

Economic importance of air transport and airport activities in Belgium – Report 2012



Working Paper Document

by Frank Van Nieuwenhove

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ABSTRACT

This study assesses the economic importance of air transport and airport activities in Belgium in terms of value added, employment and investment over the 2009-2012 period¹. The sector considered embraces not only the activities directly connected with air transport, but also all the activities that take place on site at the six Belgian airports (Antwerp, Brussels, Charleroi, Kortrijk, Liège and Ostend). The study reviews the direct and indirect effects of the sector on the basis of microeconomic data (mainly obtained from the Central Balance Sheet Office) and macroeconomic data (from the National Accounts Institute). It also includes an analysis of the social balance sheet and certain ratios using Central Balance Sheet Office data.

In 2012, air transport and airport activities generated € 5.6 billion in direct and indirect value added (i.e. 1.5 % of Belgian GDP) and employed 66,200 people in full-time equivalents (FTEs) either directly or indirectly (1.7 % of domestic employment).

Brussels Airport is the country's biggest airport in terms of passenger traffic, but has seen its leading position somewhat eroded by Charleroi, which with Ryanair has staged robust growth in the low-cost segment. Meanwhile, Liège has assumed the position of leading cargo airport and currently accounts for over half of total cargo traffic to and from Belgium. Charleroi and Liège are the fastest growing airports in terms of value added and employment. With the exception of Ostend, the Flemish regional airports have also proved resilient on both counts, while Brussels Airport may be described as holding more or less steady.

JEL classification: C67, D40, J21, L93, R15, R34 and R41.

Keywords: air transport, airport activities, sector analysis, indirect effects, employment, value added, investment

¹ This is an update of the study conducted on the basis of 2009 data by X. Deville and S. Vennix (2011), *Economic Importance of Air Transport and Airport Activities in Belgium*, NBB, Working Paper No. 218 (Document series), Brussels.

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FOREWORD

In March 2009, the National Bank of Belgium (NBB) first published an extensive study of the economic importance of air transport and airport activities in Belgium. The publication¹ was welcomed by both industry stakeholders and the competent authorities. In December 2011, a first update² was released, presenting the results for the 2007-2009 period. In 2013, NBB was asked to update its analysis again to cover the years up to and including 2012.

This report reviews the 2009-2012 period³. It starts off by analysing the direct effects of the sector's economic impact and covers aviation-related activities on Belgian soil and airport-related activities in the different airport zones. It also focuses on indirect value added and employment as generated by Belgium-based suppliers and contractors of these companies, as well as by the suppliers of these contractors, etc. Unless otherwise stated, the methodology has remained unchanged: the selection of companies featuring in the study and their analysis draw on the same methods as used in the two previous studies⁴.

The report's introductory section takes a global view of air transport of passengers and cargo. Its actual analysis first reviews the Belgian air transport and airport sector as a whole, to move on to value added, employment and investment in the sector after a brief discussion of Belgian air traffic, while also touching upon social impact and financial health. The second part is a detailed analysis of the latest developments and economic performances of each of the six airports (Antwerp, Brussels, Charleroi, Liège, Kortrijk and Ostend).

Data gathering was completed in August 2014 and this study does not take into account any information published after this date.

¹ Kupfer and Lagneaux (2009). This study is available at <http://www.nbb.be> > Publications and research > Economic/financial publications > Working papers > 2009 – nr. 158.

² Deville and Vennix (2011). This study is available at <http://www.nbb.be> > Publications and research > Economic/financial publications > Working papers > 2011 – nr. 218.

³ Figures are based on annual accounts the companies filed with the NBB's Central Balance Sheet Office, which causes a time lag of two years, as 2013 data will not be available until the autumn of 2014.

⁴ For all details of the methodology, see Part 1 of Kupfer and Lagneaux (2009).

INTRODUCTION

AIM AND GENERAL METHODOLOGY OF THE STUDY

This Working Paper examines two categories of economic activity. The first comprises those segments which come under the heading of air transport (the air transport cluster). The second encompasses companies from other segments which are linked to air transport as a result of their geographical location, more particularly within the airport zone (other airport-related activities)⁵. The airport authorities, which were able to provide the necessary information, were used as the source for this category.

Attention focuses first on the actual activities of the companies in the population, or in other words the direct effects. The following economic variables are calculated here:

- Value added at current prices⁶: the value which a firm adds to its inputs via the production process during the financial year. A company's value added indicates its contribution to the prosperity of the country or region (as a % of GDP). In accounting terms, this is calculated as the sum of the staff costs (code 62 in the annual accounts), depreciation and value adjustments (codes 630 and 631/4), provisions for liabilities and charges (code 635/7), other operating expenses (code 640/8) and the operating profit or loss (code 9901), less operating costs capitalised as restructuring expenses (code 649). Since value added is created only by reference to market satisfaction, operating subsidies (code 740) must also be eliminated. According to the reference methodology for compiling the Belgian national accounts prior to September 2014⁷ (ESA 1995), it is only non-product-related subsidies that can be deducted. These include subsidies to support employment or to cover annual losses. Conversely, product-related subsidies are not deducted when calculating value added. Such subsidies are paid in order to reduce the market price of the products. In the ESA methodology, the operating grants which the airport operators receive are regarded as product-related subsidies. They are therefore not deducted when calculating the value added of the six airport operators reviewed in this study⁸.
- Employment in full-time equivalents (FTEs): the average workforce during the financial year. Direct employment mainly concerns employees on the payroll of the companies considered. The figures for the six airports do, however, include some self-employed workers (e.g. instructors or pilots), since use is made here of data supplied by the airport authorities or the companies themselves.
- Investment at current prices⁹: these correspond to the tangible fixed assets acquired during the financial year, including capitalised production costs.

Next, attention also focuses on the indirect effects. The indirect value added and employment are the value added and employment generated 'top-down' – i.e. on the supply side of the companies in question. That is not confined to the first level of suppliers and subcontractors but goes deeper, to an infinite number of levels.

The indirect effects¹⁰ are calculated on the basis of the following data:

- the share of the population examined in each SUT¹¹ branch at national level;
- the links between the branches as derived from the SUT and/or indicated in the IOT¹²;
- national figures for value added and employment per SUT branch.

⁵ See Annex 1.

⁶ Unless otherwise stated, the value added figures in the text are always stated at current prices.

⁷ For more information on this methodology, see the National Accounts website: <http://www.nbb.be> > Statistics > National/regional accounts > Methodology.

⁸ The issue of subsidies to the airports and their impact on value added is discussed in Section 1.2.

⁹ Unless otherwise indicated, investments are always stated at current prices.

¹⁰ The theory of the indirect effects is explained in Annex 2 by Kupfer and Lagneaux (2009).

¹¹ Supply Use Table.

¹² Input Output Table.

The first two data series come from the National Accounts Institute (NAI)¹³ while the national data on value added and employment per SUT branch come from the Central Balance Sheet Office¹⁴. The latter are obtained by aggregating the data present in the annual accounts of companies. Consequently, companies which do not file annual accounts in Belgium are disregarded in the calculation of the indirect effects. For the purposes of this study, that essentially means foreign companies and a few self-employed operators – which only represent 3 % of the direct employment and value added that this study takes into account. It is likely that the indirect effects of the activities of foreign companies are less significant than the effects of local companies more closely connected with the Belgian economy. It is therefore possible to assume that these foreign companies represent less than 3 % of indirect value added and employment. In addition, there are the public enterprises and authorities which, for the same reasons, are also excluded from the calculation of the indirect effects. If these are taken into account, the proportion of direct employment and value added of undertakings disregarded in calculating the indirect effects is less than 10 %.

The indirect effects thus calculated are therefore a minimum estimate of the true indirect effects. It is also important to note that the indirect effects per airport must be interpreted with caution since the calculations are based on certain assumptions (e.g. that the national technical coefficients are also valid at regional level). Also, the sum of the indirect effects per airport does not correspond to the total indirect effects calculated directly for all the airports. The reason is that, since the airports have mutual economic links, some of the indirect effects calculated per airport are eliminated when the calculations are done at a more aggregate level, i.e. for a group of airports.

Apart from this purely economic angle, the analysis of the companies in question also adopts a social perspective, considering employment and the social balance sheet. That section deals in particular with working time, labour costs, the degree to which external staff are used and the workforce structure, staff turnover and training.

Financial analysis is the third aspect of this study and reflects three financial ratios: return on equity after tax, liquidity in the broad sense and solvency. The first ratio concerns the firm's ability to generate profits and indicates the return which the firm achieves for its shareholders, after tax. The second ratio concerns the firm's ability to mobilise the liquid resources which it needs to meet its short-term liabilities on time. Finally, the third ratio indicates the company's ability to meet its financial liabilities in the short and long term.

This study is in two parts. The first part focuses on the Belgian air transport sector as a whole. It considers both the air transport cluster and other airport-related activities from the three angles explained above. The second part examines the impact – in terms of value added and employment – of the six airports individually. The microeconomic data are derived from the annual accounts submitted to the Central Balance Sheet Office, from the airport authorities or from the companies themselves. The latest annual accounts for the year 2012 included in this study were submitted to the Central Balance Sheet Office in June 2014¹⁵.

¹³ The National Accounts Institute (NAI), established by the Law dated 21 December 1994, combines three institutions: the National Statistical Institute (NSI, now FPS Economy, SMEs, Self-employed and Energy – Directorate General of Statistics and Economic Information), the National Bank of Belgium and the Federal Planning Bureau.

¹⁴ A service forming part of the National Bank's Microeconomic Information Department. See <http://www.nbb.be> > Central Balance Sheet Office.

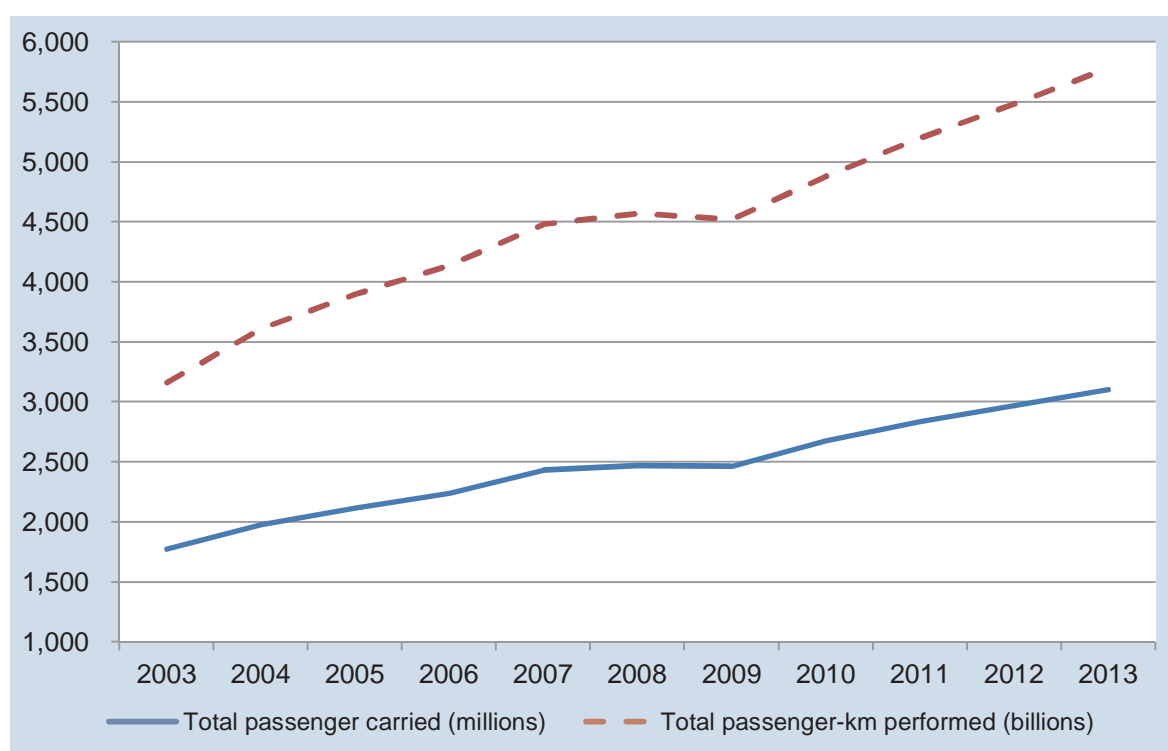
¹⁵ Belgian companies have to submit their annual accounts to the Central Balance Sheet Office no later than seven months after the end of the financial year. On that date, there are some companies – mainly the smallest ones or those in difficulty – which have not yet fulfilled that obligation. In June 2014, the number was negligible and the impact of missing data was immaterial.

In this study, the results for 2009 may differ from those in the previous study¹⁶, the key reason being that the 2011 study classified companies by the NACE-BEL 2003 code and the current study by the NACE-BEL 2008 code¹⁷. As a result, some companies may no longer show up in the sectors as defined in Annex 1, because of the NACE code assigned to them. The reverse situation may also occur. At the same time, the application of the NACE 2008 classification has also resulted in the forwarding offices no longer being a separate category: these now feature under 'other transport support activities' as part of 'cargo handling and storage' among 'other airport-related activities'. In addition, SUT branches are linked to NACE-BEL sectors and have also changed in terms of substance; as these serve as basis for calculating indirect effects, those effects may be significantly different from the previous study. Lastly, some 2009 data in the previous report were based on estimates; these have now been replaced by more accurate figures.

INTERNATIONAL ECONOMIC AND SECTORAL CONTEXT

In 2009, the global economy suffered its biggest post-war recession. The aviation industry was no exception: 2009 was its worst year since the Second World War, and the recession hit harder than the 1970s oil shocks or the events of 11 September 2001. In fact, air freight reached its nadir at the end of 2008, while passenger traffic followed in the next spring. The recovery started in the second half of 2009 but both passenger and cargo traffic recorded negative growth for the year as a whole. The airlines mainly responded by cutting capacity. 2010 and 2011 were years of sustained recovery, while capacity utilisation improved as capacity failed to keep pace with the recovery. Although passenger traffic continued to rise considerably in 2012, the slowdown in world trade growth squeezed demand for air transport. Only airlines from the Middle East and Africa held steady.

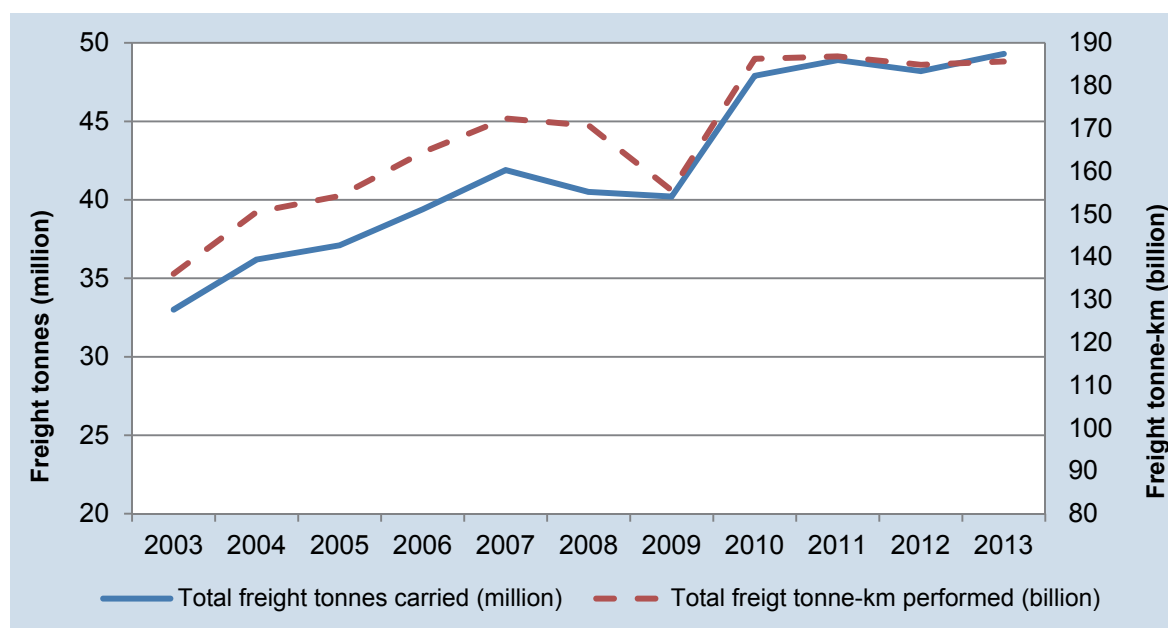
CHART 1 WORLD AIR PASSENGER TRAFFIC 2003 - 2013



Source: ICAO.

¹⁶ Deville and Vennix (2011).

¹⁷ For more information about NACE codes, please refer to the Directorate General of Statistics and Economic Information, website: <http://statbel.fgov.be>.

CHART 2 WORLD AIR CARGO TRAFFIC 2003 - 2013

Source: ICAO.

Chart 1 captures the development of world air passenger traffic for the 2003-2013 period. The number of transported passengers rose by an annual 5.8 % on average, while passenger kilometres¹⁸ grew at virtually the same pace (+6.2 %). In 2008, the ailing global economy caused significantly lower growth in terms of passenger numbers as well as passenger kilometres; both recorded negative growth the year after (at -0.4 % and -1.1 % respectively). By 2010, growth again exceeded 8 % and continued its upward trajectory in the years thereafter. Despite subdued economic growth and persistently high fuel costs, 2013 again recorded expansion, particularly in the emerging regions.

Chart 2 shows the development of world air cargo traffic, which is more closely aligned with movements in the global economy and is typically more volatile. The fall in the number of freight tonne-kilometres¹⁹ in 2008 (-1.0 %) and particularly in 2009 (-8.9 %) was followed by a surge in 2010 (+19.8 %) and a virtual standstill in 2011 (+0.3 %) and 2012 (-1.1 %). 2013 saw very slight growth (+0.4 %), mainly in the Middle East. The International Civil Aviation Organization (ICAO)²⁰ projects annual growth percentages at between 3.5 % and 4.5 % for the 2014-2015 period. Despite these mixed results, tonnes transported in the 2003-2013 period rose by an average 4.1 % per annum while freight tonne-kilometres added 3.2 % on average.

A persistent problem in the sector has been the steep fuel costs mentioned earlier – the biggest expense for many airlines. Having reached their lowest point in February 2009 at \$ 1.26 per gallon²¹, fuel costs then embarked on a steep climb in line with Brent crude oil prices to touch \$ 3.27 per gallon in April 2011 (a 2.6 times increase) and have since moved between this all-time high and \$ 2.68 per gallon.

¹⁸ Passenger kilometres are widely used as a unit of measurement for traffic volumes. They are calculated by taking the distance of the flight multiplied by the number of passengers on board. For example, 250 passengers flying a distance of 1,000 kilometres give a total of 250,000 passenger kilometres.

¹⁹ Freight tonne kilometres are similar to passenger kilometres (see footnote 18).

²⁰ The ICAO is a specialised United Nations agency that works with the signatory states and global industry and aviation organisations to develop international standards and recommended practices.

²¹ Sources: IATA; Index Mundi (US Gulf Coast kerosene, type jet fuel spot price FOB).

It is worth mentioning two more developments in European air traffic whose impacts reach beyond the region. The European Commission agreed to implement a carbon tax on all airplanes to and from European airports under the Emissions Trading System²², to take effect on 1 January 2012. The decision was heavily criticised by the International Air Transport Association (IATA) and countries such as the United States, Russia, India and China, which refused to pay. In November 2012, the Commission decided to postpone implementation of the tax on flights to and from Europe for a year, and in October 2013 it announced that it would work with the International Civil Aviation Organization to seek worldwide agreement on this issue. In April 2014, it decided that such an agreement would have to be in place by the end of 2016; the carbon tax will be restricted to intra-European traffic until that date.

Meanwhile, the European Commission is also seeking to harmonise air traffic control within the European Union (the SES2+ Regulation) and so resolve, or at least greatly reduce, the fragmented nature of Europe's airspace. The Commission argues that the many different control centres cause inefficiencies and push up costs. It is also looking to separate air traffic control centres from their regulators, and to spin off support services such as meteorology and leave them to market forces. Discussions are still ongoing and have sparked social unrest among air traffic controllers in various Member States.

TABLE 1 TOP 20 EUROPEAN PASSENGER AIRPORTS IN 2013
(in million passengers)

Rank	Airport	Number of passengers
1	London Heathrow	72.3
2	Paris Charles de Gaulle	62.1
3	Frankfurt	58.0
4	Amsterdam	52.6
5	Madrid	39.7
6	Munich	38.7
7	Rome Fiumicino (Leonardo da Vinci)	36.2
8	London Gatwick	35.5
9	Barcelona	35.2
10	Paris Orly.....	28.3
11	Zurich	24.9
12	Copenhagen.....	24.1
13	Oslo	23.0
14	Palma de Mallorca	22.8
15	Vienna	22.0
16	Düsseldorf	21.2
17	Manchester.....	20.7
18	Stockholm Arlanda	20.7
19	Dublin	20.2
20	Berlin Tegel	19.6
21	Brussels	19.1

Source: Anna Areo.

Passenger air traffic growth was also reflected in numbers at Europe's airports: in 2013, its top 20 recorded 12.2 % more passenger traffic than in 2009. The airports in first and second place in 2009²³ were unchallenged, but recorded lower growth: London Heathrow (+9.8 %) and Paris Charles de Gaulle (+7.2 %). Frankfurt remains in third place (+13.9 %), but Amsterdam hopped over Madrid to claim fourth position (+20.7 %). The top 10 in 2013 features the same airports as in

²² Source: European Commission.

²³ See Deville and Vennix (2011).

2009, although a few have switched places. With a 12.6 % increase, Brussels closely tracked the general upturn but has not quite made it to the top 20; new entrants include Stockholm Arlanda and Berlin Tegel, which recorded 28.7 % and 38.2 % more passengers. Other steep growth figures were notched up by Scandinavian capitals Oslo (+26.9 %) and Copenhagen (+22.1 %), while Barcelona also stood out (+28.9 %) ²⁴. The latter's achievement is especially notable as Madrid recorded a 17.7 % decline in the period under review. The Spanish capital's airport had grown right up until 2010, held virtually steady in 2011 and saw passenger numbers fall by 4.5 million in 2012. In that same year, Barcelona still edged up but Spanish airports overall lost 10.1 million passengers. This trend continued into 2013: 6.9 million fewer passengers used Spain's airports, with Madrid losing 5.5 million. Missing from 2009's top 20 were Milan Malpensa (22 in 2013) and London Stansted Airport, which primarily relied on leisure travel and was hit hard by the economic crisis (a loss of 6.3 million passengers between 2007 and 2012 to a mere 17.5 million, following by a slight recovery in 2013).

TABLE 2 TOP 20 EUROPEAN CARGO AIRPORTS IN 2013
(in thousands of metric tonnes)

Rank	Airport	Tonnage
1	Frankfurt	2,048.7
2	Paris Charles de Gaulle.....	1,875.6
3	Amsterdam	1,531.1
4	London Heathrow.....	1,420.0
5	Leipzig	887.1
6	Cologne Bonn	739.6
7	Luxembourg	673.5
8	Liège	561.0
9	Brussels	429.9
10	Milan Malpensa	421.3
11	Copenhagen.....	361.0
12	Madrid	345.8
13	Zurich.....	292.9
14	Munich	284.5
15	East Midlands	267.8
16	Vienna	256.2
17	London Stansted	212.0
18	Helsinki	190.2
19	Frankfurt-Hahn	152.5
20	Rome Leonardo Da Vinci-Fiumicino	135.1

Source: Airport operators and authorities.

There were also few changes in 2013's top 20 European cargo airports when compared with 2009²⁵, although first place was reclaimed by Frankfurt at the expense of Paris Charles de Gaulle. The first four, which also include Amsterdam and London Heathrow, continue to dominate: accounting for 53 % of the entire top 20, they added 12.6 % to their 2009 showing. Luxembourg continues to be important as the home to global network carrier Cargolux. Liège and Brussels are still among the first ten, but Liège Airport has slowed after its robust growth performance in 2010 and 2011 while Brussels is trading water during last years. The biggest progress was recorded by German airports Leipzig (+69.3 %) and Cologne-Bonn (+32.2 %), which serve as hubs for courier services DHL (Leipzig), and FedEx and UPS (Cologne-Bonn).

²⁴ Barcelona El Prat Airport is Vueling's home airport and one of Ryanair's bases.

²⁵ See Deville and Vennix (2011).

1 ECONOMIC IMPORTANCE OF BELGIAN AIR TRANSPORT AND AIRPORT ACTIVITIES AS A WHOLE

1.1 PASSENGER AND FREIGHT TRAFFIC

1.1.1 Presenting Belgium's airports

Belgium has six commercial airports (official names in brackets). Brussels (Brussels Airport) is the country's national airport. It is run by Brussels Airport Company, a limited company (NV) under Belgian law, of which the Belgian State owns 25 %; the remainder of the shares are held by a consortium of private investors (since 2011, this has comprised Canada's Ontario Teachers Pension Plan Board and two infrastructure funds of the Australian Macquarie Group).

Belgium also has five regional airports. Charleroi (BSCA or Brussels South Charleroi Airport) and Liège (Liège Airport) are situated in the Walloon Region and are both operated by public limited companies. BSCA is 71.7 %-owned by the Walloon government (Walloon Region, Walloon Airports Company Sowaer and a few associations of municipalities). The remaining part of the shares are held by Belgian Airport, a consortium consisting of Holding Communal and the Italian airport operator SAVE. Belgian Airport is looking to increase its stake to 48.3 %. As for Liège Airport, both Sowaer and French operator Aéroports de Paris hold 25 %, with the remainder owned by TEB Participations, half of which is in turn owned by intermunicipal Publifin. The Walloon government has charged Société Wallonne des Aéroports (Sowaer) with managing, developing and financing the airports in its territory. Sowaer enjoys a concession agreement on the airport areas of Charleroi and Liège and owns all the infrastructure, which it puts at the disposal of both airport operators in return for a fee.

In the Flemish Region, Antwerp (Antwerp Airport) and Ostend (International Airport Ostend-Bruges) were, until recently, independent entities within the Flemish Department of Mobility and Public Works. In the summer of 2013, the government reached an agreement with France's Egis on the operation of both airports. The Flemish government will remain responsible for both airports' infrastructure. Lastly, Kortrijk (International Airport Kortrijk-Wevelgem) is owned by the Province of West Flanders and the Leie valley municipalities (Leiedal), and is run by the West Flanders Intermunicipal Airport of Wevelgem-Bissegem, in which the above province and Leiedal participate, along with 13 other municipalities in the Region. Here, too, a new limited company to operate the airport will be created going forward.

1.1.2 Recent developments

In 2013, a total 26.7 million passengers travelled through one of the six Belgian airports. Air passenger traffic in Belgium grew by +52 % between 2003 and 2013, failing to keep up with worldwide air passenger traffic growth of +75 % in the same period. The overall trend is similar, though: a downturn in 2009 in the wake of the economic crisis, followed by a robust recovery in subsequent years. Growth was not equally distributed: largest airport Brussels saw passenger numbers rise to 19.1 million in 2013 (+25.9 % since 2003), still below its all-time high in 2001 – after which it slumped in the wake of the Twin Towers attack in New York and, more importantly, domestic carrier Sabena going bankrupt. Brussels Airport also has a relatively low share of transfer passengers compared to neighbouring international airports. That said, 2014 got off to an encouraging start, with first-half growth at +11.8 % on the year-earlier period²⁶.

