current prices, table 30). The primary reason for the decline lay in the non maritime branches. The share of direct VA in the Flemish Region's GDP remained constant, at 0.5 p.c., while the share of total VA dropped by 0.1 point, to 0.8 p.c. In 2005, these percentages respectively amounted to 0.3 and 0.5 p.c. of the Belgian GDP.

⁵² Sources include Maatschappij van de Brugse Zeevaartinrichtingen (MBZ), Vlaamse Havencommissie (2006) and Lloyd Special Report "Zeebrugge".

⁵³ To avoid any confusion, the ro-ro figures presented in this study exclude all containerised freight even if it is handled horizontally, as that category is included under the heading "containers".

TABLE 30**VALUE ADDED AT THE PORT OF ZEEBRUGGE FROM 2000 TO 2005**

(millions of euros - current prices)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
1. DIRECT EFFECTS	733.6	747.4	766.5	743.1	806.2	799.7	100.0	- 0.8	+ 1.7
MARITIME CLUSTER	278.6	279.0	273.6	286.4	293.9	314.5	39.3	+ 7.0	+ 2.4
Shipping agents and forwarders	30.0	27.2	28.5	35.7	39.0	38.8	4.9	- 0.5	+ 5.3
Cargo handling	81.5	88.0	89.1	94.1	107.0	109.1	13.6	+ 2.0	+ 6.0
Shipping companies	2.7	4.4	9.0	18.4	12.2	28.1	3.5	+ 129.9	+ 59.2
Shipbuilding and repair	9.1	9.6	8.4	7.6	7.8	8.0	1.0	+ 2.5	- 2.6
Port construction and dredging	33.2	26.2	24.4	17.0	12.2	10.9	1.4	- 10.2	- 19.9
Fishing	30.3	34.8	32.1	31.8	23.7	23.6	2.9	- 0.5	- 4.9
Port trade	0.4	0.1	0.2	0.8	0.5	0.1	0.0	- 81.9	- 23.1
Port authority	18.3	18.5	20.8	14.7	21.3	22.1	2.8	+ 3.8	+ 3.9
Public sector	73.1	70.2	61.1	66.2	70.2	73.8	9.2	+ 5.1	+ 0.2
<i>Allocation (p.m.)</i>	<i>17.7</i>	<i>20.3</i>	<i>18.4</i>	<i>19.3</i>	<i>15.1</i>	<i>15.9</i>	<i>-</i>	<i>+ 5.2</i>	<i>- 2.1</i>
NON MARITIME CLUSTER	455.0	468.3	492.9	456.7	512.2	485.2	60.7	- 5.3	+ 1.3
TRADE	74.0	79.2	63.4	60.1	81.0	79.2	9.9	- 2.1	+ 1.4
INDUSTRY	275.9	276.7	304.4	267.5	283.1	260.7	32.6	- 7.9	- 1.1
Energy	78.9	76.6	111.5	57.8	59.6	52.6	6.6	- 11.7	- 7.8
Oil industry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Chemicals	28.5	29.0	29.4	26.5	26.0	23.6	3.0	- 9.1	- 3.7
Car manufacturing	0.1	7.9	0.1	0.0	0.1	0.2	0.0	+ 6.1	+ 3.5
Electronics	72.0	65.4	66.1	80.4	84.5	79.0	9.9	- 6.5	+ 1.9
Metalworking industry	14.7	16.6	27.8	25.8	29.4	25.3	3.2	- 14.0	+ 11.4
Construction	55.7	57.1	44.8	40.9	40.0	41.2	5.2	+ 3.0	- 5.8
Food industry	13.0	11.5	10.3	22.9	28.8	27.0	3.4	- 6.3	+ 15.7
Other industries	13.0	12.6	14.4	13.2	14.7	11.9	1.5	- 18.9	- 1.7
LAND TRANSPORT	60.0	62.6	70.6	73.3	84.1	74.0	9.3	- 12.0	+ 4.3
Road transport	46.5	48.6	53.5	56.0	63.2	60.6	7.6	- 4.0	+ 5.5
Other land transport	13.5	14.0	17.1	17.3	20.9	13.4	1.7	- 35.9	- 0.2
OTHER LOGISTIC SERVICES	45.1	49.8	54.5	55.7	64.1	71.2	8.9	+ 11.0	+ 9.6
Other services	31.2	32.5	37.1	38.4	46.2	52.1	6.5	+ 12.9	+ 10.8
Public sector	13.9	17.3	17.4	17.4	18.0	19.1	2.4	+ 6.2	+ 6.5
2. INDIRECT EFFECTS	555.3	610.5	680.5	603.1	631.7	618.4	-	- 2.1	+ 2.2
MARITIME CLUSTER	222.0	246.4	341.0	260.3	239.2	250.5	-	+ 4.7	+ 2.4
NON MARITIME CLUSTER	333.3	364.1	339.5	342.8	392.4	368.0	-	- 6.2	+ 2.0
TOTAL VALUE ADDED	1,288.9	1,357.9	1,447.0	1,346.1	1,437.8	1,418.1	-	- 1.4	+ 1.9

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

- Maritime cluster:

The rise in VA in the maritime cluster is due to the excellent performance of Cobelfret Ferries (shipping companies), where the operating profit virtually doubled, Combined Terminal Operators and 2XL, despite declines at Bridgestone Logistics Europe, Zeebrugse Behandelingsmaatschappij and the takeover of OCHZ by Container Handling Zeebrugge (cargo handling). The port's leading employer, the Navy (public sector), and the port operator also increased their contribution to GDP.

- Non maritime cluster:

The reduction at Fjord Seafood Pieters accounts for the fall in trade, despite a rise at CDMZ.

Industry recorded a series of falls, particularly at Fluxys - lower depreciation - and Fluxys LNG - lower profits and staff costs - (energy), Pemco Brugge and Corn. Van Loocke (chemicals), Jabil Circuit Belgium (electronics), Donaldson Europe (metalworking), and losses, Uco Yarns, Walleyne Graphics and Denolf Recycling (other industries). Construction remained steady, partly thanks to the performance of Hanson Aggregates Belgium, and Philips Innovative Applications (electronics) achieved an increase in its operating profits.

Apart from being due to the BNRC restructuring, the reductions reported in land transport resulted from the decline at Norbert Dentressangle Silo Belgium (road transport). A strong rise at Intergemeentelijk Samenwerkingsverband voor Vuilverwijdering en -verwerking in Brugge en Ommeland (I.V.B.O.) is one of the factors generating the increase in other services.

1.5.2.2 VA top 10 at the port of Zeebrugge in 2005

TABLE 31 **VA TOP 10 AT THE PORT OF ZEEBRUGGE IN 2005**
(millions of euros)

Ranking	Name of company	Sector	Value added
1	DEFENCE (NAVY)	Public sector	73.8
2	PHILIPS INNOVATIVE APPLICATIONS	Electronics	61.2
3	SEA-RO TERMINAL	Cargo handling	43.5
4	FLUXYS LNG	Energy	30.8
5	COMBINED TERMINAL OPERATORS	Cargo handling	25.2
6	FJORD SEAFOOD PIETERS	Trade	22.2
7	MAATSCHAPPIJ VAN DE BRUGSE ZEEVAARTINRICHTINGEN	Entreprise portuaire	22.1
8	COBELFRET FERRIES	Shipping companies	22.0
9	PUBLIC ADMINISTRATION	Public sector	19.1
10	GLAVERBEL	Construction	18.3
TOTAL of top 10			338.3

Source: NBB.

1.5.3 Employment

TABLE 32 EMPLOYMENT AT THE PORT OF ZEEBRUGGE FROM 2000 TO 2005
(FTEs)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
1. DIRECT EFFECTS	10,808	11,080	10,643	10,341	10,896	10,658	100.0	- 2.2	- 0.3
MARITIME CLUSTER.....	4,973	4,814	4,395	4,345	4,310	4,451	41.8	+ 3.3	- 2.2
Shipping agents and forwarders.....	303	320	347	400	408	425	4.0	+ 4.2	+ 7.0
Cargo handling.....	1,388	1,364	1,380	1,367	1,476	1,627	15.3	+ 10.2	+ 3.2
Shipping companies	119	83	91	94	92	89	0.8	- 3.1	- 5.6
Shipbuilding and repair.....	194	193	167	150	146	148	1.4	+ 1.0	- 5.2
Port construction and dredging.....	317	291	287	246	166	163	1.5	- 1.4	- 12.4
Fishing.....	497	488	484	435	377	325	3.1	- 13.8	- 8.1
Port trade	9	6	5	16	9	2	0.0	- 82.5	- 30.5
Port authority.....	163	162	156	152	150	145	1.4	- 3.1	- 2.3
Public sector	1,982	1,907	1,480	1,484	1,486	1,527	14.3	+ 2.8	- 5.1
<i>Allocation (p.m.).....</i>	<i>306</i>	<i>288</i>	<i>295</i>	<i>313</i>	<i>298</i>	<i>235</i>	<i>-</i>	<i>- 20.9</i>	<i>- 5.1</i>
NON MARITIME CLUSTER.....	5,835	6,266	6,248	5,997	6,586	6,207	58.2	- 5.8	+ 1.2
TRADE.....	938	993	1,052	924	1,171	1,178	11.1	+ 0.6	+ 4.7
INDUSTRY.....	2,997	3,336	3,082	2,926	2,891	2,694	25.3	- 6.8	- 2.1
Energy.....	378	355	384	161	132	124	1.2	- 5.9	- 20.0
Oil industry.....	0	0	0	0	0	0	0.0	n.	n.
Chemicals	321	357	346	320	277	240	2.3	- 13.1	- 5.6
Car manufacturing.....	3	176	1	0	2	2	0.0	+ 25.0	- 6.5
Electronics	786	799	777	862	897	785	7.4	- 12.5	+ 0.0
Metalworking industry.....	259	384	399	389	442	419	3.9	- 5.3	+ 10.1
Construction.....	700	736	600	590	529	536	5.0	+ 1.3	- 5.2
Food industry	271	267	275	313	343	347	3.3	+ 1.1	+ 5.1
Other industries	280	262	299	292	270	240	2.3	- 11.0	- 3.0
LAND TRANSPORT	1,023	1,086	1,190	1,223	1,414	1,220	11.4	- 13.7	+ 3.6
Road transport.....	769	823	881	900	1,036	942	8.8	- 9.1	+ 4.2
Other land transport.....	254	264	309	323	378	277	2.6	- 26.5	+ 1.8
OTHER LOGISTIC SERVICES.	877	851	923	924	1,110	1,116	10.5	+ 0.5	+ 4.9
Other services.....	529	520	594	616	814	822	7.7	+ 1.0	+ 9.2
Public sector	348	331	329	308	296	294	2.8	- 0.7	- 3.3
2. INDIRECT EFFECTS	10,298	10,760	10,218	9,549	10,101	9,760	-	- 3.4	- 1.1
MARITIME CLUSTER.....	4,748	4,481	4,329	3,946	3,698	3,752	-	+ 1.5	- 4.6
NON MARITIME CLUSTER.....	5,550	6,280	5,888	5,602	6,403	6,009	-	- 6.2	+ 1.6
TOTAL EMPLOYMENT.....	21,106	21,840	20,861	19,890	20,997	20,418	-	- 2.8	- 0.7

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

1.5.3.1 Main developments in 2005

Employment dropped significantly at the port of Zeebrugge (table 32). The same was true of indirect employment. Employment in port enterprises represented the same percentage of Flemish Region employment as it had a year previously, namely 0.5 p.c., while its share in total employment was down by 0.1 point at 0.9 p.c. In 2005, direct and total employment respectively represented 0.3 and 0.5 p.c. of the Belgian domestic employment.

- o Maritime cluster:

Employment increased in the maritime branches at Zeebrugge, stimulated by the expansion of the dockers' payroll, and of companies such as Combined Terminal Operators, Container Handling Zeebrugge (cargo handling) and the Navy. However, there were minor job losses at Zeebrugge Visveiling (fishing) and in the port operator.

- o Non maritime cluster:

The growth of employment at CDMZ offset the cuts at Fjord Seafood Pieters and Metalunion.

Reductions at Philips Innovative Applications, Jabil Circuit Belgium (electronics), Fluxys (energy), Arplam (chemicals), Motogroup (metalworking), Uco Yarns and Walleyen Graphics (other industries) account for the contraction of the workforce in industry, though it was tempered by recruitment at PBI Fruit Juice Company (food), among others.

Employment declined in a number of road transport firms, such as D.D. Trans and Eurolines. In addition, there was the BNRC restructuring and the bankruptcy of Mat Transport (other land transport). A substantial increase was on the other hand recorded at Cleandienst, following the takeover of Bouw-Schoon-Vlaanderen (other services).

1.5.3.2 Employment top 10 at the port of Zeebrugge in 2005

TABLE 33 **EMPLOYMENT TOP 10 AT THE PORT OF ZEEBRUGGE IN 2005**
(FTEs)

Ranking	Name of company	Sector	Employment
1	DEFENCE (NAVY)	Public sector	1,527
2	PHILIPS INNOVATIVE APPLICATIONS	Electronics	521
3	SEA-RO TERMINAL	Cargo handling	461
4	FJORD SEAFOOD PIETERS	Trade	356
5	COMBINED TERMINAL OPERATORS	Cargo handling	322
6	PUBLIC ADMINISTRATION	Public sector	294
7	B.N.R.C. HOLDING	Other land transport	229
8	CLEANDIENST	Other services	204
9	D.D. TRANS	Road transport	200
10	JABIL CIRCUIT BELGIUM	Electronics	187
TOTAL of top 10			4,301

Source: NBB.

1.5.4 Investment

TABLE 34 INVESTMENT AT THE PORT OF ZEEBRUGGE FROM 2000 TO 2005
(millions of euros - current prices)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
MARITIME CLUSTER.....	95.2	59.9	54.5	62.1	59.2	227.1	63.7	+ 283.5	+ 19.0
Shipping agents and forwarders.....	5.4	10.5	6.5	7.5	14.4	11.4	3.2	- 21.2	+ 16.2
Cargo handling.....	18.5	19.6	15.4	14.7	22.1	79.7	22.4	+ 260.5	+ 33.9
Shipping companies.....	3.4	2.1	8.5	4.6	4.0	123.0	34.5	+ 2987.3	+ 104.5
Shipbuilding and repair.....	1.7	0.5	0.4	0.4	1.3	1.0	0.3	- 24.6	- 11.0
Port construction and dredging.....	8.8	1.7	1.4	1.6	1.5	1.0	0.3	- 32.4	- 35.4
Fishing.....	21.1	10.1	9.3	7.4	4.1	1.5	0.4	- 63.2	- 41.1
Port trade.....	0.0	0.1	0.0	0.1	0.1	0.0	0.0	- 95.6	- 17.3
Port authority.....	32.0	14.4	13.1	25.9	11.8	9.5	2.7	- 19.2	- 21.5
Public sector.....	4.2	0.8	0.0	0.0	0.0	0.0	0.0	n.	- 100.0
<i>Allocation (p.m.).....</i>	<i>17.4</i>	<i>9.2</i>	<i>8.4</i>	<i>6.7</i>	<i>7.3</i>	<i>5.1</i>	<i>-</i>	<i>- 29.9</i>	<i>- 21.7</i>
NON MARITIME CLUSTER.....	95.0	83.6	111.0	94.4	140.0	129.4	36.3	- 7.5	+ 6.4
TRADE.....	9.5	13.0	10.7	13.0	10.1	9.7	2.7	- 3.9	+ 0.4
INDUSTRY.....	37.0	38.6	64.8	51.8	72.8	77.0	21.6	+ 5.8	+ 15.8
Energy.....	7.4	7.7	4.5	3.4	30.6	49.1	13.8	+ 60.3	+ 46.2
Oil industry.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Chemicals.....	3.5	3.3	2.7	2.2	4.2	3.5	1.0	- 17.6	- 0.2
Car manufacturing.....	0.0	0.2	0.0	0.0	0.0	0.0	0.0	n.	n.
Electronics.....	9.1	13.7	7.5	17.9	14.4	10.2	2.9	- 29.1	+ 2.2
Metalworking industry.....	1.4	3.0	2.2	2.1	7.0	1.8	0.5	- 74.9	+ 4.6
Construction.....	10.7	7.7	5.1	6.6	5.2	4.4	1.2	- 15.9	- 16.3
Food industry.....	1.5	1.2	37.6	16.3	8.6	7.0	2.0	- 18.7	+ 36.7
Other industries.....	3.5	1.8	5.2	3.4	2.8	1.2	0.3	- 58.4	- 19.5
LAND TRANSPORT.....	16.6	11.7	24.6	18.3	19.0	22.4	6.3	+ 18.2	+ 6.2
Road transport.....	11.1	9.7	15.3	16.0	16.8	17.9	5.0	+ 6.0	+ 9.9
Other land transport.....	5.5	2.0	9.3	2.3	2.1	4.6	1.3	+ 115.1	- 3.6
OTHER LOGISTIC SERVICES.....	31.9	20.3	10.8	11.3	38.1	20.3	5.7	- 46.7	- 8.6
Other services.....	10.9	8.9	6.4	5.9	24.1	13.6	3.8	- 43.8	+ 4.5
Public sector.....	21.0	11.4	4.4	5.3	14.0	6.8	1.9	- 51.8	- 20.3
DIRECT INVESTMENT.....	190.2	143.5	165.5	156.5	199.2	356.5	100.0	+ 79.0	+ 13.4

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

1.5.4.1 Main developments in 2005

The investment situation was much more favourable, with a rise of 77.2 p.c. at constant prices (+ 79 p.c. at current prices, table 34). That was a record increase for this seafront port, and was connected

primarily with the new infrastructures developed for handling. That is an encouraging sign for the creation of VA and employment, which generally follows the completion of such investments.

- o Maritime cluster:

The year 2005 was synonymous with substantial investments at Container Handling Zeebrugge, APM Terminals Zeebrugge, Combined Terminal Operators - land and buildings -, Accessory Plant Zeebrugge (cargo handling), but also at Cobelfret Ferries (shipping companies). However, there were sizeable reductions at some shipping agents and forwarders, and at the port operator.

