

# Analysis of enterprises in the pharmaceutical sector

Central Balance Sheet Studies  
July | 2016



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# Foreword

This analysis is based on data obtained from *Informação Empresarial Simplificada* – IES (Simplified Corporate Information) and held in the Central Balance Sheet Database of Banco de Portugal. Through IES, enterprises are able to meet their obligation to report their annual accounts simultaneously to the Ministries of Finance and Justice, Banco de Portugal and Statistics Portugal (Instituto Nacional de Estatística – INE).

IES is usually reported within six and a half months of the financial year end, which, for most enterprises resident in Portugal, corresponds to 15 July of the year following the reference year. This analysis uses IES data for 2014, the latest as at the cut-off date for this publication.

Data reported by enterprises through IES is subject to quality control by Banco de Portugal mainly to ensure that the accounting information for the economic year is coherent and complete and that the main aggregates are consistent throughout the years.

In addition to information obtained through IES, this publication features complementary data on the financing of enterprises in Portugal available in other databases of the Statistics Department of Banco de Portugal, in particular *Central de Responsabilidades de Crédito* (Central Credit Register – CCR). This information characterises a significant share of the liabilities of Portuguese enterprises, particularly loans from the resident financial sector.



# Summary

This study analyses the pharmaceutical sector, i.e. enterprises operating in the pharmaceutical industry, wholesale of pharmaceutical goods and retail sale of pharmaceutical goods.

In 2014 the pharmaceutical sector comprised around 3,500 enterprises, accounting for 1 per cent of the total number of enterprises in Portugal, 3 per cent of turnover and 1 per cent of the number of employees. Compared with 2006 and total enterprises, the pharmaceutical sector posted positive developments in terms of the number of enterprises, turnover and number of employees.

By economic activity segment, the retail sale of pharmaceutical goods had the largest share of enterprises and employees in the sector (70 per cent and 48 per cent respectively). However, 65 per cent of turnover was generated by the wholesale of pharmaceutical goods. By size class, microenterprises accounted for the largest share (81 per cent) while small and medium-sized enterprises (SMEs) reflected most of turnover and the number of employees (42 per cent and 45 per cent respectively).

Head offices were mostly concentrated in the Lisbon and Porto districts. As a whole, these enterprises represented 76 per cent of turnover in the pharmaceutical sector.

Turnover was chiefly generated by enterprises established for more than 20 years (59 per cent), similarly to total enterprises in Portugal (54 per cent).

Only 4 per cent of enterprises were exporters, accounting for 15 per cent of the pharmaceutical sector's turnover. In the pharmaceutical industry, however, the share of exporting enterprises was higher (75 per cent of turnover associated with one-quarter of enterprises).

Following three consecutive years where activity fell (although at increasingly less negative rates), the pharmaceutical sector's turnover grew by 3 per cent in 2014, 5 percentage points (p.p.) more than in 2013. Operating expenses also grew by 3 per cent, chiefly due to the contribution from the cost of goods sold and materials consumed (CoGS) (2 p.p.).

The pharmaceutical sector's EBITDA increased by 8 per cent in 2014, standing below the change seen in 2013 (15 per cent). Approximately 64 per cent of the sector's enterprises posted positive changes in EBITDA, 10 p.p. above those for total enterprises. EBITDA was negative for 21 per cent of the sector's enterprises (14 p.p. less than in total enterprises).

In 2014, following the growth trend of the previous two years, return on equity in the pharmaceutical sector, which always exceeded that of total enterprises in the 2010-14 period, totalled 9 per cent (1 p.p. increase from 2013). The operating margin amounted to 6 per cent and the net margin to 3 per cent (8 per cent and 1 per cent respectively in total enterprises).

The pharmaceutical sector's capital ratio stood, on average, at 38 per cent (30 per cent in total enterprises). Interest-bearing debt corresponded to 43 per cent of the sector's liabilities, below that seen for total enterprises (57 per cent).

Data available for 2015, compiled by Banco de Portugal's Central Credit Register, shows that credit granted to the pharmaceutical sector by the resident financial system has declined since 2011. The non-performing loans ratio stood at 12.5 per cent, below that for total enterprises (16.2 per cent).

In 2014 the sector's liabilities decreased by 1 per cent and interest expenses declined by 10 per cent. The financial pressure ratio stood at 13 per cent, below that seen for 2013 (by 3 p.p.) and total enterprises in 2014 (28 per cent).

Trade credit accounted for 34 per cent of the pharmaceutical sector's liabilities in 2014, more than for total enterprises (16 per cent). However, net trade credit financing was more negative in the pharmaceutical sector (6 per cent, compared with 3 per cent in total enterprises), although the retail sale of pharmaceutical goods posted positive net trade credit financing levels (8 per cent of turnover).





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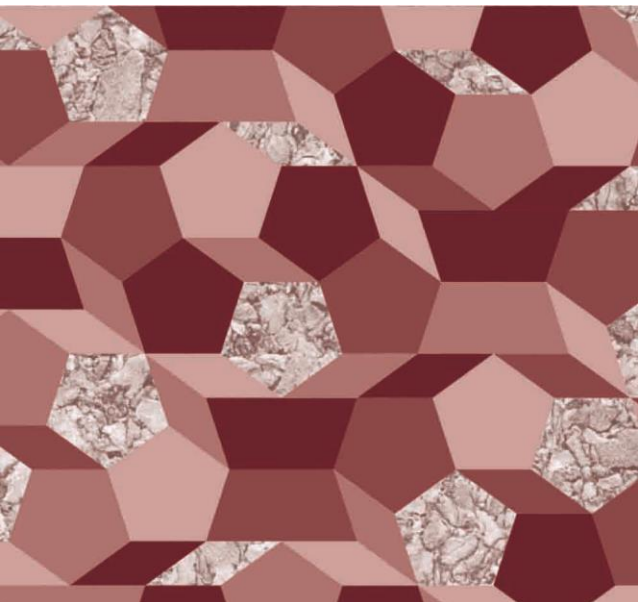
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# Analysis of enterprises in the pharmaceutical sector

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# 1. Introduction

This study assesses the economic and financial situation of enterprises<sup>1</sup> operating in the pharmaceutical sector, based on information compiled by the Central Balance Sheet database of Banco de Portugal.<sup>2</sup>

For the purposes of this analysis, the pharmaceutical sector comprises enterprises operating in the pharmaceutical industry, the wholesale of pharmaceutical goods and the retail sale of pharmaceutical goods. According to data published by Statistics Portugal (Instituto Nacional de Estatística – INE), these activities accounted for approximately 2.7 per cent of gross value added of non-financial corporations in Portugal in 2014.<sup>3</sup>

The sector was divided into the following economic activity segments, obtained by aggregating several activities, taking into account the Portuguese Classification of Economic Activities, Revision 3 (CAE-Rev.3):

- **Pharmaceutical industry:** composed of division 21 – manufacture of basic pharmaceutical products and pharmaceutical preparations (part of Section C – manufacturing), which includes the sector's manufacturing base.
- **Wholesale of pharmaceutical goods:** composed of subclass 46460 – wholesale of pharmaceutical goods (part of Section G – wholesale and retail trade, repair of motor vehicles and motorcycles), including distributors of the pharmaceutical industry, both national and representatives from multinational pharmaceutical companies.
- **Retail sale of pharmaceutical goods:** composed of subclass 47730 – retail sale of pharmaceutical products in specialised stores (part of Section G – wholesale and retail trade, repair of motor vehicles and motorcycles), which includes enterprises that deliver pharmaceutical goods directly to consumers.

The analysis focuses chiefly on the 2010-14 period, on the basis of Simplified Corporate

Information (*Informação Empresarial Simplificada* – IES). Furthermore, 2006 is also used as reference year for developments in the sector, as well as more recent data on bank loans and non-performing loans for 2015.

This study also characterises the pharmaceutical sector for a range of selected indicators as regards the dispersion of results obtained by enterprises, thus avoiding distortions triggered by extreme values. An analysis is also carried out on the contributions from economic activity segments and size classes to determining aggregate results.

In addition, this publication compares results for the pharmaceutical sector and total enterprises in Portugal.<sup>4</sup>

Chapter 2 analyses the sector's structure, in terms of economic activity, size, geographical location and maturity of its enterprises. Data on market concentration and corporate dynamics are also presented.

Chapter 3 reviews recent turnover developments to determine the extent to which these are reflected in profitability. This involves breaking down the effects that influence profitability into operating and financial components of corporate business, while providing information on the solvency capacity of enterprises.

The Annex provides a table summarising the main indicators and a methodological summary with the definition of the main concepts used throughout the study. The statistical series under analysis is also available on Banco de Portugal's website (in Excel format).

## 2. Structure and dynamics

### 2.1. Structure

In 2014 the pharmaceutical sector accounted for around 3,500 enterprises, i.e. 1 per cent of total enterprises in Portugal (Table 1), representing 3 per cent of turnover and 1 per cent of the number of employees. Compared

with 2006, the sector's share in total enterprises increased across all variables under review: 0.3 p.p. in terms of turnover and the number of employees and 0.2 p.p. in terms of the number of enterprises.

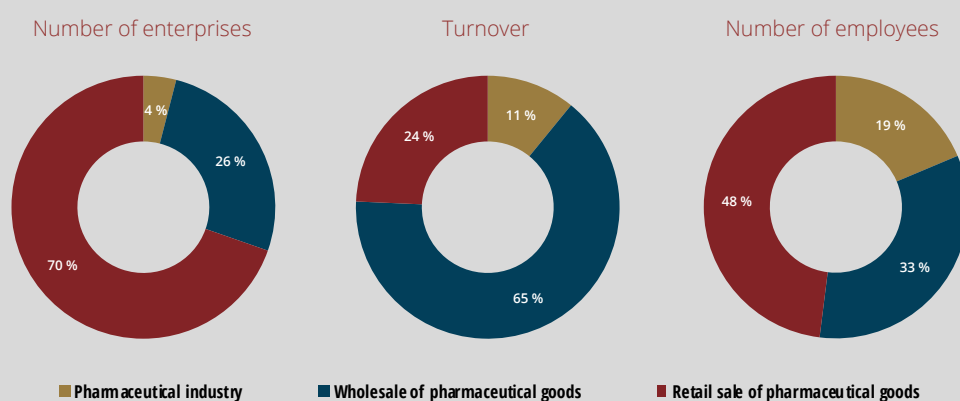
**Table 1 • Share of the pharmaceutical sector in total enterprises (2006 and 2014)<sup>5</sup>**

	Number of enterprises		Turnover		Number of employees	
	2006	2014	2006	2014	2006	2014
Pharmaceutical sector	0.67 %	0.92 %	3.03 %	3.29 %	1.04 %	1.31 %
Pharmaceutical industry	0.04 %	0.04 %	0.32 %	0.36 %	0.23 %	0.24 %
Wholesale of pharmaceutical goods	0.19 %	0.24 %	2.15 %	2.13 %	0.47 %	0.44 %
Retail sale of pharmaceutical goods	0.44 %	0.64 %	0.56 %	0.80 %	0.34 %	0.63 %

By **economic activity segment**, in 2014 the largest share of enterprises and employees was in the retail sale of pharmaceutical goods (70 per cent and 48 per cent, respectively) (Chart 1). However, taking into account turnover, the wholesale of pharmaceutical goods was the most relevant (65 per cent) concentrating 33 per cent of the sector's employees. The pharmaceutical industry was the least representative segment across all variables, with only 4 per cent of enterprises and 19 per cent of employees.