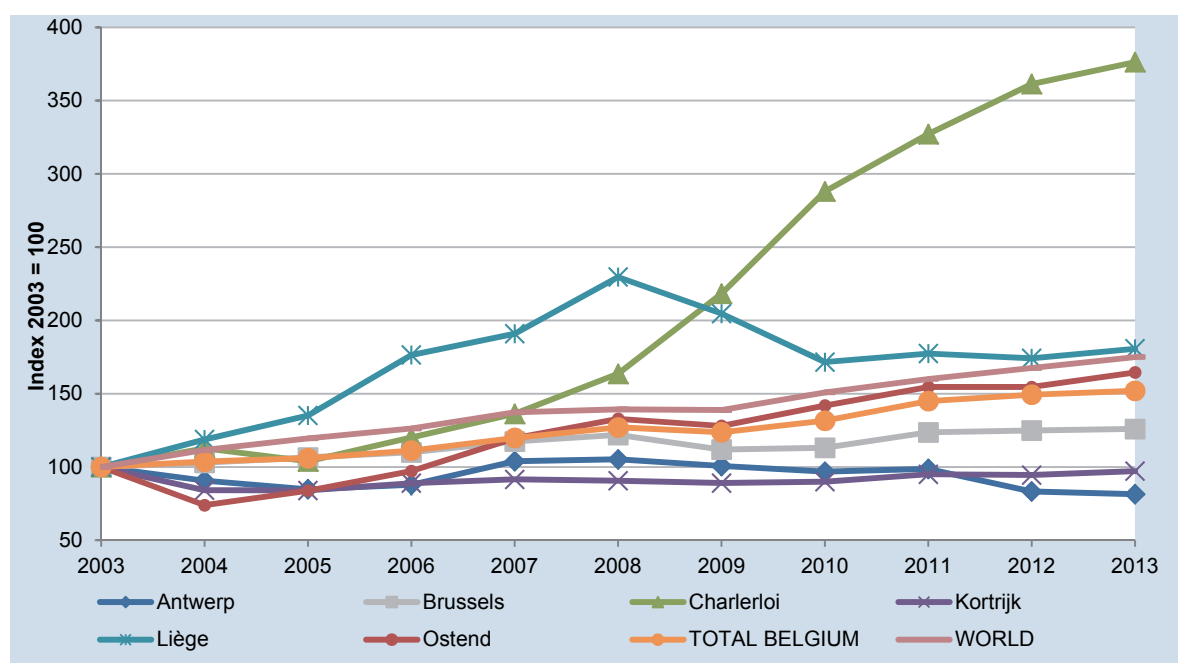
²⁶ Ryanair started flying from Brussels in the spring of 2014 and other carriers also expanded their destination list (see Section 2.2.2.1).

TABLE 3 PASSENGER TRAFFIC VIA BELGIAN AIRPORTS FROM 2003 TO 2013

(x 1000 pax)	2003	2007	2008	2009	2010	2011	2012	2013	Change from 2012 to 2013 (in %)	Annual average growth (in %)
Antwerp.....	168	175	177	169	163	166	140	137	-2.2	-2.0
Brussels.....	15,194	17,839	18,516	16,999	17,181	18,786	18,971	19,133	+0.9	+2.3
Charleroi.....	1,804	2,458	2,950	3,937	5,195	5,901	6,516	6,787	+4.2	+14.2
Kortrijk.....	73	67	66	65	66	70	69	71	+2.8	-0.3
Liège.....	174	333	400	357	299	309	303	315	+3.8	+6.1
Ostend.....	151	180	200	193	214	233	233	248	+6.5	+5.1
TOTAL.....	17,564	21,052	22,310	21,720	23,118	25,465	26,233	26,691	+1.7	+4.3

See Annex 2 for full time range 2003 – 2013.

Source: Airport operators; Economic Survey Department Flemish Government.

CHART 3 PASSENGER TRAFFIC VIA BELGIAN AIRPORTS FROM 2003 TO 2013

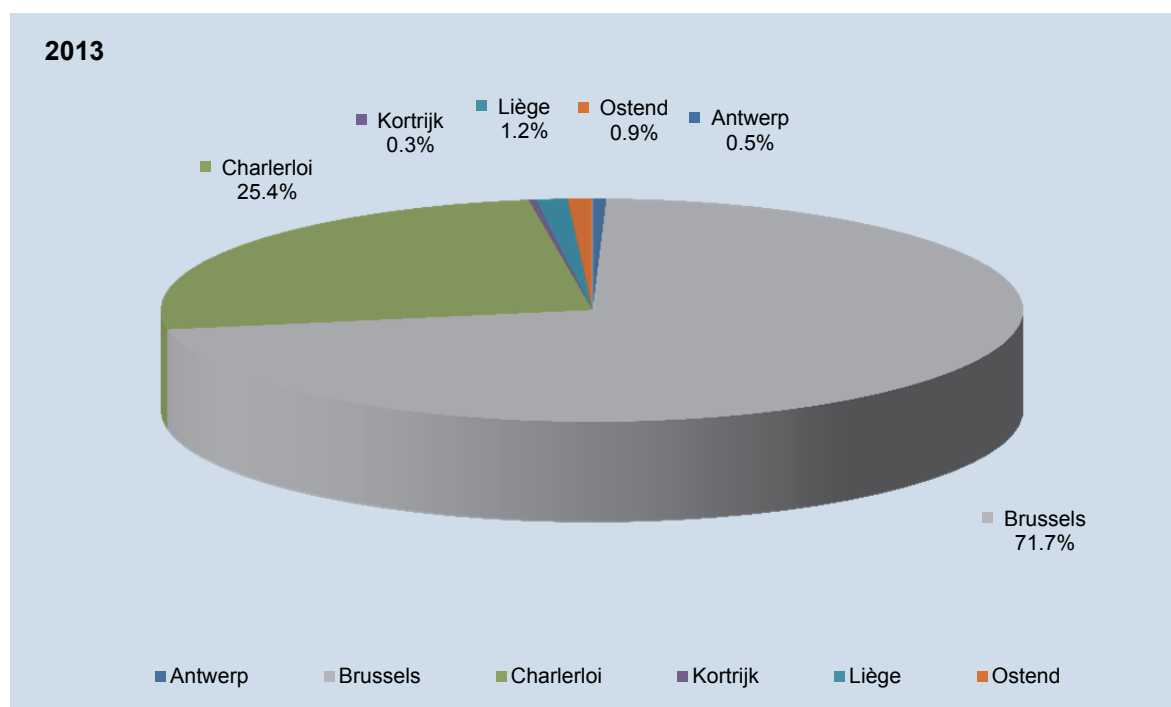
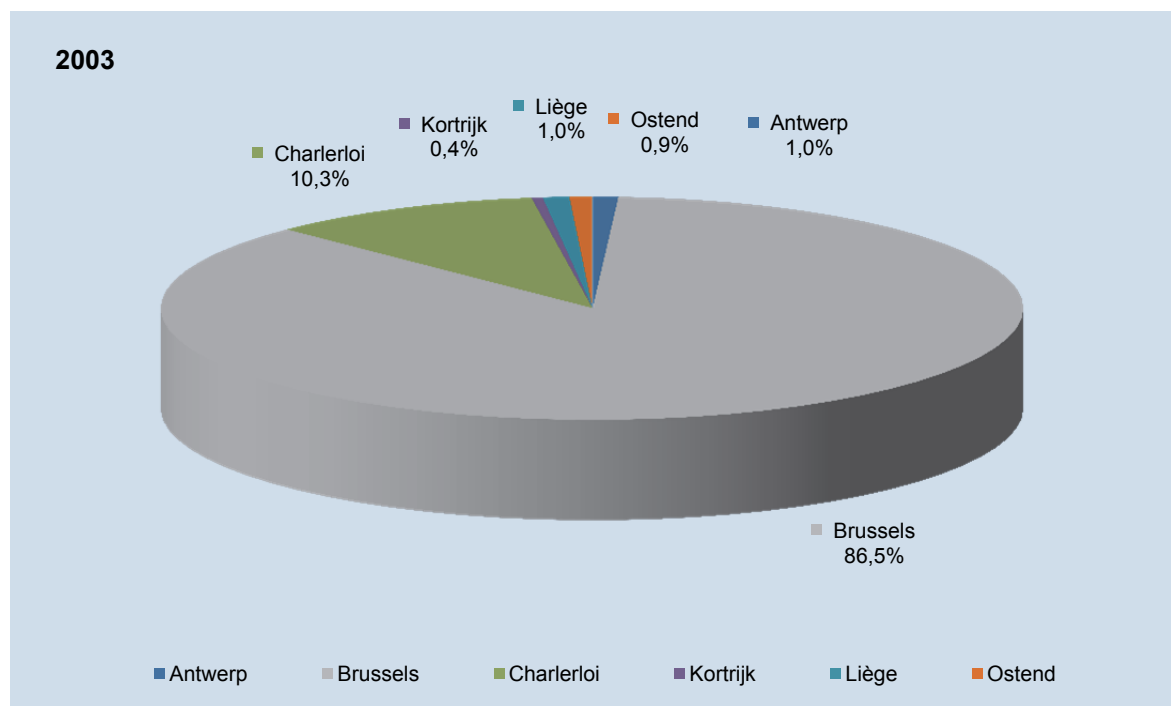
Source: Airport operators; Economic Survey Department Flemish Government; ICAO.

Charleroi Airport has been on a remarkable journey. The regional airport, which scraped by on a mere 255,000 passengers in 2000, has seen its passenger numbers nearly quadruple in the past decade, to 6.8 million, putting it on a par with airports such as Glasgow and Berlin Schönefeld. Its surging numbers are due to Ryanair, the Irish low-cost carrier, which created its first base on the Continent in 2001 at Charleroi and which accounted for 5.6 million passengers at the airport in 2013 – 83 % of the total. Charleroi Airport has since focused unequivocally on the low-cost end and attracted similar players, such as Wizz Air. There is a downside to its heavy reliance on a single carrier, though: in November 2013, Ryanair announced it would also fly from Brussels Airport in the future – which it started doing in February 2014 – and so run fewer flights from Charleroi. The airport authorities expect to report a loss of nearly 600,000 passengers in 2014.

Passenger traffic to the other Belgian airports is modest. Liège has held steady at around 300,000 passengers for years, Ostend has between 200,000 and 250,000. Both are targeting holiday

destinations in Mediterranean countries, with such carriers as Jetairfly²⁷ and Thomas Cook Airlines. In April 2014, Liège added a new destination: Air Corsica, serving the island of that name.

CHART 4 SHARE OF BELGIAN AIRPORTS IN TERMS OF PASSENGER TRAFFIC IN 2003 AND 2013



Source: Airport operators; Economic Survey Department Flemish Government.

²⁷ Jetairfly is the commercial name of TUI Airlines.

Antwerp has been stuck where it is for a decade. Its nearly 140,000 passengers are explained by the airport having only one fixed route – to London City Airport, operated by CityJet (previously VLM Airlines). In October 2012, bmi regional took over a flight connection with Manchester from CityJet, but this was discontinued a year later. In July 2014, Flybe started a daily service to London Southend. Lastly, Kortrijk, the smallest airport of the Belgian six, largely accommodates business and training flights.

All these changes add up to a rather significant shift in the relative shares of the airports in the Belgian total (Chart 4). In 2003, Brussels still accounted for 86.5 % of this total but its share of the market had contracted to 71.7 % a decade later. Charleroi, by contrast, saw its share grow from 10.3 % to nearly one-quarter (25.4 %) over the same period. Remarkably, the two airports retained an overall market share of at least 97 % between them. The other four regional airports' share in passenger traffic is negligible.

Cargo traffic to and from Belgium's airports shows a completely different picture. Unlike global cargo traffic (+49 % between 2003 and 2013), this segment has held mostly steady at over 1 million tonnes in total, with the exception of a rise in the 2006-2008 period. This overview hides a multitude of fundamental differences, though. Until 2008, Brussels National Airport was also the country's biggest cargo airport, but Liège Airport has since taken first position. In 2009, both airports suffered losses in the wake of the economic crisis, but Brussels was hit particularly hard by DHL moving its intercontinental hub to Leipzig in Germany (although it retained a regional hub in Brussels). After recovering slightly in 2010 and 2011, traffic fell back again in the years that followed, with the full freighters bearing the brunt of the weak economic conditions. By contrast, integrator traffic²⁸ – DHL in particular – recorded strong growth. For the first half of 2014, Brussels reported a fresh upturn in cargo traffic of 6.0 %.

TABLE 4 CARGO TRAFFIC VIA BELGIAN AIRPORTS FROM 2003 TO 2013

(x 1000 tonnes)	2003	2007	2008	2009	2010	2011	2012	2013	Change from 2012 to 2013 (in %)	Annual average growth (in %)
Antwerp.....	4.9	5.3	5.6	4.6	4.2	4.2	4.3	3.6	-16.7	-3.1
Brussels.....	603.7	783.7	661.1	449.1	476.1	475.1	459.3	429.9	-6.4	-3.3
Charleroi.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Kortrijk.....	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Liège.....	374.6	489.9	518.8	482.1	639.4	674.5	576.7	561.0	-2.7	+4.1
Ostend.....	78.1	109.0	82.9	74.1	64.0	57.4	53.2	46.5	-12.6	-5.1
TOTAL.....	1,061.4	1,388.9	1,268.3	1,010.0	1,183.8	1,211.2	1,093.4	1,041.0	-4.8	-0.2

See Annex 2 for full time range 2003 – 2013.

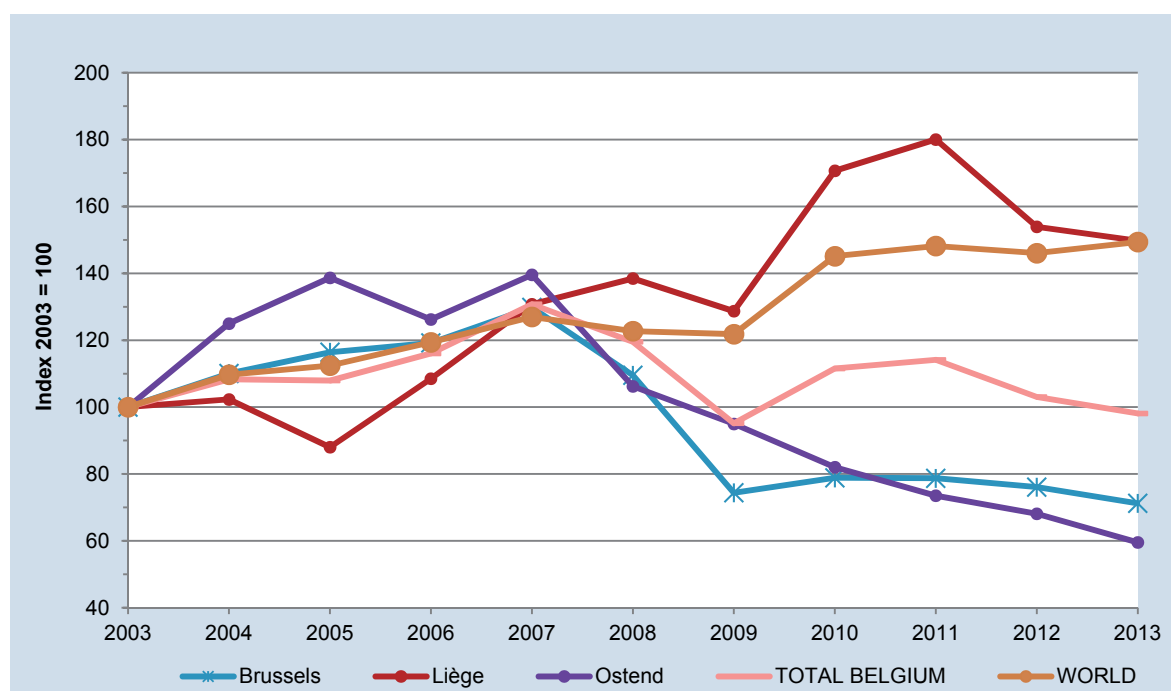
Source: Airport operators; Economic Survey Department Flemish Government.

Over the past few years, Liège Airport has successfully presented itself as a cargo airport, increasing the tonnage it handles from 374,000 in 2003 to a record 674,000 in 2011, after which its cargo traffic succumbed to the overall downturn. Liège is the European hub for courier service TNT Express Worldwide, whose affiliated TNT Airways airline owns some 40 aircraft used for cargo and charter flights. A number of other carriers, such as El Al Airlines, Ethiopian Airlines and Qatar Airways, have recently joined Liège's cargo traffic.

²⁸ Freight integrators are transport service providers that arrange full load, door-to-door transport by selecting and combining the most sustainable and efficient mode(s) of transport.

Liège and Brussels rank 8th and 9th in the European league table of cargo airports²⁹, while the other Belgian airports – Ostend excepted – are totally insignificant in terms of cargo traffic. Ostend had a good run up until 2007, when it handled 109,000 tonnes, but slumped to less than half of this by 2013. Ostend is mainly active in the freighter-only market³⁰, which has been losing market share across the world, and typically flies to destinations in Africa that often fail to produce return cargoes. The airport was recently hit by ANA Airways' relocation to Liège Airport, and its cargo traffic fell by another third in the first half of 2014. Cargo volumes are negligible at Antwerp and do not feature at all for Charleroi and Kortrijk.

CHART 5 CARGO TRAFFIC VIA BELGIAN AIRPORTS FROM 2003 TO 2013



Source: Airport operators; Economic Survey Department Flemish Government; ICAO.

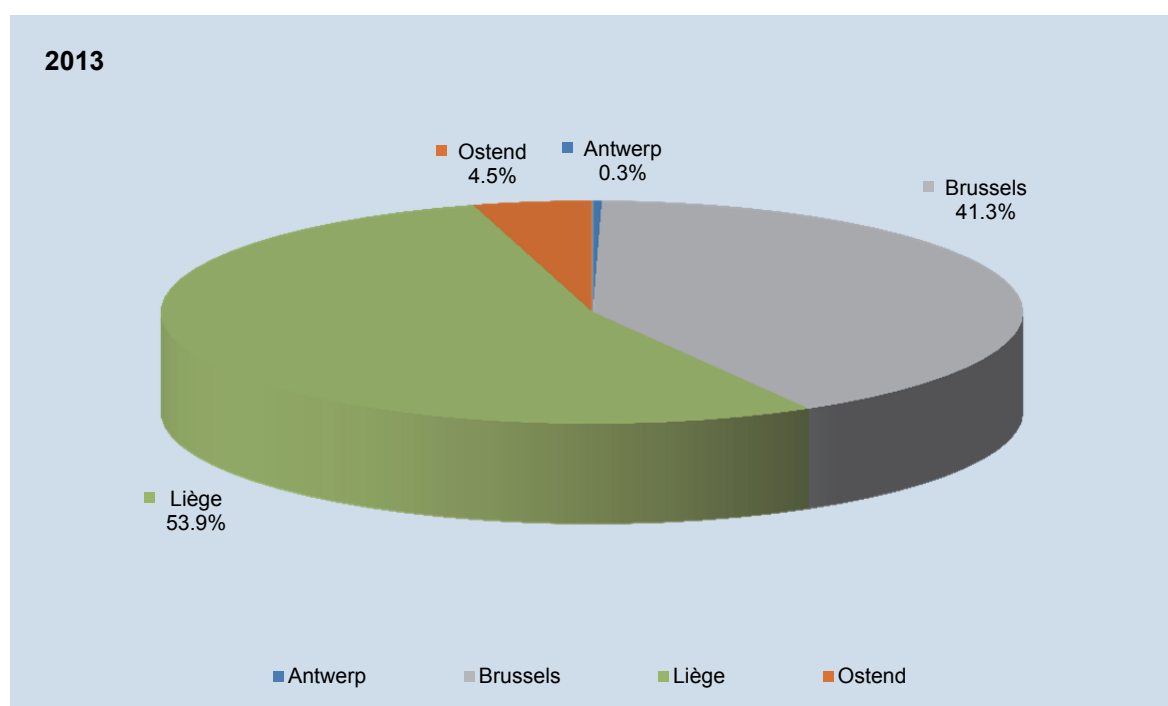
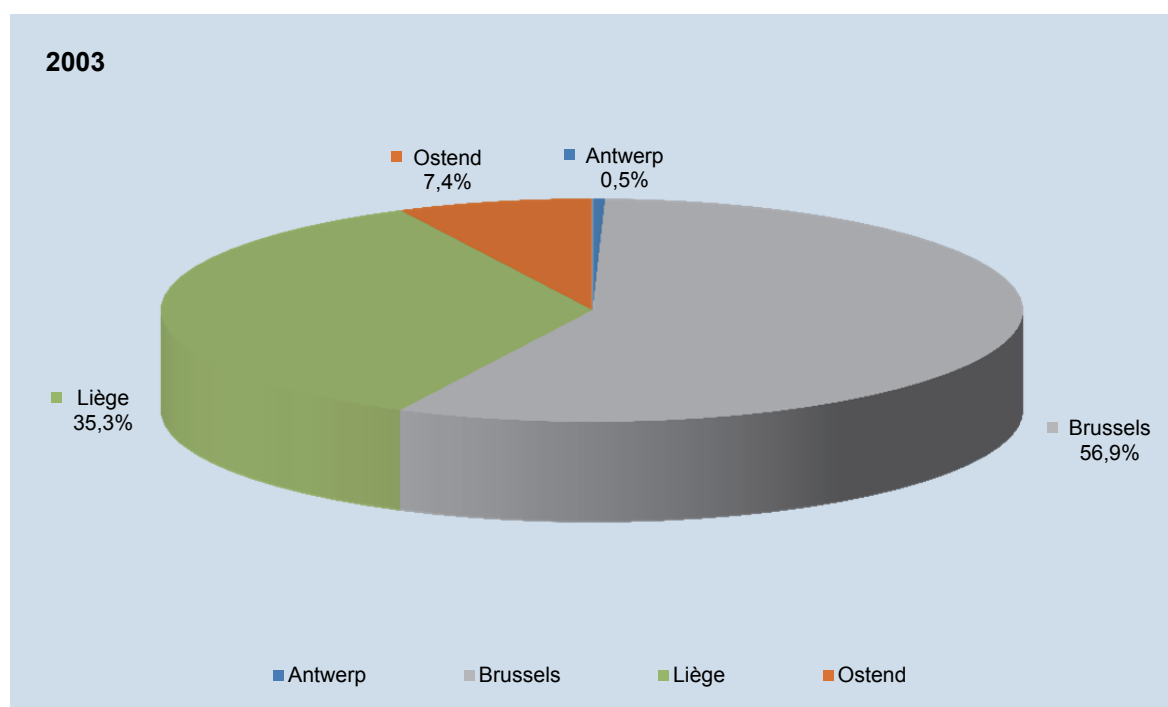
These developments have propelled Liège Airport to a share of over half of the Belgian air cargo market, from 35.3 % in 2003 to 53.9 % in 2013 – overtaking Brussels Airport, which went down from 56.9 % to 41.3 % in the same period. Ostend accounted for 4.5 % of the total in 2013 (Chart 6).

Without going into much detail as the subject is outside our scope, no study of Belgian air traffic would be complete without at least touching on the issue of noise and night flights. Noise complaints have frequently sparked changes to approach routes at Brussels Airport. Conflicting federal and regional rules and fines for noisy aircraft have rubbed many foreign carriers the wrong way, and some say they may leave the country altogether. Competition between airports only makes things more complicated, and the issue looks likely to burden air traffic in Belgium for a long time to come.

²⁹ See Table 2.

³⁰ As suggested by their name, freighter-only providers transport solely cargo and are different from integrated carriers (see footnote 28). In addition, a large proportion of freight takes the shape of belly cargo using the spare volume in passenger aircraft baggage hold.

CHART 6 SHARE OF BELGIAN AIRPORTS IN TERMS OF CARGO TRAFFIC IN 2003 AND 2013



Source: Airport operators; Economic Survey Department Flemish Government

1.2 VALUE ADDED

Before reviewing the results, it is worth briefly considering the issue of subsidies to airports, as these have an impact on the determination of the value added. For many years now, lots of European airports have been receiving government subsidies to help cover their operating losses; subsidies that also allow them to grant special deals – e.g. discounts on landing fees, favourable handling fees – to individual carriers. Early in 2014, the European Commission clearly delineated and tightened the rules on subsidies³¹. Operating aid will still be permitted during a transitional period of ten years, provided passenger volumes at the relevant airport do not exceed 3 million yearly and that it draws up a business plan to address its operating losses before the decade is out. State aid towards investment in airport infrastructure is permitted for airports that handle no more than 5 million passengers per year, if this promotes the mobility of citizens and the connectivity of the region. State aid granted to airlines for launching a new route is considered acceptable if it is time-restricted, and again applies only to airports serving fewer than 5 million passengers a year. In its Decision of 2004 – well before these new and stricter conditions came into play – the European Commission ruled that the deal that Walloon Region and Brussels South Charleroi Airport (BSCA) had struck with Ryanair in 2001, specifically reduced landing and ground-handling fees, were incompatible with the Common Market. This Decision was annulled in 2008, upon which the Commission launched new proceedings, which are still ongoing³².

As we observed in our introduction on methodology, operating subsidies granted to airport operators have historically been included in value added. In the period under review, the airports of Charleroi and Liège received an average € 30.6 million and € 26.2 million a year. Also Antwerp and Ostend, still operated as an independent agency of the Flemish government when we wrapped up the period under review, received operating grants from that government of € 2.6 million and € 5.5 million respectively in 2012.

Lastly, we note that in December 2013 the Belgian federal government decided to provide € 19.7 million in aid to Belgian airlines with passenger volumes of at least 400,000 in the 2012 baseline year. The aid will be given annually for the years 2013, 2014 and 2015 and serves as a discount on safety and fire-fighting services provided by Brussels Airport. The airlines concerned are Brussels Airlines, Jetairfly and Thomas Cook Airlines, and this aid very recently also came under scrutiny from the European Commission.

Table 5 presents the direct and indirect value added created by the air transport cluster and airport activities in Belgium. It is divided into two categories: one comprising activities linked to air transport outside the airports, and the other comprising all business conducted within the airports. The second category encompasses activities relating to air transport and other activities relating to airports. It is important to mention that the distinction between activities inside and outside airports is based on the breakdown of employment between the operating establishments of companies³³. The breakdown of value added between inside and outside airports is therefore an estimate which has to be interpreted with caution, in the same way as value added in the cluster comprising other airport-related activities.

³¹ Official Journal of the European Union, C 99, 4 April 2014.

³² The decision came in just as this study went to press: BSCA will have to return € 6 million in government aid to the Walloon Region and will have to pay charges for the use of airport infrastructure more in line with the market going forward.

³³ A formula based on the number of employees was applied to companies operating both inside and outside airports and/or operating at various airports. This information was derived from the airport authorities or the companies themselves wherever possible, or else collected from social security databases.