- o Non maritime cluster:

The decline in trade was due mainly to the absorption of CDMZ by Hessematie. The impact was moderate, mainly thanks to the increases recorded by Fjord Seafood Pieters, Paulus Henri en Zonen and Vandamme Catering.

Investment surged in the energy industry, e.g. at Electrabel, Fluxys and Fluxys LNG. In the case of these last two entities, this concerned investments made in accordance with the policy of security of supplies for the country and for the continent. The extension and reinforcement of the network will make it easier to anticipate the growth of demand for capacity, e.g. with the doubling of transit capacity at the LNG terminal. Investment was also up at Corn. Van Loocke, but the reduction recorded at Pemco Brugge (chemicals) was greater. The other main cuts occurred at Jabil Circuit Belgium (electronics), Donaldson Europe (metalworking) and Hanson Aggregates Belgium (construction).

There was substantial investment in land transport, at D.D. Trans and at Infrabel. Conversely, compared to 2004, there was a sharp decline in other services, at I.V.B.O., the increases recorded by International Container & Trailer Services and Gems International being insufficient. After heavy investment in 2004, the public sector cut back its spending to the 2003 level.

1.5.4.2 Investment top 10 at the port of Zeebrugge in 2005

TABLE 35 INVESTMENT TOP 10 AT THE PORT OF ZEEBRUGGE IN 2005
(millions of euros)

Ranking	Name of company	Sector	Investment
1	COBELFRET FERRIES	Shipping companies	121.7
2	FLUXYS LNG	Energy	45.1
3	CONTAINER HANDLING ZEEBRUGGE	Cargo handling	35.6
4	APM TERMINALS ZEEBRUGGE	Cargo handling	23.3
5	COMBINED TERMINAL OPERATORS	Cargo handling	12.7
6	PHILIPS INNOVATIVE APPLICATIONS	Electronics	9.6
7	MAATSCHAPPIJ VAN DE BRUGSE ZEEVAARTINRICHTINGEN	Entreprise portuaire	9.5
8	E.C.S. EUROPEAN CONTAINERS	Shipping agents and forwarders	7.8
9	I.V.B.O.	Other services	7.0
10	D.D. TRANS	Road transport	6.9
TOTAL of top 10			279.3

Source: NBB.

1.5.5 *Financial ratios*

TABLE 36 FINANCIAL RATIOS AT THE PORT OF ZEEBRUGGE FROM 2003 TO 2005

Sectors	Return on equity after taxes (in p.c.)			Liquidity in the broad sense			Solvency (in p.c.)		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
MARITIME CLUSTER.....	8.4	10.4	12.0	1.37	1.54	1.21	54.7	57.4	51.2
Shipping agents and forwarders.....	23.6	24.6	23.2	1.03	1.01	1.04	21.2	22.1	26.2
Cargo handling.....	9.4	23.4	15.8	1.14	1.44	1.30	41.2	44.3	47.1
Shipping companies.....	12.3	4.6	22.0	4.61	5.00	1.14	80.1	80.3	35.8
Shipbuilding and repair.....	6.2	15.9	17.4	1.74	1.51	1.61	41.4	34.9	35.9
Port construction and dredging.....	14.5	45.5	30.1	1.20	1.31	1.52	24.3	33.0	34.4
Fishing.....	4.4	- 2.6	- 2.4	1.28	1.13	1.30	34.5	33.3	34.1
Port trade.....	10.3	22.2	3.9	1.45	1.66	1.61	40.5	31.6	32.1
Port authority.....	4.1	6.4	5.6	0.57	0.90	1.54	78.9	81.2	85.5
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
NON MARITIME CLUSTER.....	6.5	8.9	4.8	1.13	1.10	1.15	47.1	45.0	44.8
TRADE.....	11.6	16.7	11.7	0.88	0.90	1.06	25.9	27.1	28.6
INDUSTRY.....	6.4	10.5	3.6	1.03	1.08	1.07	51.8	53.0	52.0
Energy.....	6.3	4.3	3.6	1.87	1.68	1.10	77.8	79.9	80.2
Oil industry.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
Chemicals.....	- 29.5	94.6	- 41.3	0.67	0.75	0.95	24.1	24.9	22.2
Car manufacturing.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
Electronics.....	44.1	35.5	22.8	1.53	1.74	1.94	34.8	48.3	53.0
Metalworking industry.....	13.0	13.2	- 0.1	1.66	1.61	1.66	46.9	39.2	40.9
Construction.....	- 2.7	3.7	- 0.2	0.86	0.87	1.03	27.1	26.8	24.9
Food industry.....	- 10.3	17.9	- 0.9	0.55	0.55	0.58	5.0	17.4	15.4
Other industries.....	1.7	5.8	- 5.7	1.31	1.29	1.25	42.8	42.2	35.8
LAND TRANSPORT.....	3.4	0.6	6.5	1.00	0.88	0.91	33.3	24.8	31.5
Road transport.....	12.9	9.4	8.9	1.23	1.55	1.30	45.9	49.2	43.2
Other land transport.....	- 8.2	- 16.4	- 0.5	0.78	0.58	0.53	25.0	12.7	17.6
OTHER LOGISTIC SERVICES.	6.1	0.9	5.1	1.80	1.52	1.47	51.1	42.1	40.1
Other services.....	6.1	0.9	5.1	1.80	1.52	1.47	51.1	42.1	40.1
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
WEIGHTED AVERAGE.....	7.1	9.4	7.1	1.19	1.21	1.17	49.3	48.3	46.7

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

- o Return on equity after tax was down sharply in 2005, reverting to its 2003 level (table 36). The biggest falls occurred in the non maritime branches. Thus, the performance of Metalunion and Fjord Seafood Pieters (trade), Fluxys LNG (energy) and Philips Innovative Applications (electronics) declined, while Pemco Brugge, Arplam (chemicals), Donaldson Europe (metalworking), Glaverbel (construction) and Kathy Chocolaterie (food) sustained losses. Some falls were also recorded in the maritime branch, e.g. at P&O Ferrymasters (shipping agents and forwarders), Zeebrugse Behandelingsmaatschappij and Combined Terminal Operators (cargo handling), not to mention Depret (port construction and dredging). In contrast, Huktra and Zeebrugge Shipping and Bunkering Company (shipping agents and forwarders), Cobelfret Ferries (shipping companies),

BNRC Holding (other land transport), Sita Recycling Services and Arte-Man (other services) improved their profitability by several points.

- Liquidity was also down, the reductions this time being concentrated in the maritime branches. Despite the increased ability of Belgian New Fruit Wharf to meet its short-term financial commitments, liquidity declined in cargo handling owing to a reduction at Combined Terminal Operators. There was a very sharp fall at Cobelfret Ferries (shipping companies), so that the increases at Verheye Joël (shipbuilding and repair), Depret (port construction and dredging), Zeemansblik and European Fish Center (fishing) were insufficient to reverse the trend. While liquidity declined at Fluxys and Fluxys LNG (energy), D.D. Trans and International Transport Gheeraert (road transport), BNRC Holding (other land transport) and Philips Coordination Center (other services), it increased at P. De Loof and Kolen Tomar (trade), Philips Innovative Applications (electronics), Glaverbel (construction), Pemco Brugge (chemicals), Werkhuizen Lavy (metalworking) and Hanson Aggregates Belgium (construction).
- Solvency declined in both clusters. Firms recording an increase were Huktra, Zeebrugge Shipping and Bunkering Company and ECS European Containers (shipping agents and forwarders), Wallenius Wilhemsen Logistics Zeebrugge (cargo handling), Verheye Joël (shipbuilding and repair), Metalunion (trade), Fluxys (energy), Philips Innovative Applications (electronics), Werkhuizen Landuyt (metalworking) and BNRC Holding (other land transport). Conversely, 2005 saw a decline in solvency at Cobelfret Ferries (shipping companies), Pemco Brugge (chemicals), Glaverbel and Seapane (construction), Kathy Chocolaterie (food), Walleyen Graphics (other industries), Eurolines and D.D. Trans (road transport), and I.V.B.O. (other services).

2 ECONOMIC IMPORTANCE OF THE LIÈGE PORT COMPLEX

2.1 PORT OF LIÈGE

2.1.1 Highlights in 2005⁵⁴

After the record established in 2004, a sharp fall in river traffic was expected in 2005 at the Liège port complex, in the wake of the closure in April of that year of the "HF6" furnace at Cockerill-Sambre (Arcelor Group) at Seraing. That closure was only the first in the restructuring announced in 2003, which also concerns the Ougrée and Chertal sites, since the hot phase at Liège is probably to be shut down by 2009. Looking solely at data on the public infrastructures, traffic thus declined to a level equivalent to that in 2002 and 2003. But if the figures for private quays are added, and these specifically include those relating to Arcelor, the picture is even more stark, as that total is below the figure for 2001 (see point 2.8). These losses are obviously due to the considerable decline in ore and coal transport (- 24 p.c.), following the restructuring of the steel works.

However, the modest recovery in 2006, triggered by the growth of container traffic, suggests that the site redevelopment is under way. It is based, in particular, on the transition from a port concentrating on heavy industry to a port zone geared more to lighter industrial activities and high VA logistics, the most notable manifestation of which is the TriLogiPort project, an initiative encouraged by the Walloon renewal plan. Covering an area of 100 hectares, this zone located at Hermalle-sous-Argenteau is owned by the Walloon Region, and has been run by PAL, the Liège Port Authority, since June 2004. The complex, which will comprise a container terminal, dock and quays, depot areas, an area reserved for firms engaging in inland waterway/sea activities and an enterprise zone for businesses not directly connected with the water, is served by road and rail links. Work began in 2005. The first phase of the project will cost an estimated 30 million euro. A 180 hectare extension could then be considered at the time of the redevelopment of the Chertal site (300 hectares), south of Hermalle-sous-Argenteau, following complete dismantling of the Liège hot steel plant.

The port of Antwerp sees this project as a solution to the serious congestion facing its container terminals, in view of the substantial growth of this traffic (cf. supra); in February 2006 it therefore set up an economic interest group with the PAL and the Liège investment company SPI+, with the aim of promoting this platform, as a kind of secondary base for the port of Antwerp. But it is primarily a vital project for the future of the port of Liège. The TriLogiPort storage capacity will total 4,000 TEU. According to the Office de Promotion des Voies navigables (OPVN, Walloon Region), the distribution activity – headed by European distribution centres – generated at these two sites could also lead to the creation of more than 2,000 direct jobs⁵⁵, or 1,790 FTEs. If the activity generated upstream is also taken into account, including indirect jobs, the likely total is in excess of 4,220 FTEs. These are only forecasts for the distribution centres, the other half of the space being reserved for industrial and port activities, which will also generate employment. These forthcoming extensions to the port zone could therefore partly offset the job losses caused by the closure of the furnaces, estimated at over 7,000 FTEs⁵⁶. To achieve that, there is a greater need than ever to steer the activities in order to ensure that the focus is on creating VA and employment rather than on the tonnages transhipped, even though river traffic remains an essential factor in the development of the Meuse basin.

At the moment, businesses based in the port zone seem to be in a state of uncertainty, as there was only a modest rise in VA in 2005, while employment continued to decline and investment slumped. The expansion of activity is crucial to the future of the Liège basin and the region. And there is no time to lose. The rapid development of inland waterway navigation - e.g. the Seine-Northern Europe link - and its competitors, such as the port of Paris, which became the second largest inland port in Europe in 2005, and has announced the extension of the Gennevilliers terminal by 2010 (capacity increased to

⁵⁴ Sources: Autonomous Port of Liège and "Annuaire du Autonomous Port of Liège 2006", *Lloyd Special Report*.

⁵⁵ This is the minimum number of jobs associated with the establishment of European distribution centres on the 145 hectares earmarked for them at Hermalle-sous-Argenteau and Chertal. Source: Office de Promotion des Voies navigables – Walloon Region (2005), *Étude du potentiel de transport fluvial de conteneurs le long de la dorsale wallonne*.

⁵⁶ Theoretical estimate, including indirect employment. See Lagneaux (2006) for explanation.

400,000 TEU), provides a stronger incentive than ever for the competent authorities to speed up the redeployment of activities at the port of Liège.

2.1.2 Value added

TABLE 37 VALUE ADDED IN THE LIÈGE PORT COMPLEX FROM 2000 TO 2005
(millions of euros - current price)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
1. DIRECT EFFECTS	1,184.8	1,124.6	1,139.8	999.3	1,253.6	1,292.0	100.0	+ 3.1	+ 1.7
MARITIME CLUSTER	21.8	22.2	21.2	21.2	23.8	25.1	1.9	+ 5.2	+ 2.8
Shipping agents and forwarders	7.8	5.1	4.3	4.7	6.0	5.8	0.4	- 3.9	- 5.8
Cargo handling	10.9	10.4	10.5	11.4	11.9	12.4	1.0	+ 3.9	+ 2.5
Shipping companies	0.3	3.9	3.1	2.3	3.1	4.2	0.3	+ 37.8	+ 73.4
Shipbuilding and repair	0.6	0.6	0.9	1.0	1.1	0.9	0.1	- 14.5	+ 9.6
Port construction and dredging	0.5	0.6	0.5	0.0	0.0	0.0	0.0	n.	- 100.0
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	1.7	1.8	1.8	1.8	1.8	1.8	0.1	+ 0.5	+ 0.3
Public sector	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
NON MARITIME CLUSTER	1,163.0	1,102.4	1,118.6	978.1	1,229.7	1,266.9	98.1	+ 3.0	+ 1.7
TRADE	78.9	67.7	68.9	81.9	78.6	95.6	7.4	+ 21.7	+ 3.9
INDUSTRY	1,044.1	990.5	1,001.1	847.1	1,102.8	1,119.8	86.7	+ 1.5	+ 1.4
Energy	186.7	244.8	205.0	120.2	284.1	264.0	20.4	- 7.1	+ 7.2
Oil industry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Chemicals	81.4	96.6	104.8	91.2	99.2	110.1	8.5	+ 11.0	+ 6.2
Car manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Electronics	7.4	8.0	5.9	2.8	5.1	6.3	0.5	+ 22.9	- 3.2
Metalworking industry	544.7	435.0	454.0	426.2	526.1	555.6	43.0	+ 5.6	+ 0.4
Construction	165.3	153.3	174.4	158.9	151.7	144.9	11.2	- 4.5	- 2.6
Food industry	43.3	36.3	40.0	33.4	24.0	28.1	2.2	+ 17.1	- 8.3
Other industries	15.3	16.6	16.9	14.5	12.5	10.8	0.8	- 13.7	- 6.8
LAND TRANSPORT	4.9	4.6	7.9	7.9	8.2	7.6	0.6	- 7.5	+ 9.0
Road transport	2.5	2.2	5.5	5.4	5.9	5.3	0.4	- 10.9	+ 16.5
Other land transport	2.5	2.5	2.5	2.5	2.3	2.3	0.2	+ 1.4	- 1.5
OTHER LOGISTIC SERVICES	35.0	39.6	40.7	41.2	40.2	43.9	3.4	+ 9.3	+ 4.7
Other services	35.0	39.6	40.7	41.2	40.2	43.9	3.4	+ 9.3	+ 4.7
Public sector	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
2. INDIRECT EFFECTS	1,046.3	1,089.9	1,089.5	1,005.0	1,126.2	1,151.3	-	+ 2.2	+ 1.9
MARITIME CLUSTER	48.0	46.0	46.0	44.1	46.6	50.4	-	+ 8.1	+ 1.0
NON MARITIME CLUSTER	998.3	1,044.0	1,043.5	960.9	1,079.6	1,101.0	-	+ 2.0	+ 2.0
TOTAL VALUE ADDED	2,231.1	2,214.5	2,229.3	2,004.3	2,379.7	2,443.3	-	+ 2.7	+ 1.8

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

2.1.2.1 Main developments in 2005

Direct VA increased by 1.1 p.c. at constant prices (+ 3.1 p.c. at current prices, table 37). If indirect VA is added, the total grew by 0.7 p.c. at constant prices. On the basis of an initial estimate, this corresponds to the movement in the GDP of the Walloon Region, as the former represented 1.8 p.c. of that GDP, and the latter 3.5 p.c., levels equivalent to those in the previous year. These respectively came to 0.4 and 0.8 p.c. in relation to the Belgian GDP.

- o Maritime cluster:

The sound health of the modest maritime cluster at Liège is due mainly to the good performance at CTB Logistics – employment growth -, Magasins Généraux Manutention – higher profits - (cargo handling) and Somef (shipping companies), where operating profits were well up. These branches are thus continuing to expand, with the prospect of a revival in handling activity in the years ahead.

- o Non maritime cluster:

The growth recorded in trade is due to the good results at Total Belgium – higher staff costs – and a substantial increase at Eagle Energy – higher profits - and Indumet, while Terval and Belgomazout Liège lost ground.

The situation in industry is more mixed, with the increases at Cockerill Sambre (metalworking), Prayon, Imerys (chemicals), Constructions Electroniques + Télécommunications (CE+T) - sharp rise in operating profit -, SGL Carbon (electronics), Raffinerie Tirlémontoise (food industry) - higher operating profit -, contrasting with reductions at Electrabel, SPE (energy) - losses - and Cimenteries CBR (construction) - lower results -.

The decline in road transport was due mainly to Cuypers Logistics and Simex. Conversely, a substantial increase was recorded at Intradel (other services).

2.1.2.2 VA top 10 at the Liège port complex in 2005

TABLE 38 **VA TOP 10 AT THE LIÈGE PORT COMPLEX IN 2005**
(millions of euros)

Ranking	Name of company	Sector	Value added
1	COCKERILL SAMBRE	Metalworking industry	448.7
2	ELECTRABEL	Energy	210.6
3	PRAYON	Chemicals	64.4
4	CIMENTERIES CBR	Construction	58.0
5	TOTAL BELGIUM	Trade	57.9
6	S.P.E.	Energy	52.2
7	COCKERILL MAINTENANCE & INGENIERIE	Metalworking industry	47.1
8	CARRIERES ET FOURS A CHAUX DUMONT-WAUTIER	Construction	31.8
9	RAFFINERIE TIRLEMONTAISE	Food industry	27.1
10	IMERYS MINERAUX BELGIQUE	Chemicals	23.9
TOTAL of top 10			1,021.9

Source: NBB.