By **size class**,<sup>6</sup> the pharmaceutical sector was similar to total enterprises, with a large share of microenterprises (81 per cent) across the various economic activity segments, although less in the pharmaceutical industry (Table 2). Small and medium-sized enterprises (SMEs) were the most representative in terms of the number of employees (45 per cent), with a larger share in the pharmaceutical industry and the wholesale of pharmaceutical goods (51 per cent and 59 per cent respectively).

**Chart 1 • Structures | By economic activity segment (2014)**



In the retail sale of pharmaceutical goods, microenterprises accounted for 62 per cent of the number of employees, aggregating 63 per cent of turnover in this segment. In the pharmaceutical industry and wholesale of

pharmaceutical goods, the largest share of turnover was associated with large enterprises (53 per cent and 51 per cent respectively).

**Table 2 • Structures | By size class (2014)**

Indicator	Size	Total enterprises	Pharmaceutical sector	Pharmaceutical industry	Wholesale of pharmaceutical goods	Retail sale of pharmaceutical goods
Number of enterprises	Microenterprises	89.5 %	80.7 %	62.5 %	72.1 %	85.1 %
	SMEs	10.3 %	18.4 %	31.9 %	25.7 %	14.9 %
	Large enterprises	0.3 %	0.8 %	5.6 %	2.1 %	0.0 %
Turnover	Microenterprises	15.4 %	17.9 %	1.5 %	3.9 %	62.8 %
	SMEs	41.7 %	42.1 %	45.2 %	44.9 %	33.4 %
	Large enterprises	42.8 %	39.9 %	53.3 %	51.2 %	3.8 %
Number of employees	Microenterprises	27.7 %	33.7 %	1.6 %	11.5 %	61.6 %
	SMEs	44.9 %	44.6 %	50.6 %	59.2 %	32.2 %
	Large enterprises	27.4 %	21.7 %	47.7 %	29.3 %	6.3 %

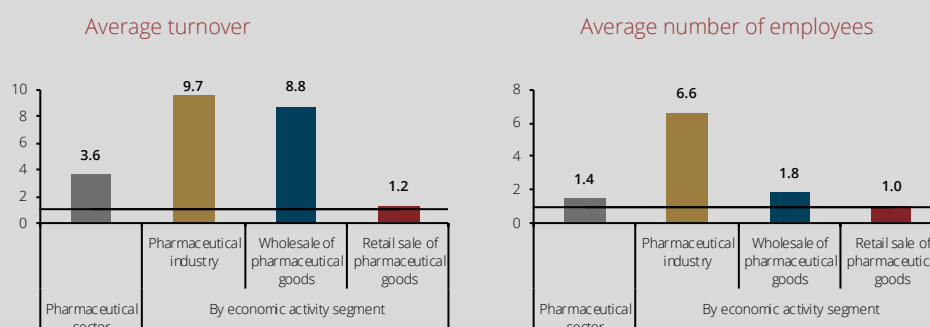
Note: Shaded cells identify the most important size class in each segment/indicator.

In 2014 turnover and the number of employees in the pharmaceutical sector were, on average, higher than in total enterprises (3.6 and 1.4 times respectively) (Chart 2). Turnover in the pharmaceutical industry and wholesale of pharmaceutical goods was, on average, approximately 9.7 and 8.8 times higher respectively than in total enterprises, contributing significantly to the figures posted by the sector as a whole. The same applies to the pharmaceutical industry as regards the average number of employees (around 6.6 times higher than six employees per enterprise, on average, in total enterprises).

The average enterprise is larger in this segment due to the small contribution of microenterprises to their structure in terms of turnover and number of employees. By contrast, the average enterprise in the retail sale of pharmaceutical goods was greatly similar to the average national enterprise as regards turnover and the number of employees.

By **geographical location**,<sup>7</sup> in 2014 and similarly to total enterprises, the head offices of enterprises in the pharmaceutical sector were concentrated in the Lisbon and Porto districts

**Chart 2 • Average turnover and average number of employees | Ratio to total enterprises (total enterprises = 1) (2014)**



across all indicators. As a whole, these districts aggregated 51 per cent of the sector's enterprises, 64 per cent of the number of employees and 76 per cent of turnover (Table 3).

Geographical concentration was also substantial across all economic activity segments, except for the retail sale of pharmaceutical goods. The pharmaceutical industry and the wholesale of pharmaceutical goods were particularly concentrated in Lisbon, which aggregated more than 60 per cent of enterprises, turnover and employees. In the retail sale of pharmaceutical goods, and despite Lisbon's predominance (with 25 per

cent of the segment's turnover), Porto and Setúbal were still relevant (with 19 per cent and 8 per cent of turnover respectively). Furthermore, Viseu plays an important role in the pharmaceutical industry (14 per cent of turnover and number of employees), together with Porto (17 per cent and 16 per cent respectively).

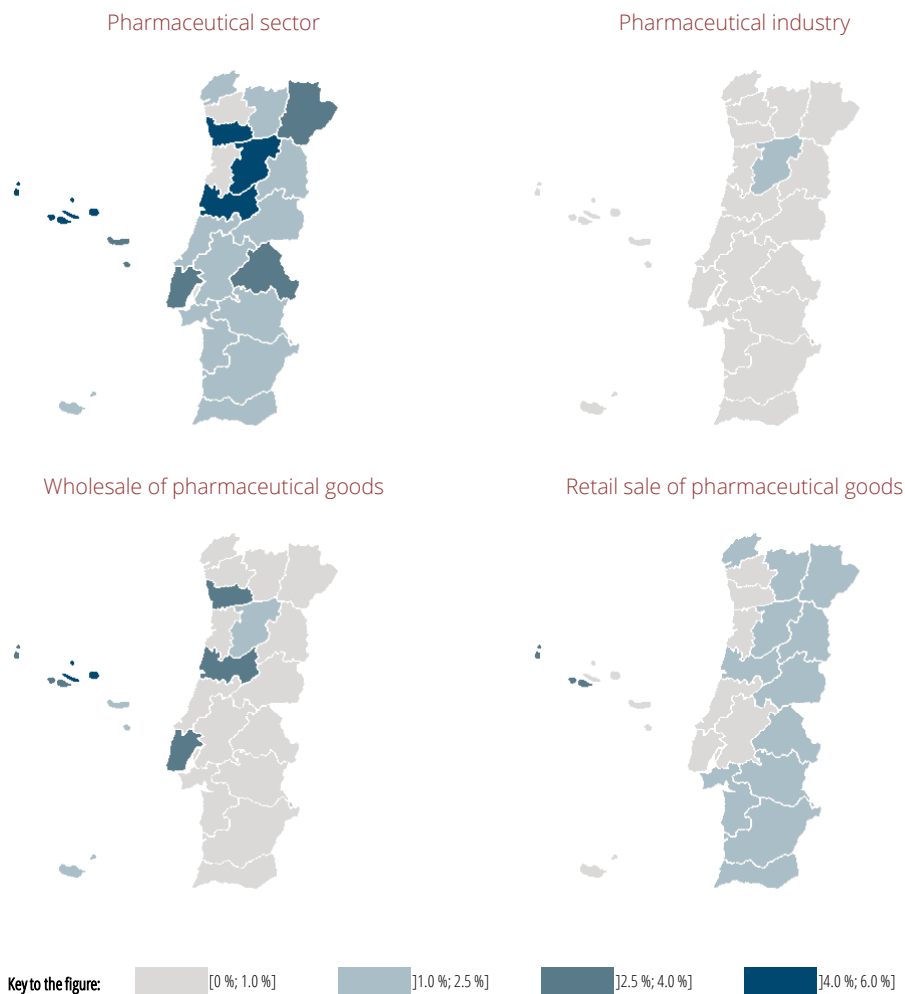
Figure 1 illustrates the relative share of the pharmaceutical sector's turnover, as well as its economic activity segments, in total enterprises for each district.

**Table 3 • Geographical location | By economic activity segment (2014)**

	Number of enterprises		Turnover		Number of employees	
	District (Top 3)	% of total	District (Top 3)	% of total	District (Top 3)	% of total
Total enterprises	Lisbon	28.1 %	Lisbon	43.9 %	Lisbon	35.1 %
	Porto	17.9 %	Porto	16.2 %	Porto	18.6 %
	Braga	7.9 %	Braga	6.1 %	Braga	8.7 %
Pharmaceutical sector	Lisbon	36.3 %	Lisbon	53.7 %	Lisbon	47.2 %
	Porto	14.9 %	Porto	22.3 %	Porto	17.2 %
	Setúbal	6.7 %	Coimbra	4.3 %	Viseu	5.0 %
Pharmaceutical industry	Lisbon	67.4 %	Lisbon	64.9 %	Lisbon	61.2 %
	Porto	11.8 %	Porto	16.6 %	Porto	15.6 %
	Viseu	5.6 %	Viseu	14.1 %	Viseu	14.2 %
Wholesale of pharmaceutical goods	Lisbon	60.0 %	Lisbon	62.5 %	Lisbon	72.4 %
	Porto	16.1 %	Porto	24.6 %	Porto	13.3 %
	Setúbal	5.1 %	Coimbra	4.4 %	Coimbra	3.4 %
Retail sale of pharmaceutical goods	Lisbon	25.6 %	Lisbon	25.2 %	Lisbon	24.3 %
	Porto	14.6 %	Porto	18.6 %	Porto	20.5 %
	Setúbal	7.6 %	Setúbal	7.7 %	Setúbal	8.2 %



**Figure 1 • Geographical location by district | Share in total enterprises in the district (turnover – 2014)**



Note: Information on the pharmaceutical sector reflects the sum of figures for its segments, shown individually in the other maps.