TABLE 5 AIR TRANSPORT CLUSTER AND AIRPORT ACTIVITIES: VALUE ADDED FROM 2009 TO 2012
(in € million – current prices)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	2,594.5	2,544.1	2,685.6	2,852.0	100.0	+6.2	+9.9	+3.2
Air transport cluster outside airports	703.2	710.3	777.4	901.7	31.6	+16.0	+28.2	+8.6
Air transport	33.8	22.3	41.9	41.9	1.5	-0.2	+23.8	+7.4
Travel agencies and tour operators.....	302.1	311.0	314.0	308.9	10.8	-1.6	+2.3	+0.8
Building and repairing of aircraft.....	335.7	348.4	379.7	516.8	18.1	+36.1	+53.9	+15.5
Other air transport supporting activities.....	31.6	28.6	41.8	34.1	1.2	-18.3	+8.2	+2.6
Inside airports	1,891.3	1,833.8	1,908.3	1,950.2	68.4	+2.2	+3.1	+1.0
<i>Air transport cluster.....</i>	<i>1,119.2</i>	<i>1,130.7</i>	<i>1,157.8</i>	<i>1,206.7</i>	<i>42.3</i>	<i>+4.2</i>	<i>+7.8</i>	<i>+2.5</i>
Air transport	387.6	395.7	368.3	426.8	15.0	+15.9	+10.1	+3.3
Travel agencies and tour operators.....	2.3	2.1	2.2	1.8	0.1	-17.3	-21.6	-7.8
Airport operator.....	313.5	328.3	370.8	388.5	13.6	+4.8	+23.9	+7.4
Airport handling.....	147.5	152.2	149.9	142.9	5.0	-4.7	-3.1	-1.0
Building and repairing of aircraft.....	98.3	95.0	99.1	72.0	2.5	-27.3	-26.7	-9.8
Other air transport supporting activities.....	170.1	157.4	167.5	174.6	6.1	+4.3	+2.7	+0.9
<i>Other airport-related activities..</i>	<i>772.1</i>	<i>703.1</i>	<i>750.5</i>	<i>743.5</i>	<i>26.1</i>	<i>-0.9</i>	<i>-3.7</i>	<i>-1.2</i>
Passenger transport over land	14.3	15.6	15.5	15.3	0.5	-1.2	+6.7	+2.2
Freight transport over land.....	15.6	13.9	14.4	14.9	0.5	+3.3	-4.8	-1.6
Cargo handling and storage	133.0	135.1	147.2	140.2	4.9	-4.8	+5.4	+1.8
Courier and post activities	273.9	191.8	204.2	199.3	7.0	-2.4	-27.2	-10.1
Security and industrial cleaning	64.9	62.3	61.9	63.6	2.2	+2.8	-2.0	-0.7
Trade	42.2	53.3	59.4	57.1	2.0	-3.8	+35.4	+10.6
Hotels, restaurants and catering	66.8	68.1	68.6	63.7	2.2	-7.2	-4.7	-1.6
Other services.....	33.3	36.4	49.9	54.8	1.9	+9.7	+64.7	+18.1
Other industries	12.7	11.7	13.2	14.8	0.5	+12.1	+15.8	+5.0
Public services.....	115.3	114.8	116.2	119.9	4.2	+3.2	+4.0	+1.3
2. INDIRECT EFFECTS*	2,484.6	2,559.4	2,750.9	2,746.8	-	-0.1	+10.6	+3.4
Air transport cluster outside airports.....	765.8	774.4	866.2	852.5	-	-1.6	+11.3	+3.6
Inside airports	1,882.0	1,950.2	2,054.2	2,075.9	-	+1.1	+10.3	+3.3
TOTAL.....	5,079.2	5,103.5	5,436.5	5,598.7	-	+3.0	+10.2	+3.3

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

* The indirect effects calculated at an aggregate level are less than the sum of the indirect effects calculated separately owing to the economic links between the aggregated elements already counted in the direct effects and therefore excluded from the indirect effects. In other words, the addition of the indirect effects calculated individually for each element contains double counting which is corrected when the indirect effects are calculated directly at aggregate level.

In 2012, the sector's direct value added totalled over € 2.8 billion, which, ignoring a minor dip in 2010, works out at a solid growth of 9.9 % since the start of the period under review in 2009, i.e. average annual growth of 3.2 %. The increase mirrors the larger economic trend in Belgium, as expressed in current prices³⁴. The air transport cluster 'outside airports' is growing faster than 'inside airports' and has seen its relative share go up to 31.6 % from 27.1 %. Building and repairing of aircraft was a key contributor: its value added jumped 36.1 % in 2012, largely because of higher operating results at Techspace Aero. Together with Sonaca, Sabca and Asco Industries, Techspace Aero constitutes a core of construction companies that make this the largest sector in terms of value added (a total € 588.8 million for 'inside' and 'outside' combined)³⁵.

At a total of € 468.7 million, air transport is the second biggest sector and contributes 16.5 % of the total value added. This sector held steady in the period under review, despite the disappearance after 2009 of European Air Transport. EAT had handled the transport needs of courier DHL, which moved its main hub to Leipzig in Germany. EAT reappeared as European Air Transport Leipzig GmbH, but with a sharply reduced workforce and value added. Carriers such as TNT Airways and TUI Airlines more than made up for the loss.

Third place, with value added of € 388.5 million, goes to the six airport operators. At 79 %, Brussels Airport Company accounts for the bulk, while also claiming first place in the ranking of individual companies (see Table 6). Back to sector level, travel agencies and tour operators³⁶ come next, recording € 310.7 million, although 99 % of their activities take place outside the airports. Courier and post activities contribute 7.0 %, with value added of € 199.3 million. The sector's slump in 2010 ties in with the departure of DHL (reduced workforce and loss of operating earnings).

Two airport operators have made it to the top 20 largest companies in air transport and airport activities: Brussels Airport Company and Brussels South Charleroi Airport, with the former claiming first place. Also in the top 5 are two companies specialising in building and repairing of aircraft, Techspace Aero and Sonaca, and air traffic control company Belgocontrol. Air transport companies claim places five to seven: Brussels Airlines, TNT Airways and TUI Airlines Belgium. And the top 10 is completed by another aircraft parts manufacturer (Asco Industries), a courier (TNT Express Worldwide) and a tour operator (Jetair). Baggage handler Swissport Belgium falls just outside the top 10 and ends up in 11th position. The 20 largest companies together account for no less than 64.3 % of the total value added in air transport and airport activities.

In 2012, indirect value added³⁷ came to over € 2.7 billion, taking the total value added (direct and indirect) generated by air transport and airport activities to € 5.6 billion, some € 500 million more than in 2009 and accounting for 1.5 % of national GDP³⁸.

³⁴ Source: Belgostat.

³⁵ For companies in the aerospace sector, the figures only take account of the part of their activities relating to air transport. The same goes for the activities of travel agencies and tour operators.

³⁶ See footnote 33.

³⁷ As mentioned in the methodological section, the indirect effects are an estimate that should be interpreted with caution.

³⁸ Source: Belgostat.

TABLE 6 AIR TRANSPORT CLUSTER AND AIRPORT ACTIVITIES: DIRECT VALUE ADDED TOP 20 IN 2012

	Name of company or organisation	Sector	Recorded in airports
1	Brussels Airport Company	Airport operator	BRU
2	Techspace Aero	Building and repairing of aircraft	no
3	Belgocontrol	Other air transport supporting activities	ANT-BRU-CHA-LIE-OST
4	Société Nationale de Construction Aérospatiale (Sonaca)	Building and repairing of aircraft	no
5	Brussels Airlines	Air transport	BRU
6	TNT Airways	Air transport	LIE
7	TUI Airlines Belgium	Air transport	BRU-CHA-LIE-OST
8	ASCO Industries	Building and repairing of aircraft	no
9	TNT Express Worldwide (Euro Hub)	Courier and post activities	LIE
10	Jetair	Travel agencies and tour operators	no
11	Swissport Belgium	Airport handling	BRU-LIE-OST
12	Société anonyme belge de Constructions aéronautiques (Sabca)	Building and repairing of aircraft	CHA
13	DHL Aviation	Courier and post activities	BRU
14	Belgian Air Force	Public services	BRU
15	Brussels South Charleroi Airport	Airport operator	CHA
16	AviaPartner Belgium	Airport handling	BRU
17	Thomas Cook Airlines Belgium	Air transport	BRU
18	Federal Police*	Public services	All six airports
19	Belgian Sky Shops	Trade	BRU-CHA
20	Thomas Cook Retail Belgium	Travel agencies and tour operators	BRU
	TOTAL (€ million)		1,833.6
	Share in total		64.3%

Source: NBB (Central Balance Sheet Office, own calculations).

* Includes Customs in Kortrijk Airport.

1.3 EMPLOYMENT

TABLE 7 AIR TRANSPORT CLUSTER AND AIRPORT ACTIVITIES: EMPLOYMENT FROM 2009 TO 2012 (in FTEs)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	32,325	31,752	31,952	32,134	100.0	+0.6	-0.6	-0.2
Air transport cluster outside airports	9,273	9,005	9,143	9,198	28.6	+0.6	-0.8	-0.3
Air transport	300	327	357	342	1.1	-4.1	+14.2	+4.5
Travel agencies and tour operators	4,497	4,314	4,332	4,214	13.1	-2.7	-6.3	-2.1
Building and repairing of aircraft	4,238	4,126	4,216	4,431	13.8	+5.1	+4.6	+1.5
Other air transport supporting activities	239	238	237	210	0.7	-11.4	-11.8	-4.1
Inside airports	23,052	22,747	22,809	22,936	71.4	+0.6	-0.5	-0.2
<i>Air transport cluster.....</i>	<i>11,851</i>	<i>11,681</i>	<i>11,733</i>	<i>11,591</i>	<i>36.1</i>	<i>-1.2</i>	<i>-2.2</i>	<i>-0.7</i>
Air transport	4,713	4,554	4,622	4,692	14.6	+1.5	-0.4	-0.1
Travel agencies and tour operators	35	34	33	34	0.1	+3.9	-2.8	-1.0
Airport operator	1,469	1,490	1,533	1,541	4.8	+0.6	+5.0	+1.6
Airport handling	2,605	2,662	2,767	2,697	8.4	-2.5	+3.5	+1.2
Building and repairing of aircraft	1,765	1,687	1,561	1,416	4.4	-9.3	-19.7	-7.1
Other air transport supporting activities	1,265	1,254	1,217	1,210	3.8	-0.6	-4.4	-1.5
<i>Other airport-related activities..</i>	<i>11,201</i>	<i>11,066</i>	<i>11,076</i>	<i>11,345</i>	<i>35.3</i>	<i>+2.4</i>	<i>+1.3</i>	<i>+0.4</i>
Passenger transport over land	301	317	314	308	1.0	-1.9	+2.3	+0.8
Freight transport over land	264	227	212	215	0.7	+1.7	-18.5	-6.6
Cargo handling and storage	1,828	1,735	1,786	1,943	6.0	+8.8	+6.3	+2.1
Courier and post activities	2,925	2,964	2,914	2,882	9.0	-1.1	-1.5	-0.5
Security and industrial cleaning	1,487	1,465	1,480	1,524	4.7	+2.9	+2.4	+0.8
Trade	592	601	606	616	1.9	+1.7	+4.1	+1.3
Hotels, restaurants and catering	1,334	1,317	1,264	1,279	4.0	+1.2	-4.2	-1.4
Other services	353	363	398	457	1.4	+14.7	+29.5	+9.0
Other industries	172	164	182	189	0.6	+4.1	+10.1	+3.2
Public services	1,944	1,914	1,921	1,932	6.0	+0.6	-0.6	-0.2
2. INDIRECT EFFECTS*	33,488	33,991	34,041	34,108	-	+0.2	+1.9	+0.6
Air transport cluster outside airports	9,963	10,084	10,298	10,031	-	-2.6	+0.7	+0.2
Inside airports	25,503	25,892	25,728	26,038	-	+1.2	+2.1	+0.7
TOTAL	65,813	65,743	65,993	66,242	-	+0.4	+0.7	+0.2

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

* The indirect effects calculated at an aggregate level are less than the sum of the indirect effects calculated separately owing to the economic links between the aggregated elements already counted in the direct effects and therefore excluded from the indirect effects. In other words, the addition of the indirect effects calculated individually for each element contains double counting which is corrected when the indirect effects are calculated directly at aggregate level.

In 2009, direct employment in air transport and airport activities amounted to a total 32,325 FTEs. The figure fell by 1.8 % in 2010 and, although it recovered in subsequent years, it was still 0.6 % below the baseline in 2012, at a total 32,134 FTEs. This trend is in contrast to Belgium's national economy, which recorded an increase in employment of 1.9 % (in FTEs) in the period under review, i.e. an average of 0.6 % per year³⁹.

As with value added, the largest sector on this measure is building and repairing of aircraft, with 5,847 FTEs (inside and outside airports). Companies such as Sonaca and Techspace Aero each employ over 1,000 people and so claim second and fourth place in the largest companies ranking (see Table 8). Air transport is the second most important sector, at 5,034 FTEs, and is showing renewed growth after the dip of 2010. The four largest players in this sector (Brussels Airlines, TUI Airlines, TNT Airways and Thomas Cook Airlines) together account for 77 % of its employment. The first two carriers in particular saw their workforces grow, making Brussels Airlines by far the largest employer in the air transport and airport activities sector.

Employment at travel agencies and tour operators lies almost entirely outside the airports, and comes in third place at 4,248 FTEs. Courier and post activities together employ 2,882 FTEs at the airports. This number has remained fairly stable overall, but is the balance of a slump in 2010 at DHL and Federal Express Europe⁴⁰ offset by growth at TNT Express Worldwide (number five in the rankings) and bPost. The top 5 is completed by airport handlers, at 2,697 FTEs, of which 95 % derives from Swissport Belgium and the AviaPartner group (in third and seventh place respectively).

Other important sectors for employment include cargo handling and storage (1,943 FTEs), security and industrial cleaning (1,524 FTEs) and public services (1,932 FTEs), the latter mainly consisting of the 15th Wing of the Belgian Air Force, stationed at Brussels Airport, as well as the federal police and Customs officers working at all six airports. The six airport operators together employ 1,541 FTEs, while the hotel and catering industry is also particularly strong at 1,279 FTEs – nearly half of whom work in catering at Brussels Airport.

Employment fluctuations between 2009 and 2012 were minor in the bigger sectors: cargo handling and storage, airport operators and airport handling added 6.3 %, 5.0 % and 3.5 % respectively, and travel agencies and the hotel and catering sector saw their workforce shrink by 6.3 % and 4.2 %, whereas the percentage change was below 3 % in all other cases. The top 10 of largest employers features one company that does not belong to any of these sectors: air traffic controller Belgocontrol in eighth position. The top 20 as a whole accounts for 55.0 % of total employment in air transport and airport activities.

In 2012, air transport and airport activities generated a total 34,108 FTEs in indirect jobs for the Belgian economy⁴¹. Direct and indirect totalled 66,242 FTEs, i.e. 1.7 % of domestic employment⁴². In the period under review, the value added multiplier averaged 1.99 and the employment multiplier 2.06. This means that one euro of value added or one FTE created directly by companies operating in air transport or airport activities ultimately generate approximately two euros of total value added or two FTEs of employment via the intersectoral links between these companies, their suppliers, the companies supplying the latter, etc.

³⁹ Source: Belgostat, own calculations.

⁴⁰ In 2011, Federal Express Europe opened a distribution centre in the Belgian town of Machelen outside Brussels' airport zone, and consequently also moved a proportion of airport employment.

⁴¹ As mentioned in the methodological section, the indirect effects are an estimate that should be interpreted with caution.

⁴² Source: Belgostat.

TABLE 8 AIR TRANSPORT CLUSTER AND AIRPORT ACTIVITIES: DIRECT EMPLOYMENT TOP 20 IN 2012

	Name of company or organisation	Sector	Recorded in airports
1	Brussels Airlines	Air transport	BRU
2	Société Nationale de Construction Aéronautique (Sonaca)	Building and repairing of aircraft	no
3	Swissport Belgium	Airport handling	BRU-LIE-OST
4	Techspace Aero	Building and repairing of aircraft	no
5	TNT Express Worldwide (Euro Hub)	Courier and post activities	LIE
6	Belgian Air Force	Public services	BRU
7	AviaPartner Belgium	Airport handling	BRU
8	Belgocontrol	Other air transport supporting activities	ANT-BRU-CHA-LIE-OST
9	ASCO Industries	Building and repairing of aircraft	no
10	DHL Aviation	Courier and post activities	BRU
11	Brussels Airport Company	Airport operator	BRU
12	Société anonyme belge de Constructions aéronautiques (Sabca)	Building and repairing of aircraft	CHA
13	G4S Aviation Security	Security and industrial cleaning	BRU
14	TUI Airlines Belgium	Air transport	BRU-CHA-LIE-OST
15	Securitas Transport Aviation Security Wallonia	Security and industrial cleaning	CHA-LIE
16	Sabena Technics Bru	Building and repairing of aircraft	BRU
17	Federal Police*	Public services	All six airports
18	TNT Airways	Air transport	LIE
19	Thomas Cook Retail Belgium	Travel agencies and tour operators	BRU
20	TNT Express Belgium	Courier and post activities	BRU
	TOTAL (FTEs)		17,678
	Share in total		55.0%

Source: NBB (Central Balance Sheet Office, own calculations).

* Includes Customs in Kortrijk Airport.

1.4 INVESTMENT

TABLE 9 AIR TRANSPORT CLUSTER AND AIRPORT ACTIVITIES: DIRECT INVESTMENT FROM 2009 TO 2012
(in € million – current prices)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
Air transport cluster								
outside airports.....	133.4	109.4	93.3	89.1	25.5	-4.5	-33.2	-12.6
Air transport	40.7	9.4	3.0	4.3	1.2	+42.2	-89.4	-52.6
Travel agencies and tour operators.....	26.8	27.2	25.9	23.7	6.8	-8.8	-11.7	-4.1
Building and repairing of aircraft.....	31.5	49.6	52.5	47.2	13.5	-10.1	+49.9	+14.4
Other air transport supporting activities.....	34.4	23.2	11.8	13.9	4.0	+17.8	-59.6	-26.1
Inside airports	254.6	162.6	206.9	260.0	74.5	+25.7	+2.1	+0.7
<i>Air transport cluster.....</i>	<i>188.9</i>	<i>93.7</i>	<i>96.2</i>	<i>162.1</i>	<i>46.4</i>	<i>+68.4</i>	<i>-14.2</i>	<i>-5.0</i>
Air transport	39.9	11.7	26.7	55.7	15.9	+108.4	+39.6	+11.8
Travel agencies and tour operators.....	0.0	0.0	0.0	9.0	2.6	+23,910.8	+19,783.7	+483.7
Airport operator.....	75.5	40.4	46.0	72.5	20.8	+57.6	-4.0	-1.4
Airport handling.....	4.0	2.3	3.5	2.9	0.8	-18.9	-28.1	-10.4
Building and repairing of aircraft.....	8.0	7.7	3.4	5.7	1.6	+69.0	-27.9	-10.3
Other air transport supporting activities.....	61.5	31.6	16.6	16.4	4.7	-1.2	-73.4	-35.7
<i>Other airport-related activities..</i>	<i>65.8</i>	<i>68.9</i>	<i>110.7</i>	<i>97.9</i>	<i>28.0</i>	<i>-11.5</i>	<i>+48.9</i>	<i>+14.2</i>
Passenger transport over land.....	9.4	6.8	7.1	5.7	1.6	-19.1	-39.4	-15.4
Freight transport over land.....	0.8	1.3	0.7	1.5	0.4	+103.6	+95.6	+25.1
Cargo handling and storage	6.0	5.2	5.6	10.6	3.0	+87.7	+76.9	+20.9
Courier and post activities	12.9	7.5	23.4	12.1	3.5	-48.1	-6.1	-2.1
Security and industrial cleaning	1.7	0.6	1.0	0.8	0.2	-16.0	-52.5	-22.0
Trade	1.4	2.4	3.7	1.7	0.5	-53.7	+24.2	+7.5
Hotels, restaurants and catering.....	2.6	2.0	2.4	3.1	0.9	+28.7	+19.8	+6.2
Other services.....	30.7	42.8	66.1	62.0	17.8	-6.1	+101.7	+26.3
Other industries	0.3	0.3	0.7	0.4	0.1	-40.0	+47.2	+13.8
TOTAL.....	388.0	272.0	300.2	349.1	100.0	+16.3	-10.0	-3.5

Source: NBB (Central Balance Sheet Office, own calculations).

Investment in tangible fixed assets, which had been on a downward trend since 2007, hit a low point in 2010 at € 272.0 million, before climbing back up to € 349.1 million in 2012 – still below 2009 levels. Over the three years from 2009 to 2012, investment fell by an annual 3.5 % on

average, unlike total Belgian investment, which grew by 2.6 % per year and only dipped in 2009⁴³. The 'outside airports' cluster saw its share decline significantly in the period, benefiting 'inside airports'⁴⁴.

Airport operators were the largest investors in the period: after investing a total € 75.5 million in 2009, their capital spending was lower but still significant in the next two years, and was back up at € 72.5 million by 2012. Three-quarters of the amount invested in the 2009-2012 period was spent by Brussels Airport, which built the Connector and the Gateway projects⁴⁵, and which leads the ranking of largest investors in air transport and airport activities, with € 57 million in 2012 (see Table 10). Second-largest investor Charleroi lags somewhat behind, having spent € 7 million, with Liège and Ostend at about € 3 million each, Antwerp at € 2.4 million and Kortrijk at € 0.5 million.

Other services come next, recording capital spending of € 62.0 million in 2012. Car rental companies Avis Belgium, Hertz Belgium and Sixt Belgium account for over 70 % of this, and have also made it to the investment top ten⁴⁶. Another significant contributor is Liège Airport Business Park, which manages the airport's real estate projects.

With 2012 investment worth € 60.0 million, air transport comes in third, even if this amount is well over € 20 million below the figure for 2009. The year 2010 was particularly challenging, with capital spending at a mere € 21.0 million. NHV (Noordzee Helikopters Vlaanderen)⁴⁷, which in 2009 accounted for 84 % of investment in the 'outside airports' sector, spent a great deal less in the years that followed. In the 'inside airports' category, we note the disappearance after 2009 of European Air Transport (see 1.2), which had accounted for 80 % of total investment in that year. In 2012, Flying Service and TNT Airways recorded significant amounts, but it was Brussels Airlines that did most to revive the languishing investment figures by renovating its fleet and ordering new aircraft, propelling it to second place in the top 10.

Building and repairing of aircraft is an important sector in this respect too, with investment figures repeatedly exceeding € 50 million in recent years. This particularly applies to Sonaca and Asco Industries, which come third and tenth in the rankings. Other air transport supporting activities suffered the largest slump: from € 96.0 million in 2009 to € 30.3 million in 2012 (-68.4 %). This sector includes Belgocontrol, which brought into service its new CANAC 2 air traffic control centre in 2009 and also invested in the Metafor weather forecasting system in the period. By 2012, the amount invested had sunk to almost one-third of the 2009 figure. In 2009 Sowaer, the company entrusted with the development of Walloon airports, had invested over € 40 million in the further upgrade of the North Freight Zone at Liège Airport and in an instrument landing system (ILS) at Charleroi Airport. The focus in the following year was on extending the runway at Liège and building the north taxiway at Charleroi. 2011 was year of consolidation for Sowaer, but in 2012 it was back to fifth place in the investment ranking, thanks to aircraft stationing facilities in Charleroi this time. Other names in this sector, such as CAE Center and Training Services and Amerborgh Aviation, spent large amounts in 2009 but not in subsequent years.

In courier and post activities, DHL and particularly TNT Express Belgium and TNT Express Worldwide invested heavily in 2011. The considerable sum recorded by travel agencies and tour

⁴³ Source: Belgostat.

⁴⁴ As already mentioned, the distinction between inside and outside airports is based on the breakdown of employment between the operating establishments of companies. A firm may therefore be present both inside and outside an airport. Among the big investors, only a few companies are in that situation. Examples include Sowaer and Belgocontrol in the air transport cluster, and Hertz, Avis and Sixt in the other airport-related activities cluster. For those companies, the investment counted outside airports may in fact be located inside airports, and vice versa. These figures are therefore given purely as a guide.

⁴⁵ For greater detail about investments at the airports, please refer to the separate sections on these airports.

⁴⁶ See footnote 44.

⁴⁷ Acquired in 2013 by French private equity firm Ardian.

operators in 2012 (inside airports) relates to Jetair Real Estate, previously Ultra Montes located in Mechelen (outside airports), but the company later moved to Brussels Airport (see 2.2.2.4).

TABLE 10 AIR TRANSPORT CLUSTER AND AIRPORT ACTIVITIES: DIRECT INVESTMENT TOP 10 IN 2012

	Name of company or organisation	Sector	Recorded in airports
1	Brussels Airport Company	Airport operator	BRU
2	Brussels Airlines	Air transport	BRU
3	Société Nationale de Construction Aéronautique (Sonaca)	Building and repairing of aircraft	no
4	Avis Belgium*	Other services	BRU-CHA
5	Société Wallonne des Aéroports	Other air transport supporting activities	CHA-LIE
6	Hertz Belgium*	Other services	BRU-CHA
7	Sixt Belgium*	Other services	BRU-CHA
8	Liège Airport Business Park	Other services	LIE
9	Jetair Real Estate	Travel agencies and tour operators	BRU
10	ASCO Industries	Building and repairing of aircraft	no
TOTAL (€ million)			207.04
Share in total			59.3%

Source: NBB (Central Balance Sheet Office, own calculations).

* Firms with activities outside airports unconnected with air transport. The percentage of investment recorded inside airports does not necessarily reflect reality since the allocation is based on employment.

1.5 SOCIAL BALANCE SHEET⁴⁸

The social balance sheet contains a cohesive set of data on various aspects of employment in companies: workforce structure, staff turnover, type of employment contracts, standard of education, working time, labour costs and training. The results set out below on direct employment in the Belgian air transport sector as a whole are not exhaustive. The figures were calculated on the basis of a constant sample⁴⁹ for the 2009–2012 period. In view of the small size of the constant sample and the fact that it includes only large companies, these results are only a guide and should certainly not be taken as generally valid. The results do not readily compare with the previous findings as the constant sample differs from the one used in the previous study⁵⁰.

1.5.1 Working time and labour costs

TABLE 11 HOURS WORKED AND COST OF OWN STAFF

	2009	2010	2011	2012
Change in the average number of employees on the staff register (%)		-1.6	+1.0	+0.9
Change in the number of hours actually worked (%)		0.0	+1.8	+0.5
Change in staff costs (%)		-0.4	+5.4	+3.4
Average number of hours worked per annum per full-time equivalent.....	1,477	1,500	1,512	1,506
Average annual staff costs per full-time equivalent (€)	61,493	62,206	64,933	66,546
Average staff costs per hour worked (€)	42	41	43	44

Source: NBB (full-format only)

In 2010, employment in the constant sample of companies operating in the Belgian air transport and airport industry fell by 1.6 % on the year earlier, only to resume growing by 1.0 % and 0.9 % in the two subsequent years (Table 11), a trend in line with the overall sector as captured in Table 7. Brussels Airlines recorded a significant increase in the workforce over the period, while Sabena Technics showed a cumulative loss of over 400 jobs. The 2010 decline at Sonaca and DHL among others was offset by TNT Express Worldwide, which also cushioned the fall reported the year after by Federal Express Europe, which had moved a sizeable proportion of its workforce to a distribution centre outside the Brussels airport. The year 2012 saw the likes of Asco Industries, Sonaca and TUI Airlines notch up increases.

In both 2010 and 2011, the number of hours worked grew faster than the number of FTEs, taking average annual working hours per employee to 1,512 hours in 2011 from 1,477 hours in 2009, with the total edging down in 2012 to 1,506 hours. The figure for 2012 was exactly the same as the national average, whereas average annual staff cost per FTE and average staff cost per hour worked have been rising and are significantly higher than their national averages⁵¹. The fact that big companies are over-represented in the sample may have something to do with this.

⁴⁸ The national data cited here come from P. Heuse (2013). The comparisons are purely a guide, since this national study only includes companies with a social balance sheet covering a 12-month financial year ending on 31 December. In other words, this is a small population.