2.1.3 Employment

TABLE 39 EMPLOYMENT IN THE LIÈGE PORT COMPLEX FROM 2000 TO 2005
(FTEs)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
1. DIRECT EFFECTS	13,649	13,920	13,713	12,223	12,094	11,799	100.0	- 2.4	- 2.9
MARITIME CLUSTER.....	329	354	349	328	341	381	3.2	+ 11.6	+ 3.0
Shipping agents and forwarders.....	107	69	61	64	79	79	0.7	+ 1.0	- 5.8
Cargo handling.....	151	162	158	160	144	157	1.3	+ 9.5	+ 0.9
Shipping companies	4	55	52	42	52	72	0.6	+ 40.1	+ 79.7
Shipbuilding and repair.....	12	12	24	26	31	35	0.3	+ 11.5	+ 22.8
Port construction and dredging.....	18	19	17	0	0	0	0.0	n.	- 100.0
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.....	37	37	37	37	36	37	0.3	+ 2.8	+ 0.0
Public sector	0	0	0	0	0	0	0.0	n.	n.
NON MARITIME CLUSTER.....	13,320	13,566	13,364	11,895	11,753	11,418	96.8	- 2.9	- 3.0
TRADE.....	568	483	502	641	462	440	3.7	- 4.8	- 5.0
INDUSTRY.....	12,318	12,598	12,348	10,718	10,730	10,250	86.9	- 4.5	- 3.6
Energy.....	1,142	1,233	1,132	1,059	1,282	1,249	10.6	- 2.6	+ 1.8
Oil industry.....	0	0	0	0	0	0	0.0	n.	n.
Chemicals	1,041	1,078	1,083	1,040	1,021	1,016	8.6	- 0.5	- 0.5
Car manufacturing.....	0	0	0	0	0	0	0.0	n.	n.
Electronics	128	132	119	98	74	83	0.7	+ 12.4	- 8.4
Metalworking industry.....	8,011	8,020	7,885	6,618	6,634	6,225	52.8	- 6.2	- 4.9
Construction.....	1,571	1,619	1,627	1,537	1,389	1,377	11.7	- 0.9	- 2.6
Food industry	213	200	193	162	126	125	1.1	- 0.6	- 10.1
Other industries	212	317	309	205	205	175	1.5	- 14.3	- 3.8
LAND TRANSPORT.....	88	83	134	135	141	137	1.2	- 2.6	+ 9.2
Road transport.....	42	37	89	90	102	96	0.8	- 5.9	+ 17.7
Other land transport.....	46	46	45	45	39	41	0.4	+ 5.9	- 2.1
OTHER LOGISTIC SERVICES.	346	402	381	401	420	591	5.0	+ 40.6	+ 11.3
Other services.....	346	402	381	401	420	591	5.0	+ 40.6	+ 11.3
Public sector	0	0	0	0	0	0	0.0	n.	n.
2. INDIRECT EFFECTS	17,216	17,002	17,836	15,773	16,784	16,283	-	- 3.0	- 1.1
MARITIME CLUSTER.....	986	901	861	796	808	910	-	+ 12.7	- 1.6
NON MARITIME CLUSTER.....	16,230	16,102	16,975	14,977	15,976	15,373	-	- 3.8	- 1.1
TOTAL EMPLOYMENT.....	30,865	30,922	31,549	27,996	28,878	28,082	-	- 2.8	- 1.9

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

2.1.3.1 Main developments in 2005

Employment declined in the port complex (table 39). In the case of direct employment, these figures corresponded to 1.2 p.c. of the Walloon Region's employment, matching the 2004 score. Conversely, total employment was equivalent to 2.8 p.c. of the Region's employment, a decline of 0.1 point compared to the previous year. Compared to the Belgian domestic employment, direct and total employment respectively came to 0.3 and 0.7 p.c.

- o Maritime cluster:

The main changes in maritime employment amount to recruitment at CTB Logistics, Société Industrielle de Renory (cargo handling) and Somef (shipping companies).

- o Non maritime cluster:

The growth at Liège Boissons and Terval (trade) was insufficient to offset the job losses at Dimma-Benelux.

In industry, employment is declining, particularly at Cockerill Sambre, Akers Belgium, Cockerill Mécanique Prestations (metalworking), Electrabel (energy), Prayon (chemicals), Technique et Protection des Bois and Imprimerie Fortemps (other industries). Electronics appears to be the only resilient industry, mainly because of CE+T.

The job losses in land transport are due mainly to the cuts at Ets. Zeevaert André (road transport), while Intradel (other services) recorded a marked increase following the takeover of the staff of the "recyparcs" run by the Intermunicipal Association.

2.1.3.2 Employment top 10 at the Liège port complex in 2005

TABLE 40 **EMPLOYMENT TOP 10 AT THE LIÈGE PORT COMPLEX IN 2005**
(FTEs)

Ranking	Name of company	Sector	Employment
1	COCKERILL SAMBRE	Metalworking industry	4,751
2	ELECTRABEL	Energy	1,018
3	COCKERILL MAINTENANCE & INGENIERIE	Metalworking industry	764
4	PRAYON	Chemicals	631
5	CIMENTERIES CBR	Construction	317
6	CARRIERES ET FOURS A CHAUX DUMONT-WAUTIER	Construction	257
7	AXIMA SERVICES	Construction	232
8	S.P.E.	Energy	230
9	INTRADEL	Other services	191
10	SEGAL	Metalworking industry	129
TOTAL of top 10			8,518

Source: NBB.

2.1.4 Investment

TABLE 41 INVESTMENT IN THE LIÈGE PORT COMPLEX FROM 2000 TO 2005
(millions of euros - current prices)

Sectors	2000	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)	Change from 2004 to 2005 (in p.c.)	Annual average change from 2000 to 2005 (in p.c.)
MARITIME CLUSTER.....	6.0	2.9	4.3	4.6	5.4	3.7	2.6	- 32.2	- 9.3
Shipping agents and forwarders.....	2.3	0.8	0.6	0.9	1.6	0.4	0.3	- 75.4	- 30.1
Cargo handling.....	3.2	1.6	3.2	3.1	3.4	2.7	1.9	- 20.5	- 3.3
Shipping companies.....	0.2	0.0	0.1	0.2	0.3	0.1	0.1	- 62.6	- 11.5
Shipbuilding and repair.....	0.0	0.0	0.1	0.2	0.1	0.0	0.0	- 58.4	+ 1.4
Port construction and dredging.....	0.1	0.2	0.0	0.0	0.0	0.0	0.0	n.	- 100.0
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	0.3	0.4	0.3	0.1	0.5	0.3	+ 539.2	+ 25.4
Public sector.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
NON MARITIME CLUSTER.....	292.4	276.9	147.9	115.8	137.3	137.3	97.4	+ 0.0	- 14.0
TRADE.....	7.8	5.2	5.8	5.6	2.7	9.7	6.9	+ 255.3	+ 4.4
INDUSTRY.....	243.6	253.7	119.8	96.2	124.3	120.5	85.5	- 3.1	- 13.1
Energy.....	9.5	24.4	5.9	7.7	11.2	19.9	14.1	+ 78.1	+ 15.9
Oil industry.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Chemicals.....	14.3	19.8	21.2	24.0	14.1	29.4	20.9	+ 109.4	+ 15.4
Car manufacturing.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Electronics.....	0.4	0.6	0.1	0.1	0.2	0.6	0.4	+ 280.3	+ 6.7
Metalworking industry.....	122.9	62.8	52.6	37.2	75.8	40.8	28.9	- 46.2	- 19.8
Construction.....	90.3	139.0	31.3	21.4	18.0	24.4	17.3	+ 35.5	- 23.0
Food industry.....	4.5	4.5	5.5	4.1	2.8	2.5	1.7	- 11.4	- 11.4
Other industries.....	1.6	2.6	3.1	1.7	2.4	3.0	2.1	+ 23.9	+ 12.7
LAND TRANSPORT.....	5.5	4.7	5.4	5.2	2.4	0.6	0.4	- 77.0	- 36.5
Road transport.....	3.8	3.4	3.5	3.6	0.9	0.4	0.3	- 56.0	- 35.8
Other land transport.....	1.7	1.3	1.9	1.6	1.5	0.2	0.1	- 89.9	- 38.2
OTHER LOGISTIC SERVICES.	35.6	13.3	17.0	8.8	7.8	6.6	4.7	- 15.6	- 28.7
Other services.....	35.6	13.3	17.0	8.8	7.8	6.6	4.7	- 15.6	- 28.7
Public sector.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
DIRECT INVESTMENT.....	298.4	279.9	152.2	120.4	142.7	141.0	100.0	- 1.2	- 13.9

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

2.1.4.1 Main developments in 2005

At constant prices, investment declined by 2.2 p.c. (- 1.2 p.c. at current prices, table 41). Investment in the Liège port complex is now only half what it was in the early years of this century, though that trend could be reversed in the future with the forthcoming entry into service of TriLogiPort.

- Maritime cluster:

Investment fell sharply in the maritime branches of the Liège basin, particularly at Magetra - decline in tangible fixed assets in general, following an increase in 2004 - (shipping agents and forwarders), CTB Logistics - after a steep rise in 2004 - (cargo handling), despite several increases in the same sectors, notably at Magasins Généraux Manutention and Petroleum Products Storage and Transports Company. The port operator also invested more in tangible fixed assets than in 2004.

- Non maritime cluster:

The strong revival recorded in trade is due to increases at Liège Boissons – land and buildings -, L'Universelle and Mategro.

In industry, it was the cuts at Cockerill Sambre - following the book increase in 2004 - and Cockerill Mécanique Prestations (metalworking), Holcim (construction), Société Industrielle Liégeoise des Oxydes (chemicals), Raffinerie Tirlémontoise (food) which did most to depress the average. At the same time, however, there were increases at Electrabel - coal-fired plant converted to biomass at Awirs -, SPE (energy), Prayon - leasing and similar rights -, Imerys Minéraux Belgique (chemicals), SGL Carbon - Cristalux Belgium as it is now called, increase in land and buildings - (electronics), Carmeuse, Carrières et Fours at Chaux Dumont Wautier, Cimenteries CBR (construction) and George & Compagnie (other industries).

Investment in land transport was down sharply, particularly at Cuypers Logistics and at Simex (road transport), and in the railways. The decline in other services was due mainly to the companies Terminal Euro-Combi Est, Installation de Traitement et Recyclage et Valorisation Technique.

2.1.4.2 Investment top 10 at the Liège port complex in 2005

TABLE 42 INVESTMENT TOP 10 IN THE LIÈGE PORT COMPLEX IN 2005
(millions of euros)

Ranking	Name of company	Sector	Investments
1	COCKERILL SAMBRE	Metalworking industry	33.7
2	ELECTRABEL	Energy	18.2
3	PRAYON	Chemicals	16.3
4	IMERYS MINERAUX BELGIQUE	Chemicals	10.6
5	CARRIERES ET FOURS A CHAUX DUMONT-WAUTIER	Construction	10.2
6	CIMENTERIES CBR	Construction	5.3
7	COCKERILL MAINTENANCE & INGENIERIE	Metalworking industry	3.8
8	RAFFINERIE TIRLEMONTTOISEJ	Food industry	2.3
9	CARMEUSE	Construction	2.3
10	INTRADEL	Other services	2.2
TOTAL of top 10			104.8

Source: NBB.

2.1.5 Breakdown of findings by company size⁵⁷

TABLE 43 BREAKDOWN OF FINDINGS IN THE LIÈGE PORT COMPLEX IN 2005

Number of firms ⁵⁸		Direct VA (in millions of euros)		Direct employment (in FTE)		Direct investment (in millions of euros)	
Large firms	SMEs	Large firms	SMEs	Large firms	SMEs	Large firms	SMEs
73	118	1,253.0	39.0	11,217	582	131.9	9.0

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

In 2005, SMEs represented 61.8 p.c. of the number of firms based in the Liège port complex, but only 3 p.c. of their VA, 4.9 p.c. of employment and 6.4 p.c. of direct investment (table 43).

2.1.6 Social balance sheet at the Liège port complex⁵⁹

The social balance sheet covers various aspects of employment in a business: recruitment and composition of the workforce, the contractual status or standard of education of the employees, staff costs, training policy, and reasons for terminating contracts. The results set out below for direct employment in the Liège port complex are not exhaustive. They relate to a constant sample⁶⁰ which was defined for all five ports under review and covers the period 2003 - 2005.

The comments focus on the changes recorded in the last three years considered. The figures for 2005 are presented in detail in Annex 1.

2.1.6.1 Type of contract and human resources

At the end of the 2005 financial year, the ratio between white-collar and blue-collar workers came to 68 p.c., the same as the 2003 figure, though it was 0.4 p.c. higher than in 2004.

⁵⁷ Enterprises are deemed large if their annual average number of workers exceeds 100 persons or if they exceed more than one of the following three limits: annual average number of workers – 50 units; annual turnover (excluding VAT) – 7.3 million euro; balance sheet total – 3.65 million euro. These are the criteria applicable from the 2005 financial year. Section 15 of the Companies Code (law of 7 May 1999).

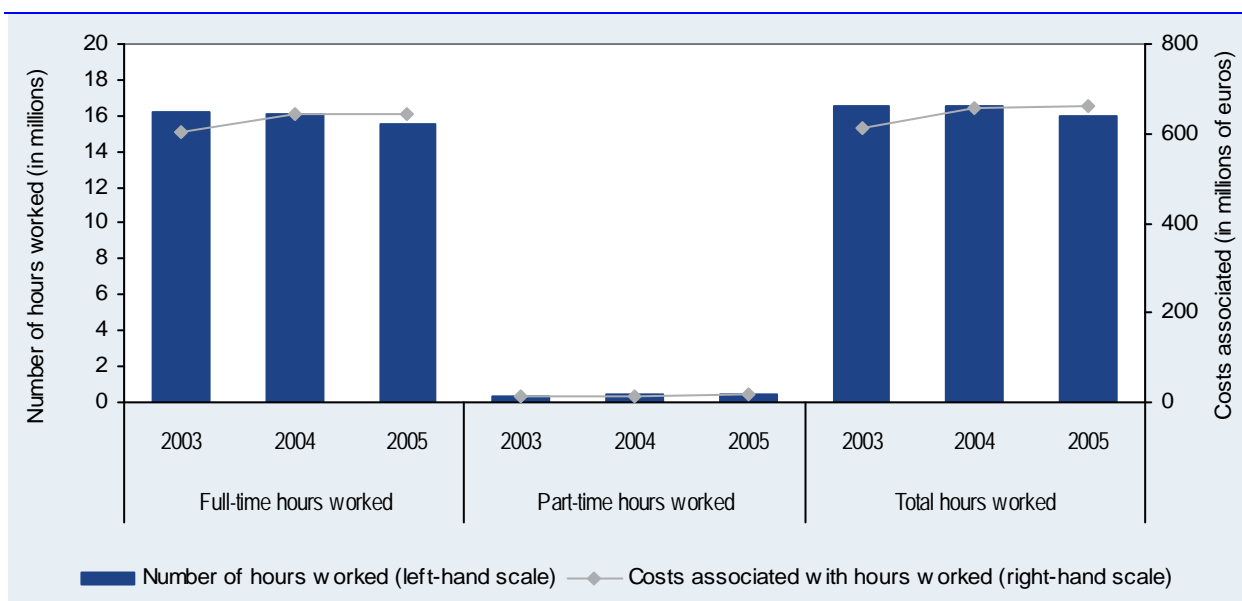
⁵⁸ This is the number of firms located in the port zone. The same port may in fact be recorded in more than one port. That is why the total number of firms stated in tables 5 and 43 exceeds 3,622, namely the total number of firms (or VAT numbers) actually considered in the study of the five ports in 2005. In that year, 69 firms were present in two or more ports.

⁵⁹ The national data mentioned here were taken from Heuse P. and Ph. Delhez (2006). The comparisons are merely an indication, since only firms filing their social balance sheet for a 12-month year ending on 31 December were taken into account in the Social Balance Sheet 2004. That is a smaller population.

⁶⁰ The constant sample was defined for all the ports studied, both Flemish and Liège ports, on the basis of the firms which, throughout the period 2003 – 2005, filed their accounts in accordance with the full format and completed the items in the “social balance sheet” annex to the annual accounts necessary for this study. The constant sample covers 828 enterprises and 98,622 FTEs, or 22.9 p.c. of the population of enterprises under review in 2005 and 83.2 p.c. of the direct employment considered in that study.

CHART 9

INTERNAL HUMAN RESOURCES⁶¹: HOURS WORKED AND ASSOCIATED COSTS



Source: NBB (full presentation accounts only).