In 2014 the share of the pharmaceutical sector in turnover of enterprises with head offices in each national district was below 6 per cent. Nonetheless, the sector played a greater role in the Coimbra, Viseu and Porto districts, as well as in the Autonomous Region of the Azores. The retail sale of pharmaceutical goods was most relevant in the inland districts and the Autonomous Region of the Azores. The wholesale of pharmaceutical goods aggregated

4 per cent of turnover generated by enterprises having their head office in Coimbra and 3 per cent in both Lisbon and Porto. It was also important in the Autonomous Region of the Azores, particularly in Angra do Heroísmo, where it aggregated 5 per cent of turnover of enterprises having their head office there. The pharmaceutical industry was residually relevant across all districts, except for Viseu (2 per cent of turnover of enterprises with their head office there was generated by this segment).

Taking into account the distribution of turnover by **enterprise maturity**,<sup>8</sup> the sector under review was not significantly different from total enterprises: 59 per cent of the pharmaceutical sector's turnover was generated by enterprises established for more than 20 years (54 per cent in total enterprises) (Chart 3). Enterprises in this maturity class were more relevant in the pharmaceutical industry and wholesale of pharmaceutical goods, aggregating 75 per cent and 73 per cent, respectively, of turnover. By contrast, enterprises established for less than 20 years accounted for around 85 per cent of turnover in the retail sale of pharmaceutical goods, with the largest share (34 per cent) being accounted for by enterprises established for five to ten years.

## 2.2. Concentration

In 2014 the pharmaceutical sector's turnover was less concentrated than in total enterprises: 10 per cent of enterprises generated 77 per cent of the sector's turnover (in total enterprises, 10 per cent of enterprises were responsible for 89 per cent of turnover). This distribution was noteworthy even considering only 1 per cent of enterprises (responsible for 46 per cent of the sector's turnover and 64 per cent in total enterprises) (Chart 4).

By economic activity segment, the wholesale of pharmaceutical goods had the highest level of concentration (38 per cent and 83 per cent of turnover was associated with 1 per cent and 10 per cent of its largest enterprises, respectively). At the other end of the spectrum, in the retail sale of pharmaceutical goods, turnover was more dispersed, to the extent that 1 per cent and 10 per cent of its largest enterprises

Chart 3 • Structures | By maturity class (turnover – 2014)

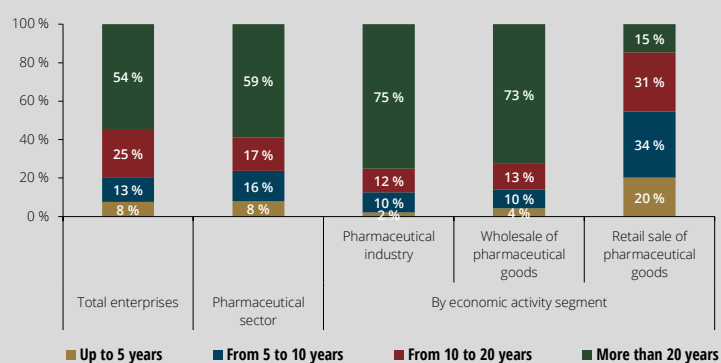
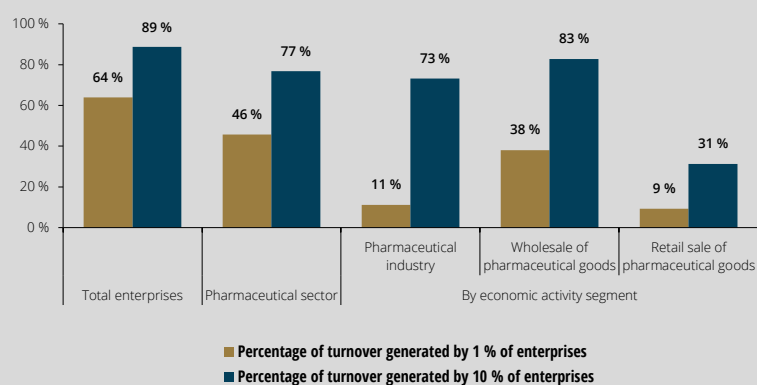


Chart 4 • Distribution of turnover (2014)



generated 9 per cent and 31 per cent of the segment's turnover, respectively.

### 2.3. Dynamics

In 2014 the number of enterprises increased more substantially in the pharmaceutical sector (2.5 per cent) than in total enterprises (1.5 per cent) (Chart 5). The number of enterprises in the sector grew more than in total enterprises throughout the entire period under review, which led to an increase in its relative importance in the sectoral structure of total enterprises. Nonetheless, in the period under review, 2014 was the year when the increase in the number of active enterprises in the sector was less substantial, given that between 2010 and 2013 rates of change stood between 3 per cent and 4 per cent.

The birth/death ratio in the pharmaceutical sector amounted to 1.6 in 2014, compared with 1.2 in total enterprises (Chart 6). All economic activity segments posted ratios above 1. Moreover, in the 2010-14 period, birth/death

ratios in the retail sale of pharmaceutical goods were always higher than in the sector under review, despite a slight decrease from 2011 onwards (from 3.2 in 2011 to 1.8 in 2014). In the pharmaceutical industry, this ratio amounted to 1.8 in 2014, significantly higher than in 2010 (0.2).

A comparison of 2010 and 2014 with 2006 shows that developments in the pharmaceutical sector were positive, in terms of both the number of enterprises and the number of employees (Chart 7), although most notably in the 2006-10 period. In the wholesale of pharmaceutical goods, the number of employees declined in the 2006-14 period as a whole, despite a positive change in the number of enterprises. By contrast, cumulative changes in the retail sale of pharmaceutical goods over this period were positive for both indicators. In the pharmaceutical industry, despite negative developments in the number of enterprises, the number of employees remained close to 2006 levels.

Chart 5 • Demographic indicators of the pharmaceutical sector

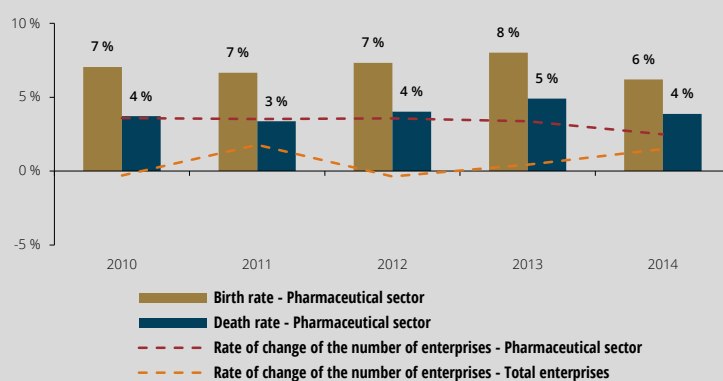
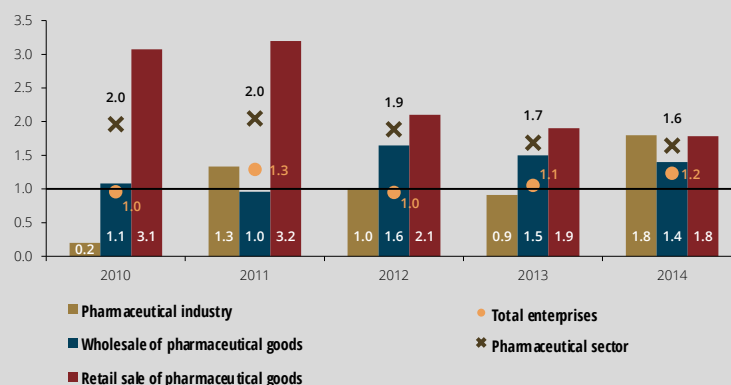


Chart 6 • Birth/death ratio



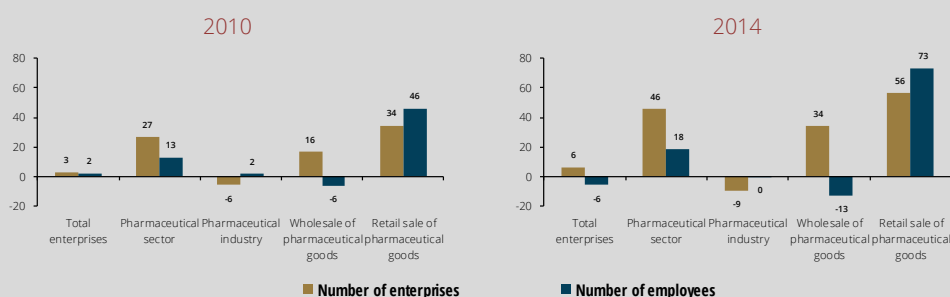
In 2014 approximately 4 per cent of enterprises in the pharmaceutical sector were high-growth enterprises (HGEs)<sup>9</sup> (Chart 8), i.e. with average annual growth in turnover greater than 20 per cent per year, over a three-year period. During the same year, 8 per cent of total enterprises were classified as HGEs.

Between 2010 and 2014 the share of HGEs in the pharmaceutical sector decreased by 3 p.p., while in total enterprises it remained stable. The share of HGEs in the sector under review was, to a large extent, explained by the weight of these enterprises in the pharmaceutical industry and wholesale of pharmaceutical goods (7 per cent and 8 per cent respectively), to the detriment of the retail sale of pharmaceutical goods (3 per cent). This segment seems to have contributed to reduce

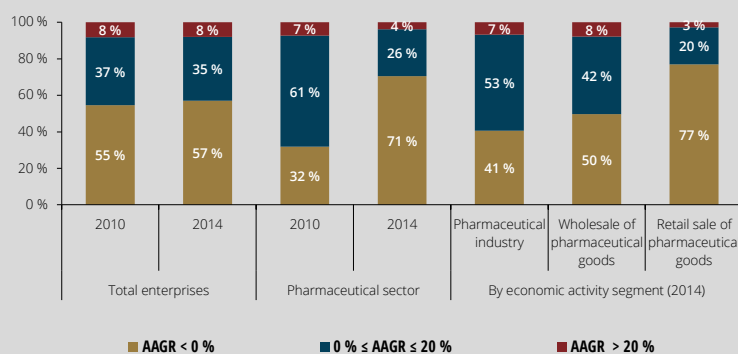
the share of HGEs in the sector as a whole, due to the great number of enterprises associated with this activity.