⁴⁹ The constant sample was determined on the basis of companies included in this study which – for the four years 2009, 2010, 2011 and 2012 – submitted annual accounts in the full format for a 12-month financial year and in each year employed at least one full-time equivalent. The same formulas are applied to the social balance sheet as for calculating other parameters (see footnote 33). The constant sample comprises 152 companies, which represents an average 8.4 % of the number of companies included in this study and 68.9 % of related direct employment.

⁵⁰ Deville and Vennix (2011).

⁵¹ Average staff costs per FTE in Belgium amounted to € 55,791 in 2012 and to € 37 per hour worked.

Major differences are apparent in the various sectors⁵², with hours worked sharply higher than average at air transport, freight transport over land and other services in 2012 (1,748 hours) and relatively low at cargo handling and storage and at trade (1,355 hours). Air transport and particularly other air transport supporting activities reported high numbers on average staff cost per FTE and per hour worked (€ 109,650 and € 76 for the latter sector)⁵³. Below-average scores are recorded in the hotel and catering sector as well as in trade and airport handling.

1.5.2 Structure of the workforce

TABLE 12 INTERNAL WORKFORCE AT THE END OF THE FINANCIAL YEAR

	2009	2010	2011	2012
By professional category				
<i>White-collar (%)</i>	71.0	70.8	70.5	70.3
<i>Blue-collar (%)</i>	27.9	28.0	28.3	28.5
<i>Other staff (%)</i>	1.2	1.3	1.3	1.3
By sex				
<i>Males (%)</i>	69.9	69.8	70.0	69.6
<i>Females (%)</i>	30.1	30.2	30.0	30.4
By working time				
<i>Full-time (%)</i>	75.5	75.0	74.3	74.1
<i>Part-time (%)</i>	24.5	25.0	25.7	25.9
By educational level				
<i>Males</i>				
<i>Primary education (%)</i>	9.4	9.7	8.4	8.9
<i>Secondary education (%)</i>	57.5	56.9	59.8	58.7
<i>Higher non-university education (%)</i>	22.8	22.9	21.7	21.7
<i>University education (%)</i>	10.3	10.6	10.1	10.6
<i>Females</i>				
<i>Primary education (%)</i>	4.8	6.7	5.3	5.9
<i>Secondary education (%)</i>	48.1	44.1	45.8	45.3
<i>Higher non-university education (%)</i>	38.1	40.4	40.3	39.0
<i>University education (%)</i>	8.9	8.8	8.5	9.8

Source: NBB (full-format only)

Blue-collar jobs account for a relatively low share of the workforce at the companies reviewed (28.5 % in 2012), though the numbers do reveal a very subdued increase in the four-year period. Unsurprisingly, these jobs are in the majority in the security and industrial cleaning, catering and airport handling sectors. By contrast, their share is less than 10 % at travel agencies, trade, other air transport supporting activities and air transport. In air transport the figure only reflects cargo carriers TNT Airways and, to a lesser degree, Abelag employing a few blue-collar workers, whereas there are none at Brussels Airlines, TUI Airlines and Thomas Cook Airlines. At large cargo handlers such as DHL Global Forwarding and Swissport Cargo Services, the large majority of employees too are white-collar workers.

The companies in our constant sample show a male-to-female employment ratio of 70 % men to 30 % women, which has barely changed over the years. Compared to their national employment

⁵² It should be kept in mind that these figures reflect a limited number of companies.

⁵³ An average strongly influenced by Belgocontrol, which accounts for 89 % of staff costs in the sector.

percentage of 44 %, women find significantly less employment in aviation and airport activities than do men. This is explained to an extent by building and repairing of aircraft – a sector with many technical jobs – employing nearly 90 % men and accounting for 24 % of total employment in the constant sample. Air transport and other services are roughly at the national average, and only trade and travel agencies score markedly higher, each having 68 % female staff.

Only one in four employees works part-time (25.9 % in 2012), a proportion that has edged up a bit but is still under the national average of 31.6 %. Airport handling (52 %) and courier and post activities (44 %) score high on this measure, while air transport and travel agencies are at around the average of the constant sample. Outliers include the industrial sectors (11 % at building and repairing of aircraft) and other air transport supporting activities (10 %), with a large player such as Belgocontrol employing only 7 % part-time workers.

Over one-third of staff in the constant sample have completed a post-secondary education or training of some kind or other (37 % in 2012), noticeably more than the Belgian average of 29 %. This proportion has remained virtually stable over our period but there is one thing that stands out: women in air transport and airport activities are systematically better qualified than men. Travel agencies (69 %) and air transport (52 %) mainly employ higher-skilled staff, with the figure at around a mere 20 % in sectors such as airport handling, courier and post activities and trade; in the hotel and catering sector this barely amounts to 14 %.

1.5.3 External staff

TABLE 13 HIRED TEMPORARY STAFF AND STAFF PLACED AT THE ENTERPRISE'S DISPOSAL

	2009	2010	2011	2012
Share of external staff in total employment (on the basis of the number of hours actually worked) (%).....	3.8	4.6	5.5	5.6
Change in the number of hours actually worked (%)		+19.8	+24.6	+1.0
Change in costs (%).....		+17.9	+26.2	+11.2

Source: NBB (full-format only)

In 2012, 70 % of the companies in the constant sample used externally hired staff to a greater or lesser degree (agency staff and seconded workers). Their number of the total workforce (in terms of the number of hours worked) rose to 5.6 % in 2012 from 3.8 % in 2009, with temporary agency work accounting for 90 %. The various sectors display major differences: the proportion of external staff in the hotel and catering sector is as high as 20 %, whereas the lowest external staff numbers are at travel agencies (1.5 %), air transport (1.0 %) and other air transport supporting activities (just 0.2 %). Most of the bigger carriers (Brussels Airlines, Thomas Cook Airlines and TUI Airlines) and Belgocontrol employ hardly any interim staff. But even within sectors there are massive variations: courier and post activities record an average 7.4 % and both bPost and TNT Express Belgium use large numbers of temporary agency workers, whereas Federal Express Europe shows hardly any. In the building and repairing of aircraft industry (7.0 %), big players Sonaca and Techspace Aero have hardly any temporary workers on their payroll, whereas Sabca does. The latter and NHV (Noordzee Helikopters Vlaanderen) are among the few also listing seconded workers⁵⁴, and primarily in the final year of our review period (2012).

This final observation also explains the cost trend as against the number of hours worked by external staff. The number of hours rose by 51 % between 2009 and 2012, with the increase

⁵⁴ Staff seconded by other companies for specific activities, probably highly technical jobs.

moving in keeping with related costs in 2010 and 2011. A year later, hours worked had hardly grown while costs had gone up by a further 11 %. The change from 2011 to 2012 reflects a near-stabilisation in temporary agency work (-2.8 % hours worked and +3.6 % for costs) and a surge in seconded workers (+50.5 % in terms of hours worked and +64.9 % in costs, see paragraph above). With the hourly costs of seconded staff nearly double that of agency workers, total costs also increase disproportionately. It is worth noting that, at € 30 per hour, the average cost of external workers is significantly below that of companies' own staff (€ 44 in 2012).

1.5.4 Staff turnover

TABLE 14 STAFF TURNOVER

	2009	2010	2011	2012
Net number of staff hired during the year.....	-865	119	576	-49
Staff leaving, by reason for termination of contract				
<i>Retirement (%)</i>	2.6	2.5	2.4	3.7
<i>Early retirement (%)</i>	2.1	3.7	1.6	1.4
<i>Dismissal (%)</i>	22.2	19.3	15.7	13.2
<i>Other reasons (%)</i>	73.1	74.5	80.2	81.7

Source: NBB (full-format only)

The phenomenon of a high net balance of staff losses in 2009 in the wake of the economic crisis, as noted in the previous study⁵⁵, is confirmed by the present constant sample (Table 14). The balance was back in the black in 2010 and 2011 but in 2012 a slightly higher number of staff left than were recruited. The apparent contradiction with Table 11 (falling employment in 2010 and growth in 2012) may be explained by this table expressing the figures as an annual average. At a time of increased recruitment following job cuts, this yearly average may still be declining while the number of actual employees may be greater than at year-end the previous year⁵⁶, and vice versa. If we look at the sample's end-of-year employment figures, it does indeed observe the pattern of net recruitment.

The biggest positive cumulative balance is reported by the sector that also shows the greatest increase in employment in the constant sample: air transport. Conversely, courier and post activities has seen the highest net outflow (due in the main to DHL redundancies), followed by building and repairing of aircraft, in which industry recruitment at the likes of Asco Industries was not enough to offset job cuts at Sabena Technics.

Interestingly, travel agencies and tour operators record very high staff turnover (expressed as the number of joiners/leavers relative to the average workforce), typically involving temporary contracts in the high season. The same phenomenon is visible in the hotel and catering sector and in other services at the airport, including cleaning. Contracts simply coming to an end are reflected in the large share of 'other reasons' cited in contract terminations.

It is also worth noting that the percentage of redundancies among total leavers is showing a steady decline, while the share of retirement edged up in 2012.

⁵⁵ Deville and Vennix (2011).

⁵⁶ Assuming that the financial year ends at 31 December, which is not the case for 24 companies in our sample and also may explain shifts from one year to the next.

1.5.5 Training

TABLE 15 EFFORTS DEVOTED TO FORMAL TRAINING

	2009	2010	2011	2012
% of firms reporting training on the social balance sheet.....	52.6	55.3	58.6	58.6
Participation rate (%).....	52.3	54.2	64.2	60.2
<i>Males (%)</i>	53.5	58.1	64.2	58.2
<i>Females (%)</i>	49.8	45.8	64.2	64.6
Number of hours' training per person.....	45.9	34.1	38.8	36.4
<i>Males</i>	46.0	34.1	40.2	38.3
<i>Females</i>	45.7	33.9	35.8	32.7
Training costs per hour.....	69.1	75.4	68.7	78.3
<i>Males</i>	76.2	80.3	72.6	79.7
<i>Females</i>	52.0	62.0	58.9	75.2
% of the number of hours worked devoted to training.....	1.7	1.3	1.8	1.6
Training costs as a percentage of total staff costs.....	2.9	2.4	2.9	2.8

Source: NBB (full-format only)

Training initiatives reported in the social balance sheet are divided into three categories: formal training (courses and training programmes provided by instructors), less formal/informal training (including training on the shop floor) and initial vocational training (training programmes involving alternating periods of study and practical experience). This section reviews formal training only.

Over half of the companies featuring in the constant sample report organising formal training (Table 15), with the percentage gradually rising until 2011 and then levelling out in the year after. The previous study⁵⁷ had noted a fall in the number of training hours per employee in the crisis year of 2009, with the downtrend continuing in 2010 before holding steady from 2011. By contrast, the training participation rate, i.e. the percentage of employees receiving some kind of formal training, rose until 2011 to decline slightly to 60 % in 2012. Training hours as a percentage of total hours worked remained fairly constant at between 1.3 % and 1.8 %, and the share of the training spend in total staff costs hardly moved either. Costs per hour of training were more volatile and were around 1.6 times greater than average staff costs per hour worked.

The training participation rate of women, which was still under men's in 2009, rose faster in the period and in fact overtook the male rate in 2012. However, women may be more involved in training initiatives than men, the number of hours they spend on training is lower, as is the cost.

All of the indicators described here have significantly higher showings than the total for Belgian companies⁵⁸. In 2012, a mere 10.9 % of the total trained their employees, with a little over one-third of the workforce involved, at an average 27 hours a year per employee. Together they account for training hours totalling 0.7 % of hours worked. The average cost per hour of training (€ 54) and the share of the training budget in total staff costs (1.1 %) are also below the levels reported by the air transport and airports industry.

⁵⁷ Deville and Vennix (2011).

⁵⁸ The source of the national data given here is the table with indicators relating to the continuing on-the-job training, published by the Central Balance Sheet Office. This table can be found at: <http://www.nbb.be> > Central Balance Sheet Office > Products of the CBSO > Statistics > Indicators relating to continuing on-the-job training. A key reason for these higher figures is that large companies are over-represented in the constant sample, because the latter comprises full annual account formats only and large companies traditionally invest more in training their staff.

Air transport stands out for its high rate of participation, high number of training hours per employee and high percentage of the number of hours worked. People working in airport handling and the airport operators also show above-average participation but for a shorter length of time. Other air transport supporting activities, by contrast, records an average rate of participation but the number of training hours and their costs are fairly high⁵⁹. In other airport-related activities relatively little training effort is recorded.

⁵⁹ Sector results are strongly influenced by Belgocontrol.

1.6 FINANCIAL RATIOS

TABLE 16 AIR TRANSPORT CLUSTER AND AIRPORT ACTIVITIES: FINANCIAL RATIOS FROM 2009 TO 2012

Sectors	Return on equity after taxes (in %)				Liquidity in the broad sense				Solvency (in %)			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
Air transport cluster	3.7	10.1	3.0	6.0	1.54	1.71	1.76	1.32	37.5	36.5	37.4	36.9
Air transport	0.3	4.6	-10.5	-5.6	1.90	1.67	1.94	1.09	51.0	39.2	39.6	26.7
Travel agencies and tour operators.....	12.1	50.0	8.7	9.2	1.04	1.76	1.72	1.12	25.9	41.3	41.5	41.6
Airport operator.....	5.1	8.1	14.1	9.9	0.68	0.73	0.74	0.99	34.5	34.0	33.9	43.9
Airport handling.....	26.6	56.1	24.2	-1.5	0.82	0.73	0.86	0.90	32.7	19.0	29.3	18.7
Building and repairing of aircraft.....	12.7	9.6	11.2	11.2	2.26	2.62	2.45	2.23	37.8	39.3	40.5	40.3
Other air transport supporting activities	-0.5	-1.5	0.8	3.7	1.27	1.31	0.99	1.34	33.2	32.9	34.4	35.6
Other airport-related activities	24.9	9.3	11.8	8.7	1.53	1.31	1.29	1.16	41.8	36.1	38.1	36.7
Passenger transport over land	4.8	5.1	5.5	4.2	1.26	1.34	1.17	1.06	38.0	38.8	37.1	36.6
Freight transport over land....	14.1	11.0	26.7	13.2	1.13	1.09	1.17	1.16	28.6	24.5	27.7	32.5
Cargo handling and storage .	5.4	10.5	13.1	11.5	1.31	1.19	1.20	1.05	36.7	33.3	32.8	35.4
Courier and post activities	44.9	5.0	8.9	2.1	2.27	1.53	1.55	1.43	50.8	39.1	44.8	42.3
Security and industrial cleaning	11.7	8.0	9.3	7.9	0.96	0.95	0.99	0.99	4.3	5.2	3.8	4.6
Trade	3.9	15.2	18.5	13.5	1.81	1.79	2.06	1.41	55.1	54.6	61.8	45.8
Hotels, restaurants and catering	17.2	12.1	-0.6	15.6	0.62	0.91	1.02	1.01	31.0	30.5	31.9	33.4
Other services.....	11.4	14.4	9.4	-5.5	0.74	0.69	0.73	0.80	25.0	24.2	25.3	24.6
Other industries	20.3	16.5	15.5	27.7	1.09	1.06	1.00	1.14	21.5	22.4	23.1	28.0
SECTOR AVERAGE	6.1	10.0	3.8	6.2	1.54	1.63	1.69	1.30	38.0	36.4	37.4	36.9
Belgian non-financial corporations	8.0	8.8	6.7	7.0	1.13	1.18	1.19	1.23	41.1	41.3	42.9	42.1

Source: NBB (Central Balance Sheet Office, own calculations).

Table 16 presents the financial situation of the sectors studied on the basis of three ratios. **Return on equity after taxes** is the ratio between the financial year's net income and shareholders' equity. It concerns the companies' ability to generate profits, and gives shareholders an idea of the company's return after tax. **Liquidity in the broad sense (current ratio)** represents the degree to which the current liabilities are covered by the current assets, or in other words a company's ability to meet its short-term liabilities. The **solvency ratio** measures a firm's degree of financial independence by comparing its equity capital to its total liabilities. These ratios are defined in Annex 3 and are calculated on the basis of a constant sample⁶⁰. As our constant sample of

⁶⁰ This constant sample includes all companies which – for the four years 2009, 2010, 2011 and 2012 – submitted annual accounts for a 12-month financial year and whose equity is positive. NACE-BEL branch 70100 (head office activities) is excluded as these companies may distort the results because of their often very high shareholders' equity figures. The same formulas are applied to the ratios as for calculating other parameters (see footnote 33). The constant sample

companies differs from the one used in the previous study⁶¹ the outcomes should not be compared too readily. In fact, due caution should be observed when interpreting them, as some sectors only comprise a small number of companies and developments may be dominated by a single or a few of them; financial results are typically more volatile than data in the social balance sheet.

A first observation would be that return on equity has fluctuated in the same way as the national average, but more pronounced and, except in 2010, has been lower than the national average. Generally speaking, profitability is significantly higher in other airport-related activities than in the airport cluster. Though nowhere structurally negative, the ratio is fairly low in some sectors (see below). Companies in the air transport and airport sector are typically better equipped to meet their short-term liabilities: with the exception of 2012, they have been looking at a current ratio nearly 40 % higher than the national figure. And it is the air transport cluster that scores the highest. A healthy going concern should have a current ratio in excess of 1, but other services, the airport operators and airport handling have scored consistently lower on this measure, although the latter two have seen the ratio improve. Lastly, solvency is a little under the average of all Belgian non-financial corporations and there is not much to choose between the two clusters.

Air transport is looking at a low return on equity, even dipping into negative territory in the final two years of the period under review. Although carriers such as Thomas Cook Airlines, TUI Airlines and TNT Airways have been recording robust profits year after year, Brussels Airlines' heavy operational losses pushed the financial year deeply into the red (except in 2010). In 2011, this was further exacerbated by the Abelag group in the wake of exceptional value adjustments. The sector's falling solvency ratios are likewise mainly attributable to Brussels Airlines (drop in shareholders' equity due to losses carried over and a resultant capital reduction, on top of growing long-term debt) and in 2012 also to TNT Airways (capital reduction on repayment of loans to affiliates).

Fluctuating ratios at travel agencies and tour operators are primarily down to Thomas Cook Belgium, which recorded sizeable capital gains in 2010 by selling Thomas Cook Airlines shares to Thomas Cook Continental Holding. Retained earnings also added to shareholders' equity, explaining a large proportion of the entire sector's higher solvency ratio.

Among airport operators, both Brussels South Charleroi Airport and Brussels Airport Company had very good years in 2011 and 2012. Brussels Airport Company also increased its capital by € 164 million in 2012, boosting the sector's solvency ratio. The 2010 surge in airport handlers' profitability is attributable to Swissport Belgium (then Flightcare Belgium), which shaved € 10 million off shareholders' equity by writing off share premiums and retained earnings. This move also affected the solvency ratio, which fell during the course of the year.

Building and repairing of aircraft stands out for its high liquidity: current assets are 2-2½ times greater than current liabilities. Swings in individual companies' profits cancel each other out and the sector at large reported stable financial results⁶². The negative to very minor profitability figures for other air transport supporting activities were attributable to losses at Belgocontrol (€ 14-21 million) and at Société Wallonne des Aéroports (between € 5 million and € 24 million).

The marked fall in the ratios at courier and post activities derives from DHL, where in 2010 operating profits collapsed to less than one-fifth of the previous year's levels, causing profits for the financial year to contract from € 98 million to virtually nil in 2010. By paying a dividend to its parent company, DHL also reduced retained earnings and consequently also shareholders' equity, albeit much less sharply so. And lastly, falling trade receivables pushed down the current ratio.

comprises 1,001 companies, which represent an average 55.3 % of the number of companies included in this study and 75.5 % of related direct value added.

⁶¹ Deville and Vennix (2011).

⁶² Sabena Technics Bru's very heavy losses are not reflected, as the company was not included in the constant sample because of its negative equity in 2012.

Solvency is very low at security and industrial cleaning, owing to low capital levels at BSCA Airport Security and Liège Airport Security⁶³. By contrast, trade boasts a high solvency ratio and very decent profitability (except in 2009), largely on the back of results at Belgian Sky Shops, which accounts for 68 % of the category's value added. The hotel and catering sector also did surprisingly well and notched up a return on equity of 12-17 %. Its 2011 dip was down to Autogrill Belux, which posted robust operating profits but ended up reporting sharply negative results because of exceptional value adjustments on financial fixed assets. Lastly, the entire 'other services' category would have recorded profits in 2012 if it had not been dragged down by heavy operational losses at the Antwerp airborne surveying and mapping company Aerodata International Surveys.

⁶³ The two biggest security players, G4S Aviation Security and Securitas Transport Aviation Security, are not included in the constant sample; the former because it is not present in the study for the full four years, the latter because its 2012 spin-off of Securitas Transport Aviation Security Wallonia would distort results. These two companies are also looking at solvency ratios of around just 20 %.

2 ECONOMIC IMPORTANCE OF AIRPORT ACTIVITIES IN BELGIUM

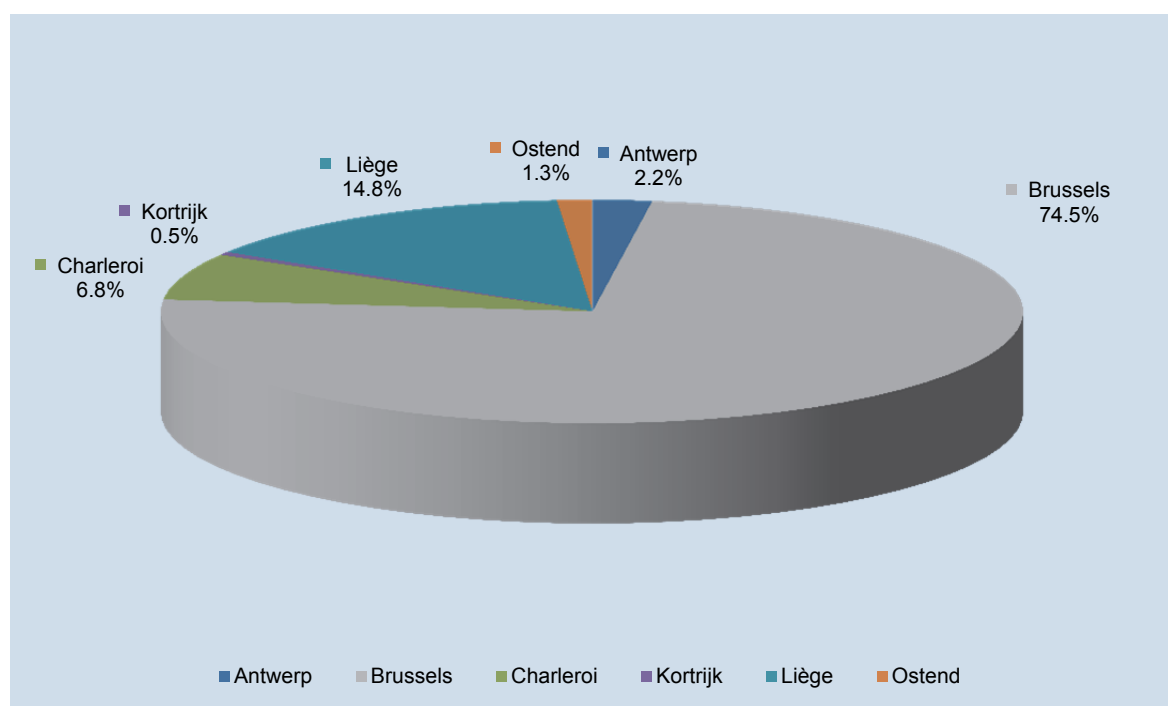
2.1 OVERVIEW

2.1.1 Value added

Value added at Belgium's airports improved between 2009 and 2012, Brussels and Ostend being the sole exceptions. Brussels (-3.4 %) never quite recovered from the € 90 million loss in value added at courier and post activities in 2010 (mainly attributable to DHL, see 2.2.2.2); Ostend was hit by falling cargo traffic (see 2.2.6.2). If just the air transport cluster is considered, Brussels actually improved and Ostend was even harder hit. The largest increases were notched up by Charleroi (+42.3 %) and Liège (+31.8 %). These two airports have recorded robust growth in passenger and cargo traffic respectively. Kortrijk, the smallest of the six airports, also enjoyed 30.2 % growth, but its performance largely depends on the results of one or at most a few companies.

Meanwhile, Brussels Airport saw five percentage points shaved off its share of overall value added by all Belgian airports between 2009 and 2012, but still accounted for the majority with an impressive three-quarters of the total (see Chart 7). This figure matches its market share of passenger traffic, at 72.3 %. Liège and Charleroi increased their share by one or two percentage points and together account for 84 % of the regional airports' total value added. The three Flemish regional airports – Antwerp, Kortrijk and Ostend – are staying in the background with a total 4 %. It should be noted that, in the case of Charleroi, this study does not take into account Ryanair's value added and employment, as the data were not available.

CHART 7 DIRECT VALUE ADDED IN AIRPORTS IN 2012: BREAKDOWN BY AIRPORT



Source: NBB (Central Balance Sheet Office, own calculations).

The air transport cluster accounts for 62 % of the value added in the total airports figure; this share is well in excess of 50 % in all the individual Belgian airports and is either rising or holding steady, except in Ostend, whose value added has dropped in the wake of lower cargo traffic. Ostend still

comes in behind Kortrijk with the highest share in this cluster (78 % and 81 % respectively), whereas Brussels and Liège claim the largest share of other airport-related activities (39 % and 38 % respectively), as these two airports are home to a relatively large volume of logistics services.

TABLE 17 DIRECT VALUE ADDED BY AIRPORT FROM 2009 TO 2012
(in € million – current prices)

Airport and cluster	2009	2010	2011	2012	Share of clusters in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
Antwerp	39.2	41.9	41.4	43.3	100.0	+4.5	+10.4	+3.3
<i>Air transport cluster</i>	26.0	28.4	28.7	30.6	70.8	+6.6	+18.0	+5.7
<i>Other airport-related activities</i>	13.2	13.5	12.7	12.7	29.2	-0.4	-4.5	-1.5
Brussels	1,502.9	1,446.3	1,470.6	1,452.5	100.0	-1.2	-3.4	-1.1
<i>Air transport cluster</i>	869.6	890.8	886.3	881.9	60.7	-0.5	+1.4	+0.5
<i>Other airport-related activities</i>	633.3	555.5	584.2	570.5	39.3	-2.3	-9.9	-3.4
Charleroi	92.7	107.0	121.3	131.9	100.0	+8.7	+42.3	+12.5
<i>Air transport cluster</i>	60.7	74.2	82.9	89.7	68.0	+8.2	+47.7	+13.9
<i>Other airport-related activities</i>	32.0	32.7	38.5	42.2	32.0	+9.7	+31.9	+9.7
Kortrijk	6.9	7.7	10.7	9.0	100.0	-15.4	+30.2	+9.2
<i>Air transport cluster</i>	5.6	6.0	9.0	7.3	80.9	-18.8	+31.1	+9.5
<i>Other airport-related activities</i>	1.4	1.6	1.7	1.7	19.1	+2.5	+26.6	+8.2
Liège	218.3	202.6	239.4	287.7	100.0	+20.2	+31.8	+9.6
<i>Air transport cluster</i>	131.4	108.4	132.2	177.1	61.5	+34.0	+34.7	+10.4
<i>Other airport-related activities</i>	86.8	94.3	107.3	110.6	38.5	+3.1	+27.4	+8.4
Ostend	31.4	28.3	24.8	25.8	100.0	+4.2	-17.7	-6.3
<i>Air transport cluster</i>	25.9	22.9	18.7	20.0	77.6	+7.2	-22.8	-8.3
<i>Other airport-related activities</i>	5.4	5.4	6.1	5.8	22.4	-5.0	+7.0	+2.3
TOTAL	1,891.3	1,833.8	1,908.3	1,950.2		+2.2	+3.1	+1.0

Source: NBB (Central Balance Sheet Office, own calculations).