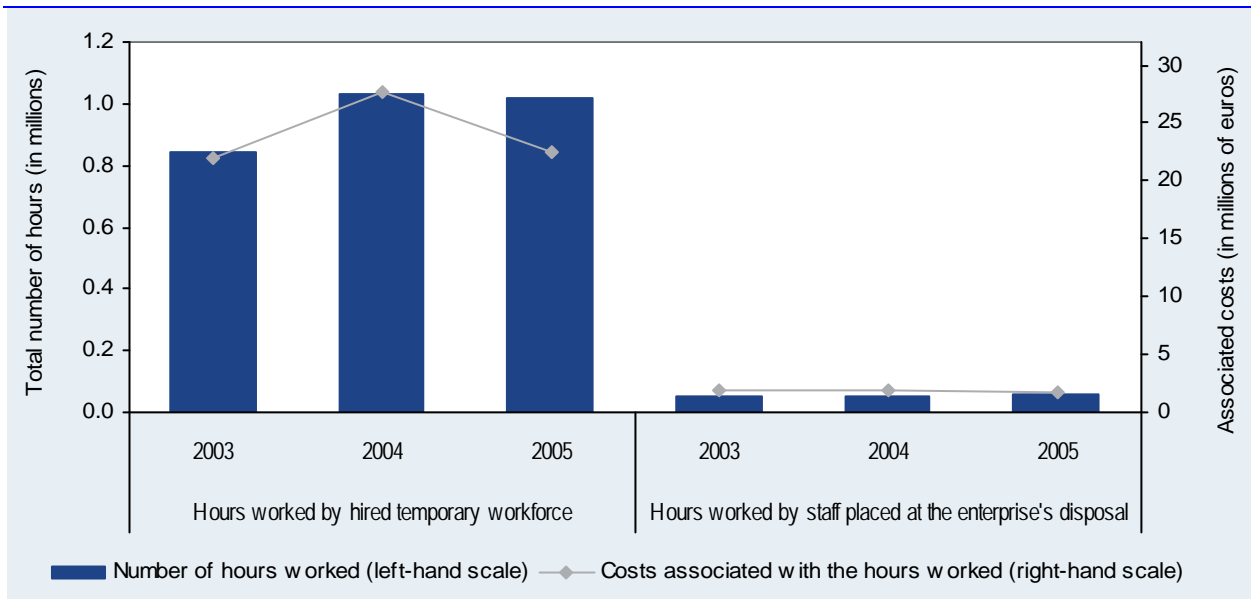
The number of hours worked declined by a total of 3.2 p.c., the reduction being due mainly to full-time working, down by 3.5 p.c., while part-time working continued to expand (+ 10.6 p.c., chart 9). Full-time work thus accounted for 97.2 p.c. of the total in 2005, compared to 97.6 p.c. a year earlier. That decline was due to all industries except electronics, and to land transport. In contrast, there was little change in staff costs: + 0.7 p.c. overall, with a rise of + 0.2 p.c. for full-timers but + 23.7 p.c. for part-timers, in contrast to the more modest increase in the corresponding hours worked. Significant increases were recorded in all branches located in the port complex, except for cargo handling and shipbuilding. Taking all categories together, hourly labour costs came to 41.5 euro, against 39.9 euro in 2004. The average annual cost per FTE totalled 60,232 euro, or 3.2 p.c. more than in 2004 and well above the national average (48,764 euro in 2005⁶²).

⁶¹ Employees recorded in the staff register of the firms considered.

⁶² Annual average calculated for a reduced population. Source: Heuse P. and Ph. Delhez (2006).

CHART 10

EXTERNAL HUMAN RESOURCES⁶³: HOURS WORKED AND ASSOCIATED COSTS



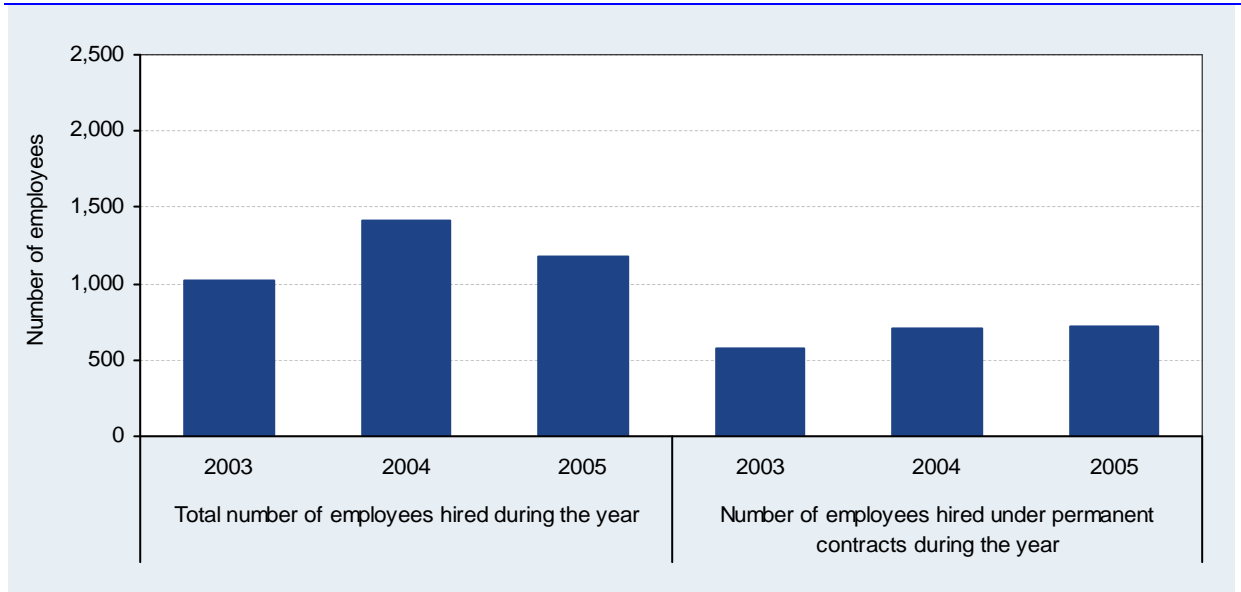
Source: NBB (full presentation accounts only).

The hours worked by external staff presented a mixed picture in 2005, with the figure for temporary employees down by 1 p.c. compared to the previous year, and an 11.6 p.c. increase over the same period for staff made available to businesses, though admittedly they are in the minority in the Liège basin (chart 10). As regards the costs associated with these two categories, in the former case they were down by 18.4 p.c. and in the latter by 6.7 p.c. These fairly marked and counter-intuitive movements in the cost of external staff originate partly from the energy industry and partly from metalworking and other industries.

⁶³ Hired temporary staff and staff placed at the enterprise's disposal. The latter refers to the workers an employer places at other users' disposal. Those users exercise part of the employer's authority over the workers, who remain contractually bound to their employer. Definition enshrined in the law of 24 July 1987 on "Temporary labour, hired temporary staff and staff placed at third users' disposal".

2.1.6.2 Staff turnover

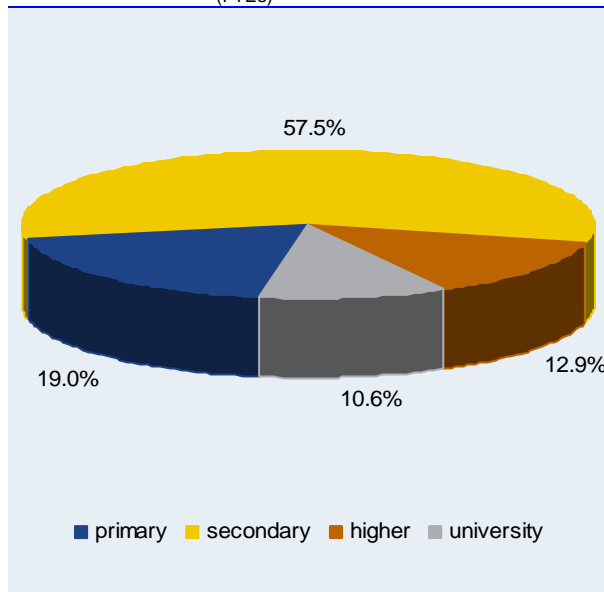
CHART 11 TOTAL PERSONNEL HIRED AT THE LIÈGE PORT COMPLEX (FTEs)



Source: NBB (full presentation accounts only).

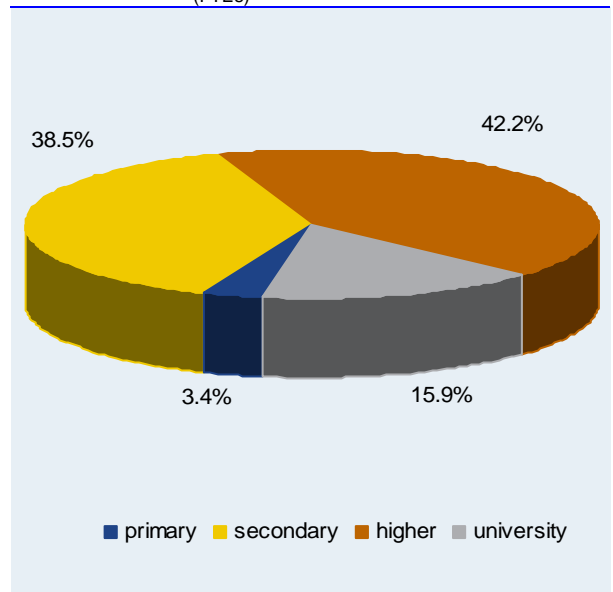
The movements presented in chart 11 should be analysed in parallel with those shown in chart 14. The total number of workers recruited during the year was 17.2 p.c. down against 2004. This fall seems to be due to the reduction in workers engaged under fixed-term contracts, since the number of permanent staff recruited was 2.5 p.c. higher. Sectors where the decline in recruitment is due primarily to fixed-term contracts are the metalworking and food sectors.

CHART 12 STANDARD OF EDUCATION OF MALE STAFF HIRED IN 2005 (FTEs)



Source: NBB (full presentation accounts only).

CHART 13 STANDARD OF EDUCATION OF FEMALE STAFF HIRED IN 2005 (FTEs)



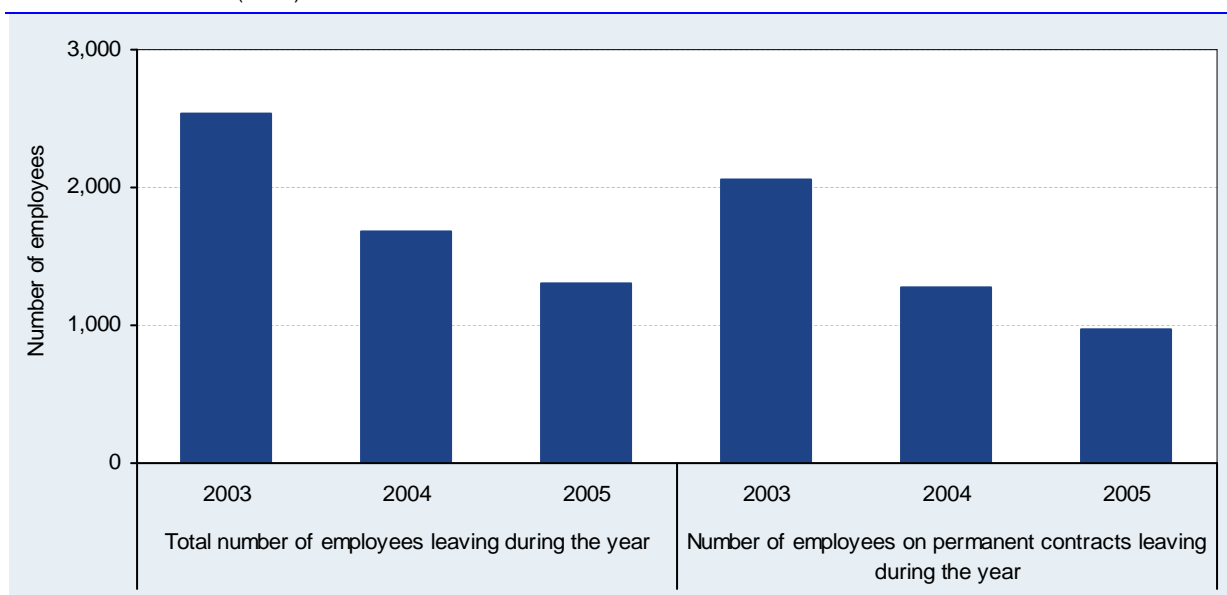
Source: NBB (full presentation accounts only).

The proportion of women, still low in the Liège basin, increased very slightly in firms in the port complex, since it reached 9.8 p.c., or 0.1 point more than in 2004. This meant that the proportion of men totalled 90.2 p.c.

The proportion of men recruited was down sharply in 2005 in the case of those holding a certificate of secondary education, with a decline from 74.1 to 57.5 p.c., allowing other categories to gain ground (chart 12). The proportions represented by holders of a certificate of primary education, a higher education qualification and a university degree thus increased respectively from 8.1 to 19 p.c., 11.2 to 12.9 p.c. and 6.6 to 10.6 p.c.

For female workers, the situation is more clear-cut: the proportion of low-skilled (primary and secondary education) in total recruitment dipped sharply, while a proportionately greater number of skilled female staff was recruited (chart 13). Thus, the proportions of that total holding a certificate of primary or secondary education declined respectively from 6.1 to 3.4 p.c. and from 45.3 to 38.5 p.c. In contrast, the proportion of jobs going to women with higher education qualifications and university degrees climbed from 35.1 to 42.2 p.c. and 13.5 to 15.9 p.c. respectively.

CHART 14 TOTAL TERMINATED CONTRACTS AT THE LIÈGE PORT COMPLEX (FTEs)



Source: NBB (full presentation accounts only).

The total number of employees leaving their job was down by 22.3 p.c. between 2004 and 2005 (chart 14). This trend seems to be dictated by the termination of permanent contracts, since their number declined by 23.4 p.c. over the same period. This is attributable mainly to the maritime cluster, excluding shipping agents and forwarders, the energy, metalworking and other industries. These figures should be compared with those presented in chart 11.

TABLE 44 REASONS STATED FOR TERMINATING THE CONTRACT (percentages)

	2003	2004	2005
Retirement	2.1	3.3	3.2
Early retirement	41.8	19.2	16.3
Dismissal	6.9	11.5	14.6
Other reason	49.3	66.1	65.9

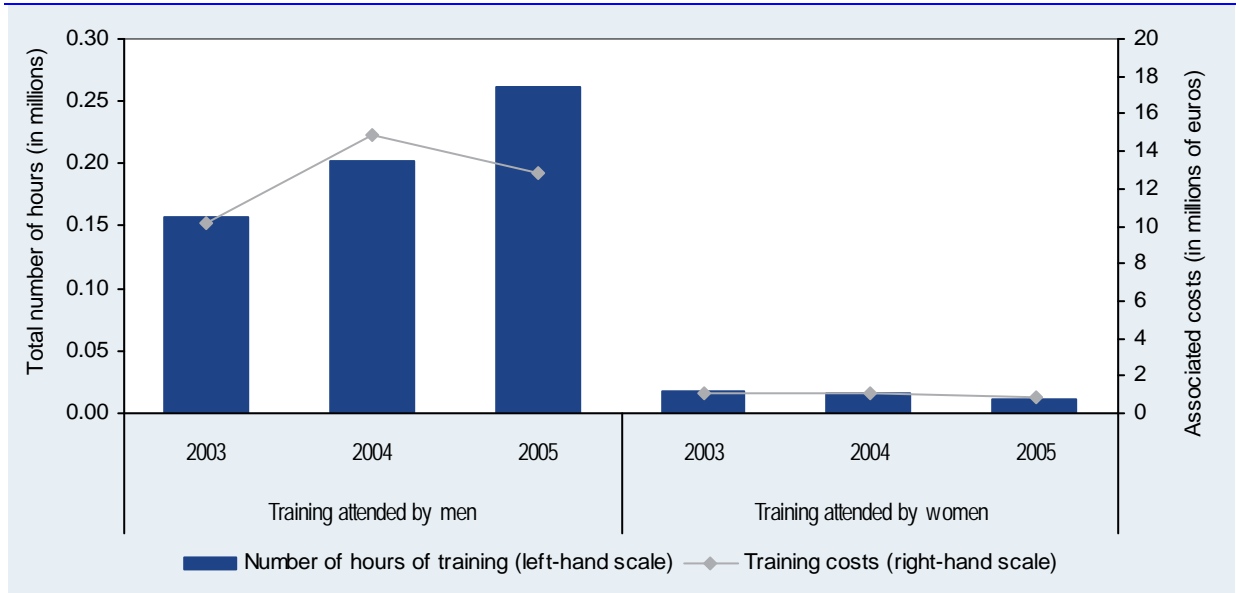
Source: NBB (full presentation accounts only).

Among the contracts terminated, the proportion of redundancies appears to have risen again in 2005, as in the Flemish ports (table 44). The percentage represented by early retirement continued to fall, as it

did throughout the economy. The percentage due to normal retirement remained steady, whereas other reasons for leaving – expiry of temporary contracts and spontaneous departure – declined by only 0.2 point.

2.1.6.3 Training⁶⁴

CHART 15 HOURS OF TRAINING AND ASSOCIATED COSTS



Source: NBB (full presentation accounts only).

While the proportion of men attending training was only very slightly higher than in 2004 (57.9 p.c. against 57.7 p.c.), the number of hours which they spent on training increased strongly, by 29.3 p.c. (chart 15), e.g. in the chemicals, electronics, metalworking and construction industries. The proportion of women attending training in 2005 was lower, at only 38.1 p.c., against 44.9 p.c. a year earlier, and that was reflected in the number of hours: - 23.7 p.c., a decline seen in most sectors of the non maritime cluster. The costs entailed in this training declined in both cases, down 14.2 p.c. for men and 27 p.c. for women. The fall in male training costs is rather unexpected. It is due mainly to metalworking, where the numbers trained increased but the costs declined. The share of training costs in total staff costs declined between 2004 and 2005 from 2.4 to 2 p.c., a level which is still above the target of 1.9 p.c. set by the generation pact. This ratio was down in the case of shipping companies, trade, most industries, other land transport and other services.

2.1.7 Financial situation

2.1.7.1 Financial ratios

The study of the ratios indicating return on capital after tax, liquidity in the broad sense and solvency concerns a constant sample⁶⁵ defined for the years 2003 to 2005 and common to the five ports under review. The enterprises studied in the financial section of this report therefore differ from those used in the constant sample of the previous report, which may explain certain differences in the figures between

⁶⁴ Here, training is meant in the formal sense, i.e. courses in premises reserved for that purpose, within the firm or outside. It therefore excludes on-the-job training, for example, mentoring and self-training.

⁶⁵ The constant sample developed for studying the ratios is common to the five ports under review. It contains all the enterprises which filed their accounts in 2003, 2004 and 2005, and which meet certain conditions necessary for taking account of the items involved in the calculation of these ratios. For example, for the purpose of calculating profitability, all the data must correspond to a 12-month financial year and the denominator, namely the equity, must be strictly positive. This constant sample concerns 2,268 enterprises and 96,311 FTEs, or 62.6 p.c. of the population of enterprises under review in 2005 and 81.3 p.c. of the direct employment considered in this study.

the two publications. In regard to the comparison with the national data, i.e. Belgian non-financial corporations in general, the same method of calculation, namely globalisation⁶⁶, is applied in both cases.