By contrast, the sector's share of enterprises with negative average annual growth rates in turnover (per annum, over a three-year period) increased by 39 p.p. between 2010 and 2014, standing at 71 per cent in 2014 (increase of approximately 3 p.p., to 57 per cent, in total enterprises). As such, the share of these enterprises in 2014 was more substantial in the sector under review than in total enterprises, as opposed to 2010. The share of enterprises with negative annual growth rates in 2014 was more significant in the retail sale of pharmaceutical goods (77 per cent, 47 p.p. more than in 2010).

**Chart 7 • Developments in the pharmaceutical sector and in total enterprises between 2006 and 2014 | Cumulative change from 2006 (2006=100)**



**Chart 8 • Potential population of high-growth enterprises | Average annual growth rate (over a three-year period)**



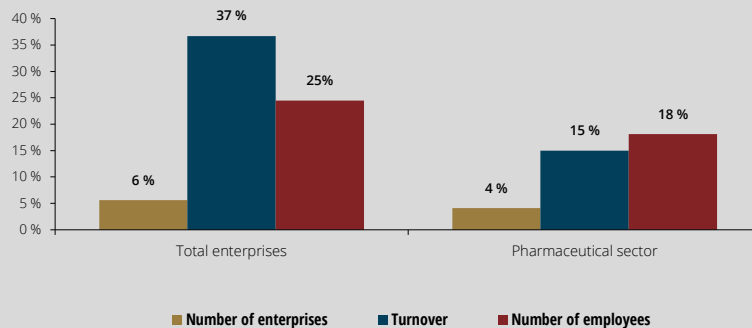
### Box 1 | The relevance of the export sector

In 2014 the export sector<sup>10</sup> comprised 4 per cent of the number of enterprises, 15 per cent of turnover and 18 per cent of the number of employees of enterprises in the pharmaceutical sector, i.e. below that recorded in total enterprises (6 per cent, 37 per cent and 25 per cent respectively) (Chart 9). This was similar to figures for 2013, both in the pharmaceutical sector and in total enterprises.

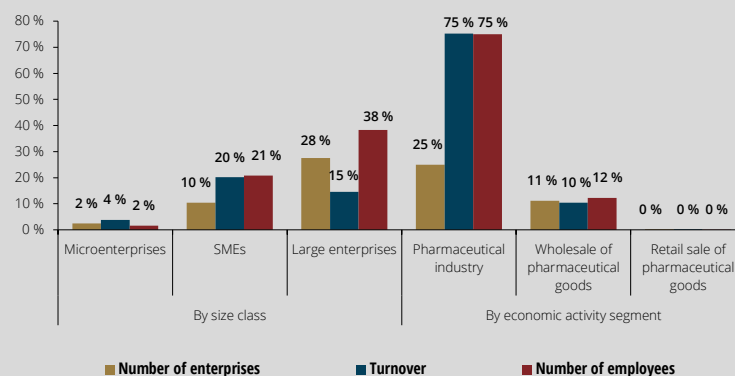
Export activities played a greater role in larger enterprises. In 2014, 28 per cent of large enterprises in the pharmaceutical sector were exporting companies, accounting for 15 per cent of turnover and 38 per cent of the number of employees (Chart 10). By contrast, only 2 per cent of microenterprises in the pharmaceutical sector were part of the export sector, accounting for 4 per cent of turnover and 2 per cent of the number of employees in this class size.

In the pharmaceutical industry, the export sector aggregated 75 per cent of turnover and the number of employees, corresponding to 25 per cent of the segment's enterprises. In turn, in the retail sale of pharmaceutical goods, the export sector's importance was residual across all three indicators.

**Chart 9 • Share of the export sector (2014)**



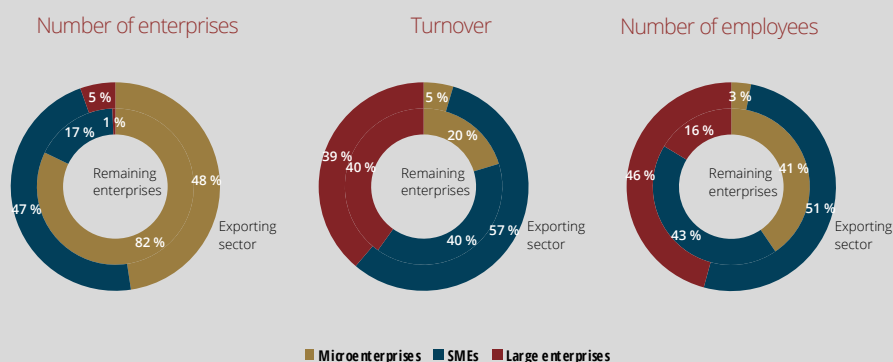
**Chart 10 • Share of the export sector | By economic activity segment and size class (2014)**



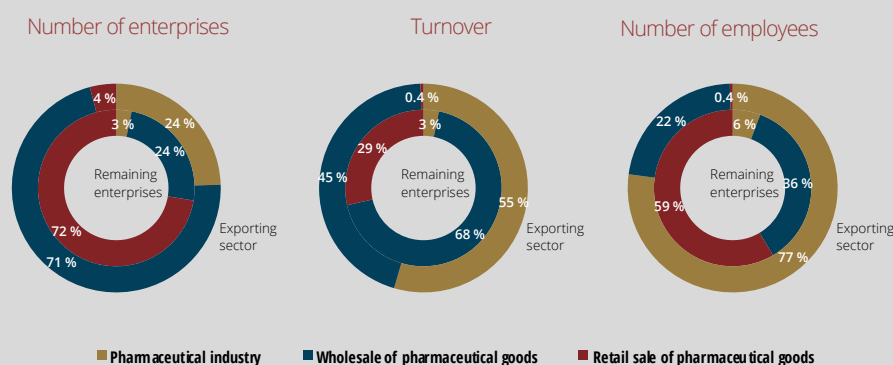
By size class and taking into account the number of enterprises, SMEs and large enterprises played a greater role in the export pharmaceutical sector (47 per cent and 5 per cent respectively) than in the remaining enterprises of the sector as a whole (17 per cent and 1 per cent respectively). By contrast, microenterprises were highly concentrated in the remaining enterprises of the sector (82 per cent) (Chart 11). SMEs aggregated 57 per cent of the export pharmaceutical sector and were responsible for 51 per cent of the number of employees. In the remaining enterprises as a whole, 41 per cent of the number of employees were associated with microenterprises.

By economic activity segment, the pharmaceutical industry was the most representative within the export pharmaceutical sector, taking into account turnover and the number of employees (55 per cent and 77 per cent respectively), by contrast to the marginal weight of this activity in the remaining enterprises of the sector as a whole (Chart 12). The retail sale of pharmaceutical goods was on the opposite end of the spectrum, given that its importance to the export pharmaceutical sector was residual. The wholesale of pharmaceutical goods aggregated 71 per cent of exporting companies in the pharmaceutical sector and approximately 45 per cent of its turnover.

**Chart 11 • Structure considering the inclusion in the export sector | By size class (2014)**



**Chart 12 • Structure considering the inclusion in the export sector | By economic activity segment (2014)**



## 3. Economic and financial analysis

### 3.1. Economic environment

In 2014 the Portuguese GDP grew by 0.9 per cent in real terms, following a 1.1 per cent decrease in 2013. Excluding public consumption (0.5 per cent reduction), all of the remaining components posted positive developments (Table 4).

Private consumption increased by 2.2 per cent (following a 1.2 per cent decrease in 2013), as a result of the acceleration in the consumption of non-durable goods and services. Gross fixed

capital formation increased by 2.8 per cent (following a 5.1 per cent fall in 2013), recording a positive change for the first time since 2009. Imports grew by 7.2 per cent, accelerating from 2013 (4.7 per cent), while exports decelerated, despite a positive change of 3.9 per cent (growth of 7.0 per cent in 2013).

With regard to 2015, data published by Statistics Portugal point to GDP growth of 1.5 per cent. The main components of GDP grew more than in the same period one year before.<sup>11</sup>

**Table 4 • GDP and main expenditure components | Real year-on-year rate of change**

	2010	2011	2012	2013	2014 (p)	2015 (p)
GDP	1.9 %	-1.8 %	-4.0 %	-1.1 %	0.9 %	1.5 %
Private consumption	2.4 %	-3.6 %	-5.5 %	-1.2 %	2.2 %	2.6 %
Public consumption	-1.3 %	-3.8 %	-3.3 %	-2.0 %	-0.5 %	0.6 %
Gross fixed capital formation	-0.9 %	-12.5 %	-16.6 %	-5.1 %	2.8 %	3.9 %
Exports	9.5 %	7.0 %	3.4 %	7.0 %	3.9 %	5.2 %
Imports	7.8 %	-5.8 %	-6.3 %	4.7 %	7.2 %	7.4 %

Sources: INE and Banco de Portugal.

Note: (p) – preliminary data.

### 3.2. Activity and profitability

#### 3.2.1. Turnover

Following three consecutive years of a fall in activity (albeit with increasingly less negative rates), the pharmaceutical sector's turnover grew by 3 per cent in 2014 (5 p.p. more than in 2013). Developments in the sector's turnover compared favourably with total enterprises, whose turnover increased by 2 per cent from 2013 (Chart 13).

By size class, large enterprises (2 p.p., associated with a 6 per cent increase of turnover) and SMEs (1.3 p.p., due to 3 per cent growth) made sizable contributions to turnover growth. Activity in microenterprises declined by 1 per cent, resulting in a negative contribution

of 0.2 p.p. to the sector's turnover developments.

By economic activity segment, the wholesale of pharmaceutical goods and the retail sale of pharmaceutical goods were behind a recovery in the pharmaceutical sector's activities. Turnover in these segments increased by 3 per cent and 7 per cent respectively. However, given its larger relative share in the pharmaceutical sector, the wholesale of pharmaceutical goods contributed more substantially to aggregate changes in the sector (2.0 p.p.), followed by the retail sale of pharmaceutical goods (1.6 p.p.). In turn, in the pharmaceutical industry, turnover declined by 3 per cent, making a negative contribution of

0.3 p.p. to the sector's aggregate developments.