All in all, in the 2009-2012 period, the total direct value added of the Belgian airports rose by an average 1.0 % per year, to € 1,950.2 million. The air transport cluster recorded average annual growth of 2.5 %; other airport-related activities an average annual decline of 1.2 %. Indirect value added generated by companies located on the sites of Belgian airports exceeded € 2 billion in 2012 (Table 18)⁶⁴. The corresponding multiplier is slightly greater than two, which means that one euro of value added created directly by companies present on the airport sites ultimately generates two euros of total value added via the intersectoral links between these companies, their suppliers, the companies supplying the latter, etc. The multipliers vary for each airport according to the relative importance of the various sectors of activity represented there, as some sectors generate more indirect effects than others⁶⁵.

In total, the direct and indirect value added created in 2012 by companies located in the Belgian airports came to around € 4 billion, or 1.1 % of Belgium's GDP⁶⁶. At regional level, total value

⁶⁴ It should be remembered that the indirect effects generated by the activities of all the airports together are less than the sum of the indirect effects calculated individually for each airport (see section on methodology). In addition, as already mentioned, the indirect effects are an estimate which must be interpreted with caution.

⁶⁵ See Kupfer and Lagneaux (2009).

⁶⁶ Source: Belgostat.

added (direct and indirect) generated by the four Flemish airports (including Brussels Airport which is located in Flemish Brabant) came to € 3.2 billion in 2012. Companies located in the two Walloon airports generated value added totalling € 864 million in that same year. These amounts respectively represent 1.5 % of Flemish GDP and 1.0 % of Walloon GDP⁶⁷. It should be noted that the proportion of value added generated by airport activities in the GDP of the respective regions declined slightly in Flanders (it was 1.6 % in 2009) and increased in Wallonia (0.8 % in 2009).

TABLE 18 **INDIRECT VALUE ADDED BY AIRPORT FROM 2009 TO 2012**
(in € million – current prices)

Airport	2009	2010	2011	2012	Multiplier in 2012	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
Antwerp.....	53.7	62.7	61.4	64.0	2.48	+4.2	+19.3	+6.1
Brussels.....	1,515.1	1,591.3	1,639.1	1,583.2	2.09	-3.4	+4.5	+1.5
Charleroi.....	75.8	86.5	103.3	109.2	1.83	+5.7	+44.2	+13.0
Kortrijk.....	7.9	8.8	13.9	9.8	2.09	-29.5	+24.5	+7.6
Liège.....	236.7	209.7	255.3	334.9	2.16	+31.2	+41.5	+12.3
Ostend.....	36.7	32.6	27.0	27.7	2.07	+2.6	-24.5	-8.9
All six airports*	1,882.0	1,950.2	2,054.2	2,075.9	2.06	+1.1	+10.3	+3.3

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

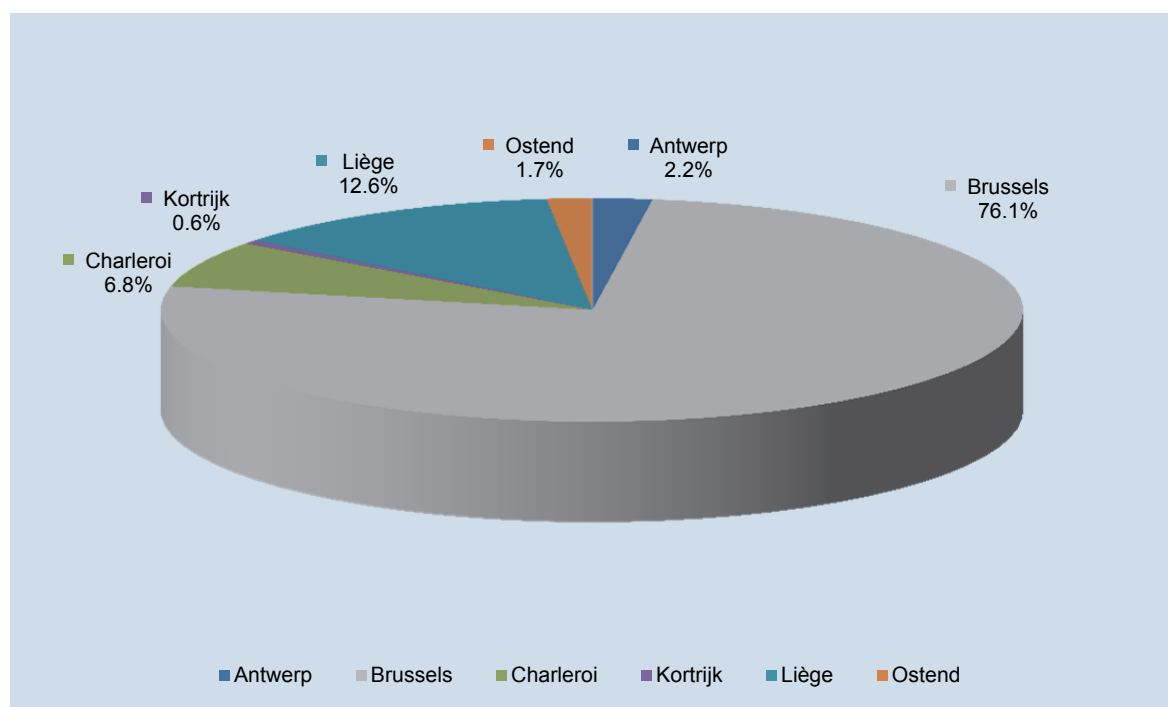
* The indirect effects calculated at an aggregate level are less than the sum of the indirect effects calculated separately owing to the economic links between the aggregated elements already counted in the direct effects and therefore excluded from the indirect effects. In other words, the addition of the indirect effects calculated individually for each element contains double counting which is corrected when the indirect effects are calculated directly at aggregate level.

2.1.2 Employment

The breakdown of direct employment per airport (Chart 8) is fairly similar to the breakdown of value added. Brussels is far in the lead, with 76 % of employment recorded on Belgian airport sites in 2012, followed by Liège with almost 13 % and then the other regional airports in the same order as for value added. Here, too, employment at Brussels Airport has slightly edged down on 2009, while in Ostend it took a significant hit. The highest growth figures are recorded for Charleroi (+17.1 %) and Liège (+16.4 %).

Direct employment on the Belgian airport sites came to 22,936 full-time equivalents in 2012, up by 0.6 % on the year-earlier figure but still a decline of 0.2 % on average since 2009 (Table 19). Brussels Airport on its own represented almost 17,500 FTEs in 2012, of which 51 % were in the air transport cluster. Charleroi and Liège are the other two airports with over 1,000 staff employed onsite. Liège Airport is an exception, being the only airport with more jobs in airport activities than in the air transport cluster. This unique position owes much to the presence on the site of TNT Express Worldwide, classified in the courier and post activities sector.

⁶⁷ Source: Belgostat.

CHART 8 DIRECT EMPLOYMENT IN AIRPORTS IN 2012: BREAKDOWN BY AIRPORT


Source: NBB (Central Balance Sheet Office, own calculations).

TABLE 19 DIRECT EMPLOYMENT BY AIRPORT FROM 2009 TO 2012
 (in FTEs)

Airport and cluster	2009	2010	2011	2012	Share of clusters in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
Antwerp	505	510	521	512	100.0	-1.8	+1.3	+0.4
<i>Air transport cluster</i>	365	371	370	358	70.0	-3.3	-2.0	-0.7
<i>Other airport-related activities</i>	140	138	151	154	30.0	+1.9	+10.1	+3.2
Brussels	18,169	17,763	17,478	17,463	100.0	-0.1	-3.9	-1.3
<i>Air transport cluster</i>	9,205	9,002	8,996	8,853	50.7	-1.6	-3.8	-1.3
<i>Other airport-related activities</i>	8,963	8,761	8,482	8,610	49.3	+1.5	-3.9	-1.3
Charleroi	1,323	1,362	1,474	1,549	100.0	+5.1	+17.1	+5.4
<i>Air transport cluster</i>	735	784	819	801	51.7	-2.2	+9.0	+2.9
<i>Other airport-related activities</i>	588	578	655	748	48.3	+14.3	+27.2	+8.4
Kortrijk	130	130	141	132	100.0	-6.0	+2.0	+0.7
<i>Air transport cluster</i>	104	103	111	101	76.2	-9.6	-3.0	-1.0
<i>Other airport-related activities</i>	26	27	29	31	23.8	+7.5	+21.8	+6.8
Liège	2,483	2,556	2,795	2,889	100.0	+3.4	+16.4	+5.2
<i>Air transport cluster</i>	1,090	1,087	1,133	1,173	40.6	+3.6	+7.6	+2.5
<i>Other airport-related activities</i>	1,392	1,469	1,662	1,716	59.4	+3.2	+23.2	+7.2
Ostend	443	428	400	390	100.0	-2.4	-11.8	-4.1
<i>Air transport cluster</i>	352	335	303	305	78.0	+0.5	-13.4	-4.7
<i>Other airport-related activities</i>	91	93	97	86	22.0	-11.4	-5.8	-2.0
TOTAL	23,052	22,747	22,809	22,936		+0.6	-0.5	-0.2

Source: NBB (Central Balance Sheet Office, own calculations).

Contrary to the value added situation, the air transport cluster has seen its share of employment in all airports decline or hold steady, implying that the average value added⁶⁸ of air transport is systematically rising. Its average is also significantly higher than for other airport-related activities, as this latter cluster has more sectors with lower-paid jobs and a correspondingly lower value added.

Indirect employment, i.e. workers employed by suppliers of companies located at airport sites and by companies supplying those suppliers and so on, totalled over 26,000 FTEs in 2012 (Table 20)⁶⁹. The average multiplier effect for all of Belgium's airports is 2.14, which means that one job created directly in a firm based in an airport additionally generates 1.14 jobs outside the airports. This multiplier has remained virtually constant over time.

In total, the activities conducted in the airports in 2012 provided direct and indirect employment for almost 49,000 FTEs, corresponding to 1.2 % of Belgian domestic employment⁷⁰. In 2012, the four Flemish airports (including Brussels) accounted for almost 41,000 direct and indirect jobs (in FTEs), or 1.8 % of total employment in Flanders. In Wallonia, direct and indirect employment generated by activities on the sites of the two regional airports totalled about 8,500 FTEs in 2012, representing 0.8 % of total employment in the Walloon Region⁷¹. In both Flanders and Wallonia, the proportion of direct and indirect employment generated by airport activities in total employment of the respective regions remained more or less stable between 2009 and 2012.

TABLE 20 **INDIRECT EMPLOYMENT BY AIRPORT FROM 2009 TO 2012**
(in FTEs)

Airport	2009	2010	2011	2012	Multiplier in 2012	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
Antwerp.....	878	917	898	936	2.83	+4.2	+6.6	+2.2
Brussels.....	20,828	21,049	20,723	20,825	2.19	+0.5	0.0	0.0
Charleroi	1,227	1,270	1,445	1,474	1.95	+2.0	+20.1	+6.3
Kortrijk.....	160	178	178	161	2.22	-9.6	+0.6	+0.2
Liège	2,318	2,411	2,474	2,644	1.92	+6.9	+14.1	+4.5
Ostend	629	614	556	546	2.40	-1.8	-13.2	-4.6
All six airports*	25,503	25,892	25,728	26,038	2.14	+1.2	+2.1	+0.7

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

* The indirect effects calculated at an aggregate level are less than the sum of the indirect effects calculated separately owing to the economic links between the aggregated elements already counted in the direct effects and therefore excluded from the indirect effects. In other words, the addition of the indirect effects calculated individually for each element contains double counting which is corrected when the indirect effects are calculated directly at aggregate level.

⁶⁸ Direct value added divided by FTEs.

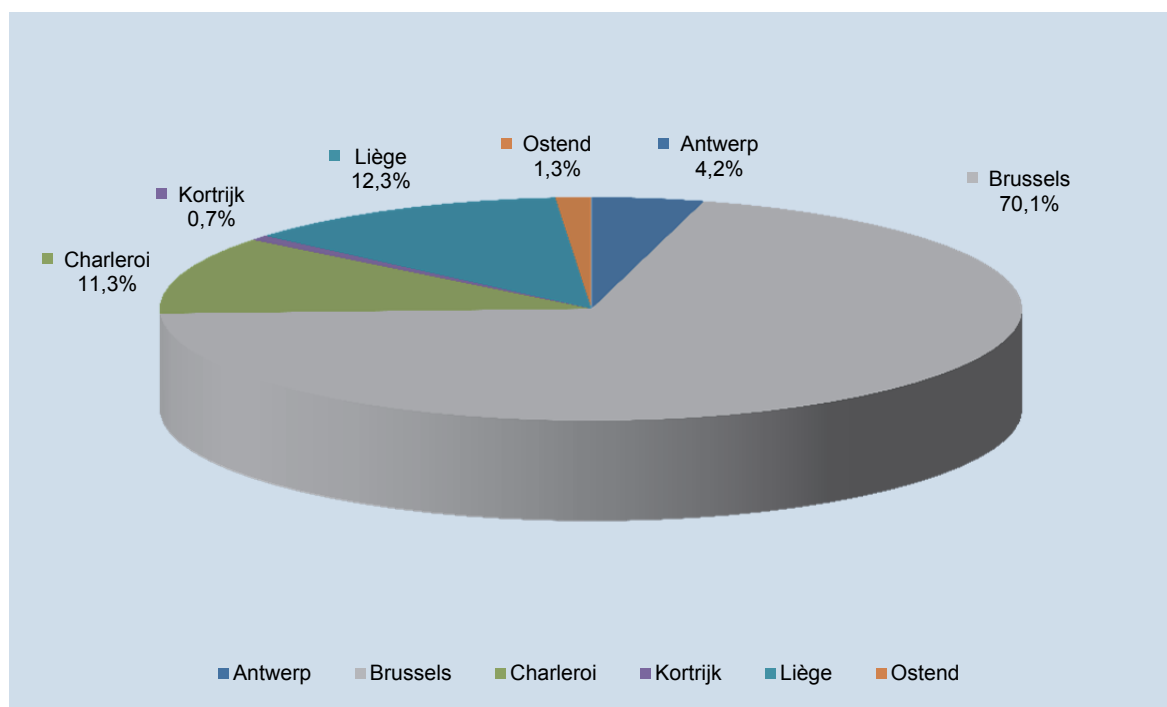
⁶⁹ As mentioned in the section of methodology, the indirect effects are an estimate which must be interpreted with caution.

⁷⁰ Source: Belgostat.

⁷¹ Source: Belgostat.

2.1.3 Investment

CHART 9 DIRECT INVESTMENT IN AIRPORTS IN 2012: BREAKDOWN BY AIRPORT



Source: NBB (Central Balance Sheet Office, own calculations).

In 2012, a total € 260.0 million was spent on tangible fixed assets at Belgium's airports (Table 21). Brussels Airport accounted for 70 % of this (Chart 9), the Walloon regional airports for 11-12 % each. After contracting sharply in 2010 (-36 %), investment picked back up from 2011 to scrape past 2009 levels in 2012 (Table 21). In the air transport cluster investment halved in 2010 compared with the year-earlier figure, while other airport-related activities remained stable and went on to climb in the years after. As a result, this cluster's share in the overall total ended the period higher.

Companies located at Belgium's airports invested a total € 884.2 million in fixed assets⁷² in the entire four-year period up to 2012, with Brussels Airport accounting for 67 %.

⁷² In current prices.

TABLE 21 DIRECT INVESTMENT BY AIRPORT FROM 2009 TO 2012
(in € million – current prices)

Airport and cluster	2009	2010	2011	2012	Share of clusters in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
Antwerp	9.9	8.8	6.6	10.9	100.0	+66.9	+11.1	+3.6
<i>Air transport cluster</i>	6.0	6.7	4.8	9.9	90.5	+104.7	+66.0	+18.4
<i>Other airport-related activities</i>	3.9	2.0	1.7	1.0	9.5	-39.2	-73.1	-35.5
Brussels	170.7	94.3	146.4	182.3	100.0	+24.5	+6.8	+2.2
<i>Air transport cluster</i>	131.2	51.0	70.4	121.0	66.4	+71.8	-7.8	-2.7
<i>Other airport-related activities</i>	39.5	43.3	76.0	61.3	33.6	-19.3	+55.4	+15.8
Charleroi	29.4	30.8	27.0	29.3	100.0	+8.6	-0.3	-0.1
<i>Air transport cluster</i>	14.1	14.8	11.5	12.5	42.7	+9.1	-10.9	-3.8
<i>Other airport-related activities</i>	15.4	16.0	15.5	16.8	57.3	+8.2	+9.4	+3.0
Kortrijk	1.1	0.4	0.4	1.9	100.0	+365.3	+75.0	+20.5
<i>Air transport cluster</i>	1.0	0.4	0.3	1.8	95.7	+498.7	+76.3	+20.8
<i>Other airport-related activities</i>	0.1	0.1	0.1	0.1	4.3	-21.6	+50.5	+14.6
Liège	39.3	24.6	22.3	32.0	100.0	+43.4	-18.6	-6.6
<i>Air transport cluster</i>	32.5	17.1	5.4	13.5	42.1	+151.5	-58.5	-25.4
<i>Other airport-related activities</i>	6.9	7.4	17.0	18.5	57.9	+9.2	+170.1	+39.3
Ostend	4.2	3.9	4.1	3.5	100.0	-15.9	-17.3	-6.1
<i>Air transport cluster</i>	4.1	3.7	3.8	3.3	95.9	-12.2	-18.0	-6.4
<i>Other airport-related activities</i>	0.1	0.2	0.3	0.1	4.1	-57.6	+3.1	+1.0
TOTAL	254.6	162.6	206.9	260.0		+25.7	+2.1	+0.7

Source: NBB (Central Balance Sheet Office, own calculations).

2.2 DETAIL BY AIRPORT

2.2.1 Antwerp Airport

2.2.1.1 Recent developments⁷³

In 2002, Antwerp Airport saw its passenger traffic nosedive. The 30 % fall on the year-earlier period was due to home carrier Sabena going bankrupt and the discontinuation of flights to Amsterdam and Geneva. The airport has never recovered – barring a brief upturn in 2007-2008 – and has been on a continuous downward trend ever since, reporting a mere 137,000 passengers in 2013. Throughout this period, flights to London City Airport operated by VLM Airlines/CityJet (see below) were the only scheduled service offered from the airport. The same airline also operated flights to Manchester until October 2012; this route was taken over by bmi regional and discontinued only a year later because it was not profitable. In July 2014 the airport welcomed a new service to London Southend, operated by Flybe via partner Stobart Air, and in September 2014 Jetairfly (TUI Airlines) announced it would fly to Spain twice a week from Easter 2015.

Antwerp Airport mainly accommodates private, business and training traffic, which together account for 92 % of all flight movements and with flight training taking up one-third of the total. Antwerp is home to the Ben-Air Flight Academy (BAFA), one of the country's leading flying schools. BAFA provides commercial and private pilot's licence training courses in both Antwerp and Ostend, and owns 11 training aircraft and two simulators. To limit nuisance to local residents, however, the number of training flights is being gradually reduced and a ceiling of 12,000 flights has been imposed for 2014, whereas the number ended 2013 at over 14,000.

As previously noted, Antwerp Airport's fate has been closely linked to VLM Airlines in the past couple of years. The Antwerp-based airline started scheduled flights to London City Airport in 1993 and soon added more destinations, with varying degrees of success, not so much from Antwerp but rather between London City Airport and airports such as Rotterdam, Eindhoven, Luxembourg and Jersey. VLM Airlines was bought by Ireland's CityJet in 2007, itself part of the Air France-KLM group. Since then, the airline no longer operates its own network but provides scheduled flights under the CityJet name as well as charter flights for third parties. In May 2014, CityJet – and VLM – was acquired by the German company Intro Aviation, which has said it intends to have VLM resume some flights under its own original name.

One obstacle to any further development of the airport is the shortness of the runway, only allowing take-off of aircraft with no more than about 100 passengers. Years of debate about extending the runway, coupled with the vexed question of the airport's continuing viability, have resulted in a decision to route the busy road right at the end⁷⁴ of the runway through a tunnel and so enable the use of the runway's full length. International safety regulations specify that no obstacles should be located at the extremities of a runway, where they clearly have been until now. The € 54 million construction project got underway in May 2013 and should complete in 2015.

Lastly, a new management system has been put in place for Antwerp's airport (and Ostend's). Antwerp Airport used to be an independent entity within the Flemish government's Department of Mobility and Public Works. A few years ago, the government decided to break up this service into two parts: one an Airport Development Company (LOM) responsible for infrastructure and still part of the Flemish government, and the other an Airport Operating Company (LEM), which would take on the actual running of the airport. In 2013, the airport's operation was granted to France's Egis.

⁷³ Sources include: www.antwerp-airport.be, 2009-2012 annual reports, Statistical Yearbook 2013, interview with K. Pittevels (Antwerp Airport), and miscellaneous press articles.

⁷⁴ Specifically, Krijgsbaan (R11) from Mortsel to Wommelgem.

2.2.1.2 Value added

TABLE 22 ANTWERP AIRPORT: VALUE ADDED FROM 2009 TO 2012
(in € million – current prices)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	39.2	41.9	41.4	43.3	100.0	+4.5	+10.4	+3.3
Air transport cluster	26.0	28.4	28.7	30.6	70.8	+6.6	+18.0	+5.7
Air transport	17.2	20.1	19.5	21.5	49.7	+10.3	+24.8	+7.7
Travel agencies and tour operators	0.2	0.2	0.2	0.0	0.0	-89.6	-87.2	-49.6
Airport operator*	3.3	3.5	4.1	3.9	9.0	-5.2	+18.2	+5.7
Airport handling	0.0	0.0	0.0	0.0	0.0	n.	n.	n.
Building and repairing of aircraft	1.0	1.1	0.9	0.9	2.1	-2.4	-13.2	-4.6
Other air transport supporting activities ...	4.2	3.5	4.0	4.3	9.9	+7.4	+1.4	+0.4
Other airport-related activities	13.2	13.5	12.7	12.7	29.2	-0.4	-4.5	-1.5
Passenger transport over land	0.0	0.1	0.1	0.1	0.3	+6.9	+145.0	+34.8
Freight transport over land	0.2	0.2	0.2	0.2	0.5	-0.2	+9.0	+2.9
Cargo handling and storage	1.2	1.1	1.2	1.0	2.4	-14.6	-12.8	-4.5
Courier and post activities	1.0	1.1	1.1	1.1	2.5	-1.4	+6.8	+2.2
Security and industrial cleaning	0.4	0.1	0.1	0.1	0.2	+2.9	-70.4	-33.3
Trade	3.0	3.7	4.0	3.6	8.3	-10.1	+19.5	+6.1
Hotels, restaurants and catering	0.5	0.5	0.5	0.5	1.3	+5.2	+8.2	+2.7
Other services	5.8	5.7	4.1	4.8	11.1	+16.4	-17.3	-6.1
Other industries	0.0	0.0	0.1	0.1	0.2	+0.3	n.	n.
Public services	1.1	1.1	1.3	1.1	2.5	-13.7	-3.7	-1.3
2. INDIRECT EFFECTS	53.7	62.7	61.4	64.0	-	+4.2	+19.3	+6.1
TOTAL	92.9	104.6	102.9	107.3	-	+4.3	+15.5	+4.9

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

* It should be noted that the direct value added generated by the airport operator includes operating subsidies and compensation paid by public authorities, totalling around € 2,3 million per year in 2009 and 2010 and € 2.6 million per year in 2011 and 2012.

Ignoring 2011's stagnating figures, Antwerp Airport's total direct value added rose 10.4 % in the period, to € 43.3 million in 2012. The air transport cluster accounted for 70.8 % of the total, nearly half of which (49.7 %) is attributable to the air transport sector. This sector is dominated by two companies, with VLM Airlines notching up the highest value added at the airport, despite the fact that the carrier faced years of heavy operating losses in the wake of a weak economy and declining passenger numbers and did not turn this around to a modest profit until 2012. The company managed to keep up and even slightly increase value added by steeply cutting costs and reducing depreciation and value adjustments.

Antwerp Airport is also home to other major player Flying Group, which is active in business air travel through a number of companies. The group runs a small fleet of aircraft typically bought by various co-owners and chartered to third parties in addition to own use. Responsible for maintenance of the aircraft, it invested millions in a new aircraft hangar in 2011. As well as being an authorised service partner of Cessna, Flying Group also carries out the airport handling for

AviaPartner. Both the value added and employment numbers related to its handling operations are thus listed under air transport, putting a nil under airport handling.

A minor 10 % of the value added (and 13 % of employment) is down to the airport operator, i.e. the Flemish government, which employed just under 70 FTEs in the period. Other air transport supporting activities are largely made up of Belgocontrol, which is in charge of air traffic control and employs some 20 people at the airport. Trade (including BP supplying aviation fuel) and other services are the key sectors in other airport-related activities (see 2.2.1.3).

At 19.3 %, the indirect value added generated by Antwerp Airport grew faster than its direct value added, ending 2012 at € 64.0 million. In that year, direct and indirect value added totalled € 107 million.

2.2.1.3 Employment

TABLE 23 ANTWERP AIRPORT: EMPLOYMENT FROM 2009 TO 2012
(in FTEs)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	505	510	521	512	100.0	-1.8	+1.3	+0.4
Air transport cluster	365	371	370	358	70.0	-3.3	-2.0	-0.7
Air transport	251	253	247	233	45.5	-5.7	-7.2	-2.5
Travel agencies and tour operators	2	2	2	3	0.5	+8.3	+8.3	+2.7
Airport operator	69	69	69	69	13.4	0.0	+0.1	+0.0
Airport handling	0	0	0	0	0.0	n.	n.	n.
Building and repairing of aircraft	14	16	16	14	2.8	-8.9	+2.0	+0.7
Other air transport supporting activities ...	29	31	36	40	7.7	+8.8	+35.2	+10.6
Other airport-related activities	140	138	151	154	30.0	+1.9	+10.1	+3.2
Passenger transport over land	4	2	3	3	0.6	+19.2	-13.9	-4.9
Freight transport over land	4	4	4	4	0.7	-0.9	-3.1	-1.0
Cargo handling and storage	16	15	17	14	2.8	-13.3	-11.0	-3.8
Courier and post activities	18	18	18	17	3.3	-5.6	-5.6	-1.9
Security and industrial cleaning	8	2	2	2	0.4	0.0	-75.0	-37.0
Trade	7	9	9	9	1.8	+9.3	+29.4	+9.0
Hotels, restaurants and catering	14	14	16	17	3.4	+6.7	+23.4	+7.3
Other services	51	56	63	69	13.5	+10.0	+35.3	+10.6
Other industries	0	0	1	1	0.2	+0.1	n.	n.
Public services	18	18	19	17	3.3	-13.6	-5.4	-1.8
2. INDIRECT EFFECTS	878	917	898	936	-	+4.2	+6.6	+2.2
TOTAL	1,383	1,427	1,419	1,448	-	+2.0	+4.7	+1.5

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

In 2012, Antwerp Airport employed a total 1,448 direct and indirect full-time equivalents. Unlike its value added, direct employment hardly moved (+1.3 % in four years, i.e. an average +0.4 % a

year). In 2012, it totalled 512 FTEs, its breakdown across the clusters being identical to the value added (70 % air transport, 30 % other airport-related activities). Here, too, the same players dominate: VLM Airlines and Flying Group together account for 46 % of employment at the airport, although VLM has been reducing workforce numbers in the past few years, with growth at Flying Group not quite offsetting this.