- Return on equity after tax declined slightly in 2005, dropping well below the figure achieved in that year by Belgian non-financial corporations as a whole (table 45). The biggest falls occurred at Panalpina World Transport (shipping agents and forwarders), Magemon, Société Industrielle de Renory and Shurgard Self Storage (cargo handling), Meuse et Sambre (shipbuilding and repair), Imerys Minéraux Belgique, Prayon, Société Industrielle Liégeoise des Oxydes and Zeoline (chemicals), Cockerill Sambre and Société Belge d'Oxycoupage (metalworking) and Simex (road transport). The most significant increases, though insufficient, were recorded at Somef (shipping companies), Total Belgium (trade), Electrabel (energy), CE+T (electronics), Cimenteries CBR (construction), BNRC Holding (other land transport) and Association Intercommunale de Traitement des Déchets de la Région Liégeoise (other services).
- Liquidity remained well above the national average, following the persistent rise in 2005. The ability to meet short-term financial commitments increased at Magemar (shipping agents and forwarders), Somef (shipping companies), Meuse et Sambre (shipbuilding and repair), Electrabel (energy), CE+T (electronics), Cockerill Sambre and Segal (metalworking), Carrières et Fours à Chaux Dumont Wautier and Gravibeton (construction), Sametal (other industries), Association Intercommunale de Traitement des Déchets de la Région Liégeoise and Prayon Services et Finance (other services). In contrast, it declined at Magasins Généraux Manutention and Shurgard Self Storage (cargo handling), Maison Detilleux Electricité et Mécanique and Belgomazout Liège (trade), Prayon and Imerys Minéraux Belgique (chemicals), Simex (road transport) and BNRC Holding (other land transport).
- Solvency increased in both clusters, remaining well above the national average. It improved at Magemar, Gerlach et Compagnie, and Magetra (shipping agents and forwarders), Magemon, CTB Logistics and Société Industrielle de Renory (cargo handling), Somef (shipping companies), Meuse et Sambre (shipbuilding and repair), Intramet Metal Center and Terval (trade), CE+T (electronics), Segal and Cockerill Sambre (metalworking), Moulins de Statte (food), BNRC Holding (other land transport) and TPF Utilities (other services), whereas it declined at Imerys Minéraux Belgique and Prayon (chemicals), Cimenteries CBR and Carrières et Fours à Chaux Dumont Wautier (construction).

⁶⁶ Lagneaux F. and D. Vivet (2006) use both the median ratio method and the globalisation method.

TABLE 45 FINANCIAL RATIOS IN THE LIÈGE PORT COMPLEX FROM 2003 TO 2005

Sectors	Return on equity after taxes (in p.c.)			Liquidity in the broad sense			Solvency (in p.c.)		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
MARITIME CLUSTER.....	3.4	12.0	8.0	0.84	1.10	1.10	29.4	28.0	31.1
Shipping agents and forwarders.....	9.5	19.0	13.2	1.15	1.08	1.10	18.6	14.7	16.0
Cargo handling.....	1.0	9.1	3.8	0.42	0.89	0.87	36.1	34.7	36.3
Shipping companies.....	12.0	18.8	32.1	1.55	1.61	1.73	20.2	20.4	31.1
Shipbuilding and repair.....	- 0.7	34.2	15.5	1.40	1.31	1.69	30.1	35.9	43.9
Port construction and dredging.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
Fishing.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
Port trade.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
Port authority.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
NON MARITIME CLUSTER	6.7	8.6	8.3	1.30	1.38	1.57	47.1	48.6	49.1
TRADE	4.5	17.0	17.8	0.98	1.11	1.10	36.6	36.5	39.2
INDUSTRY	6.8	8.7	8.2	1.27	1.36	1.56	47.1	48.7	49.0
Energy.....	24.0	11.3	13.8	1.38	1.49	1.68	44.0	41.4	41.7
Oil industry.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
Chemicals.....	- 3.4	0.3	- 4.3	0.83	0.79	0.76	34.9	33.1	29.9
Car manufacturing.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
Electronics.....	- 54.7	13.4	26.0	1.08	1.22	1.42	14.0	15.9	19.4
Metalworking industry.....	- 6.8	14.5	8.1	1.60	1.94	2.18	48.3	54.8	57.7
Construction.....	4.9	- 0.9	2.8	0.85	0.52	0.60	53.1	56.1	54.2
Food industry.....	1.6	- 0.1	1.2	2.00	2.90	4.01	60.7	74.5	79.0
Other industries.....	11.5	21.4	7.5	1.11	1.03	1.08	23.4	23.1	23.9
LAND TRANSPORT.....	- 8.7	- 11.7	- 6.2	0.79	0.71	0.67	24.9	14.5	18.7
Road transport.....	- 12.0	5.0	- 22.3	1.23	1.33	1.20	26.2	29.5	25.6
Other land transport.....	- 8.6	- 17.6	- 0.7	0.76	0.56	0.51	24.8	12.3	17.1
OTHER LOGISTIC SERVICES..	6.3	4.9	7.3	1.93	1.95	2.23	51.7	53.1	56.1
Other services.....	6.3	4.9	7.3	1.93	1.95	2.23	51.7	53.1	56.1
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.
WEIGHTED AVERAGE	6.7	8.6	8.3	1.29	1.38	1.56	47.0	48.5	48.9
Non-financial corporations⁶⁷ ...	7.6	6.8	10.1	1.22	1.24	1.29	40.6	41.6	43.4

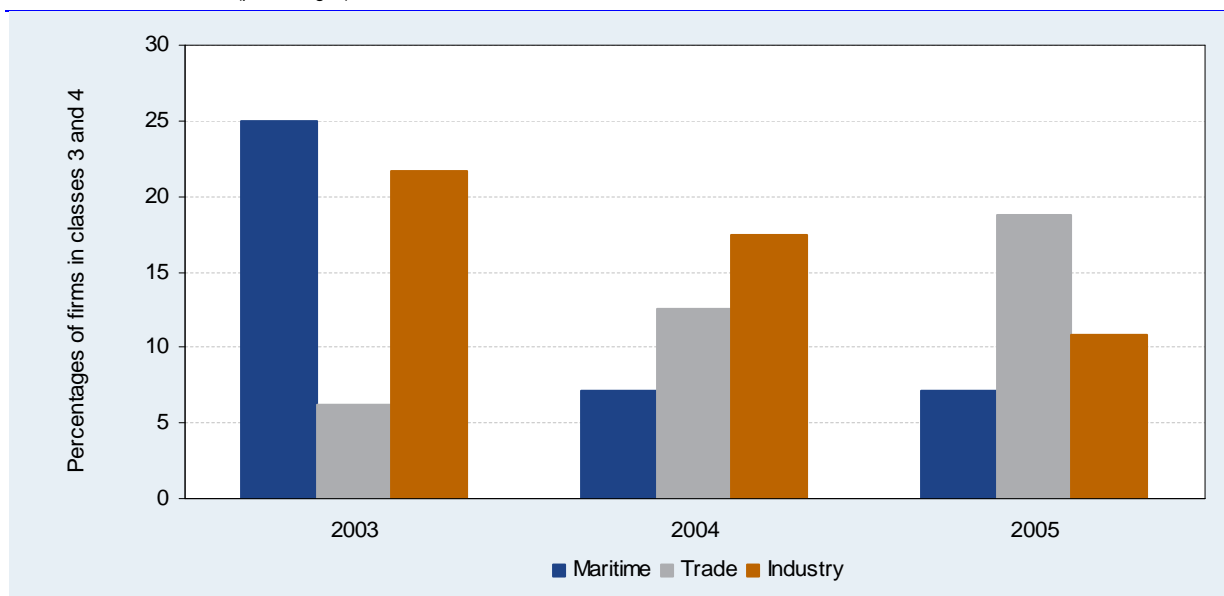
Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

⁶⁷ These figures relate to the situation of all Belgian non-financial corporations. They were recalculated in the beginning of 2007 according to the globalisation method, and therefore differ from those published in the 2004 report. See Lagneaux F. and D. Vivet (2006).

2.1.7.2 Financial health assessment

The bankruptcy prediction model used here applies to firms in the constant sample employing more than five workers⁶⁸.

CHART 16 FINANCIAL RISKS IN THE LIÈGE PORT COMPLEX FROM 2003 TO 2005⁶⁹
(percentages)



Source: NBB.

The percentage of firms facing financial difficulties, i.e., those in risk classes 3 and 4, declined between 2004 and 2005, falling from 12.5 to 11.4 p.c. This decline was due to large firms, where the percentage dropped from 10 to 6.7, while SMEs saw an increase from 17.9 to 21.4 p.c. This is in contrast to the situation for Belgian non-financial corporations which, though also recording an improvement in their financial health in 2005, owe that mainly to SMEs, while the percentage of large firms encountering financial problems remained steady.

Chart 16 shows the percentages of firms which, in each segment of activity in the Liège port complex, were more subject to financial risks than the average (classes 3 and 4). A higher proportion of firms in the trade sector were in that situation in 2005 than in 2004. Conversely, industries saw some improvement in their financial health over this period, while in the maritime branches the position was stable. It was particularly the metalworking and construction industries that saw a marked improvement in their financial situation. In the case of commercial firms, risk level is constantly increasing.

Following this analysis, it seems that the proportion of firms in the metalworking and construction industries facing financial difficulties is lower in the Liège port complex than in the rest of the country. The opposite is true in the case of trade. Analysis of the percentages of jobs concerned confirms that finding.

⁶⁸ This constant sample comprises 1,071 firms and 97,875 FTEs, or 29.6 p.c. of the population of enterprises under review in 2005 and 82.6 p.c. of direct employment covered by this study. It enables comparisons to be made from year to year, but may also have a positive influence on the outcome of this analysis.

⁶⁹ In the Liège port complex, the number of firms in the constant sample attributed to land transport and other logistic services is very low. This explains why no significant result could be obtained for those two categories in the study of financial risks, and why chart 16 is limited to maritime cluster, trade and industry.

2.1.8 Freight traffic at the port of Liège⁷⁰

TABLE 46 **AUTONOMOUS PORT OF LIÈGE**
(thousands of tonnes, unless otherwise stated)

	2001	2002	2003	2004	2005	Share in 2005 (in p.c.)
Public ports	13,476	14,418	14,170	15,190	14,229	69.5
<i>Difference in p.c. compared to the previous year</i>	+ 2.6	+ 7.0	- 1.7	+ 7.2	- 6.3	
Private ports	7,204	6,455	6,695	6,944	6,231	30.5
Total	20,680	20,873	20,866	22,134	20,461	100.0

Source: Autonomous port of Liège.

Table 46 indicates the trend in river freight recorded in the public and private ports in the Liège basin. In 2005, following the sharp fall in imports of ore and metals, the port complex recorded a significant decline in its traffic, which dropped to a level comparable to that seen at the start of the decade. The total tonnages recorded in the public and private infrastructures of the Liège basin came to only about 20.5 million tonnes in 2005, just behind Paris. In that year, Paris became the second largest inland port in Europe, behind Duisburg, which is still maintains a substantial lead in the European league table. Looking only at the tonnages recorded in the public infrastructures, but for all modes – river, road and rail - the score is the same as in 2003.

The development of containerisation, particularly via the PAL's existing trimodal platforms, namely at Renory and Monsin, combined with growth in the transport of building materials, has in fact limited the losses. In the longer term, in contrast to the decline which traffic is currently experiencing, the outlook is highly favourable according to the OPVN estimates. With the doubling of container flows expected at the port of Antwerp by 2010 - 2015, this traffic will reach 13 million TEU per annum, of which 9.5 million will be shipped from or to the interior of the European continent. Road and rail could still absorb 5 and 1 million respectively of that volume, while 3.5 million TEU would have to be transported by water. To achieve that volume this mode would have to increase its traffic by 250 p.c. compared to current levels. That growth is considerable, but realistic in view of the continuing scope for this mode and the improvements planned in the coming years. According to the OPVN, of this additional traffic, 1.2 million TEU could pass through the Walloon terminals, where the biggest - TriLogiPort - should be able to take 175,000 per annum, excluding the 105,000 TEU that could be accommodated by the Chertal zone. That is closely followed by the largest existing trimodal platform in Liège, namely Renory, with its 100,000 TEU per annum⁷¹. Together they will continue to enhance their position as the main trimodal handling areas for containers in Wallonia. In view of the persistent growth of this traffic and the development of networks such as the Seine-Northern Europe link, it is very much in Wallonia's interests to equip itself with other platforms and high-tech logistics capable of meeting these new requirements, especially in the Sambre and Meuse basin.

⁷⁰ Sources: Autonomous Port of Liège and "Annuaire du Autonomous Port of Liège 2006", *Lloyd Special Report*.

⁷¹ Source: Office de Promotion des Voies navigables - Walloon Region (2005), *Étude du potentiel de transport fluvial de conteneurs le long de la dorsale wallonne*.

3 SUMMARY

The year 2005 saw a continuing rise in traffic for most of the Flemish maritime ports, except Ghent, where a marked fall was recorded. The ports of Antwerp and Zeebrugge, which have the best infrastructures for handling containers, gained the most benefit from the impressive growth of world trade, fuelled partly by the rapid development of the Asian continent. The Liège port complex, experienced a sharp fall in tonnages for the first time, after a good year 2004.

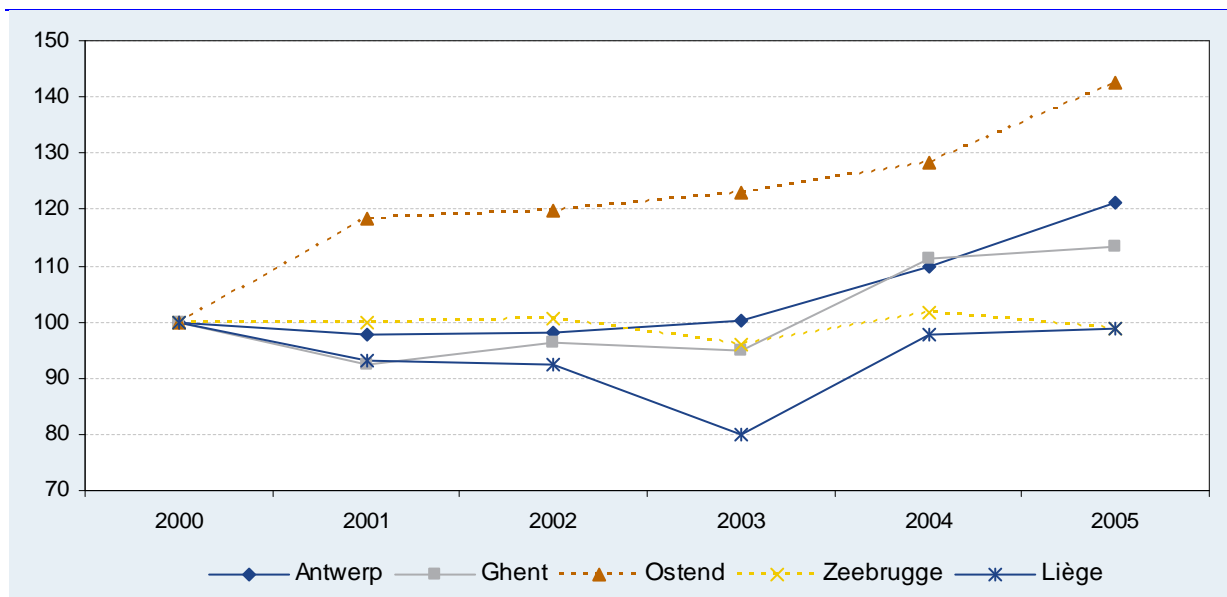
Following the European Parliament's rejection of the directive on the liberalisation of port services at the beginning of 2006, the period of discussion on this subject is continuing, with some preferring a directive on transparency and fair conditions of competition between the ports. That does not in any way prevent the European ports from acquiring the logistic, operational and security facilities enabling them to remain competitive in this sector, which is becoming increasingly international, with the concentration of logistics companies responsible for managing the terminals and the shipping companies. This concerns the competitiveness of the ports in the Hamburg - Le Havre range, which are suffering as well as benefiting from the rapid expansion of their Asian partners. The EU is dependent on the sea for 90 p.c. of the volume of its trade with the rest of the world. Belgium's open economy also makes the country very dependent on its sea ports. In 2005, the share of trade in Belgium's GDP continued to increase, and that was apparent in all the Flemish ports. Thus, maritime tonnages there were 3.7 p.c. higher than in 2004, driven by the structural growth of container transport (+ 9.5 p.c.). Shortsea shipping, which accounts for half the maritime traffic in the Flemish ports, grew faster than deepsea shipping. The Autonomous Port of Liège recorded a marked fall in its traffic in 2005 (- 6.3 p.c.), following the closure of the Arcelor furnace at Seraing. However, the growth of containerised freight limited the impact of this restructuring in the Liège basin, and the forthcoming entry into service of TriLogiPort heralds an era of significant development for the whole region.

All these developments are reflected in VA and employment, though there is a certain time lag in some cases.

In 2005, direct VA at constant prices increased respectively by 10.4, 1.7, 11.1 and 1.1 p.c. in the ports of Antwerp, Ghent, Ostend and Liège, whereas a decline was recorded at Zeebrugge (- 2.7 p.c.), under pressure of the non maritime activities. The Antwerp and Zeebrugge shipping companies, Antwerp chemicals, Ghent trade and Ostend metalworking produced the best performance among the Flemish ports. These increases were partly offset by the reductions in Ghent car manufacturing, Zeebrugge energy and electronics, and Antwerp and Ostend port construction and dredging. In the Liège port complex, trade, chemicals and metalworking account for a significant increase. The five ports under review directly accounted for 5.2 p.c. of Belgian GDP in 2005. That figure was 9.8 p.c. if indirect effects are also included. Viewed from that angle, the economic impact of the port sector is still increasing, since a year ago these percentages were both 0.3 point lower.