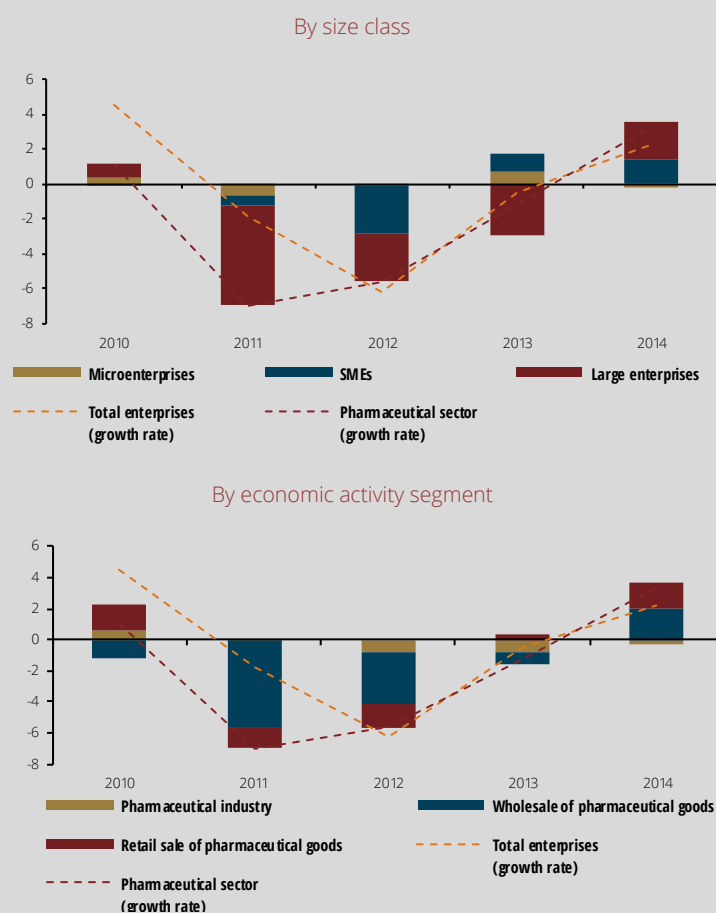
The distribution of the turnover growth rate between 2013 and 2014 suggests more positive developments in most enterprises in the pharmaceutical sector (Chart 14), given that the various distribution points (first quartile, median and third quartile) were higher in 2014 than in 2013. However, the weighted average and the sector's distribution median moved further apart. Although the sector's average turnover growth stood at 3 per cent, changes in half of its enterprises were below 0.7 per cent over the same period.

Also in the various economic activity segments, changes were overall positive in the different distribution points of individual data. This change was mostly concentrated in the first quartile and the distribution median, thus reducing dispersion among these distributions.

However, there was no bias in the average value with respect to the individual position of the segments' enterprises only in the wholesale of pharmaceutical goods. In the retail sale of pharmaceutical goods, although turnover increased, on average, by 7 per cent, half of its enterprises posted changes below 0.4 per cent. Turning to the pharmaceutical industry, although aggregate turnover declined by 3 per cent, more than half of its enterprises increased their turnover in individual terms.

The differential between the export component of turnover and the import component of purchases and supplies and external services (SES), as a percentage of turnover, was negative in the pharmaceutical sector during the entire time horizon under review. In 2014 the sector's imports exceeded exports by 15 per cent of turnover, in contrast to total enterprises, whose balance was positive at 0.2 per cent (Chart 15).

**Chart 13 • Turnover | Contributions (p.p.) to the annual growth rate (%)**



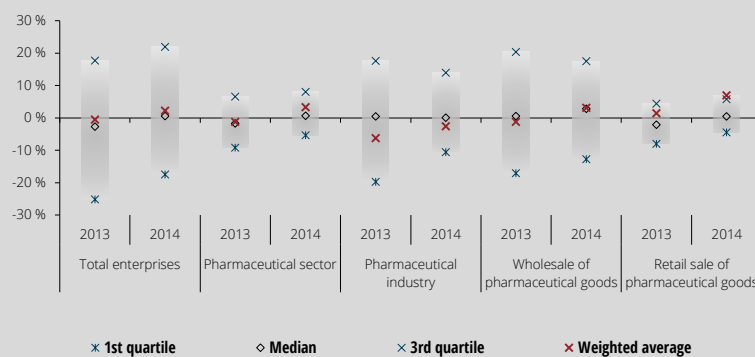


The negative differential between the export component of turnover and the import component of purchases and SES, for the sector as a whole, was broadly based across size classes. SMEs and large enterprises posted the most negative figures (19 per cent and 18 per cent respectively).

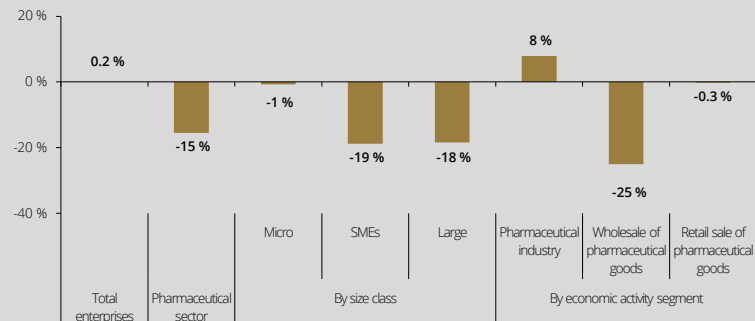
By economic activity segment, the pharmaceutical industry was particularly noteworthy, with positive differentials in transactions with the external market since 2012 (8 per cent in 2014), thus reducing the effect of the negative differential in the wholesale of pharmaceutical goods (corresponding to 25 per cent of this segment's turnover in 2014).

The 3 per cent growth in the pharmaceutical sector's turnover was chiefly due to the contribution from the domestic market (3 p.p.). The external market made a marginal contribution (0.1 p.p.). Despite the negative differential in the sector's goods and services transactions with external markets, these markets made positive contributions throughout the 2010-14 period to the sector's turnover developments, even during periods of a negative rate of change. This was particularly notable in 2011 and 2012, due to more substantial negative contributions from the domestic market (Chart 16).

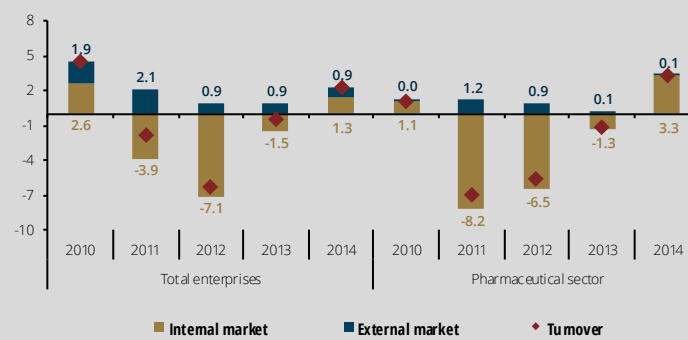
**Chart 14 • Turnover | Quartile distribution and weighted average of the annual average growth**



**Chart 15 • Differential between the export component of turnover and the import component of purchases and SES | As a percentage of turnover (2014)**



**Chart 16 • Turnover | Contributions from the external and domestic markets (p.p.) to the annual growth rate (%)**



### 3.2.2. Operating expenses<sup>12</sup>

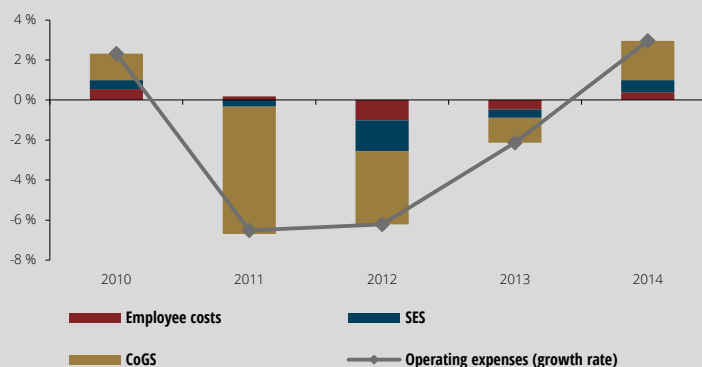
Operating expenses in the pharmaceutical sector, similarly to turnover, increased by 3 per cent in 2014 (2 per cent growth in total enterprises) (Chart 17).

The SES component grew more markedly (5 per cent). Employee expenses and cost of goods sold and materials consumed (CoGS) increased by 3 per cent. However, the CoGS component made the largest contribution to aggregate developments, as it accounted for 76 per cent of

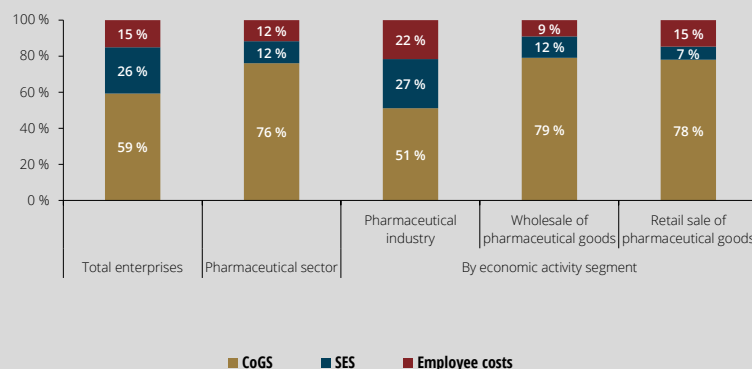
operating expenses in the pharmaceutical sector (59 per cent in total enterprises).

The greatest importance of CoGS in the sector's operating expenditure structure was broadly based across economic activity segments, although more substantial in the wholesale of pharmaceutical goods and the retail sale of pharmaceutical goods (79 per cent and 78 per cent respectively) (Chart 18). SES were more important in the pharmaceutical industry (27 per cent), where employee expenses were also more relevant (22 per cent).