Among the other air transport supporting activities, flight school Ben-Air Flight Academy doubled its workforce, while other services recorded an increase of 16 FTEs (to 36) at Aerodata International Surveys, a surveying and mapping company specialised in acquisition of airborne spatial data on the earth's surface. However, since 2011, this latter company has been looking at significant operating losses of € 2-2.5 million, squeezing the value added. Other services also includes Finserve Finance (aviation insurance) and Finserve Rent (car rentals for Hertz), which jointly employ 16 people.

Lastly, public services employment has held steady at 17 FTEs and comprises customs officers and airport police.

2.2.2 *Brussels Airport*

2.2.2.1 Recent developments⁷⁵

The number of passengers at Brussels Airport rose to a total 19.1 million in 2013, which – ignoring 2009 – represents a continuous uptrend since this figure sharply fell in 2002. At 16 %, Brussels Airport has a relatively low share of transfer and transit passengers⁷⁶; 76 % of passenger traffic is intra-European, nearly half of which is from and to Mediterranean countries. Leading destinations in 2013 were Madrid, New York, London, Geneva and Istanbul, in that order. Cargo traffic, by contrast, has been on a downtrend since 2010 and stood at 429,900 tonnes handled in 2013. Of this figure, 68 % was down to overseas transport, with North America and Asia-Pacific each claiming 27-28 %. Top destinations are Leipzig (DHL European hub), Seoul (Korean Airlines) and Cincinnati (DHL North American hub).

2014 heralds a new phase in Brussels passenger traffic. Traditionally, Brussels has always been a classic airport with little low-cost presence. Early in November 2013, Spain's low-cost carrier Vueling announced a number of new destinations for the summer of 2014; a few weeks later Ryanair, which in Belgium had served Charleroi only and is its dominant airline, broke the news that it would start services from and to Brussels Airport. It would add ten new destinations from February 2014 onwards, which it reckoned would bring 1.5 million additional passengers a year. Meanwhile, Brussels Airlines has also expanded its offering of summer destinations. The airport reported record numbers for the spring and summer of 2014, and total traffic in 2014 might return to its 2001 levels. We should also note here that in 2009 plans to build a dedicated low-cost terminal had been postponed indefinitely, mainly in response to protests from the traditional carriers.

Although cargo traffic has been on a downward trend for a number of years, Brussels Airport continues its efforts to further develop this end of the market. It has added a number of new carriers and some – e.g. Korean Airlines – have increased capacity, but others – Cathay Pacific, for one – have done exactly the reverse. Interestingly, courier company DHL, which shifted its European main hub from Brussels to Leipzig in 2009, performed really well in 2013 and 2014, and Brussels cargo traffic grew by 6.0 % in the first half of 2014. At the end of 2012, Brussels Airport announced that it and its air cargo partners would invest € 200 million in Brucargo⁷⁷ until 2020. In 2013, it started a pilot project with the Flemish Institute for Logistics to investigate the possibilities of becoming a pharma hub, launching a certification programme to standardise handling pharmaceuticals. In addition, Brussels Airport has joined forces with Flemish employers' organisation Voka to create a Cargo Community System for the exchange of information between the various logistics players. And lastly, in June 2014, Brussels beat Abu Dhabi, Dubai and Seoul when it was named Best Cargo Airport of the Year at the World Air Cargo Awards in Shanghai.

As pointed out above, planned construction of a low-cost terminal was postponed in 2009, but in 2011 the airport announced a € 170 million expansion of Pier A⁷⁸ – a project also cancelled two years later in the wake of slower-than-expected passenger traffic growth. On the other hand, Brussels Airport did start work on the Connector project, an above-ground link between the terminal and Pier A that will dramatically reduce walking distances for passengers. Connector involves an investment of € 75 million and should become operational in the course of 2015. In 2012, Brussels Airport embarked on the Gateway office project, a redevelopment of the old terminal (which dates back to 1958). This project will cost € 100 million and should be completed by 2016. Airport accessibility was also improved by a fly-over providing immediate access to

⁷⁵ Sources include: www.brusselsairport.be, BRU trends, interview with P. Demunter (Brussels Airport Company) and miscellaneous press articles.

⁷⁶ Transfer passengers are passengers arriving and departing on different aircrafts; transit passengers are passengers arriving and continuing their journey on board the same aircraft.

⁷⁷ Brucargo is the cargo area at Brussels Airport.

⁷⁸ Intended as home base for Star Alliance members, such as Brussels Airlines and Lufthansa.

Brucargo from the E19 motorway, and by way of the so-called Diabolo project, a new railway link connecting the airport with a number of Belgian cities.

In October 2013, Jetairfly, the commercial name of TUI Airlines Belgium, opened its 'Jetairport' at Brussels Airport, to which it has since moved the majority of its workforce. In addition to office space, Jetairport is also home to new aircraft hangars and a technical centre for the maintenance of its fleet by Tec4Jets Belgium.

Brussels Airport only licenses two ground handlers – Flightcare and AviaPartner until 2011, when the latter lost its licence in a new tender won by Swissport Belgium. AviaPartner and Menzies, which also failed to get a licence, challenged the decision in the courts, which duly suspended the airport operator's decision and ordered it to grant provisional licences to incumbents AviaPartner and Flightcare. Swissport did not wait for legal proceedings to run their course and acquired Flightcare a year later. AviaPartner is now looking for a strategic partner to help bolster its position; a planned merger with sector peer WFS failed to go ahead in 2013⁷⁹.

One problem that goes beyond Brussels Airport is Belgocontrol, the public company responsible for air traffic control in Belgium's airspace and at five out of the country's six airports (Kortrijk excepted). Belgocontrol has structural funding problems that have caused massive operating losses (€ 20.4 million in 2010, less in subsequent years but still exceeding € 10 million). The main reason is the non-indexation of fees at Brussels Airport and inadequate compensation for services Belgocontrol provides at the regional airports, a complex political issue.

2.2.2.2 Value added

After moving in tandem with declining air traffic figures in 2009, Brussels Airport's direct value added also edged back up along with air traffic in 2010, though only in the air transport cluster. Having nudged down again in subsequent years, the cluster ended 2012 at € 881.9 million, 1.4 % above the figure notched up three years before. Other airport-related activities lost € 62.7 million in value added, almost all of it in courier and post activities (see below). Other airport-related activities at Brussels Airport as a share of the total is significantly higher than at the other airports (Liège excepted), as both Brussels Airport and Liège are home to numerous logistics services. Combining these strands, Brussels saw its total direct value added fall 3.8 % in 2010, hold more or less steady in the two subsequent years and end up at € 1.452 billion in 2012 (3.4 % below 2009). Including indirect effects, the overall figure for 2012 was over € 3 billion, i.e. 1.4 % of Flemish GDP⁸⁰.

Brussels Airport Company, the airport operator, represents the largest sector at one-fifth of the total and is also at the top of the company ranking. Its value added has been rising continuously, thanks in part to excellent operating results. Air transport comes next, at € 287.1 million, an amount that has fluctuated relatively little in the period under review. The changeover in 2010 from European Air Transport to EAT Leipzig GmbH may have halved its value added, but this was amply compensated by Brussels Airlines and TUI Airlines. Cargo B Airlines, which posted a negative value added of € 12.5 million in 2009 (and briefly moved to Liège), went into liquidation that year and no longer weighed down the sector's value added in 2010. Brussels Airlines kept its value added stable through increased depreciation and value adjustments, as operating losses deepened from € 12.4 million in 2010 to € 91.8 million in 2012 – a year bogged down by the slump in air travel and steep fuel prices. In 2013, the company managed to reduce its operating loss to € 28.2 million by implementing its Beyond 2012-2013 plan.

⁷⁹ In August 2014, US private equity fund HIG Capital announced it would buy 50 % stake off its British peer 3i.

⁸⁰ Source: Belgostat.

TABLE 24 BRUSSELS AIRPORT: VALUE ADDED FROM 2009 TO 2012
(in € million – current prices)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	1,502.9	1,446.3	1,470.6	1,452.5	100.0	-1.2	-3.4	-1.1
Air transport cluster	869.6	890.8	886.3	881.9	60.7	-0.5	+1.4	+0.5
Air transport	276.8	310.6	272.3	287.1	19.8	+5.5	+3.7	+1.2
Travel agencies and tour operators	1.7	1.5	1.5	1.5	0.1	-0.8	-11.5	-4.0
Airport operator*	256.8	258.4	292.4	308.7	21.3	+5.6	+20.2	+6.3
Airport handling.....	131.8	135.3	132.3	122.4	8.4	-7.4	-7.1	-2.4
Building and repairing of aircraft.....	64.7	56.7	58.4	28.9	2.0	-50.6	-55.4	-23.6
Other air transport supporting activities ...	137.8	128.4	129.5	133.3	9.2	+2.9	-3.3	-1.1
Other airport-related activities	633.3	555.5	584.2	570.5	39.3	-2.3	-9.9	-3.4
Passenger transport over land	11.3	12.3	12.2	12.2	0.8	+0.0	+8.5	+2.8
Freight transport over land.....	14.4	12.5	12.9	13.8	0.9	+7.2	-4.2	-1.4
Cargo handling and storage	125.6	127.2	137.9	132.4	9.1	-4.0	+5.4	+1.8
Courier and post activities	211.2	121.1	124.7	120.5	8.3	-3.4	-42.9	-17.1
Security and industrial cleaning.....	40.9	41.2	35.8	37.1	2.6	+3.5	-9.4	-3.3
Trade	37.4	47.6	52.6	49.4	3.4	-6.1	+32.0	+9.7
Hotels, restaurants and catering.....	61.8	62.4	62.1	56.7	3.9	-8.6	-8.1	-2.8
Other services.....	23.6	24.8	38.5	38.9	2.7	+0.9	+64.6	+18.1
Other industries	10.4	9.2	10.9	11.4	0.8	+4.2	+10.1	+3.2
Public services.....	96.7	97.2	96.5	98.0	6.8	+1.6	+1.4	+0.5
2. INDIRECT EFFECTS	1,515.1	1,591.3	1,639.1	1,583.2	-	-3.4	+4.5	+1.5
TOTAL.....	3,018.0	3,037.6	3,109.7	3,035.7	-	-2.4	+0.6	+0.2

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

* It should be noted that the direct value added generated by the airport operator includes operating subsidies and compensation paid by public authorities, totalling around € 0.2 million in 2009.

The contraction of value added in building and repairing of aircraft is almost completely due to Sabena Technics. The maintenance company has been through a series of restructurings and laid off over 400 people in a period of three years. Reduced staff costs combined with rising operating losses (which by 2012 had almost tripled to € 12.6 million) slashed the value added from a positive € 45.1 million to a negative € 5.1 million. Handlers saw their value added in 2012 fall back on contracting operating profits (and even heavy losses at AviaPartner Belgium).

As we have noted, losses in other airport-related activities are largely attributable to courier and post activities, more specifically at DHL: its 2009 operating profits of € 52.3 million reversed into a loss of € 25.2 million the following year. Losses stabilised in subsequent years, but the company saw its value added halve compared with 2009, a trend exacerbated by the dismissal of 180 employees. The increase in the value added at trade is mainly due to Belgian Sky Shops, which runs various shops at the airport. A key contributor in other services is AviaPartner Holding, parent to handler AviaPartner Belgium.

In addition to Brussels Airport Company, the top ten of companies and institutions with the highest value added in 2012 included two airlines (Brussels Airlines and TUI Airlines), two ground handlers

(Swissport and AviaPartner), two courier companies (DHL and TNT Express Belgium), Belgian Sky Shops, air traffic control company Belgocontrol and the Belgian Air Force's 15th Wing Air Transport. The top ten accounts for 64 % of the total value added as created by Brussels Airport.

2.2.2.3 Employment

TABLE 25 BRUSSELS AIRPORT: EMPLOYMENT FROM 2009 TO 2012
(in FTEs)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	18,169	17,763	17,478	17,463	100.0	-0.1	-3.9	-1.3
Air transport cluster	9,205	9,002	8,996	8,853	50.7	-1.6	-3.8	-1.3
Air transport	3,832	3,742	3,827	3,895	22.3	+1.8	+1.6	+0.5
Travel agencies and tour operators	24	23	22	26	0.1	+17.9	+7.7	+2.5
Airport operator	759	735	739	728	4.2	-1.5	-4.1	-1.4
Airport handling	2,313	2,341	2,431	2,342	13.4	-3.6	+1.3	+0.4
Building and repairing of aircraft	1,295	1,196	1,056	956	5.5	-9.5	-26.2	-9.6
Other air transport supporting activities	982	965	921	905	5.2	-1.7	-7.8	-2.7
Other airport-related activities	8,963	8,761	8,482	8,610	49.3	+1.5	-3.9	-1.3
Passenger transport over land	288	302	301	298	1.7	-1.0	+3.6	+1.2
Freight transport over land	241	201	186	196	1.1	+5.6	-18.7	-6.7
Cargo handling and storage	1,722	1,625	1,676	1,840	10.5	+9.8	+6.9	+2.2
Courier and post activities	1,964	1,893	1,716	1,660	9.5	-3.2	-15.5	-5.5
Security and industrial cleaning	953	986	900	917	5.3	+1.9	-3.8	-1.3
Trade	558	556	552	546	3.1	-1.0	-2.1	-0.7
Hotels, restaurants and catering	1,201	1,176	1,115	1,127	6.5	+1.1	-6.1	-2.1
Other services	260	263	282	289	1.7	+2.6	+11.2	+3.6
Other industries	138	130	151	149	0.9	-1.8	+7.3	+2.4
Public services	1,638	1,630	1,603	1,587	9.1	-1.0	-3.1	-1.0
2. INDIRECT EFFECTS	20,828	21,049	20,723	20,825	-	+0.5	0.0	0.0
TOTAL	38,997	38,812	38,201	38,288	-	+0.2	-1.8	-0.6

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

Direct employment at Brussels Airport likewise fell in 2010 (-2.2 %), then edged down a little further the year after before stabilising at 17,463 FTEs in 2012 (-706, or 3.9 % fewer than in the first year of the study). These employee numbers are virtually equally distributed between other airport-related activities and the air transport cluster. After some swings, indirect employment ended 2012 at almost precisely the same number of FTEs as three years earlier: 20,825. Directly and indirectly, then, Brussels Airport accounts for nearly 38,300 jobs, or 1.6 % of total employment in Flanders⁸¹.

In the air transport cluster, the 2010 job losses at European Air Transport (-164 FTEs) were not completely offset by gains at the other airlines in air transport: Brussels Airlines and Thomas Cook

⁸¹ Source: Belgostat.

Airlines increased their workforces, but TUI Airlines did not start doing so until 2011-2012. By 2012, the sector was employing a record number of people (3,895 FTEs). Brussels Airlines continued to recruit new staff throughout the period and stood at 2,479 full-time equivalents by 2012 (+315 in the space of three years), leading the rankings of employers at the airport and almost twice as big as second-placed Swissport Belgium.

Employment at the handlers (only two: Flightcare/Swissport and AviaPartner) remained more or less unchanged, while operator Brussels Airport Company reported a slight fall. As noted (see 2.2.2.2.), the situation at building and repairing of aircraft is dominated by Sabena Technics, which let go over 400 employees. This drop was partly offset by Tec4Jets, the maintenance arm of the TUI-Jetair Group, and particularly by X-Air Services, a 2009 joint venture of Sabena Technics and TNT Airways, which also operates at Liège Airport. In other air transport supporting activities, steady falls were reported in the workforce at air traffic control company Belgocontrol.

After DHL and Federal Express Europe⁸² cut back their workforces (together -340 FTEs), courier and post activities stopped being the largest sector in other airport-related activities in terms of employment. In first place now is cargo handling and storage, having added 6.9 %. Following an initial dip in 2010 (a weak year for the airport in general and one that saw DHL Global Forwarding cut its presence at Brussels Airport) the sector found its way back up; in particular, Swissport Cargo Services pushed up its workforce smartly in 2012⁸³.

At 1,127 FTEs, the hotel and catering sector is also an important employer at Brussels Airport. Largely it comprises Airhotel Belgium (the Sheraton), Autogrill Belux (operator of several restaurants) and caterers LSG Sky Chefs, a Lufthansa subsidiary, and Gate Gourmet. The former acquired the latter in 2013 and renamed LSG Sky Chefs Brussels International. To get a new second caterer in, the airport launched a tender offer, won in 2014 by France's Newrest-Servair.

Employment in security and industrial cleaning has held steady over the period, but the net figures hide major fluctuations. In 2011, Securitas Transport Aviation Security lost the contract to provide airport security to G4S Aviation Security, and the latter player made it onto the rankings in the same year, with over 600 FTEs. Meanwhile, Securitas lost an equal number of jobs, but remained at the airport to serve a number of individual airlines. Lastly, various government services employ a little under 1,600 people, two-thirds at the Belgian Air Force and the remainder almost all officers of the federal police and customs, both of which employers have gradually reduced their workforces.

The ten largest employers at Brussels Airport together have 9,706 FTEs on their payrolls, 56 % of total employment. After largest employer Brussels Airlines and number two Swissport Belgium, third and fourth place go to the Belgian Air Force and the second handler AviaPartner Belgium. The top 10 is completed by DHL, Brussels Airport Company, Belgocontrol, G4S Aviation Security, TUI Airlines and Sabena Technics, all of which have over 500 FTEs onsite at the airport.

2.2.2.4 Investment⁸⁴

In 2010, investment in tangible fixed assets reflected the slowdown in Brussels Airport's economic performance, but dramatically so – halving compared with 2009. The next two years saw a robust revival and investment was back at € 182.3 million in 2012, 6.8 % above the 2009 figure. The air transport cluster contributed two-thirds of this amount.

⁸² In 2011, Federal Express Europe opened a distribution centre in the Belgian town of Machelen outside Brussels' airport zone, and consequently also moved a proportion of airport employment

⁸³ On 1 November 2012, airport handler Swissport Belgium transferred its cargo operations to Swissport Cargo Services Belgium.

⁸⁴ Since the other airports are much smaller and therefore have only a relatively small number of companies investing, this aspect is only discussed separately for Brussels.

TABLE 26 BRUSSELS AIRPORT: DIRECT INVESTMENT FROM 2009 TO 2012
(in € million – current prices)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
Air transport cluster	131.2	51.0	70.4	121.0	66.4	+71.8	-7.8	-2.7
Air transport	36.7	7.7	25.0	44.2	24.3	+76.8	+20.6	+6.4
Travel agencies and tour operators	0.0	0.0	0.0	9.0	4.9	+35,339.8	+34,083.0	+599.2
Airport operator	61.3	27.5	32.1	56.8	31.1	+76.9	-7.4	-2.5
Airport handling	3.0	1.4	3.2	2.4	1.3	-23.9	-20.2	-7.3
Building and repairing of aircraft	1.9	2.3	0.8	2.8	1.6	+241.0	+50.5	+14.6
Other air transport supporting activities ...	28.3	11.9	9.2	5.7	3.1	-38.2	-79.8	-41.3
Other airport-related activities	39.5	43.3	76.0	61.3	33.6	-19.3	55.4	15.8
Passenger transport over land	1.4	0.9	1.6	0.9	0.5	-45.1	-35.1	-13.4
Freight transport over land	0.7	1.3	0.7	1.4	0.8	+109.3	+89.2	+23.7
Cargo handling and storage	5.7	5.0	5.1	9.0	4.9	+75.0	+58.7	+16.6
Courier and post activities	8.6	2.9	20.2	5.9	3.2	-70.8	-32.0	-12.1
Security and industrial cleaning	0.8	0.2	0.5	0.4	0.2	-21.4	-54.3	-23.0
Trade	1.3	2.3	3.4	1.6	0.9	-52.3	+23.7	+7.4
Hotels, restaurants and catering	1.7	1.8	2.2	2.9	1.6	+31.7	+64.1	+18.0
Other services	18.9	28.7	41.7	39.0	21.4	-6.6	+105.9	+27.2
Other industries	0.2	0.2	0.6	0.3	0.2	-50.1	+26.6	+8.2
TOTAL	170.7	94.3	146.4	182.3	100.0	+24.5	+6.8	+2.2

Source: NBB (Central Balance Sheet Office, own calculations).

Air transport itself recovered from the 2010 slump that followed the departure of European Air Transport, which had accounted for 88 % of the sector's total investment in 2009. In 2011 and 2012 the big investors were TUI Airlines and particularly Brussels Airlines, the latter in an overhaul of its fleet and in new aircraft orders. As a result, Brussels Airlines became the airport's second largest investor after operator Brussels Airport Company. These two together accounted for 54 % of total investment in 2012. The airport operator invested a total € 177.7 million in fixed assets over the four-year period, including in long-term projects such as the expansion of Brucargo, the construction of the Connector between the airport terminal and Pier A and redevelopment of the old terminal building.

In other air transport supporting activities, Belgocontrol invested heavily in completing its new CANAC 2 air traffic control centre and its Metafor weather forecasting system in the first few years, but its investment slowed down from 2011. The significant investment figure that suddenly shows up under travel agencies and tour operators in 2012 relates to Jetair Real Estate. This company is classified as a travel agency and was located in Mechelen (outside airports) under the Ultra Montes name until 2011. At the end of that year, it moved its head office to Brussels Airport and expanded the company's corporate objectives to include real estate operations, focused on the set-up of 'Jetairport', the new location for the various business units that make up the TUI group (TUI Airlines, Jetair, Jetaircenter and Tec4Jets), which offers office space, aircraft hangars and maintenance facilities.

The high investment figure for other services relates to AviaPartner Holding, parent to handler AviaPartner Belgium, and especially to the purchase of vehicles by car rental companies Avis Belgium, Hertz Belgium and Sixt Belgium⁸⁵.

⁸⁵ As already mentioned, the distinction between inside and outside airports is based on the breakdown of employment between the operating establishments of companies. A company may therefore be present both inside and outside an airport. Car rental companies are among the big investors in that situation. For them, the investment counted outside airports may in fact be located inside airports, and vice versa. These figures are therefore given purely as a guide.

2.2.3 Charleroi Airport⁸⁶

2.2.3.1 Recent developments

Charleroi is the fastest growing Belgian airport in terms of passenger numbers: traffic surged by 276 % in the decade between 2003 and 2013, to 6.8 million in the last year of our period under review. The airport has been breaking record after record since 2005, and even in the 2009-2013 period it continued to notch up average annual growth of 14.5 %. The key driver is Ryanair, which created its first base on the Continent at Charleroi in 2001 and which boasted an 83 % share of the market by 2013⁸⁷. Following in Ryanair's footsteps, a few other low-cost carriers settled at Charleroi Airport (Hungary's Wizz Air being the oldest and most important among them) and Jetairfly has started offering flights to Mediterranean destinations. These carriers have been introducing new routes every year (13 in 2013).

In a surprise move, Ryanair announced in November 2013 that it would fly from and to Brussels Airport going forward, and it actually started doing so in February 2014. This will no doubt affect traffic at Charleroi, with routes discontinued and fewer aircraft stationed there. BSCA⁸⁸ expects to lose 600,000 passengers in 2014 as a result. The first half of 2014 already saw a 4 % fall on the year-earlier figure.

Charleroi Airport has seen a number of major works in the past couple of years. In 2009, the installation of a category 3 instrument landing system (ILS) was completed, enabling aircraft to land in virtually all weather conditions. The new Taxi Way North became operational the next year, as did a parking lot for 1,500 vehicles, while 2011 saw four new boarding gates open. Lastly, the commercial zone underwent a thorough overhaul in 2013.

A number of new investment projects are planned or being investigated. The passenger terminal is the first issue, opened in 2008 and built for 3 million passengers, but it reached full capacity quite a while ago. An € 80 million masterplan envisages the construction of a new terminal with a capacity of 9 million passengers, by 2018 in principle. Meanwhile, an ongoing study is looking into extending the runway from 2,550 metres to 3,200 metres and so facilitating transatlantic flights – this would require a € 20 million investment. Lastly, the airport authorities are seeking to have a railway station built, but this cannot be achieved until 2027 at the earliest.

2.2.3.2 Value added

In keeping with its rising air traffic volumes, Charleroi Airport's direct value added has also showed a continuous upward trend, amounting to € 131.9 million in 2012, a 42.3 % surge on 2009⁸⁹. Over half of value added in the air transport cluster is generated by airport operator Brussels South Charleroi Airport (BSCA)⁹⁰. The building and repairing of aircraft sector is next at € 27.1 million, with Société anonyme belge de Constructions aéronautiques (SABCA) accounting for the vast majority and claiming second place after BSCA in the company ranking. In addition to Charleroi Airport, SABCA also has operations in Brussels and a subsidiary – SABCA Limburg – in Lummen. These last two primarily focus on space and civil aircraft and produce parts for various Airbus aircraft and the Ariane 5 space rocket. The Charleroi plant specialises in defence orders and helps

⁸⁶ Sources include: www.charleroi-airport.com, BSCA and Sowaer annual reports, interview with J.-J. Cloquet and M. Tellier (BSCA), and miscellaneous press articles.

⁸⁷ In 2000, the year before Ryanair set up business at Charleroi, a mere 255,000 passengers came through the airport.

⁸⁸ BSCA = Brussels South Charleroi Airport, the airport's operator.

⁸⁹ As mentioned earlier, Ryanair's value added and employment were not taken into account in this study because the data were not available. Consequently, air transport's share is a very small one.

⁹⁰ It should be noted that the direct value added generated by BSCA includes operating subsidies and compensatory amounts paid by public authorities, totalling around € 30 million in 2009 and 2010 and € 31 million in 2011 and 2012.

to modernise aircraft and helicopters for the Belgian air force as well as for foreign (e.g. French) armed forces. In 2012, SABCA markedly increased its turnover and operating profit.

TABLE 27 CHARLEROI AIRPORT: VALUE ADDED FROM 2009 TO 2012
(in € million – current prices)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	92.7	107.0	121.3	131.9	100.0	+8.7	+42.3	+12.5
Air transport cluster	60.7	74.2	82.9	89.7	68.0	+8.2	+47.7	+13.9
Air transport	0.2	0.2	0.6	1.0	0.8	+75.3	+554.0	+87.0
Travel agencies and tour operators	0.3	0.3	0.3	0.1	0.1	-67.1	-64.4	-29.2
Airport operator*	29.4	41.1	47.0	51.0	38.7	+8.6	+73.4	+20.1
Airport handling	0.0	0.0	0.0	0.0	0.0	n.	n.	n.
Building and repairing of aircraft	24.3	26.3	25.0	27.1	20.5	+8.2	+11.4	+3.7
Other air transport supporting activities ...	6.6	6.4	10.0	10.5	8.0	+5.0	+59.8	+16.9
Other airport-related activities	32.0	32.7	38.5	42.2	32.0	+9.7	+31.9	+9.7
Passenger transport over land	1.7	1.8	1.7	1.7	1.3	+2.6	+4.5	+1.5
Freight transport over land	0.3	0.3	0.3	0.3	0.2	-0.2	+9.0	+2.9
Cargo handling and storage	0.9	1.2	1.6	1.6	1.2	-2.3	+75.0	+20.5
Courier and post activities	0.0	0.0	0.0	0.0	0.0	n.	n.	n.
Security and industrial cleaning	14.3	12.7	15.9	18.4	13.9	+15.7	+28.7	+8.8
Trade	1.5	1.7	2.4	2.8	2.2	+20.7	+89.3	+23.7
Hotels, restaurants and catering	1.9	2.4	3.0	2.9	2.2	-1.8	+54.7	+15.6
Other services	2.9	3.4	4.8	4.6	3.5	-4.1	+60.4	+17.1
Other industries	1.5	1.5	1.2	1.3	1.0	+3.1	-18.0	-6.4
Public services	7.1	7.7	7.6	8.6	6.5	+12.3	+21.4	+6.7
2. INDIRECT EFFECTS	75.8	86.5	103.3	109.2	-	+5.7	+44.2	+13.0
TOTAL	168.4	193.4	224.6	241.1	-	+7.3	+43.1	+12.7

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

* It should be noted that the direct value added generated by BSCA includes operating subsidies and compensation paid by public authorities, totalling around € 30 million in 2009 and 2010 and € 31 millions in 2011 and 2012.