Chart 17 shows these trends over the period 2000 - 2005:

CHART 17 CHANGE IN DIRECT VALUE ADDED
(volume, index 2000 = 100)



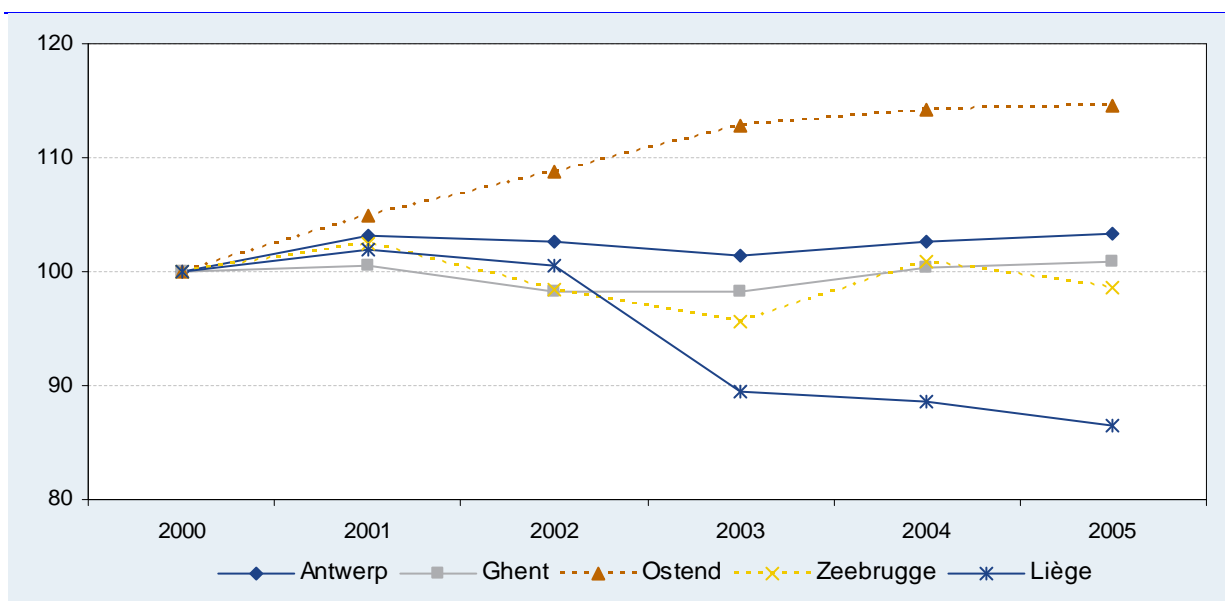
Source: NBB (calculations based on the Belgian accounts filed with the Central Balance Sheet Office).

Between 2000 and 2005, the main increase in VA was at Ostend, which is in a catching-up phase following the departure of the Régie des Transports maritimes. The VA of the ports of Antwerp, Zeebrugge and Liège is bolstered more by the maritime branches, while that of the ports of Ghent and Ostend is mainly sustained by the non maritime branches.

In 2005, stability was once again a feature of employment in the five ports under review: increases of less than 1 p.c. in the ports of Antwerp, Ghent and Ostend, but reductions of over 2 p.c. at Zeebrugge and Liège. In the same year, the modest increases were offset by modest reductions. The most notable growth occurred in the maritime cluster and in the Antwerp chemicals and energy industries, but it was negated by a decline in car manufacturing and construction. At Ghent, the job losses in electronics and land transport offset the effects of recruitment in car manufacturing. At Ostend, employment expanded in metalworking, but not in the maritime cluster. Finally, at Zeebrugge the only real employment growth was in cargo handling, while the workforce was cut in many other maritime branches and in industry. At the port of Liège, employment declined in all sectors except in the maritime branches, electronics and other services. These five ports in this study accounted for no less than 3.1 p.c. of Belgium's domestic employment in 2005. Including employment by subcontractors and suppliers serving the firms under review, that comes to 7.3 p.c. The two percentages correspond to the 2004 figures. Examination of the social balance sheet provides some qualitative information, such as the expansion of part-time working, the decline in recruitment in the case of permanent jobs in Flanders and fixed-term contracts in Liège, and the increasing proportion of female employees. While the average annual cost per FTE in the ports under review is still well above the national average, there was a substantial decline in expenditure on training. If these trends continue in the longer term, they could have an impact on competitiveness.

Chart 18 shows these trends over the period 2000 - 2005:

CHART 18 CHANGE IN DIRECT EMPLOYMENT
(FTEs, index 2000 = 100)



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

Over this period, the expansion of employment at Ostend is due to the same event as the growth of VA after 2000 (cf. supra). The contraction of the Liège workforce corresponds to the declining activity in the steel industry. Here it is the maritime branches that have underpinned employment at Antwerp, Ghent, Ostend and limited the job losses to some extent at Liège. That should continue to be the case in the future, in view of the current job losses in car manufacturing and the steel industry in contrast to the steady growth in handling. Only Zeebrugge has seen non maritime employment expand faster than maritime employment over those five years.

The year 2005 brought a surge in investments, representing a marked acceleration compared to the previous year, and to the rest of the period 2000 - 2005. That growth came to 45.7, 5.1, 23.2 and 77.2 p.c. respectively at constant prices at Antwerp, Ghent, Ostend and Zeebrugge, while investment fell by 2.2 p.c. at constant prices at Liège. In 2005, the most notable increases were recorded by shipping companies and in cargo handling, taking all Flemish ports together, led by Zeebrugge and Antwerp. The sector port construction and dredging also made good progress at Antwerp. In contrast, industrial firms at these two ports generally cut their investment expenditure, although Ostend chemicals, Ghent car manufacturing and Zeebrugge land transport still recorded increases. The main reason for the decline at Liège lies in the restructuring in metallurgy and substantial cuts in other services.

In 2005, the return on equity after tax of firms in the Flemish ports was more than double the average for Belgian non-financial corporations. The strongest increases were recorded by Antwerp and Ostend. In the same year, liquidity in the broad sense showed only a small increase at Ghent and Ostend, while falling at Antwerp and Zeebrugge. The ability of the firms under review to honour their short-term financial liabilities remained below the average for the country. Solvency was still below the average for Belgian firms, despite a significant increase at Antwerp. The players at the Flemish maritime ports are therefore more profitable than the national average, but more exposed to financial risks, which is confirmed by the examination of the financial health of the branches concerned. The situation at the Liège port complex is different. There, profitability dropped below the national average while liquidity and solvency remained above the average scores for Belgian firms. Overall, the financial health of firms at the Liège port improved in 2005.

Taken together, these developments provide an initial picture of the situation currently prevailing in the main Belgian ports. That picture is certainly mixed, but can be summarised as follows: VA continues to rise, employment and labour competitiveness are stagnating or even declining, investment is extremely

variable, with unprecedented growth in the Flemish maritime branches in 2005, profitability is uneven in the ports of northern Belgium, whereas there has been a marked improvement in financial health at Liège.

In spite of the race for tonnages in which most ports seem to be running, one has to admit that the authorities in charge more than ever count on investments generating VA and jobs, which are very important for their future. Benefiting directly from the growth of world trade, the main Belgian ports – but also the less important ones – must therefore equip themselves now to find sensible ways of addressing the numerous challenges involved. Their activity also depends very much on improving maritime access and developing river transport, aims which all the authorities in charge of port development have been emphasising for many years in the form of ambitious projects such as the deepening of the western Scheldt, entry into service of the Deurganckdok and a second railway line on the left bank of the port of Antwerp, improvements to the Kluizendok and to the sea canal at Ghent, extension of the Plassendale industrial zones at Ostend, the new handling and logistics infrastructures at Zeebrugge, and the creation of TriLogiPort at Liège.

Success is also dependent on finding a federal and European solution to the problem of mobility, since a better modal balance is proving to be essential here. The environment in which the Belgian port activity is conducted may cause the various ports in question to consider collaboration. That is already the case at Antwerp and Liège which, prompted by their complementarity and the link opened up by the Albert canal, have concluded an agreement which heralds an era of cooperation. It also applies to all the Flemish ports, with the creation of the *Flanders Port Area*, a strategic programme to encourage their cooperation, with a mutual objective: to work together to increase their value added for society and for the economy of the region and of the country.

LIST OF ABBREVIATIONS

BNRC	Belgian National Railway Company
ESA 95	European System of National and Regional Accounts
EU	European Union
FTE	Full-time equivalent
GDP	Gross Domestic Product
IOT	Input-Output Table
MBZ	Maatschappij van de Brugse Zeevaartinrichtingen (Zeebrugge port operator)
n.	not available
NACE-Bel	Belgian version of the statistical nomenclature of economic activities of the European Community
NAI	National Accounts Institute
NSI	National Statistical Institute, now FPS Economy – Directorate General of Statistics and Economic Information
OECD	Organisation for Economic Cooperation and Development
OPVN	Office de Promotion des Voies Navigables - MET, Walloon Region Office for the Promotion of Inland Waterways
p.c.	per cent
p.m.	pro memoria
PAL	Autonomous Port of Liège
SMEs	Small and medium-sized enterprises
SSS	Short Sea Shipping
SUT	Supply and Use Table.
TEU	Twenty-foot Equivalent Unit
tkm	tonne – kilometre
VA	Value added

ANNEX 1: DETAILED SOCIAL BALANCE SHEET IN 2005

TABLE 47 DETAILED SOCIAL BALANCE SHEET OF THE FLEMISH MARITIME PORTS: 2005

Sectors	AVERAGE NUMBER OF EMPLOYEES				Hours actually worked (1)				Personnel costs (2)				Hired temporary staff				At the enterprise's disposal			
	full-time	part-time	total	(in FTEs)	full-time	part-time	total		full-time	part-time	total	number	hours actually worked (1)	costs (2)	number	hours actually worked (1)	costs (2)	number	hours actually worked (1)	costs (2)
	1001	1002	1003	1011	1012	1013	1021	1022	1023	1501	1511	1521	1502	1512	1522					
MARITIME CLUSTER	23,767	1,713	24,998	36.7	2.0	38.8	1,337.2	75.6	1,412.9	1,427	2.62	61.4	7,154	13,48	474.4					
Shipping agents and forwarders.....	5,834	822	6,411	9.7	0.9	10.6	308.2	31.4	339.6	496	0.95	20.1	717	1.21	42.0					
Cargo handling.....	13,494	671	13,992	19.2	0.9	20.1	764.7	34.7	799.3	805	1.44	36.2	6,192	11.87	416.7					
Shipping companies.....	474	48	508	0.8	0.1	0.9	46.1	3.4	49.4	18	0.03	0.8	234	0.39	15.2					
Shipbuilding and repair.....	378	23	395	0.6	0.0	0.6	18.1	0.7	18.8	41	0.07	1.8	0	0.00	0.0					
Port construction and dredging.....	1,315	60	1,359	2.4	0.1	2.5	80.4	2.3	82.8	9	0.02	0.4	0	0.00	0.0					
Fishing.....	282	32	305	0.4	0.0	0.4	9.3	0.9	10.2	47	0.08	1.7	0	0.00	0.0					
Port trade.....	45	3	47	0.1	0.0	0.1	3.7	0.1	3.8	3	0.01	0.2	0	0.00	0.0					
Port authority.....	1,945	55	1,981	3.6	0.1	3.6	106.7	2.1	108.8	8	0.02	0.4	11	0.02	0.5					
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.					
NON-MARITIME CLUSTER	57,179	5,644	61,246	89.0	6.3	95.3	3,782.7	257.2	4,040.0	3,076	5.84	147.0	445	0.75	28.5					
TRADE	4,717	674	5,190	7.6	0.7	8.4	284.8	24.7	309.6	416	0.81	18.2	120	0.21	7.5					
INDUSTRY	44,353	3,623	47,002	68.3	4.1	72.5	3,061.4	185.1	3,246.5	2,332	4.40	115.7	81	0.13	6.0					
Energy.....	1,618	91	1,687	2.2	0.1	2.3	142.9	7.2	150.2	63	0.09	0.9	0	0.00	0.0					
Oil industry.....	2,762	254	2,953	4.6	0.3	4.9	352.1	21.3	373.4	39	0.08	2.6	1	0.00	0.3					
Chemicals.....	10,599	951	11,244	16.0	1.1	17.0	882.7	60.4	943.1	194	0.36	11.8	7	0.01	0.9					
Car manufacturing.....	14,328	1,262	15,293	22.6	1.5	24.1	762.1	51.3	813.4	1,225	2.31	61.3	7	0.01	0.5					
Electronics.....	1,412	239	1,595	2.2	0.3	2.4	80.9	9.3	90.2	98	0.19	4.7	0	0.00	0.0					
Metalworking industry.....	9,271	515	9,644	14.1	0.6	14.6	612.1	23.9	636.0	394	0.77	20.0	49	0.08	3.4					
Construction.....	2,225	119	2,311	3.5	0.1	3.6	114.5	4.7	119.2	86	0.16	4.2	0	0.00	0.0					
Food industry.....	800	79	857	1.3	0.1	1.4	46.3	3.2	49.5	129	0.25	5.4	12	0.02	0.5					
Other industries.....	1,337	113	1,419	2.0	0.1	2.1	67.6	3.9	71.5	103	0.20	4.8	5	0.01	0.3					
LAND TRANSPORT	4,226	510	4,618	6.5	0.6	7.1	199.9	18.9	218.7	154	0.30	6.2	96	0.16	4.8					
Road transport.....	1,948	95	2,013	3.2	0.1	3.3	90.2	2.9	93.2	137	0.27	5.5	96	0.16	4.7					
Other land transport.....	2,278	415	2,605	3.3	0.5	3.8	109.7	15.9	125.6	17	0.03	0.7	0	0.00	0.0					
OTHER LOGISTIC SERVICES	3,884	837	4,435	6.5	0.9	7.4	236.6	28.5	265.2	175	0.33	6.9	149	0.25	10.4					
Other services.....	3,884	837	4,435	6.5	0.9	7.4	236.6	28.5	265.2	175	0.33	6.9	149	0.25	10.4					
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.					
Total	80,946	7,357	86,244	125.7	8.4	134.1	5,119.9	332.9	5,452.8	4,503	8.46	208.4	7,599	14.23	502.9					

Source: NBB.

TABLE 47 (CONTINUED) DETAILED SOCIAL BALANCE SHEET OF THE FLEMISH MARITIME PORTS: 2005

Sectors	NUMBER OF PERSONS EMPLOYED AT THE END OF THE YEAR										TRAINING								
	Number					Men					Women					Men			
	full-time	part-time	total (in FTEs)	full-time	part-time	total (in FTEs)	part-time	full-time	part-time	total (in FTEs)	part-time	full-time	part-time	total (in FTEs)	Blue-collar	White-collar	Number	hours (1)	costs (2)
MARITIME CLUSTER	1051	1052	1053	1201	1202	1203	1211	1212	1213	1343	1323	5801	5802	5803					
Shipping agents and forwarders.....	24,521	1,816	25,822	20,414	661	20,887	4,107	1,155	4,935	9,919	14,584	5,101	0,20	8,3					
Cargo handling.....	5,892	843	6,488	3,637	152	3,740	2,256	691	2,748	5,430	717	854	0,02	0,7					
Shipping companies.....	14,196	737	14,736	12,884	426	13,200	1,312	311	1,536	2,605	11,510	2,062	0,11	5,0					
Shipbuilding and repair.....	466	53	503	342	10	348	123	43	155	406	79	109	0,00	0,2					
Port construction and dredging.....	379	23	396	367	19	381	12	4	15	71	320	91	0,01	0,3					
Fishing.....	1,322	64	1,368	1,241	24	1,259	81	40	109	505	859	1,045	0,04	1,5					
Port trade.....	287	33	311	232	4	234	55	29	77	62	245	70	0,00	0,0					
Port authority.....	48	3	50	35	1	36	13	2	15	43	1	9	0,00	0,0					
Public sector.....	1,931	60	1,969	1,675	25	1,689	256	35	280	798	854	861	0,01	0,5					
	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
NON-MARITIME CLUSTER	56,579	5,792	60,718	49,427	2,996	51,608	7,153	2,796	9,110	23,111	35,043	35,434	1,38	73,0					
TRADE	4,767	703	5,248	3,594	210	3,730	1,174	494	1,518	3,205	1,905	1,552	0,03	1,7					
INDUSTRY	43,784	3,728	46,472	39,076	2,177	40,664	4,708	1,552	5,808	15,230	29,024	30,238	1,23	66,2					
Energy.....	1,621	93	1,693	1,322	28	1,343	300	66	350	1,310	55	862	0,04	3,4					
Oil industry.....	2,748	248	2,993	2,368	139	2,474	379	109	458	2,403	486	2,113	0,12	7,6					
Chemicals.....	10,487	931	11,112	9,630	540	9,985	857	391	1,127	5,445	4,904	8,012	0,28	19,3					
Car manufacturing.....	14,027	1,381	15,047	12,490	1,004	13,249	1,537	376	1,797	1,606	12,600	10,329	0,33	19,3					
Electronics.....	1,370	241	1,553	1,051	61	1,096	319	180	458	567	963	786	0,03	0,9					
Metalworking industry.....	9,217	519	9,596	8,439	275	8,646	778	244	950	2,663	6,844	6,247	0,36	13,3					
Construction.....	2,189	122	2,277	2,071	64	2,118	118	57	159	599	1,598	781	0,04	1,0					
Food industry.....	793	84	853	586	28	606	207	57	247	297	527	203	0,01	0,3					
Other industries.....	1,332	109	1,409	1,119	38	1,146	213	71	263	339	1,047	905	0,02	0,9					
LAND TRANSPORT	4,208	543	4,634	3,765	390	4,077	443	153	557	1,664	2,869	2,252	0,08	3,7					
Road transport.....	1,988	96	2,056	1,782	36	1,807	206	60	249	502	1,478	454	0,01	0,2					
Other land transport.....	2,220	447	2,578	1,983	354	2,271	237	93	308	1,162	1,391	1,798	0,07	3,5					
OTHER LOGISTIC SERVICES	3,821	818	4,363	2,992	219	3,136	828	598	1,227	3,012	1,245	1,392	0,04	1,4					
Other services.....	3,821	818	4,363	2,992	219	3,136	828	598	1,227	3,012	1,245	1,392	0,04	1,4					
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Total	81,100	7,608	86,540	69,841	3,657	72,495	11,260	3,951	14,045	33,030	49,627	40,535	1,58	81,3					

Source: NBB.