**Chart 17 • Operating expenses | Contributions (p.p.) to the annual growth rate (%)**



**Chart 18 • Operating expenses | Structure (2014)**



3.2.3. EBITDA<sup>13</sup>

In the pharmaceutical sector, EBITDA growth slowed down, similarly to total enterprises. In 2014 the sector's EBITDA increased by 8 per cent, i.e. 7 p.p. below 2013 (1 per cent in total enterprises in 2014, 9 p.p. below 2013) (Chart 19).

The positive change in the sector's EBITDA in 2014 was largely due to developments in EBITDA of the retail sale of pharmaceutical goods (24 per cent increase from 2013, contributing with more than 5 p.p. to changes in the aggregate EBITDA of the pharmaceutical sector).

Approximately 64 per cent of enterprises in the pharmaceutical sector posted positive rates of change in EBITDA, 10 p.p. more than for total enterprises (Table 5).

Taking account the various size classes, 65 per cent of microenterprises posted positive rates of change in EBITDA in 2014, compared with 63 per cent and 50 per cent in SMEs and large enterprises respectively.

By economic activity segment, 68 per cent of enterprises in the retail sale of pharmaceutical

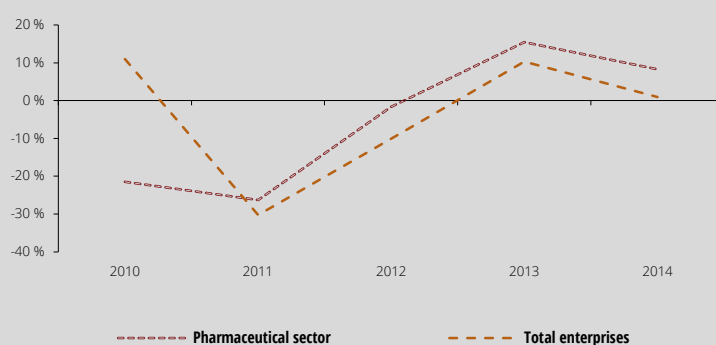
goods had posted positive rates of change in EBITDA in 2014, compared with 55 per cent in the wholesale of pharmaceutical goods and 50 per cent in the pharmaceutical industry.

Furthermore, the share of enterprises with negative EBITDA in the pharmaceutical sector was lower than in total enterprises (21 per cent and 35 per cent respectively). This indicator was lower in larger enterprises: 25 per cent in microenterprises, 8 per cent in SMEs and 7 per cent in large enterprises.

The share of enterprises with negative EBITDA decreased across all size classes compared with 2013. The most substantial reductions were recorded by microenterprises (3 p.p.) and SMEs (2 p.p.).

By economic activity segment, the pharmaceutical industry and the wholesale of pharmaceutical goods had the largest share of enterprises with negative EBITDA (31 per cent in both cases, above 17 per cent in the retail sale of pharmaceutical goods). The pharmaceutical industry was the only activity segment where the share of enterprises with negative EBITDA increased from 2013, albeit residually.

Chart 19 • EBITDA | Annual growth rate



**Table 5 • EBITDA | Share of enterprises with positive EBITDA growth rate and negative EBITDA**

		Enterprises with positive EBITDA growth rate		Enterprises with negative EBITDA	
		2013	2014	2013	2014
Total enterprises		53.6 %	53.9 %	36.2 %	35.3 %
Pharmaceutical sector		62.4 %	64.3 %	24.4 %	21.4 %
By size class	Microenterprises	62.0 %	64.9 %	27.6 %	24.6 %
	SMEs	64.1 %	62.6 %	10.6 %	8.3 %
	Large enterprises	57.7 %	50.0 %	7.7 %	6.9 %
By economic activity segment	Pharmaceutical industry	59.1 %	49.6 %	29.9 %	30.7 %
	Wholesale of pharmaceutical goods	58.7 %	55.3 %	32.9 %	30.9 %
	Retail sale of pharmaceutical goods	63.9 %	68.3 %	20.9 %	17.3 %

### 3.2.4. Profitability

In 2014, following an upward trend over the previous two years, return on equity in the pharmaceutical sector increased by 1 p.p. from 2013, reaching 9 per cent (Chart 20).

Developments in return on equity in the pharmaceutical sector were in line with (but above) developments in profitability for total enterprises. In 2014, in particular, growth in the pharmaceutical sector was higher than in total enterprises, where return on equity stood at 3 per cent.

The pharmaceutical industry posted the highest profitability (12 per cent in 2014), as has been the case since 2011. Profitability in the wholesale of pharmaceutical goods and the retail sale of pharmaceutical goods was 8 per cent and 7 per cent, respectively, in 2014.

The quartile distribution of return on equity in pharmaceutical enterprises shows the sector's favourable position compared with total enterprises (higher distribution values, in both 2013 and 2014). Furthermore, compared with 2013 there was a marked increase in figures associated with each distribution point of this

indicator for the pharmaceutical sector (first quartile, median and third quartile), which suggests an overall improvement in individual profitability of the sector's enterprises. However, unlike other segments, this did not reflect an increase in the average profitability of the pharmaceutical industry, which, in fact declined by 2 p.p. in 2014 from the previous year (Chart 21).

In line with that seen for total enterprises, the dispersion of individual profitability of pharmaceutical enterprises widened in 2014. The interquartile range (obtained as the difference between the third and first quartiles) grew by 6 p.p. from 2013 (4 p.p. increase in total enterprises). Nonetheless, the difference between the central distribution value (median) and the weighted average of profitability in the pharmaceutical sector decreased to 0.2 p.p., showing that the average profitability of the pharmaceutical sector was not biased with respect to the individual position of the sector's enterprises.

Among the various economic activity segments, the pharmaceutical industry was the most noteworthy, which, although posting the highest average profitability in 2014, was the

segment with the least favourable segment overall position, taking into account the enterprises' individual profitability. In the pharmaceutical industry, all distribution points were below those in the other segments. In fact, in the pharmaceutical industry the weighted average (12 per cent) showed a positive bias (8 p.p.) compared with the distribution's median (4 per cent), which suggests that this segment comprises a relatively small subset of enterprises with higher profitability and a substantial influence over the segment's average profitability. This contrasted with the other segments, whose median and average value were closer.

A more detailed analysis of profitability in the pharmaceutical sector and its activity segments is shown on the basis of the operating margin (EBITDA/Income) and the net margin (Net profit for the year/Income)<sup>13</sup> (Chart 22).

In 2014 the pharmaceutical sector's operating margin amounted to 6 per cent of income,

2 p.p. below that for total enterprises. By contrast, in the net margin, the pharmaceutical sector compared favourably with total enterprises (3 per cent and 1 per cent respectively).

The pharmaceutical industry had the highest operating (17 per cent) and net margins (8 per cent) as well as the highest differential between both margins (9 p.p.). In the retail sale of pharmaceutical goods, the operating margin and the net margin amounted to 7 per cent and 3 per cent respectively. In turn, the wholesale of pharmaceutical goods had the lowest differential between the margins (2 p.p.), which, in both cases, were lower than in other segments (4 per cent in the operating margin and 2 per cent in the net margin).

The largest differential in the pharmaceutical industry was due to the greater importance of the depreciation and amortisation component to its earnings, due to its distinctive asset and liabilities structure. In 2014, while 37 per

Chart 20 • Return on equity

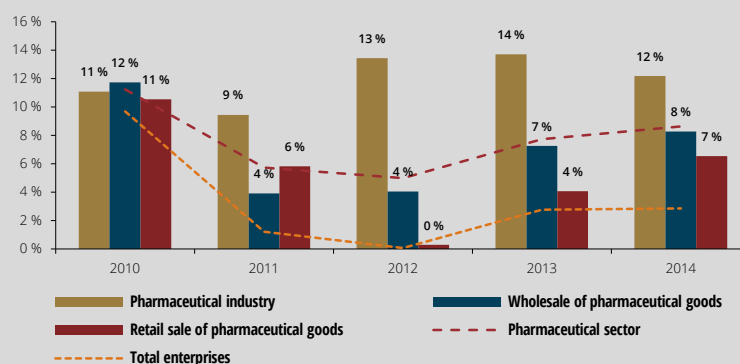
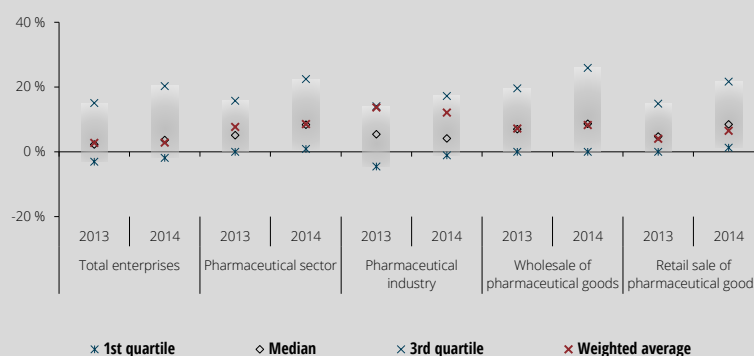


Chart 21 • Return on equity | Quartile distribution and weighted average



cent of the pharmaceutical sector's assets were associated with non-current assets, 53 per cent were associated in the pharmaceutical industry, largely due to the contribution from tangible fixed assets, but also intangible fixed assets. This component was even more important to the retail sale of pharmaceutical goods, where the non-current assets component accounted for 55 per cent of this segment's liabilities (Chart 23). By contrast, the considerably diverse structure of assets (as well

as liabilities) of the wholesale of pharmaceutical goods, with approximately 80 per cent of assets associated with current assets and 55 per cent of liabilities associated with current liabilities, was clearly related to trade credits. 'Box 2 – Asset structure of enterprises in the pharmaceutical sector' presents these results in detail as well as recent developments in these components. Section 3.3.1 analyses the liabilities component in the balance sheet of pharmaceutical enterprises.