At other air transport supporting activities, around half of value added is generated by Belgocontrol, which has over 30 people at the airport. Société Wallonne des Aéroports (Sowaer), which also employs a few people at the site, also belongs in this sector. Handling is done by BSCA itself and airport handling does not feature as a separate sector in the airport's reported figures⁹¹.

Under other airport-related activities, security and industrial cleaning claims the sectoral lead, with value added of € 18.4 million in 2012. Activities include cleaning and maintenance company Laurenty⁹² and airport security, the latter being the responsibility of Brussels South Charleroi Airport Security, a subsidiary of BSCA (49 %) and the Walloon Region (51 %), which outsources its duties. These were undertaken by the Securitas group throughout the period under review: by

⁹¹ BSCA issued a tender for handling operations in 2012, but the outcome of the process was contested and the courts have yet to rule on the matter.

⁹² The contract went to Gom at the end of 2012.

Securitas Transport Aviation Security up to 2011 and by hived-off company Securitas Transport Aviation Security Wallonia from 2012. In October 2013, G4S Aviation Security took over the security contract.

Other key sectors in this cluster include other services – mainly car rental companies – and public services such as customs, federal police and Service Public de Wallonie (see 2.2.3.3).

In 2012, the indirect value added generated by companies located at Charleroi Airport exceeded € 100 million. Consequently, the total value added created by activities at the airport and companies upstream was around € 240 million.

2.2.3.3 Employment

TABLE 28 CHARLEROI AIRPORT: EMPLOYMENT FROM 2009 TO 2012
(in FTEs)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	1,323	1,362	1,474	1,549	100.0	+5.1	+17.1	+5.4
Air transport cluster	735	784	819	801	51.7	-2.2	+9.0	+2.9
Air transport	2	2	4	7	0.5	+78.9	+357.0	+65.9
Travel agencies and tour operators	5	5	5	2	0.1	-60.5	-60.8	-26.8
Airport operator	357	402	433	451	29.1	+4.0	+26.3	+8.1
Airport handling	0	0	0	0	0.0	n.	n.	n.
Building and repairing of aircraft	326	323	318	279	18.0	-12.3	-14.7	-5.2
Other air transport supporting activities ...	46	53	60	63	4.1	+5.4	+38.1	+11.4
Other airport-related activities	588	578	655	748	48.3	+14.3	+27.2	+8.4
Passenger transport over land	7	10	7	5	0.3	-35.7	-30.6	-11.5
Freight transport over land	5	5	5	5	0.3	-0.9	-3.1	-1.0
Cargo handling and storage	10	11	11	11	0.7	0.0	+10.0	+3.2
Courier and post activities	0	0	0	0	0.0	n.	n.	n.
Security and industrial cleaning	331	296	367	433	28.0	+18.1	+31.1	+9.4
Trade	22	30	37	45	2.9	+19.5	+99.6	+25.9
Hotels, restaurants and catering	57	62	63	73	4.7	+15.6	+27.6	+8.5
Other services	23	21	29	32	2.0	+10.8	+38.6	+11.5
Other industries	21	21	16	16	1.1	-0.1	-20.0	-7.2
Public services	113	123	120	129	8.3	+8.0	+14.0	+4.5
2. INDIRECT EFFECTS	1,227	1,270	1,445	1,474	-	+2.0	+20.1	+6.3
TOTAL	2,550	2,632	2,919	3,023	-	+3.6	+18.6	+5.8

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

Direct employment at Charleroi Airport may show less impressive momentum, but is still very encouraging at annual average growth of 5.4 % between 2009 and 2012. The airport added 226 FTEs over a period of three years and directly employed 1,549 full-time staff by 2012. If indirect employment is included too, the figure is closer to 3,023 FTEs in the same year.

The modest overall growth of the air transport cluster⁹³ was due to BSCA, which increased its workforce by 94 FTEs and which, as we have noted, is also in charge of handling operations at the airport. A number of jobs went at SABCA Charleroi, but in the company as a whole employment remained at the same level. BSCA and SABCA claim first and third place respectively in the largest employer ranking for Charleroi Airport.

The Belgocontrol workforce at Charleroi accounts for half of employment at other air transport supporting activities. Charleroi Airport is also home to Belgian Flight Group, an aviation group mainly active in airline pilot training, maintenance and other aviation services. Its subsidiaries employed a total 13 FTEs in 2012. In January 2014, Belgian Flight School and Belgian Flight Maintenance embarked on a legal restructuring process.

The largest employment growth at Charleroi (+160 FTEs) was at other airport-related activities and specifically in security and industrial cleaning, as Securitas increased its onsite workforce (see above). A number of other sectors also upped their staff numbers: trade (+23 FTEs, mainly at Belgian Sky Shops, which manages a number of shops at the airport), the catering sector (+16 FTEs in restaurant activities) and other services (+9 FTEs). Other services largely comprises car rental companies Avis, Europcar, Hertz and Sixt, which between them employ some 20 people.

Lastly, government services reported a 14 % increase in their workforce to 129 FTEs. Although the number of customs officers shrank slightly, the federal police expanded significantly, while Service Public de Wallonie annually offers over 20 jobs at the airport⁹⁴.

The three largest employers – BSCA, Securitas and SABCA – between them employed 1,094 FTEs in 2012, i.e. 71 % of the airport total.

⁹³ See footnote 89.

⁹⁴ This concerns more specifically the SPW Directorate General of Mobility and Waterways, which is subdivided into various departments. The Charleroi Airport Authority and the Liège Airport Authority are based at their respective airports.

2.2.4 Kortrijk Airport

2.2.4.1 Recent developments⁹⁵

Kortrijk is the smallest of Belgium's six airports. It offers no scheduled passenger flights, but focuses on business and private air travel and on training. Some 120 private aircraft and helicopters are stationed at the airport. In addition, Kortrijk Airport is a not insignificant player in terms of medical flights (organ transport and repatriation). Its passenger numbers have been between 65,000 and 70,000 for a decade; 2013 was the best year since 2003 at a total 71,200. A business park specifically for aviation-linked activities runs parallel to the runway.

Kortrijk Airport is currently operated by West Flanders Intermunicipal Airport of Wevelgem-Bissegem, with the province of West Flanders and the Leie valley municipalities (Leiedal) participating, along with 13 other municipalities in the region. The province and Leiedal own the airport. The Flemish government was planning an LOM-LEM structure⁹⁶ at Kortrijk similar to those currently in place at Antwerp and Ostend (see 2.2.1.1 and 2.2.6.1), separating infrastructure management and operation. However, in May 2014, it decided to first create a new limited company that should eventually adopt the LOM-LEM structure. Kortrijk Airport's first priority is to invest € 8-10 million in a new taxiway, aircraft parking facilities and a fire station if Kortrijk is to keep its international airport certification.

2.2.4.2 Value added

Kortrijk Airport may be looking at only modest direct value added – € 9.0 million in 2012 – but this figure has risen by 30.2 % since 2009. In 2011, value added was even higher: € 10.7 million. This works out at average annual growth of 9.2 % for the four-year period under review. The indirect value added also rose by 7.6 % a year, and these figures totalled almost € 19 million in 2012 when taken together. Kortrijk also reports the largest relative contribution to value added of the air transport cluster (80.9 % of the total).

The air transport cluster staged robust growth right up until 2011 but plunged by almost 20 % the year after. These movements were down to the only really big company operating at Kortrijk Airport: Abelag Group (31 % of total value added in 2012). This aviation group, which has its head office at Kortrijk Airport, is active in business air travel through Abelag Aviation and operates bases in Kortrijk and Brussels, in addition to activities in the Netherlands and France. Abelag Technics provides aircraft maintenance at the airports of Kortrijk, Antwerp and Brussels, while Abelag Handling is in charge of handling activities for the group's aircraft at Brussels Airport. Abelag was acquired in June 2013 by German-Luxembourg peer Luxaviation, which took in France's Unijet in February 2014 to turn itself into Europe's third largest business aviation group. Its strongly improved operating result from 2011 also led to higher value added, but as this was partly allocated to Brussels Airport⁹⁷ from 2012, Kortrijk's share declined on balance.

Kortrijk Airport boasts a compact but – given the small size of the airport – well-developed aircraft repair sector, which creates nearly € 2 million in value added every year (virtually doubled from 2009) and employs between 30 and 35 people. We have mentioned Abelag Technics, but among others there is also Aircraft Power Maintenance, owner of certified jet engine test facilities. Other air transport supporting activities accounted for € 1.4 million in value added in 2012, a 37 % increase during the period. The sector comprises Flanders International Airport (FIA), a private

⁹⁵ Sources include: www.kortrijkairport.be, annual reports, interview with S. Van Eeckhoutte (Kortrijk Airport) and miscellaneous press articles.

⁹⁶ LOM = Airport Development Company; LEM = Airport Operating Company.

⁹⁷ Based on employee data provided by the company.

company running the airport buildings⁹⁸ (i.e. baggage handling, catering, fuel supply and car parking), alongside a large number of companies (plus quite a few self-employed instructors) specialising in training, pleasure flights and maiden flights; the airport is also home to two flying clubs.

TABLE 29 KORTRIJK AIRPORT: VALUE ADDED FROM 2009 TO 2012
(in € million – current prices)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	6.93	7.66	10.68	9.03	100.0	-15.4	+30.2	+9.2
Air transport cluster	5.57	6.03	8.99	7.30	80.9	-18.8	+31.1	+9.5
Air transport	2.41	1.88	4.19	2.79	30.9	-33.4	+15.8	+5.0
Travel agencies and tour operators	0.00	0.00	0.00	0.00	0.0	n.	n.	n.
Airport operator	1.12	1.00	1.15	1.16	12.9	+1.7	+3.6	+1.2
Airport handling	0.00	0.00	0.00	0.00	0.0	n.	n.	n.
Building and repairing of aircraft	1.04	2.14	2.33	1.98	21.9	-15.1	+90.9	+24.1
Other air transport supporting activities ...	1.00	1.00	1.32	1.36	15.1	+3.2	+37.0	+11.1
Other airport-related activities	1.37	1.63	1.69	1.73	19.1	+2.5	+26.6	+8.2
Passenger transport over land	0.00	0.00	0.00	0.00	0.0	n.	n.	n.
Freight transport over land	0.00	0.00	0.00	0.00	0.0	n.	n.	n.
Cargo handling and storage	0.02	0.04	0.01	0.04	0.4	+200.6	+129.7	+31.9
Courier and post activities	0.00	0.00	0.00	0.00	0.0	n.	n.	n.
Security and industrial cleaning	0.00	0.00	0.00	0.00	0.0	n.	n.	n.
Trade	0.00	0.00	0.00	0.00	0.0	n.	n.	n.
Hotels, restaurants and catering	0.13	0.15	0.27	0.32	3.6	+19.2	+138.4	+33.6
Other services	0.39	0.61	0.56	0.53	5.9	-5.6	+34.8	+10.5
Other industries	0.00	0.00	0.00	0.00	0.0	n.	n.	n.
Public services	0.82	0.83	0.84	0.84	9.3	-0.4	+2.1	+0.7
2. INDIRECT EFFECTS	7.89	8.77	13.93	9.83		-29.5	+24.5	+7.6
TOTAL	14.83	16.43	24.61	18.86		-23.4	+27.2	+8.3

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

2.2.4.3 Employment

Unlike its sharply higher value added, Kortrijk Airport's direct employment was virtually unchanged: from 130 FTEs in 2009 to 132 in 2012, having peaked at 141 in 2011. The 2011 figure is partly attributable to Abelag, which has increased its workforce but allocated a smaller proportion to Kortrijk in 2012⁹⁹. Other fluctuations were minor, but added up. The picture for indirect employment was pretty much the same, and the total 293 FTEs in 2012 hardly differed from the 2009 figure.

⁹⁸ The operator in charge of aircraft movements is West Flanders Intermunicipal Airport of Wevelgem-Bissegem, which achieves a value added of around € 1.1 million and has some 15 FTEs.

⁹⁹ See footnote 97.

In air transport, Capital Aircraft Group, which operated business flights, was declared bankrupt in 2012; some of its operations in Kortrijk were acquired (but with fewer staff) by Air Service Liège, a business and charter flights operator also active in Antwerp and Maastricht. Café Passé (catering sector) also went bankrupt in 2011 and was taken over by Aan de Leie, with a slight increase in employment.

TABLE 30 KORTRIJK AIRPORT: EMPLOYMENT FROM 2009 TO 2012
(in FTEs)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	130	130	141	132	100.0	-6.0	+2.0	+0.7
Air transport cluster	104	103	111	101	76.2	-9.6	-3.0	-1.0
Air transport	28	28	32	27	20.1	-15.8	-4.6	-1.5
Travel agencies and tour operators	0	0	0	0	0.0	n.	n.	n.
Airport operator	16	16	16	14	10.7	-12.3	-8.4	-2.9
Airport handling	0	0	0	0	0.0	n.	n.	n.
Building and repairing of aircraft	35	33	34	30	22.5	-12.3	-14.6	-5.1
Other air transport supporting activities ...	26	25	30	30	22.9	+1.7	+17.9	+5.6
Other airport-related activities	26	27	29	31	23.8	+7.5	+21.8	+6.8
Passenger transport over land	0	0	0	0	0.0	n.	n.	n.
Freight transport over land	0	0	0	0	0.0	n.	n.	n.
Cargo handling and storage	1	1	1	1	0.8	0.0	0.0	0.0
Courier and post activities	0	0	0	0	0.0	n.	n.	n.
Security and industrial cleaning	0	0	0	0	0.0	n.	n.	n.
Trade	0	0	0	0	0.0	n.	n.	n.
Hotels, restaurants and catering	4	4	5	7	5.4	+33.8	+62.1	+17.5
Other services	8	10	11	11	8.6	+3.7	+34.5	+10.4
Other industries	0	0	0	0	0.0	n.	n.	n.
Public services	12	12	12	12	9.1	0.0	0.0	0.0
2. INDIRECT EFFECTS	160	178	178	161	-	-9.6	+0.6	+0.2
TOTAL	290	308	319	293	-	-8.0	+1.2	+0.4

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

2.2.5 Liège Airport

2.2.5.1 Recent developments¹⁰⁰

Passenger traffic at Liège showed steady growth right up until 2008, fell back steeply in the wake of the economic crisis and recorded a loss of over 100,000 passengers two years later. Numbers picked up afterwards and the airport ended 2013 with a total 315,000 passengers, 81 % more than a decade earlier. Passenger traffic consists almost completely of charter flights operated by Jetairfly (TUI Airlines) and Thomas Cook Airlines, in addition to a number of low-cost players. In the spring of 2014, Liège added a scheduled Air Corsica flight to the French island.

Liège Airport's big success story is cargo traffic. The airport has beaten Brussels Airport as the country's most important cargo airport and claims eighth position in the European cargo rankings. This traffic typically follows the ups and down of the international economic cycle: it surged 38.5 % between 2003 and 2008, slumped the year after and picked up smartly in 2010 and 2011 – notching up all-time highs of 674,500 tonnes in the latter year – before falling back by over 100,000 tonnes in 2013.

The airport's big player is the TNT group (see below), accounting for half of Liège cargo traffic, but numerous other freight carriers have also set up at the airport, such as El Al Airlines, Ethiopian Airlines, Icelandair and Qatar Airways. Only very recently, in June 2014, these were joined by ANA Aviation, a Nigerian airline operating from the United Kingdom, which switched from Ostend to Liège because of lower fuel charges and which the airport authorities hope will pull in an additional 30,000 tonnes in cargo volumes. ANA, which uses aircraft owned by a number of other carriers for its flights, focuses strongly on Africa and transport of perishables, activities that are closely aligned to a specialist segment at Liège Airport. The airport's cold storage facilities and phyto-sanitary inspection services facilitate transport of flowers, vegetables and fish, alongside live animals (notably racehorses). Like Brussels Airport, Liège is also increasing its efforts to attract warehousing and transport of pharmaceuticals.

Liège Airport has two runways, one of which is 3,700 metres long and can easily handle fully loaded intercontinental cargo flights. The airport is open at all hours, nights included, which has definitely boosted its cargo traffic profile. The Walloon Region by way of its Société Wallonne des Aéroports (Sowaer) has invested heavily in soundproofing for local residents. At the heart of the airport's cargo traffic, TNT Express Euro Hub ships packages worldwide with some 40 aircraft by means of airline TNT Airways, and mostly at night. In 2012, TNT Express was the takeover target in a bid by sector peer UPS (hub in Cologne), but the European Commission stepped in and blocked the deal citing distortion of competition. TNT subsequently announced a restructuring focused on cost reductions and resulting in the loss of 4,000 jobs worldwide. To date, however, employment at Liège has been quite resilient and even edged up: in 2013, the airport employed around 1,200 full-time staff on average, a headcount of over 1,500 people. Meanwhile, an investment programme worth around € 200 million has been announced, with a few million earmarked for updating Liège's sorting capacity.

On the subject of cargo traffic, in October 2013, Liège was named Cargo Airport of the Year¹⁰¹ and in December of the same year, Chinese broker Navitrans picked Liège Airport as its European distribution centre for iPhones made in China (using TNT Airways). Investment in the airport over the past few years has been focused on extending the runway and completing Cargo City North, offering office space, cargo sheds and additional parking spaces for wide-body aircraft. To facilitate further investment, airport operator Liège Airport created a separate business in 2010, called Liège Airport Business Park, to develop and manage its real estate projects. It has transferred all storage and office-related assets to its new subsidiary.

¹⁰⁰ Sources include: www.liegeairport.com, annual reports, interview with W. Delflys and F. Heselmans (Liège Airport) and miscellaneous press articles.

¹⁰¹ At the Payload Asia Awards ceremony in Singapore.

A final point of note going forward: the airport is currently in the study phase of the Liège Carex Project, which is looking to link Liège Airport to a Pan-European network of high-speed trains for air cargo. After all, the high-speed rail network from Cologne to Brussels and Paris runs just outside the airport and holds out opportunities to link the latter to similar hubs such as Amsterdam, Paris and Lyon.

2.2.5.2 Value added

TABLE 31 LIÈGE AIRPORT: VALUE ADDED FROM 2009 TO 2012
(in € million – current prices)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	218.3	202.6	239.4	287.7	100.0	+20.2	+31.8	+9.6
Air transport cluster	131.4	108.4	132.2	177.1	61.5	+34.0	+34.7	+10.4
Air transport	85.1	59.5	70.3	112.7	39.2	+60.3	+32.6	+9.8
Travel agencies and tour operators	0.2	0.2	0.2	0.2	0.1	+1.5	+5.0	+1.6
Airport operator*	15.1	17.1	19.0	16.3	5.7	-13.8	+8.6	+2.8
Airport handling	10.8	12.2	15.0	16.6	5.8	+10.6	+54.3	+15.5
Building and repairing of aircraft	7.0	8.6	12.3	13.1	4.6	+6.5	+85.8	+22.9
Other air transport supporting activities ...	13.3	10.7	15.4	18.1	6.3	+17.7	+35.7	+10.7
Other airport-related activities	86.8	94.3	107.3	110.6	38.5	+3.1	+27.4	+8.4
Passenger transport over land	1.3	1.4	1.4	1.2	0.4	-17.2	-10.6	-3.6
Freight transport over land	0.8	1.0	1.0	0.6	0.2	-42.9	-24.8	-9.1
Cargo handling and storage	3.6	3.8	4.3	3.4	1.2	-22.4	-7.5	-2.6
Courier and post activities	61.7	69.6	78.4	77.7	27.0	-0.8	+25.9	+8.0
Security and industrial cleaning	9.3	8.4	10.1	8.1	2.8	-19.9	-13.4	-4.7
Trade	0.2	0.1	0.3	1.2	0.4	+355.4	+433.1	+74.7
Hotels, restaurants and catering	1.5	1.7	1.7	1.9	0.7	+13.3	+26.2	+8.1
Other services	0.4	1.9	1.8	5.8	2.0	+224.7	+1194.7	+134.8
Other industries	0.9	1.0	0.9	2.0	0.7	+117.2	+137.3	+33.4
Public services	7.0	5.5	7.4	8.8	3.1	+19.3	+25.8	+7.9
2. INDIRECT EFFECTS	236.7	209.7	255.3	334.9	-	+31.2	+41.5	+12.3
TOTAL	455.0	412.4	494.7	622.7	-	+25.9	+36.9	+11.0

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

* It should be noted that the direct value added generated by the Liège Airport operator includes operating subsidies and compensation paid by public authorities, totalling around €26 million each year.

Liège Airport's results are of course strongly influenced by the two companies that together account for 65 % of its direct value added: TNT Airways and TNT Express Worldwide¹⁰². The air transport sector saw its value added dip in 2010 on sharply lower operating profits related to the reversal of provisions for liabilities and charges; the reverse movement triggered a steep increase

¹⁰² TNT Airways and TNT Express Worldwide are part of respectively TNT NV and TNT Express NV from the Netherlands. Both companies serve as cost centres and bill the majority of their charges to their Dutch parent, taking a margin.

in value added in 2012. Higher figures for courier and post activities are primarily due to a bigger workforce boosting payroll charges at TNT Express (see 2.2.5.3). The result of these various movements is that the direct value added for the airport as a whole fell by 7.2 % in 2010 only to grow by around 20 % in the two years after, to € 287.7 million in 2012, 31.8 % up on 2009. Indirect value added grew even faster (+41.5 %), taking the total added value created at and by Liège Airport to over € 620 million in 2012. Other airlines employ relatively few people at Liège Airport and, aside from Air France-KLM, contribute modest value added. A point of note: Avient, a Zimbabwean carrier, was declared bankrupt in 2013, upon which AV Cargo took its place and established its European hub in Liège.

Over the period under review, airport operator Liège Airport has reported a fluctuating to slightly increasing value added, and a robust operating profit in 2011¹⁰³. Liège Airport owns 80 % of Liège Airport Business Park (see 2.2.5.1) and 49 % of Liège Airport Security¹⁰⁴, which is responsible for airport security but outsources its duties. These were undertaken by the Securitas group throughout the period under review: by Securitas Transport Aviation Security up to 2011 and by hived-off company Securitas Transport Aviation Security Wallonia from 2012. Security activities fall under security and industrial cleaning, a sub-category of other airport-related activities. Handling activities pretty much moved in step with air traffic developments in terms of both value added and employment, and amounted to € 16.6 million in 2012, 54 % up on 2009. Liège has three handlers: AviaPartner Liège (which took over AviaPartner Cargo Liège in 2010), Liège Air Cargo Handling Services (LACHS) and to a lesser degree also Swissport.

Building and repairing of aircraft mainly comprises X-Air Services, a joint venture of Sabena Technics and TNT Airways, and Agusta Aerospace Services, an Agusta Westland company providing helicopter maintenance. Both companies recorded turnover increases and improved operating results. The value added at other air transport support activities is mainly contributed by air traffic control company Belgocontrol and by Sowaer.

Other industries recorded an increase in 2012, which was down to construction company CFE, located at the airport since that year. Other services also include a number of names that were new in 2012: law firm Baudinet, Bottin, Rigo, Van Cutsem & Associates, real estate agency DTZ Winssinger Tie Leung, the head office of the local Chamber of Commerce, and Logistics in Wallonia, the Wallonian competitiveness cluster for transport and logistics. Together with such players as Liège Airport Business Park (since 2010, see 2.2.5.1) they generated value added of nearly € 6 million in that year.

2.2.5.3 Employment

Employment at Liège Airport in the period went from strength to strength from one year to the next, to reach a direct total of 2,889 FTEs in 2012, up 406 FTEs or 16.4 % on 2009. Whereas in terms of value added the ratio between the air transport cluster and other airport-related activities works out at roughly 60/40, this is just the reverse for employment. Courier and post activities accounts for almost 42 % of employment at the airport, thanks to TNT Express Worldwide growing from 943 to 1,175 FTEs (and moving up to 1,202 FTEs in 2013), making it the largest employer by far at Liège Airport. Together with TNT Airways – which lost 40 FTEs but helps make air transport the second largest sector – it accounts for 57.5 % of the airport total. The third largest sector is airport handling, which grew 35 % in terms of employment. Both AviaPartner Liège (including AviaPartner Cargo Liège acquired in 2010) and Liège Air Cargo Handling Services (LACHS) increased their workforce by around 35 FTEs. Swissport Belgium is smaller but still provides work to 35 FTEs together with Swissport Cargo Services, which comes under cargo handling and storage.

¹⁰³ It should be noted that the direct value added generated by the Liège Airport operator includes operating subsidies and compensatory amounts paid by public authorities, totalling around € 26 million each year.

¹⁰⁴ The Walloon Region owns the other 51 %.

Security and industrial cleaning is in fourth place at 171 FTEs, a decline in 2012 after the internal restructuring in the Securitas group (see 2.2.5.2). As a sector airport operator Liège Airport is in fifth place but as an individual company it is the third largest employer, with 159 FTEs, a figure that has been steadily if gradually increasing. The public services category is close on its heels with 147 FTEs, with customs taking up nearly two-thirds and the federal police and Service Public de Wallonie¹⁰⁵ employing over 20 people each. Building and repairing of aircraft is also sharply up at 136 FTEs (+ 47 %) in 2012. Agusta Aerospace Services centres around 80 % of its – stable – employment in Liège (the rest is in Zaventem); X-Air Services has over half at Liège and the rest at Brussels Airport, and has sharply pushed up its workforce numbers. At other air transport supporting activities, Belgocontrol and Sowaer account for 76 % of the employment figures. The hefty increase at other services in 2012 is explained under 2.2.5.2.

In 2012, companies located at Liège Airport generated indirect employment of 2,644 FTEs, taking the total to over 5,500 direct and indirect jobs related to airport activities.

TABLE 32 LIÈGE AIRPORT: EMPLOYMENT FROM 2009 TO 2012
(in FTEs)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	2,483	2,556	2,795	2,889	100.0	+3.4	+16.4	+5.2
Air transport cluster	1,090	1,087	1,133	1,173	40.6	+3.6	+7.6	+2.5
Air transport	550	486	493	511	17.7	+3.6	-7.2	-2.5
Travel agencies and tour operators	4	4	4	4	0.1	-3.5	-6.9	-2.4
Airport operator	143	148	156	159	5.5	+1.9	+11.2	+3.6
Airport handling	202	238	254	273	9.5	+7.4	+35.4	+10.6
Building and repairing of aircraft	92	117	136	136	4.7	-0.2	+47.4	+13.8
Other air transport supporting activities	99	93	89	91	3.1	+1.3	-8.5	-2.9
Other airport-related activities	1,392	1,469	1,662	1,716	59.4	+3.2	+23.2	+7.2
Passenger transport over land	3	3	3	2	0.1	-27.4	-27.4	-10.1
Freight transport over land	15	17	18	11	0.4	-38.2	-24.8	-9.1
Cargo handling and storage	59	62	60	60	2.1	+1.1	+2.5	+0.8
Courier and post activities	943	1,053	1,180	1,204	41.7	+2.1	+27.7	+8.5
Security and industrial cleaning	196	181	212	171	5.9	-19.0	-12.4	-4.3
Trade	3	3	4	13	0.5	+232.5	+343.3	+64.3
Hotels, restaurants and catering	32	34	36	29	1.0	-20.3	-11.5	-4.0
Other services	10	12	13	55	1.9	+322.7	+472.7	+78.9
Other industries	13	13	13	23	0.8	+77.8	+79.9	+21.6
Public services	120	91	125	147	5.1	+17.6	+22.5	+7.0
2. INDIRECT EFFECTS	2,318	2,411	2,474	2,644	-	+6.9	+14.1	+4.5
TOTAL	4,801	4,967	5,269	5,533	-	+5.0	+15.3	+4.8

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

¹⁰⁵ This concerns more specifically the SPW Directorate General of Mobility and Waterways, which is subdivided into various departments. The Charleroi Airport Authority and the Liège Airport Authority are based at their respective airports.