TABLE 47 (CONTINUED) DETAILED SOCIAL BALANCE SHEET OF THE FLEMISH MARITIME PORTS: 2005

Sectors	TRAINING				ENTERED				RESIGNED					
	Women		Men		Women		Men		Women		Men			
	Number	hours (1)	costs (2)	(in FTEs) period	Number	hours (1)	costs (2)	(in FTEs) period	Number	hours (1)	costs (2)	(in FTEs) period		
	5811	5812	5813	2103	2203	2213	2223	2233	2303	2313	2323	2333	3053	3103
MARITIME CLUSTER	1,497	0.05	1.7	5,734	1,113	3,420	736	356	170	976	306	114	6,340	4,981
Shipping agents and forwarders.....	680	0.02	0.6	1,743	103	529	273	99	34	480	176	49	1,447	1,155
Cargo handling.....	456	0.02	0.7	4,646	913	2,643	263	119	118	450	99	41	4,096	3,084
Shipping companies.....	46	0.00	0.0	94	12	24	6	19	2	14	9	9	97	76
Shipbuilding and repair.....	1	0.00	0.0	82	7	57	10	0	4	3	0	0	60	49
Port construction and dredging.....	60	0.00	0.1	515	49	135	179	113	0	14	17	8	543	521
Fishing.....	45	0.00	0.0	23	0	15	0	0	0	7	1	0	13	13
Port trade.....	8	0.00	0.0	13	2	1	1	1	0	0	5	3	4	4
Port authority.....	201	0.00	0.2	77	27	16	3	7	11	8	0	5	81	80
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
NON-MARITIME CLUSTER	5,345	0.16	8.5	8,227	1,226	3,438	1,032	493	368	1,037	403	229	9,005	6,488
TRADE	683	0.01	0.6	1,203	101	424	189	67	61	222	89	50	1,097	810
INDUSTRY	4,130	0.13	7.1	5,221	876	2,362	580	320	122	635	199	127	5,799	3,867
Energy.....	146	0.00	0.4	198	1	29	50	27	0	38	44	9	198	117
Oil industry.....	252	0.01	0.7	294	1	79	76	74	0	16	28	20	333	271
Chemicals.....	900	0.03	2.0	1,074	67	485	172	82	22	156	49	40	1,254	756
Car manufacturing.....	1,468	0.04	2.7	1,497	393	721	96	56	74	127	12	18	1,573	956
Electronics.....	348	0.01	0.2	194	2	67	24	11	4	78	5	3	325	170
Metalworking industry.....	709	0.03	0.9	1,137	105	643	103	53	9	166	31	28	1,179	917
Construction.....	60	0.00	0.1	477	254	171	20	7	1	14	7	3	615	466
Food industry.....	68	0.00	0.1	121	14	37	16	6	2	28	15	3	108	83
Other industries.....	179	0.00	0.2	229	40	130	21	4	10	14	7	2	214	133
LAND TRANSPORT	136	0.00	0.2	695	201	346	33	12	4	71	22	7	744	708
Road transport.....	50	0.00	0.0	580	192	315	17	3	3	36	12	2	564	534
Other land transport.....	87	0.00	0.2	115	9	31	16	8	1	34	10	4	181	174
OTHER LOGISTIC SERVICES	397	0.01	0.5	1,108	49	307	230	94	181	109	94	45	1,365	1,103
Other services.....	397	0.01	0.5	1,108	49	307	230	94	181	109	94	45	1,365	1,103
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Total	6,842	0.20	10.1	15,418	11,159	6,858	1,768	849	538	2,013	709	343	15,345	11,469

Source: NBB.

(1) The time actually worked in terms of millions of hours. (2) The personnel costs and costs in terms of millions of euros.

TABLE 48

DETAILED SOCIAL BALANCE SHEET OF THE LIÈGE PORT COMPLEX: 2005

Sectors	AVERAGE NUMBER OF EMPLOYEES										Hired temporary staff		At the enterprise's disposal				
	Number		Hours actually worked (1)		Personnel costs (2)		Number		hours actually worked (1)		Number		hours actually worked (1)		costs (2)		
	full-time	part-time	total	full-time	part-time	total	full-time	part-time	total	Number	hours actually worked (1)	Number	hours actually worked (1)	Number	hours actually worked (1)	costs (2)	costs (2)
	1001	1002	1003	1011	1012	1013	1021	1022	1023	1501	1511	1502	1512	1521	1522		
	(in FTEs)																
MARITIME CLUSTER	276	16	287	0.4	0.0	0.5	11.8	0.6	12.4	54	0.10	2.3	0.00	2.3	0.1		
Shipping agents and forwarders	59	7	64	0.1	0.0	0.1	2.8	0.3	3.1	2	0.00	0.1	0.00	0.1	0.00	0.1	0.1
Cargo handling	143	4	147	0.2	0.0	0.2	5.9	0.1	6.1	19	0.04	0.8	0.00	0.8	0.00	0.0	0.0
Shipping companies	62	4	65	0.1	0.0	0.1	2.6	0.2	2.8	22	0.04	1.0	0.00	1.0	0.00	0.0	0.0
Shipbuilding and repair	12	0	12	0.0	0.0	0.0	0.4	0.0	0.4	10	0.02	0.4	0.00	0.4	0.00	0.0	0.0
Port construction and dredging	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Fishing	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Port trade	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Port authority	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Public sector	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
NON-MARITIME CLUSTER	10,440	410	10,729	15.1	0.4	15.5	632.4	18.7	651.1	545	0.92	20.3	0.05	20.3	0.05	1.7	1.7
TRADE	248	38	275	0.4	0.0	0.4	11.7	1.0	12.7	19	0.04	0.7	0.00	0.7	0.00	0.0	0.0
INDUSTRY	9,549	323	9,776	13.6	0.3	13.9	593.0	15.9	608.9	460	0.76	16.9	0.05	16.9	0.05	1.7	1.7
Energy	1,203	63	1,249	1.6	0.1	1.7	108.4	5.0	113.4	128	0.18	1.6	0.00	1.6	0.00	0.0	0.0
Oil industry	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Chemicals	966	55	1,006	1.6	0.1	1.6	63.2	2.0	65.2	100	0.19	5.5	0.00	5.5	0.00	0.0	0.0
Car manufacturing	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Electronics	79	9	83	0.1	0.0	0.1	3.7	0.3	3.9	15	0.03	0.6	0.00	0.6	0.00	0.0	0.0
Metalworking industry	6,093	122	6,178	8.5	0.1	8.6	346.1	5.2	351.3	162	0.26	6.6	0.05	6.6	0.05	1.7	1.7
Construction	1,005	66	1,053	1.5	0.1	1.6	60.1	3.3	63.4	46	0.09	2.2	0.00	2.2	0.00	0.0	0.0
Food industry	107	2	109	0.2	0.0	0.2	7.3	0.1	7.3	4	0.01	0.2	0.00	0.2	0.00	0.0	0.0
Other industries	96	6	98	0.1	0.0	0.1	4.2	0.2	4.4	4	0.01	0.2	0.00	0.2	0.00	0.0	0.0
LAND TRANSPORT	114	9	121	0.2	0.0	0.2	5.2	0.3	5.5	0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
Road transport	83	3	85	0.2	0.0	0.2	3.7	0.1	3.8	0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
Other land transport	31	6	36	0.0	0.0	0.1	1.5	0.2	1.7	0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
OTHER LOGISTIC SERVICES	529	40	558	0.8	0.0	0.9	22.5	1.5	24.0	66	0.12	2.7	0.00	2.7	0.00	0.0	0.0
Other services	529	40	558	0.8	0.0	0.9	22.5	1.5	24.0	66	0.12	2.7	0.00	2.7	0.00	0.0	0.0
Public sector	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Total	10,716	426	11,016	15.5	0.4	16.0	644.3	19.3	663.5	599	1.02	22.6	0.06	22.6	0.06	1.8	1.8

Source: NBB.

TABLE 48 (CONTINUED) DETAILED SOCIAL BALANCE SHEET OF THE LIÈGE PORT COMPLEX: 2005

Sectors	NUMBER OF PERSONS EMPLOYED AT THE END OF THE YEAR										TRAINING			
	Number full-time		Men full-time		Women full-time		Number part-time		Number White-collar		Blue-collar	Men	hours (1)	costs (2)
	(in FTEs)	(in FTEs)	(in FTEs)	(in FTEs)	(in FTEs)	(in FTEs)	(in FTEs)	(in FTEs)	(in FTEs)	(in FTEs)	Number	Number	hours (1)	costs (2)
	1051	1052	1053	1201	1202	1203	1211	1212	1213	1343	5801	5802	5803	
MARITIME CLUSTER	283	14	293	251	4	253	32	10	39	97	189	43	0.0	
Shipping agents and forwarders.....	59	7	63	38	3	39	21	5	24	58	4	5	0.0	
Cargo handling.....	152	2	153	144	1	145	8	1	9	23	128	1	0.0	
Shipping companies.....	61	4	64	58	0	58	3	4	6	15	47	37	0.0	
Shipbuilding and repair.....	12	0	12	12	0	12	0	0	0	1	10	0	0.0	
Port construction and dredging.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	
Fishing.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	
Port trade.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	
Port authority.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	
NON-MARITIME CLUSTER	10,452	384	10,719	9,564	170	9,675	888	213	1,044	4,181	6,101	5,744	12.8	
TRADE	252	34	275	197	8	202	55	25	73	188	81	14	0.0	
INDUSTRY	9,558	303	9,767	8,786	127	8,867	772	175	900	3,781	5,557	5,636	12.6	
Energy.....	1,208	64	1,257	978	19	993	230	45	264	896	122	639	2.5	
Oil industry.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	
Chemicals.....	1,024	52	1,058	917	24	934	107	27	124	411	636	590	0.4	
Car manufacturing.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	
Electronics.....	83	8	86	67	5	69	16	3	17	36	50	39	0.0	
Metalworking industry.....	6,054	107	6,128	5,716	47	5,747	338	59	381	2,070	3,963	3,833	8.9	
Construction.....	1,009	63	1,054	946	26	961	63	38	93	309	673	459	0.5	
Food industry.....	87	2	88	77	0	77	10	2	11	38	42	62	0.2	
Other industries.....	93	7	95	84	6	85	9	1	10	21	71	14	0.0	
LAND TRANSPORT	112	9	119	106	7	112	6	2	7	22	100	27	0.1	
Road transport.....	82	3	84	78	2	80	4	1	5	8	80	0	0.0	
Other land transport.....	30	6	35	28	5	33	2	1	3	14	21	27	0.1	
OTHER LOGISTIC SERVICES	530	38	557	475	27	494	55	10	63	190	362	67	0.0	
Other services.....	530	38	557	475	27	494	55	10	63	190	362	67	0.0	
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	
Total	10,735	397	11,012	9,815	174	9,928	920	222	1,083	4,278	6,291	5,787	12.8	

Source: NBB.

TABLE 48 (CONTINUED) DETAILED SOCIAL BALANCE SHEET OF THE LIÈGE PORT COMPLEX: 2005

Sectors	TRAINING				ENTERED				RESIGNED					
	Women		Men		Women		Men		Women		Men			
	Number	hours (1)	costs (2)	(in FTEs) period	primary	secondary higher	2223	2233	2303	2313	2323	2333	3053	3103
MARITIME CLUSTER	8	0.00	0.0	56	46	1	50	1	0	0	3	1	0	29
Shipping agents and forwarders.....	7	0.00	0.0	14	12	0	9	1	0	0	3	0	0	15
Cargo handling.....	0	0.00	0.0	29	21	0	28	0	0	0	0	0	0	10
Shipping companies.....	1	0.00	0.0	13	13	1	12	0	0	0	0	0	0	4
Shipbuilding and repair.....	0	0.00	0.0	1	0	0	1	0	0	0	0	0	0	0
Port construction and dredging.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Fishing.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Port trade.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Port authority.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
NON-MARITIME CLUSTER	427	0.01	0.8	1,119	679	186	515	126	104	6	71	81	31	948
TRADE	6	0.00	0.0	43	29	4	22	3	2	0	4	6	1	42
INDUSTRY	414	0.01	0.8	808	441	59	374	116	98	5	59	68	28	816
Energy.....	115	0.00	0.3	159	75	3	19	37	23	0	29	38	9	88
Oil industry.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Chemicals.....	81	0.00	0.1	87	22	18	32	11	14	1	2	6	2	56
Car manufacturing.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Electronics.....	12	0.00	0.0	42	31	0	20	16	3	0	0	3	1	13
Metalworking industry.....	161	0.01	0.3	368	231	26	213	36	53	0	14	13	13	545
Construction.....	35	0.00	0.1	108	73	5	70	13	5	0	6	5	3	87
Food industry.....	8	0.00	0.0	33	3	6	11	2	0	4	6	2	1	19
Other industries.....	1	0.00	0.0	11	6	2	8	0	0	0	1	0	0	9
LAND TRANSPORT	1	0.00	0.0	28	27	0	28	0	0	0	0	0	0	32
Road transport.....	0	0.00	0.0	28	27	0	28	0	0	0	0	0	0	30
Other land transport.....	1	0.00	0.0	0	0	0	0	0	0	0	0	0	0	2
OTHER LOGISTIC SERVICES	7	0.00	0.0	240	183	122	90	6	4	1	8	7	2	58
Other services.....	7	0.00	0.0	240	183	122	90	6	4	1	8	7	2	58
Public sector.....	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.	n.
Total	436	0.01	0.8	1,175	724	187	565	126	104	7	74	81	31	977

Source: NBB.

(1) The time actually worked in terms of millions of hours. (2) The personnel costs and costs in terms of millions of euros.

BIBLIOGRAPHY

- Antwerp Port Authority (2006), *Annual Report 2005*, Antwerp
- Blauwens G., P. De Baere, E. Van de Voorde (2002), *Transport Economics*, De Boeck nv Antwerp
- BNRC Holding, FEB, FEBIAC (2007), *Rail meets road 2007: Les rencontres de la mobilité et de l'intermodalité*, Brussels
- Coeck Ch., J-P. Merckx, A. Verbeke (2006), *Havenconomie en -logistiek*, Antwerp
- Coppens F. (2005), *Indirect effects: a formal definition and degrees of dependency as an alternative to technical coefficients*, NBB, Working Paper No.67 (Research series), Brussels
- Coppens F., F. Lagneaux, H. Meersman, N. Sellekaerts, E. Van de Voorde, G. van Gastel, Th. Vanelslander, A. Verhetsel (2007), *Economic impact of port activity: a disaggregate analysis. The case of Antwerp*, NBB, Working Paper No.110 (Document series), Brussels
- De Lloyd nv (2005 and 2006), "Annual directories 2005 - 2006 and 2006 - 2007 of the ports of Antwerp, Ghent, Ostend and Zeebrugge", Antwerp
- Europa, *The website of the European Union* (<http://europa.eu>), Brussels
- European Commission (2004), *Energy and Transport: Report 2000 - 2004*, European Community
- European Commission (2001), *White paper: "European transport policy for 2010: time to decide "*, European Community
- European Conference of Ministers of Transport - CEMT (2001), *Assessing the Benefits of Transport*, OECD Paris
- European Conference of Ministers of Transport - CEMT (2003), *Fifty years of Transport Policy: 1953 - 2003*, OECD Paris
- European Sea Ports Organisation (2006), *Annual Report 2005*, Brussels
- Eurostat (1995), *European System of National and Regional Accounts: ESA 95*, Luxembourg
- Ghent Port Company (2004), *Ghent Port Handbook 2004 - 2006*, Ghent
- Haezendonck E. (2001), *Essays on Strategy Analysis for Seaports*, Louvain
- Heuse P., Ph. Delhez (2006), "The Social Balance Sheet 2005", NBB, *Economic Review, December 2006*, Brussels
- Huybrechts M., H. Meersman, E. Van de Voorde, et al. (2002), *Port Competitiveness*, Antwerp
- Lagneaux F. (2006), *Economic Importance of the Belgian Ports: Flemish maritime ports and Liège port complex - report 2005*, NBB, Working Paper No.86 (Document series), Brussels
- Lagneaux F. and D. Vivet (2006), "Trend in the financial structure and results of firms in 2005", NBB, *Economic Review, December 2006*, Brussels
- Liège 2020 (2004), *La Province de Liège à l'horizon 2020: Choisir son avenir ou le subir*, Liège
- Merckx J-P. and D. Neyts, Vlaamse Havencommissie (2006), *Jaaroverzicht Vlaamse havens 2005*, SERV Brussels
- Misschaert M. and B. Vannieuwenhuysse, Vlaamse Instituut voor de Logistiek (2006), *Achterlandverbindingen: Multimodale schakel tussen verladere en de Vlaamse havens*, Antwerp

National Accounts Institute (2007), *Regional Accounts 1995 - 2005*, Brussels

National Accounts Institute (2003), *Input-Output Tables of Belgium from 1995 and updated data*, NAI Brussels

NBB (2007), *Report 2006 - Part 1: Economic and financial developments*, Brussels

NBB (2006), *Report 2005 - Part 1: Economic and financial developments*, Brussels

NBB, Central Balance Sheet Office, Annual accounts filed with the Central Balance Sheet Office, from 2000 to 2005, Brussels

NBB, General Statistics department (2006), *Statistical bulletin 2006/4*, Brussels

NBB, General Statistics department, "Belgostat On-line", Brussels

OECD (1999), *Boosting Innovation: The Cluster Approach*, Paris

Office de Promotion des Voies Navigables -OPVN- (2005), *Étude du potentiel de transport fluvial de conteneurs le long de la dorsale wallonne*, MET - Walloon Region, Namur

ORBE (2007), *Poids socio-économique des entreprises implantées sur le site du Port de Bruxelles*, Brussels

Pr. Peeters Ch., G. Facon, Ir. P. Vandendriessche - Policy Research Corporation NV - (1995), *De Haven als Economisch Motor van de Regio*, Garant Louvain

Pr. Peeters Ch., Ir. A. Lefever, Drs. A. Soete, Ir. P. Vandendriessche, Dr. H. Webers. - Policy Research Corporation NV - (1997), *De Nederlandse Maritieme Cluster*, Delft University Press