Chart 22 • Profit | Weight in income (2014)

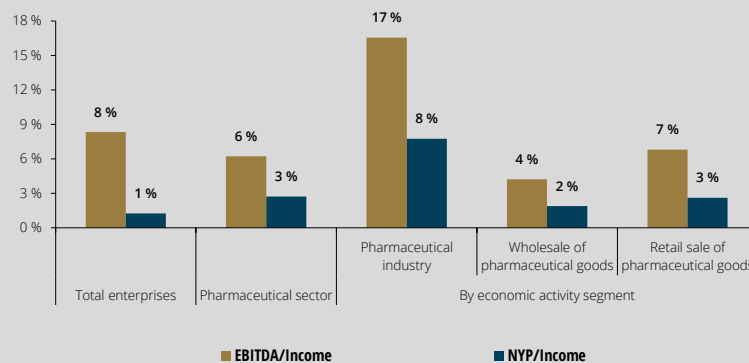
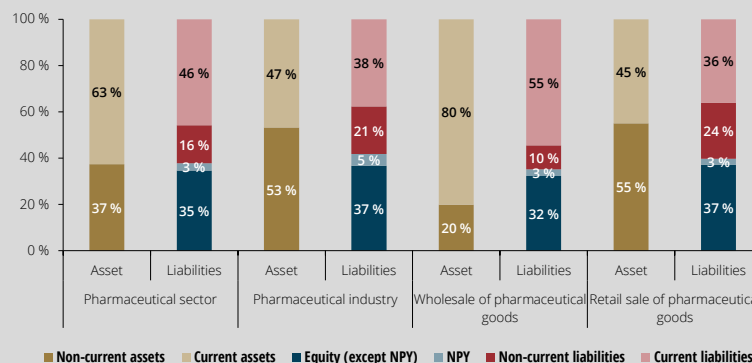


Chart 23 • Assets and liabilities structure of the pharmaceutical sector (2014)



### Box 2 | Assets structure of enterprises in the pharmaceutical sector

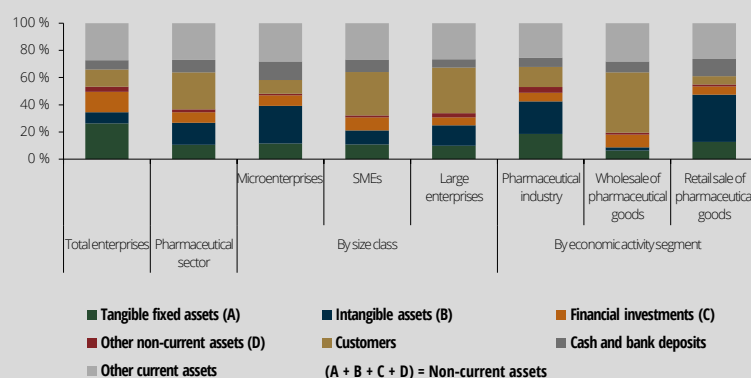
In 2014 the pharmaceutical sector's assets chiefly comprised items associated with current assets (63 per cent), in contrast to total enterprises, where such items corresponded to 47 per cent of their assets. Compared with 2010, the breakdown of assets into current and non-currents assets was virtually unchanged, both in the pharmaceutical sector as a whole and all its size classes and economic activity segments, although the composition of these subsets had changed somewhat.

By size class, SMEs and large enterprises were key for the current asset component's position in the pharmaceutical sector's assets, representing 68 per cent and 66 per cent of total assets respectively. In microenterprises, both sets of items had similar weights, with current assets accounting for 52 per cent of total assets.

Turning to economic activity segments, the breakdown of assets into current and non-current assets was, in the wholesale of pharmaceutical goods, more strongly associated with current assets than in the pharmaceutical sector as a whole (with these items accounting for 81 per cent of assets in this segment). In the pharmaceutical industry and the retail sale of pharmaceutical goods, the breakdown into current and non-current assets was more similar to total enterprises. Therefore, the asset structure of enterprises in the pharmaceutical sector as a whole was somewhat determined by the structure of enterprises in the wholesale of pharmaceutical goods.

In 2014 customers and intangible assets aggregated 27 per cent and 16 per cent respectively of the sector's assets, i.e. well above total enterprises (13 per cent and 8 per cent respectively). Tangible assets and financial investments played a less important role in the pharmaceutical sector (11 per cent and 8 per cent respectively) than in total enterprises (26 per cent and 15 per cent respectively) (Chart 24).

Chart 24 • Assets structure (2014)





Turning to size classes, intangible assets were more relevant in microenterprises (28 per cent), while customers was the most important item for large enterprises and SMEs (34 per cent and 32 per cent respectively). With regard to economic activity segments, the share of customers in assets of the wholesale of pharmaceutical goods (44 per cent) and intangible assets in the retail sale of pharmaceutical goods (34 per cent) was particularly noteworthy, as it stood well above that seen for the pharmaceutical sector as a whole.

In 2014 the pharmaceutical sector's assets increased by around 2 per cent from the previous year. This increase contrasts with a decline in total enterprises (2 per cent) and negative changes in both sectors in 2013 (4 per cent and 1 per cent respectively) (Table 6).

The increase in the pharmaceutical sector's assets resulted from positive contributions of other current asset items (2 p.p., associated with a 20 per cent increase) and cash and bank deposits (1 p.p., associated with 14 per cent growth). By contrast, customers made a negative contribution to developments in assets (2 p.p., associated with a 6 per cent decline). In total enterprises, changes in the asset growth rate were mostly due to financial investments (negative contribution of 2 p.p., associated with a 10 per cent decrease).

**Table 6 • Assets | Contributions from components (p.p.) to the annual growth rate (%)**

			Total enterprises		Pharmaceutical sector	
			2013	2014	2013	2014
Total assets (annual growth rate)			-1.4	-1.9	-4.0	1.5
Contributions to the annual growth rate in assets of the pharmaceutical sector (p.p.)	Non-current assets	Tangible fixed assets	-0.3	0.0	-0.1	-0.4
		Intangible assets	0.0	-0.2	0.5	0.4
		Financial investments	-0.2	-1.5	-0.6	0.2
		Other non-current assets	0.2	0.1	0.0	-0.1
	Current assets	Customers	-0.4	-0.1	-3.1	-1.7
		Cash and bank deposits	0.3	0.5	-0.2	1.1
		Other current assets	-1.1	-0.7	-0.6	2.1

### 3.3. Financial situation

#### 3.3.1. Financial structure

In 2014 the pharmaceutical sector had a capital ratio of 38 per cent, 8 p.p. higher than in total enterprises. The sector's capital ratio increased, on average, by 4 p.p. from 2010, favourably comparing with total enterprises (1 p.p. decrease) (Chart 25).

An analysis of individual values, both in 2010 and 2014, shows that the average capital ratio was less biased in the pharmaceutical sector than in total enterprises (-2 p.p. difference between the weighted average and the median in the pharmaceutical sector and 5 p.p. in total enterprises in 2014).

The capital ratio was relatively similar regardless of the size class of the sector's enterprises (around 38 per cent in 2014). However, in SMEs, this indicator's median stood approximately 6 p.p. above the average value, which suggests that half of the sector's SMEs had a capital ratio of more than 45 per cent. This contrasted with the other size classes, where the average value was practically the same as the median.

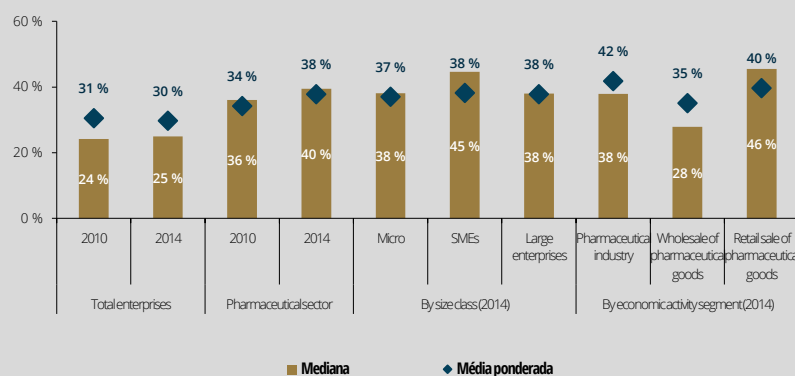
By economic activity segment, the pharmaceutical industry had the highest capital ratio (42 per cent) and the wholesale of

pharmaceutical goods the lowest (35 per cent), although 7 p.p. higher than this segment's median. In turn, the average capital ratio of the retail sale of pharmaceutical goods (40 per cent) stood 6 p.p. below the median.

In 2014, 16 per cent of the pharmaceutical sector's enterprises were particularly vulnerable, as they posted negative equity. Similarly to the entire 2010-14 period, this compared favourably with that seen in total enterprises (30 per cent in 2014) (Table 7). Moreover, between 2010 and 2014 the share of enterprises with negative equity rose slightly in the pharmaceutical sector (2 p.p.), but grew more substantially in total enterprises (4 p.p.).

None of the large enterprises in the sector had negative equity throughout the period under review. In 2014, 19 per cent of microenterprises and approximately 6 per cent of SMEs in the sector had negative equity. In total SMEs, this share has declined, in contrast to that seen in the sector as a whole.

Chart 25 • Capital ratio | Weighted average and distribution median



**Table 7 • Capital ratio | Share of enterprises with negative equity**

		2010	2014
Total enterprises		25.5 %	29.5 %
Pharmaceutical sector		14.7 %	16.4 %
By size class	Microenterprises	17.3 %	19.1 %
	SMEs	6.6 %	5.5 %
	Large enterprises	0.0 %	0.0 %
By economic activity segment	Pharmaceutical industry	13.0 %	18.6 %
	Wholesale of pharmaceutical goods	22.9 %	25.2 %
	Retail sale of pharmaceutical goods	11.7 %	12.9 %

By economic activity segment, the wholesale of pharmaceutical goods had the highest share of enterprises with negative equity (25 per cent in 2014). By contrast, in the retail sale of pharmaceutical goods, only 13 per cent of enterprises had the same issue. Despite its intermediate position (19 per cent), in the pharmaceutical industry the share of enterprises with negative equity grew the most compared with 2010 (6 p.p.).

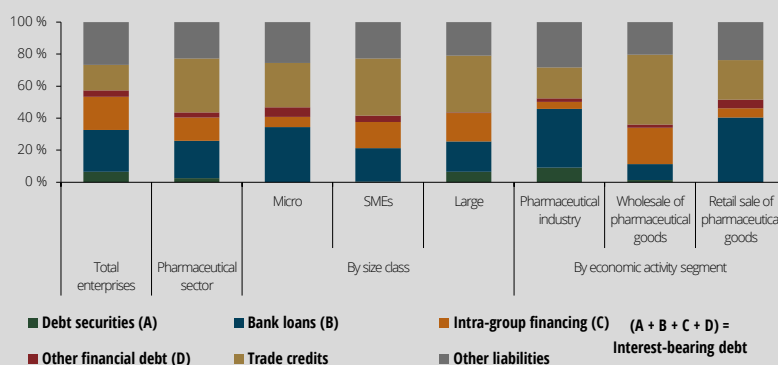
Similarly to most economic activity sectors in Portugal, debt financing is a relevant source of funds for enterprises in the pharmaceutical sector. In 2014 interest-bearing debt<sup>15</sup> accounted for 43 per cent of the pharmaceutical sector's liabilities, 14 p.p. below that seen for total enterprises (Chart 26).