2.2.6 Ostend Airport

2.2.6.1 Recent developments¹⁰⁶

Passenger traffic at Ostend Airport showed a clear upward trend between 2003 and 2013, to reach an all-time high of 247,700 in the last year of the period, almost entirely on the back of holiday flights to Mediterranean destinations operated by Jetairfly (TUI Airlines) and Thomas Cook Airlines.

The picture is much less encouraging for cargo traffic. Of the Flemish regional airports, Ostend has always focused on this type of traffic, but has seen traded volumes contract in the past six years from 109,000 tonnes in 2007 to a mere 46,500 tonnes in 2013 (see Table 4). A first, general observation is that Ostend is mainly active in the freighter-only market¹⁰⁷, which has been losing market share across the world, and typically flies to destinations in Africa¹⁰⁸ that do not always produce sufficient return cargoes. The last and most important cause is that a number of carriers have disappeared from Ostend in the past couple of years.

London Gatwick-based MK Airlines, for one, was declared bankrupt in 2010, shaving 20 FTEs off employment at Ostend in 2011. At the end of 2012, Ghanaian Air Charter Express/Meridian Airways also discontinued operations at Ostend. But the biggest blow came in the spring of 2014, when ANA Aviation announced it was moving from Ostend to Liège because of fuel charges it considered too high. ANA operates cargo flights using aircraft from a number of airlines, previously World Airways¹⁰⁹ and more recently Atlas Air and Nordic Global Airlines (a subsidiary of Finnair). It also operates scheduled flights to Africa and charter flights across the world, and used to account for half of Ostend's total cargo volumes. These volumes fell by another one-third in the first half of 2014, even though ANA's move did not become effective until 1 June. Egyptair, which also operates from Brussels, is the only remaining 'fixed' cargo airline, though other carriers also operate occasional flights.

Lastly, a new management system has been put in place for Ostend's airport (and Antwerp's). Ostend Airport used to be an independent entity within the Flemish government's Department of Mobility and Public Works. A few years ago, the government decided to break up this service into two parts: one an Airport Development Company (LOM) responsible for infrastructure and still part of the Flemish government, and the other an Airport Operating Company (LEM), which would take on the actual running of the airport. In 2013, the airport's operation was granted to France's Egis.

2.2.6.2 Value added

The downward trend in Ostend Airport's value added ended in 2012. Although its direct value added grew 4.2 % to € 25.8 million in that year, it still remained almost 18 % below 2009 levels. Given cargo traffic developments at the airport (see 2.2.6.1), it is not surprising that air transport has taken the brunt (-76 % between 2009 and 2011 and a very slight uptick in 2012). In fact, this sector represents a mere 6.2 % of the total value added that the airport creates. The trend has been similar for indirect value added (-24.5 %); together they totalled € 53.5 million in 2012.

¹⁰⁶ Sources include: www.ost.aero, annual reports, interview with G. Vanspauwen (Ostend Airport) and miscellaneous press articles.

¹⁰⁷ As suggested by their name, freighter-only providers transport cargo only and are different from integrated carriers (see footnote 28). In addition, a large proportion of freight takes the shape of belly cargo using the spare volume in passenger aircraft baggage hold.

¹⁰⁸ Ostend has specialised in perishables such as fruit, vegetables, fish and flowers, and boasts specific cooling infrastructure, and ANA Airways typically accounted for a lot of this cargo (see below).

¹⁰⁹ World Airways's parent company Global Aviation Holdings filed for Chapter 11 bankruptcy protection in 2012 and ceased operations in the spring of 2014.

TABLE 33 OSTEND AIRPORT: VALUE ADDED FROM 2009 TO 2012
(in € million – current prices)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	31.4	28.3	24.8	25.8	100.0	+4.2	-17.7	-6.3
Air transport cluster	25.9	22.9	18.7	20.0	77.6	+7.2	-22.8	-8.3
Air transport	5.9	3.4	1.4	1.6	6.2	+13.1	-73.0	-35.4
Travel agencies and tour operators	0.0	0.0	0.0	0.0	0.0	n.	n.	n.
Airport operator*	7.8	7.2	7.2	7.3	28.4	+1.5	-6.7	-2.3
Airport handling.....	4.9	4.6	2.6	3.9	15.1	+47.7	-20.9	-7.5
Building and repairing of aircraft.....	0.1	0.1	0.1	0.1	0.5	-2.5	-2.3	-0.8
Other air transport supporting activities ...	7.1	7.6	7.3	7.1	27.4	-2.7	-0.7	-0.2
Other airport-related activities	5.4	5.4	6.1	5.8	22.4	-5.0	+7.0	+2.3
Passenger transport over land	0.0	0.0	0.0	0.0	0.0	n.	n.	n.
Freight transport over land.....	0.0	0.0	0.0	0.0	0.0	n.	n.	n.
Cargo handling and storage	1.6	1.7	2.1	1.8	6.9	-17.7	+8.5	+2.7
Courier and post activities	0.0	0.0	0.0	0.0	0.0	n.	n.	n.
Security and industrial cleaning.....	0.0	0.0	0.0	0.0	0.0	n.	n.	n.
Trade	0.1	0.1	0.1	0.1	0.4	-11.6	+79.5	+21.5
Hotels, restaurants and catering.....	1.0	1.0	1.2	1.3	5.0	+11.2	+25.6	+7.9
Other services.....	0.1	0.1	0.1	0.1	0.3	+0.3	+2.6	+0.8
Other industries	0.0	0.0	0.0	0.0	0.0	n.	n.	n.
Public services.....	2.6	2.5	2.6	2.5	9.8	-1.7	-2.9	-1.0
2. INDIRECT EFFECTS	36.7	32.6	27.0	27.7	-	+2.6	-24.5	-8.9
TOTAL.....	68.1	60.9	51.8	53.5	-	+3.4	-21.4	-7.7

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

* It should be noted that the direct value added generated by the airport operator includes operating subsidies and compensation paid by public authorities, totalling around € 4.9 million in 2009, 2010 and 2011 and € 5.5 million in 2012.

The airport operator, i.e. the Flemish government, accounts for over one-quarter of total value added and employs 120 FTEs at the airport. The other air transport supporting activities category claims about as big a share, and creates between € 7.0 million and € 7.6 million in value added on average. Belgocontrol is a big player, employing 30 FTEs, as is fuel supplier Skytanking. Aside from the minor presence of Swissport Belgium, all handling is done by AviaPartner, which operated under the name of AviaPartner Belgium until 2010 and continued as AviaPartner Ostend from 2011.

At a little under € 6 million, the value added of other airport-related activities has remained fairly stable. Nearly one-third is down to cargo handling and storage, which includes a number of freight forwarders, customs agents and cargo brokers. The catering sector comprises two restaurants.

2.2.6.3 Employment

Unlike value added, employment has seen no let-up in the downward trend: between 2009 and 2012, the airport lost 53 direct FTEs and 83 indirect FTEs, a drop of 11.8 % and 13.2 %

respectively. Virtually all sectors were affected, most specifically air transport in the wake of shrinking cargo traffic. MK Airlines's bankruptcy alone caused job losses of 20 FTEs in 2011. The Flemish government (the airport operator) kept its jobs numbers more or less steady in the period: 120 FTEs. It is the airport's largest employer and accounts for nearly one-third of the total. It is followed by AviaPartner, which, after a fall in 2010, has managed to keep its workforce levels on an even keel and now accounts for one-fifth of employment.

Other air transport supporting activities takes about as big a share, one-third of which consists of jobs at Belgocontrol. This sector also encompasses flight schools Ostend Air College, which trains airline pilots and offers employment to over 20 people (primarily self-employed instructors), and Antwerp's Ben-Air Flight Academy (BAFA), which also has a number of self-employed trainers stationed at Ostend. The training sector is completed by the Flemish Aviation Training Centre, a department of the Catholic University College of Bruges-Ostend.

Other airport-related activities make a modest contribution of 86 FTEs to employment at Ostend Airport. These people work at cargo handling and storage, in the catering sector (see 2.2.6.2) and in public services, with customs and federal police together employing 37 FTEs.

TABLE 34 OSTEND AIRPORT: EMPLOYMENT FROM 2009 TO 2012
(in FTEs)

Cluster and sector	2009	2010	2011	2012	Share in 2012 (in %)	Change from 2011 to 2012 (in %)	Change from 2009 to 2012 (in %)	Annual average change from 2009 to 2012 (in %)
1. DIRECT EFFECTS	443	428	400	390	100.0	-2.4	-11.8	-4.1
Air transport cluster	352	335	303	305	78.0	+0.5	-13.4	-4.7
Air transport	50	43	19	19	4.9	-1.3	-61.6	-27.3
Travel agencies and tour operators	0	0	0	0	0.0	n.	n.	n.
Airport operator	126	121	120	121	31.1	+1.5	-3.7	-1.3
Airport handling	90	83	82	82	20.9	-0.3	-9.8	-3.4
Building and repairing of aircraft	2	2	2	2	0.5	+0.1	-0.4	-0.1
Other air transport supporting activities ...	84	86	81	81	20.7	+0.1	-3.4	-1.1
Other airport-related activities	91	93	97	86	22.0	-11.4	-5.8	-2.0
Passenger transport over land	0	0	0	0	0.0	n.	n.	n.
Freight transport over land	0	0	0	0	0.0	n.	n.	n.
Cargo handling and storage	20	20	21	17	4.3	-22.4	-16.8	-5.9
Courier and post activities	0	0	0	0	0.0	n.	n.	n.
Security and industrial cleaning	0	0	0	0	0.0	n.	n.	n.
Trade	1	3	4	2	0.5	-50.0	+99.2	+25.8
Hotels, restaurants and catering	26	28	29	26	6.7	-9.7	+0.0	0.0
Other services	1	1	1	1	0.2	+0.1	-0.4	-0.1
Other industries	0	0	0	0	0.0	n.	n.	n.
Public services	43	41	42	41	10.4	-4.1	-6.5	-2.2
2. INDIRECT EFFECTS	629	614	556	546	-	-1.8	-13.2	-4.6
TOTAL	1072	1042	956	936	-	-2.1	-12.6	-4.4

Source: NAI; NBB (Central Balance Sheet Office, own calculations).

3 SUMMARY

2009, the first year of the period reviewed, was a year of worldwide economic crisis, which hit air traffic as hard as any other industry. Global passenger traffic fell, but returned to more than decent growth in the years after. Cargo traffic, for which demand is more derivative, moved rather more in tandem with the world economy, falling even more steeply in 2009, recovering in 2010 and 2011, and grinding to a halt as the business cycle vacillated. Overall, Belgian airports also followed these general trends.

The 2009 slowdown in the results reported by Belgian air transport and airport activities compared to the year earlier¹¹⁰ persisted well into 2010, which recorded worse readings on all parameters. However, the fall in the 2010 value added was amply compensated in 2011 and 2012, taking total growth over the 2009-2012 period to nearly 10 %, precisely in line with growth in the country's national economy. The air transport cluster (both inside and outside airports) performed better than other airport-related activities on airport sites. Within the air transport cluster, the key drivers were air transport itself and building and repairing of aircraft, the latter being the most important sector in terms of both value added and employment. In 2012, air transport and airport activities generated a total € 5.6 billion in direct and indirect value added, i.e. 1.5 % of Belgium's GDP.

Unlike value added, total employment never quite recovered from its 2010 decline and failed to return to 2009 levels, although it did in the cluster of other airport-related activities. That said, in 2012, air transport and airport activities directly employed over 32,100 full-time equivalents – and well over double that figure (66,200 FTEs) if we factor in employment created indirectly. The total figure represents 1.7 % of Belgian domestic employment.

The story was no different for direct investment in 2010: it, too, came down by a hefty 30 % on the previous year and failed to make up for lost ground in the years after. The companies within the scope of our study invested over € 349 million in 2012. Airport operators accounted for the highest cumulative spend (€ 234 million) in the four-year period, three-quarters of which was down to Brussels Airport Company. Other key players in terms of capital spending were air transport (mainly Brussels Airlines), building and repairing of aircraft and other air transport supporting activities (Belgocontrol, Sowaer).

Our analysis of the social balance sheets of a constant sample of companies accounting for 69 % of employment reveals that the number of hours worked per FTE equals the national average, but that average staff costs per FTE and per hour worked significantly exceed the national figures¹¹¹. The workforce of the constant sample shows a lower-than-average share of blue-collar workers, women and part-time employees, as well as relatively more highly educated staff than found on average in Belgian companies. Over half of the sample's companies offer formal training to their staff, who typically show a gradually increasing degree of participation, although the number of hours spent in training per employee does not reflect a similar rise.

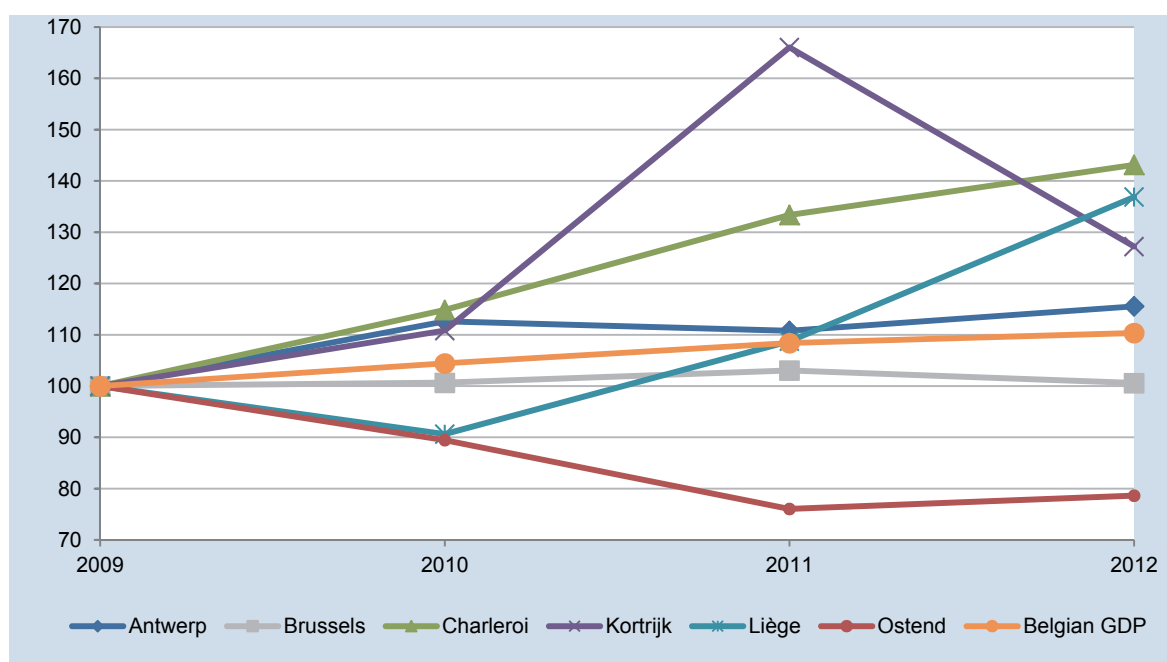
Drawing on another constant sample of companies which together account for 75 % of the value added, the study shows return on equity to be more volatile and lower than the Belgian average, but not structurally negative in any sector (albeit fairly low in some of them). By contrast, current ratios are typically higher than for Belgian companies at large, and sample companies better able to meet their short-term liabilities. On solvency, they show little or no difference from the national average.

¹¹⁰ Deville and Vennix (2011).

¹¹¹ The fact that the constant sample comprises large companies only may explain the high average.

CHART 10 EVOLUTION OF DIRECT AND INDIRECT VALUE ADDED IN THE SIX BELGIAN AIRPORTS

(current prices, index 2009 = 100)



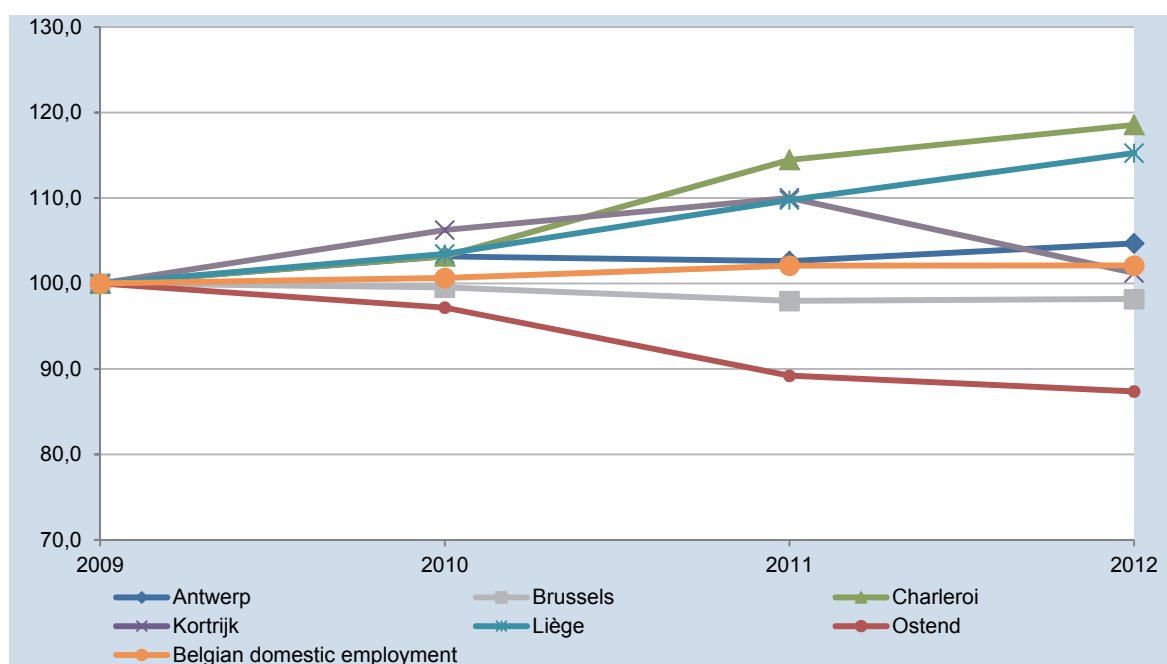
Source: NAI; NBB (Central Balance Sheet Office, own calculations).

A detailed review of the individual airports shows Brussels Airport to be by far the largest, boasting a 70-75 % share on most parameters: 75 % of the direct value added by the total group of six Belgian airports, 76 % of direct employment, 70 % of direct investment and 72 % of passenger arrivals and departures, putting it 21st in the ranking of European passenger airports. However, the airport's share had amounted to 87 % in 2003 and the difference between the two percentages has gone to Charleroi, which on the back of Ryanair's success now claims over one-third of Brussels Airport's passenger numbers. On cargo traffic, Brussels was overtaken a few years ago by Liège, which now accounts for over half of all Belgian cargo traffic. Liège and Brussels currently come 8th and 9th in the European cargo airports ranking.

Value added and employment at Brussels Airport did not increase between 2009 and 2012, causing the airport's share in the totals for Belgian airports to lose ground. As we have noted, the two most rapidly growing airports in the period were Charleroi and Liège, on passengers and cargo respectively, and even more on value added than in terms of employment. Flemish regional airports Antwerp and Kortrijk also show growth, if to a lesser degree, but they have specialised more in flight training and business aviation. Only Ostend performed less with an ongoing decline in value added and employment; the airport lost over one-fifth of its value added in the space of three years, mainly due to falling cargo traffic. Charts 10 and 11 capture the development of total direct and indirect value added and employment at the six Belgian airports, but the conclusions that we outline here equally apply to direct effects only.

CHART 11 EVOLUTION OF DIRECT AND INDIRECT EMPLOYMENT IN THE SIX BELGIAN AIRPORTS

(FTEs, index 2009 = 100)



Source: NAI; NBB (Central Balance Sheet Office, own calculations).

Belgium's air transport and airport sector faces a number of challenges. The low-cost end has really taken off in the past few years and traditional carriers are increasingly feeling the pressure. A carrier such as Ryanair has really made Charleroi Airport, but also has the power to influence future air traffic by a single, unexpected decision – in the most recent case to start flying from Brussels. Virtually overnight, the summer months of 2014 turned into the best in a long time for Brussels Airport. A major constraint on the further development of the capital's airport are the ever-changing and oft-contested flight paths and environmental standards for noise pollution, whose complexities – caused by Belgian State structures – foreign airlines do not always appreciate or understand.

Charleroi and Liège have both successfully focused on a single segment: low-cost traffic in the case of the former, cargo flights for the latter. However, Charleroi's growth is mostly down to a single carrier (Ryanair), which accounts for 83 % of its traffic. Liège may have attracted quite a few cargo carriers in the past few years, but even it derives half of its traffic from a single carrier (TNT).

The Flemish regional airports will have to wait and see whether the ongoing privatisation of their operation may provide a boost. Kortrijk, the smallest of the six airports, has developed into a niche player for private and business aviation, and its planned privatisation has been postponed for the time being. After years of debate, Antwerp has now started work on making the full length of its runway accessible, and the first charter flights to southern holiday destinations are scheduled to depart from the spring of 2015. Ostend has managed to keep its charter traffic going at much the same level, but its cargo traffic, the bulk of airport activity, has collapsed more or less within a very brief space of time. Only time will tell whether the new airport operator will be able to pull off a re-expansion of airport activities.

ANNEX 1: DEFINITION OF THE CLUSTERS

	NACE-BEL 2008	NACE-BEL Definition	Geographical criterion	
Air transport cluster				
1	Air transport	51100	Passenger air transport	All Belgian territory
		51210	Freight air transport	All Belgian territory
2	Travel agencies and tour operators	79110 ⁽¹⁾	Travel agency activities	All Belgian territory
		79120 ⁽¹⁾	Tour operator activities	All Belgian territory
3	Airport operator	52230 (where applicable)	Service activities incidental to air transportation	Inside airports
4	Airport handling	52230 (where applicable)	Service activities incidental to air transportation	Inside airports
5	Building and repairing of aircraft	30300 ⁽¹⁾	Manufacture of air and spacecraft and related machinery	All Belgian territory
		33160 ⁽¹⁾	Repair and maintenance of aircraft and spacecraft	All Belgian territory
6	Other air transport supporting activities	52230 (other than sectors 3 and 4)	Service activities incidental to air transportation	All Belgian territory
		71209 ⁽¹⁾	Technical testing and analysis	All Belgian territory
		77350	Renting and leasing of air transport equipment	All Belgian territory
		85532 ⁽¹⁾	Driving school activities of planes and boats	All Belgian territory
		85592 ⁽¹⁾	Professional training	All Belgian territory
Other airport-related activities				
7	Passenger transport over land	49100	Passenger rail transport, interurban	Inside airports
		49310-49320-49390	Other passenger land transport	Inside airports
8	Freight transport over land	49200	Freight rail transport	Inside airports
		49410-49420	Freight transport by road and removal services	Inside airports
9	Cargo handling and storage	52100	Warehousing and storage	Inside airports
		52210	Service activities incidental to land transportation	Inside airports
		52249	Cargo handling except sea ports	Inside airports
		52290	Other transportation support activities	Inside airports
10	Courier and post activities	53100-53200	Postal and courier activities	Inside airports
11	Security and industrial cleaning	80100	Private security activities	Inside airports
		80200	Security systems services activities	Inside airports
		81210-81220-81290	Cleaning activities	Inside airports
12	Trade	45***	Wholesale and retail trade and repair of motor vehicles and motorcycles	Inside airports
		46***	Wholesale trade, except of motor vehicles and motorcycles	Inside airports
		47***	Retail trade, except of motor vehicles and motorcycles	Inside airports
13	Hotels, restaurants and catering	55***	Accommodation	Inside airports
		56***	Food and beverage service activities	Inside airports
14	Other services	Other 5**** to 9****	Other services	Inside airports
15	Other industries	Other 1**** to 43****	Other industries	Inside airports
16	Public services	N/A		Inside airports

⁽¹⁾ Only activities relating to air transport

ANNEX 2: PASSENGER AND CARGO TRAFFIC VIA BELGIAN AIRPORTS

PASSENGER TRAFFIC VIA BELGIAN AIRPORTS FROM 2003 TO 2013

(x 1000 pax)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Change from 2012 to 2013 (in %)	Annual average growth (in %)
Antwerp	168	153	143	148	175	177	169	163	166	140	137	-2.2	-2.0
Brussels	15,194	15,635	16,180	16,708	17,839	18,516	16,999	17,181	18,786	18,971	19,133	+0.9	+2.3
Charleroi	1,804	2,034	1,873	2,166	2,458	2,950	3,937	5,195	5,901	6,516	6,787	+4.2	+14.2
Kortrijk	73	62	62	65	67	66	65	66	70	69	71	+2.8	-0.3
Liège	174	207	236	307	333	400	357	299	309	303	315	+3.8	+6.1
Ostend	151	111	126	146	180	200	193	214	233	233	248	+6.5	+5.1
TOTAL	17,564	18,201	18,619	19,541	21,052	22,310	21,720	23,118	25,465	26,233	26,691	+1.7	+4.3

CARGO TRAFFIC VIA BELGIAN AIRPORTS FROM 2003 TO 2013

(x 1000 tonnes)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Change from 2012 to 2013 (in %)	Annual average growth (in %)
Antwerp	4.9	4.3	4.7	6.8	5.3	5.6	4.6	4.2	4.2	4.3	3.6	-16.7	-3.1
Brussels	603.7	664.3	702.8	719.7	783.7	661.1	449.1	476.1	475.1	459.3	429.9	-6.4	-3.3
Charleroi	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Kortrijk	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	n.	n.
Liège	374.6	383.3	329.7	406.5	489.9	518.8	482.1	639.4	674.5	576.7	561.0	-2.7	+4.1
Ostend	78.1	97.6	108.3	98.5	109.0	82.9	74.1	64.0	57.4	53.2	46.5	-12.6	-5.1
TOTAL	1,061.4	1,149.5	1,145.5	1,231.5	1,388.9	1,268.3	1,010.0	1,183.8	1,211.2	1,093.4	1,041.0	-4.8	-0.2

Source: Airport operators; Economic Survey Department Flemish Government.

ANNEX 3: DEFINITION OF THE FINANCIAL RATIOS USED IN THIS STUDY

	Headings in the accounts format	
	full	abridged
1. RETURN ON EQUITY AFTER TAX		
Numerator (N)	9904	9904
Denominator (D)	10/15	10/15
Ratio = N/D x 100		
Conditions for calculating the ratio:		
12-month financial year		
10/15 > 0		
2. LIQUIDITY IN THE BROAD SENSE		
Numerator (N)	3+40/41+50/53+54/58+490/1	3+40/41+50/53+54/58+490/1
Denominator (D)	42/48+492/3	42/48+492/3
Ratio = N/D		
Conditions for calculating the ratio:		
-		
3. SOLVENCY		
Numerator (N)	10/15	10/15
Denominator (D)	10/49	10/49
Ratio = N/D x 100		
Conditions for calculating the ratio:		
-		

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