Port Authority Zeebrugge (2006), *Annual Report 2005*, Zeebrugge

Port Authority Zeebrugge, "Port of Zeebrugge News" (issues of 2005), Zeebrugge

Port of Antwerp, "Antwerp PortNews" (issues of 2005), Antwerp

Port of Ostend (2006), *Jaarverslag 2005*, Ostend

Promotie Binnenvaart Vlaanderen (2005 - 2006), *Binnenvaart*, Hasselt

Promotie Binnenvaart Vlaanderen (2006), *Jaarverslag 2005*, Hasselt

The Lloyd, articles between 2005 and 2007, Antwerp

The Lloyd (2006), *Lloyd Special Report - Annuaire du Port Autonome de Liège 2006*, Antwerp

The Lloyd (2007), *Lloyd Special Report - Port of Antwerp*, Antwerp

The Lloyd (2006), *Lloyd Special Report - Port of Ghent*, Antwerp

The Lloyd (2006), *Lloyd Special Report - Zeebrugge*, Antwerp

United Nations Conference on Trade and Development (2006), *Review of Maritime Transport 2006*, UNCTAD, New York and Geneva

Van Hooydonk E. (2006), *Schip van Staat met Slagzij: Sterkten en zwakten van maritiem recht en beleid in België*, Antwerp

Vivet D. (2005), "Trend in the financial structure and results of firms in 2004", NBB, *Economic Review, 2005/4*, Brussels

Vlaams Instituut voor de Logistiek (2007), *Reverse Logistics in Vlaanderen*, Antwerp

NATIONAL BANK OF BELGIUM - WORKING PAPERS SERIES

1. "Model-based inflation forecasts and monetary policy rules" by M. Dombrecht and R. Wouters, *Research Series*, February 2000.
2. "The use of robust estimators as measures of core inflation" by L. Aucremanne, *Research Series*, February 2000.
3. "Performances économiques des Etats-Unis dans les années nonante" by A. Nyssens, P. Butzen, P. Bisciari, *Document Series*, March 2000.
4. "A model with explicit expectations for Belgium" by P. Jeanfils, *Research Series*, March 2000.
5. "Growth in an open economy: some recent developments" by S. Turnovsky, *Research Series*, May 2000.
6. "Knowledge, technology and economic growth: an OECD perspective" by I. Visco, A. Bassanini, S. Scarpetta, *Research Series*, May 2000.
7. "Fiscal policy and growth in the context of European integration" by P. Masson, *Research Series*, May 2000.
8. "Economic growth and the labour market: Europe's challenge" by C. Wyplosz, *Research Series*, May 2000.
9. "The role of the exchange rate in economic growth: a euro-zone perspective" by R. MacDonald, *Research Series*, May 2000.
10. "Monetary union and economic growth" by J. Vickers, *Research Series*, May 2000.
11. "Politique monétaire et prix des actifs: le cas des Etats-Unis" by Q. Wibaut, *Document Series*, August 2000.
12. "The Belgian industrial confidence indicator: leading indicator of economic activity in the euro area?" by J.J. Vanhaelen, L. Dresse, J. De Mulder, *Document Series*, November 2000.
13. "Le financement des entreprises par capital-risque" by C. Rigo, *Document Series*, February 2001.
14. "La nouvelle économie" by P. Bisciari, *Document Series*, March 2001.
15. "De kostprijs van bankkredieten" by A. Bruggeman and R. Wouters, *Document Series*, April 2001.
16. "A guided tour of the world of rational expectations models and optimal policies" by Ph. Jeanfils, *Research Series*, May 2001.
17. "Attractive Prices and Euro - Rounding effects on inflation" by L. Aucremanne and D. Cornille, *Documents Series*, November 2001.
18. "The interest rate and credit channels in Belgium: an investigation with micro-level firm data" by P. Butzen, C. Fuss and Ph. Vermeulen, *Research series*, December 2001.
19. "Openness, imperfect exchange rate pass-through and monetary policy" by F. Smets and R. Wouters, *Research series*, March 2002.
20. "Inflation, relative prices and nominal rigidities" by L. Aucremanne, G. Brys, M. Hubert, P. J. Rousseeuw and A. Struyf, *Research series*, April 2002.
21. "Lifting the burden: fundamental tax reform and economic growth" by D. Jorgenson, *Research series*, May 2002.
22. "What do we know about investment under uncertainty?" by L. Trigeorgis, *Research series*, May 2002.
23. "Investment, uncertainty and irreversibility: evidence from Belgian accounting data" by D. Cassimon, P.-J. Engelen, H. Meersman, M. Van Wouwe, *Research series*, May 2002.
24. "The impact of uncertainty on investment plans" by P. Butzen, C. Fuss, Ph. Vermeulen, *Research series*, May 2002.
25. "Investment, protection, ownership, and the cost of capital" by Ch. P. Himmelberg, R. G. Hubbard, I. Love, *Research series*, May 2002.
26. "Finance, uncertainty and investment: assessing the gains and losses of a generalised non-linear structural approach using Belgian panel data", by M. Gérard, F. Verschuere, *Research series*, May 2002.
27. "Capital structure, firm liquidity and growth" by R. Anderson, *Research series*, May 2002.
28. "Structural modelling of investment and financial constraints: where do we stand?" by J.-B. Chatelain, *Research series*, May 2002.
29. "Financing and investment interdependencies in unquoted Belgian companies: the role of venture capital" by S. Manigart, K. Baeyens, I. Verschuere, *Research series*, May 2002.
30. "Development path and capital structure of Belgian biotechnology firms" by V. Bastin, A. Corhay, G. Hübner, P.-A. Michel, *Research series*, May 2002.
31. "Governance as a source of managerial discipline" by J. Franks, *Research series*, May 2002.
32. "Financing constraints, fixed capital and R&D investment decisions of Belgian firms" by M. Cincera, *Research series*, May 2002.
33. "Investment, R&D and liquidity constraints: a corporate governance approach to the Belgian evidence" by P. Van Cayseele, *Research series*, May 2002.
34. "On the Origins of the Franco-German EMU Controversies" by I. Maes, *Research series*, July 2002.
35. "An estimated dynamic stochastic general equilibrium model of the Euro Area", by F. Smets and R. Wouters, *Research series*, October 2002.
36. "The labour market and fiscal impact of labour tax reductions: The case of reduction of employers' social security contributions under a wage norm regime with automatic price indexing of wages", by K. Burggraeve and Ph. Du Caju, *Research series*, March 2003.
37. "Scope of asymmetries in the Euro Area", by S. Ide and Ph. Moës, *Document series*, March 2003.
38. "De autonijverheid in België: Het belang van het toeleveringsnetwerk rond de assemblage van personenauto's", by F. Coppens and G. van Gastel, *Document series*, June 2003.
39. "La consommation privée en Belgique", by B. Eugène, Ph. Jeanfils and B. Robert, *Document series*, June 2003.

40. "The process of European monetary integration: a comparison of the Belgian and Italian approaches", by I. Maes and L. Quaglia, *Research series*, August 2003.
41. "Stock market valuation in the United States", by P. Bisciari, A. Durré and A. Nyssens, *Document series*, November 2003.
42. "Modeling the Term Structure of Interest Rates: Where Do We Stand?", by K. Maes, *Research series*, February 2004.
43. Interbank Exposures: An Empirical Examination of System Risk in the Belgian Banking System, by H. Degryse and G. Nguyen, *Research series*, March 2004.
44. "How Frequently do Prices change? Evidence Based on the Micro Data Underlying the Belgian CPI", by L. Aucremanne and E. Dhyne, *Research series*, April 2004.
45. "Firms' investment decisions in response to demand and price uncertainty", by C. Fuss and Ph. Vermeulen, *Research series*, April 2004.
46. "SMEs and Bank Lending Relationships: the Impact of Mergers", by H. Degryse, N. Masschelein and J. Mitchell, *Research series*, May 2004.
47. "The Determinants of Pass-Through of Market Conditions to Bank Retail Interest Rates in Belgium", by F. De Graeve, O. De Jonghe and R. Vander Vennet, *Research series*, May 2004.
48. "Sectoral vs. country diversification benefits and downside risk", by M. Emiris, *Research series*, May 2004.
49. "How does liquidity react to stress periods in a limit order market?", by H. Beltran, A. Durré and P. Giot, *Research series*, May 2004.
50. "Financial consolidation and liquidity: prudential regulation and/or competition policy?", by P. Van Cayseele, *Research series*, May 2004.
51. "Basel II and Operational Risk: Implications for risk measurement and management in the financial sector", by A. Chapelle, Y. Crama, G. Hübner and J.-P. Peters, *Research series*, May 2004.
52. "The Efficiency and Stability of Banks and Markets", by F. Allen, *Research series*, May 2004.
53. "Does Financial Liberalization Spur Growth?" by G. Bekaert, C.R. Harvey and C. Lundblad, *Research series*, May 2004.
54. "Regulating Financial Conglomerates", by X. Freixas, G. Lóránth, A.D. Morrison and H.S. Shin, *Research series*, May 2004.
55. "Liquidity and Financial Market Stability", by M. O'Hara, *Research series*, May 2004.
56. "Economic importance of the Flemish maritime ports: report 2002", by F. Lagneaux, *Document series*, June 2004.
57. "Determinants of Euro Term Structure of Credit Spreads", by A. Van Landschoot, *Research series*, July 2004.
58. "Macroeconomic and Monetary Policy-Making at the European Commission, from the Rome Treaties to the Hague Summit", by I. Maes, *Research series*, July 2004.
59. "Liberalisation of Network Industries: Is Electricity an Exception to the Rule?", by F. Coppens and D. Vivet, *Document series*, September 2004.
60. "Forecasting with a Bayesian DSGE model: an application to the euro area", by F. Smets and R. Wouters, *Research series*, September 2004.
61. "Comparing shocks and frictions in US and Euro Area Business Cycle: a Bayesian DSGE approach", by F. Smets and R. Wouters, *Research series*, October 2004.
62. "Voting on Pensions: A Survey", by G. de Walque, *Research series*, October 2004.
63. "Asymmetric Growth and Inflation Developments in the Acceding Countries: A New Assessment", by S. Ide and P. Moës, *Research series*, October 2004.
64. "Importance économique du Port Autonome de Liège: rapport 2002", by F. Lagneaux, *Document series*, November 2004.
65. "Price-setting behaviour in Belgium: what can be learned from an ad hoc survey", by L. Aucremanne and M. Druant, *Research series*, March 2005.
66. "Time-dependent versus State-dependent Pricing: A Panel Data Approach to the Determinants of Belgian Consumer Price Changes", by L. Aucremanne and E. Dhyne, *Research series*, April 2005.
67. "Indirect effects – A formal definition and degrees of dependency as an alternative to technical coefficients", by F. Coppens, *Research series*, May 2005.
68. "Noname – A new quarterly model for Belgium", by Ph. Jeanfils and K. Burggraeve, *Research series*, May 2005.
69. "Economic importance of the Flemish maritime ports: report 2003", F. Lagneaux, *Document series*, May 2005.
70. "Measuring inflation persistence: a structural time series approach", M. Dossche and G. Everaert, *Research series*, June 2005.
71. "Financial intermediation theory and implications for the sources of value in structured finance markets", J. Mitchell, *Document series*, July 2005.
72. "Liquidity risk in securities settlement", J. Devriese and J. Mitchell, *Research series*, July 2005.
73. "An international analysis of earnings, stock prices and bond yields", A. Durré and P. Giot, *Research series*, September 2005.
74. "Price setting in the euro area: Some stylized facts from Individual Consumer Price Data", E. Dhyne, L. J. Álvarez, H. Le Bihan, G. Veronese, D. Dias, J. Hoffmann, N. Jonker, P. Lünnemann, F. Rumlér and J. Vilmunen, *Research series*, September 2005.
75. "Importance économique du Port Autonome de Liège: rapport 2003", by F. Lagneaux, *Document series*, October 2005.

76. "The pricing behaviour of firms in the euro area: new survey evidence, by S. Fabiani, M. Druant, I. Hernando, C. Kwapil, B. Landau, C. Loupias, F. Martins, T. Mathä, R. Sabbatini, H. Stahl and A. Stokman, *Research series*, November 2005.
77. "Income uncertainty and aggregate consumption, by L. Pozzi, *Research series*, November 2005.
78. "Crédits aux particuliers - Analyse des données de la Centrale des Crédits aux Particuliers", by H. De Doncker, *Document series*, January 2006.
79. "Is there a difference between solicited and unsolicited bank ratings and, if so, why?" by P. Van Roy, *Research series*, February 2006.
80. "A generalised dynamic factor model for the Belgian economy - Useful business cycle indicators and GDP growth forecasts", by Ch. Van Nieuwenhuyze, *Research series*, February 2006.
81. "Réduction linéaire de cotisations patronales à la sécurité sociale et financement alternatif" by Ph. Jeanfils, L. Van Meensel, Ph. Du Caju, Y. Saks, K. Buysse and K. Van Cauter, *Document series*, March 2006.
82. "The patterns and determinants of price setting in the Belgian industry" by D. Cornille and M. Dossche, *Research series*, May 2006.
83. "A multi-factor model for the valuation and risk management of demand deposits" by H. Dewachter, M. Lyrio and K. Maes, *Research series*, May 2006.
84. "The single European electricity market: A long road to convergence", by F. Coppens and D. Vivet, *Document series*, May 2006.
85. "Firm-specific production factors in a DSGE model with Taylor price setting", by G. de Walque, F. Smets and R. Wouters, *Research series*, June 2006.
86. "Economic importance of the Belgian ports: Flemish maritime ports and Liège port complex - report 2004", by F. Lagneaux, *Document series*, June 2006.
87. "The response of firms' investment and financing to adverse cash flow shocks: the role of bank relationships", by C. Fuss and Ph. Vermeulen, *Research series*, July 2006.
88. "The term structure of interest rates in a DSGE model", by M. Emiris, *Research series*, July 2006.
89. "The production function approach to the Belgian output gap, Estimation of a Multivariate Structural Time Series Model", by Ph. Moës, *Research series*, September 2006.
90. "Industry Wage Differentials, Unobserved Ability, and Rent-Sharing: Evidence from Matched Worker-Firm Data, 1995- 2002", by R. Plasman, F. Rycx and I. Tojerow, *Research series*, October 2006.
91. "The dynamics of trade and competition", by N. Chen, J. Imbs and A. Scott, *Research series*, October 2006.
92. "A New Keynesian Model with Unemployment", by O. Blanchard and J. Gali, *Research series*, October 2006.
93. "Price and Wage Setting in an Integrating Europe: Firm Level Evidence", by F. Abraham, J. Konings and S. Vanormelingen, *Research series*, October 2006.
94. "Simulation, estimation and welfare implications of monetary policies in a 3-country NOEM model", by J. Plasmans, T. Michalak and J. Fornero, *Research series*, October 2006.
95. "Inflation persistence and price-setting behaviour in the euro area: a summary of the Inflation Persistence Network evidence ", by F. Altissimo, M. Ehrmann and F. Smets, *Research series*, October 2006.
96. "How Wages Change: Micro Evidence from the International Wage Flexibility Project", by W.T. Dickens, L. Goette, E.L. Goshen, S. Holden, J. Messina, M.E. Schweitzer, J. Turunen and M. Ward, *Research series*, October 2006.
97. "Nominal wage rigidities in a new Keynesian model with frictional unemployment", by V. Bodart, G. de Walque, O. Pierrard, H.R. Sneessens and R. Wouters, *Research series*, October 2006.
98. "Dynamics and monetary policy in a fair wage model of the business cycle", by D. De la Croix, G. de Walque and R. Wouters, *Research series*, October 2006.
99. "The kinked demand curve and price rigidity: evidence from scanner data", by M. Dossche, F. Heylen and D. Van den Poel, *Research series*, October 2006.
100. "Lumpy price adjustments: a microeconomic analysis", by E. Dhyne, C. Fuss, H. Peseran and P. Sevestre, *Research series*, October 2006.
101. "Reasons for wage rigidity in Germany", by W. Franz and F. Pfeiffer, *Research series*, October 2006.
102. "Fiscal sustainability indicators and policy design in the face of ageing", by G. Langenus, *Research series*, October 2006.
103. "Macroeconomic fluctuations and firm entry: theory and evidence", by V. Lewis, *Research series*, October 2006.
104. "Exploring the CDS-Bond Basis" by J. De Wit, *Research series*, November 2006.
105. "Sector Concentration in Loan Portfolios and Economic Capital", by K. Düllmann and N. Masschelein, *Research series*, November 2006.
106. "R&D in the Belgian Pharmaceutical Sector", by H. De Doncker, *Document series*, December 2006.
107. "Importance et évolution des investissements directs en Belgique", by Ch. Piette, *Document series*, January 2007.
108. "Investment-Specific Technology Shocks and Labor Market Frictions", by R. De Bock, *Research series*, February 2007.
109. "Shocks and frictions in US Business cycles: a Bayesian DSGE Approach", by F. Smets and R. Wouters, *Research series*, February 2007.
110. "Economic impact of port activity: a disaggregate analysis. The case of Antwerp", by F. Coppens, F. Lagneaux, H. Meersman, N. Sellekaerts, E. Van de Voorde, G. van Gastel, Th. Vanelslander and A. Verhetsel, *Document series*, February 2007.
111. "Price setting in the euro area: Some stylized facts from individual producer price data", by Ph. Vermeulen, D. Dias, M. Dossche, E. Gautier, I. Hernando, R. Sabbatini and H. Stahl, *Research series*, March 2007.

112. "Assessing the Gap between Observed and Perceived Inflation in the Euro Area: Is the Credibility of the HICP at Stake?", by L. Aucremanne, M. Collin, Th. Stragier, *Research series*, April 2007.
113. "The spread of Keynesian economics: a comparison of the Belgian and Italian experiences", by I. Maes, *Research series*, April 2007.
114. "Imports and Exports at the Level of the Firm: Evidence from Belgium", by M. Muûls and M. Pisu, *Research series*, May 2007.
115. "Economic importance of the Belgian ports: Flemish maritime ports and Liège port complex - report 2005", by F. Lagneaux, *Document series*, May 2007.