Bank loans<sup>16</sup> and intra-group financing (23 per cent and 14 per cent of liabilities respectively) were the main interest-bearing debt components in the sector. Debt securities had

a marginal share (2 per cent), but played a greater role in the liabilities of the sector's large enterprises (7 per cent). The share of bank loans in SMEs and large enterprises was also noteworthy (21 per cent and 19 per cent of their liabilities), but still less than in total microenterprises (34 per cent of liabilities).

Turning to economic activity segments, bank loans totalled 40 per cent of liabilities in the retail sale of pharmaceutical goods and 37 per cent in the pharmaceutical industry. In the wholesale of pharmaceutical goods, the share of bank loans was lower (10 per cent of liabilities), while intra-group financing played a greater role (23 per cent).

Trade credits accounted for 34 per cent of liabilities in the pharmaceutical sector, 18 p.p. above the share registered in total enterprises. This component played a greater role in SMEs and large enterprises (36 per cent of liabilities,

**Chart 26 • Liabilities structure (2014)**

in both cases) than in microenterprises (28 per cent).

With regard to economic activity segments, trade credits accounted for 44 per cent of liabilities in the wholesale of pharmaceutical goods, 25 per cent in the retail sale of pharmaceutical goods and 19 per cent in the pharmaceutical industry.

Liabilities in the pharmaceutical sector decreased very slightly in 2014 (by 1 per cent, i.e. below the 2 per cent decline in total enterprises), following an 8 per cent fall in 2013 (2 per cent in total enterprises) (Table 8).

Marginal developments in the pharmaceutical sector's liabilities chiefly resulted from a counterbalance between developments in the various components, most notably a negative contribution from bank loans (3.4 p.p.) and positive contributions from other liabilities (1.9 p.p.), intra-group financing (0.8 p.p.) and debt securities (0.6 p.p.). This contrasted with that seen in 2013, when all components, except for other liabilities, made a negative contribution to developments in the sector's liabilities, particularly intra-group financing (with a negative contribution of 4.6 p.p.).

**Table 8 • Liabilities | Contributions from components (p.p.) to the annual growth rate (%)**

	2013	2014
Total enterprises	-2.3	-1.9
Pharmaceutical sector	-7.9	-0.8
Components (contributions in p.p.)	Debt securities	0.6
	Bank loans	-3.4
	Intra-group financing	0.8
	Other financial debt	-0.2
	Trade credits	-0.5
	Other liabilities	1.9

### Box 3 | Bank loans granted by the resident financial system<sup>17</sup>

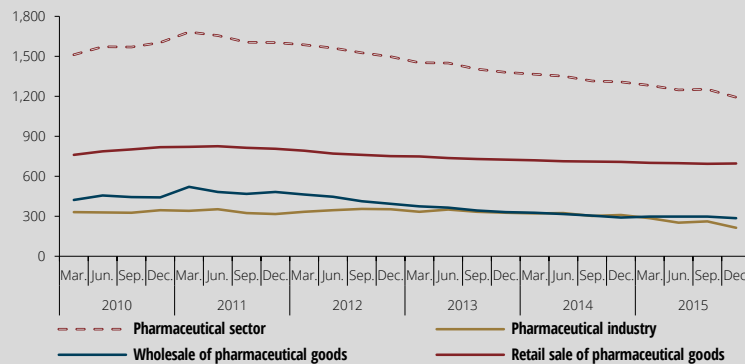
In 2014 loans obtained from the financial sector accounted for 54 per cent of the pharmaceutical sector's interest-bearing debt (23 per cent of total liabilities). In the same year, 66 per cent of enterprises in the pharmaceutical sector had borrowed from the financial sector resident in Portugal<sup>18</sup> (57 per cent in total enterprises).

Loans granted by the resident financial system to the pharmaceutical sector have decreased since 2011 and totalled € 1,192 million at the end of 2015, i.e. € 116 million less than in 2014. This downward trend of the past few years was common to the sector's three segments (Chart 27).

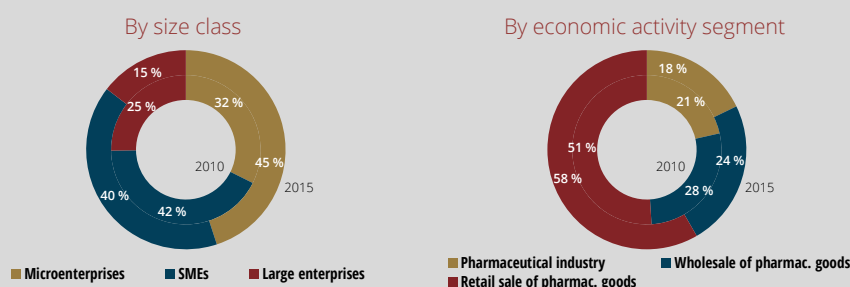
In 2015 microenterprises and SMEs held 45 per cent and 40 per cent, respectively, of loans granted by the financial system to the pharmaceutical sector, while large enterprises held 15 per cent (Chart 28). Compared with the structure seen in 2010, the relative weight of microenterprises increased by 13 p.p., thus making them the group that made the highest contribution to the sector's indebtedness to the resident financial system.

By economic activity segment, at the end of 2015 the retail sale of pharmaceutical goods held the largest share (58 per cent) of funds obtained by the pharmaceutical sector from the resident financial system, followed by the wholesale of pharmaceutical goods (24 per cent) and the pharmaceutical industry (18 per cent).

**Chart 27 • Loans granted by the resident financial system to the pharmaceutical sector (EUR millions)**



**Chart 28 • Structure of funds obtained by the pharmaceutical sector from the resident financial system (2010 and 2015)**



Turning to default indicators of the pharmaceutical sector, during the period under review the non-performing loans ratio<sup>19</sup> grew, although less markedly between 2014 and 2015 (Chart 29). In 2015, it totalled 12.5 per cent (16.2 per cent for total enterprises), increasing 1.8 p.p. from 2014. Furthermore, in 2010 and 2011 the pharmaceutical sector posted a non-performing loans ratio substantially below that of total enterprises. Between 2011 and 2014, this indicator underwent considerable changes, only to stabilise somewhat in 2015.

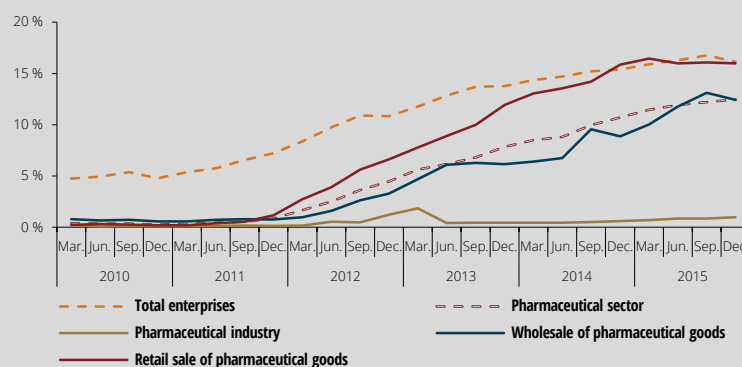
Microenterprises concentrated 76 per cent of the pharmaceutical sector's non-performing loans, with a non-performing loans ratio of 21 per cent.

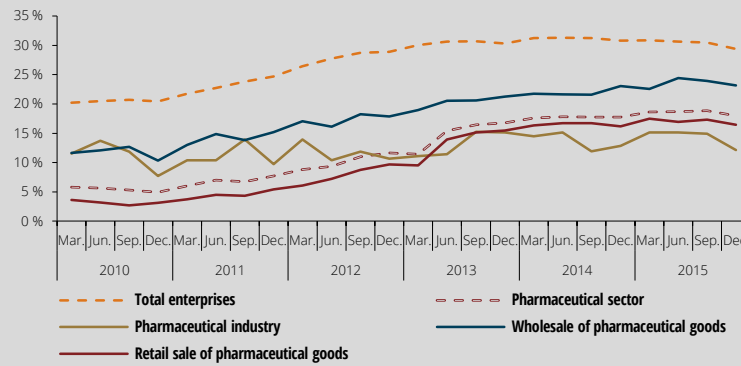
By economic activity segment, in 2015 non-performing loans were concentrated in the wholesale of pharmaceutical goods and the retail sale of pharmaceutical goods, with non-performing loans ratios of 12.4 per cent and 16 per cent respectively. The pharmaceutical industry segment, with a non-performing loans ratio of 1 per cent, contributed the least to the sector's default levels.

At the end of 2015 the share of non-performing enterprises in the pharmaceutical sector reached 18 per cent, similarly to 2014 (Chart 30). Compared with 2014, this indicator increased in both the wholesale of pharmaceutical goods and the retail sale of pharmaceutical goods (0.1 p.p. and 0.3 p.p. respectively). Despite the less substantial increase, the wholesale of pharmaceutical goods posted the highest share of non-performing enterprises (23.2 per cent). The pharmaceutical industry was the only segment where the share of non-performing enterprises declined (0.8 p.p., to 12.1 per cent).

Although the average default indicators of the pharmaceutical sector compare favourably with total enterprises, there is some heterogeneity among economic activity segments, particularly as regards the behaviour, over the past few years, of the non-performing loans ratio in the retail sale of pharmaceutical goods.

Chart 29 • Non-performing loans ratios (end-of-period figures)



**Chart 30 • Percentage of non-performing enterprises (end-of-period figures)**

### 3.3.2. Financial costs and solvency

In 2014 interest expenses in the pharmaceutical sector declined, on average, by 10 per cent from the previous year, i.e. more than in total enterprises (7 per cent) (Chart 31). The average rate of change in the sector's interest expenses was closer to the distribution median of individual rates of change (2 p.p. differential). This contrasted with total enterprises (13 p.p.), where a substantial share of enterprises posted declines in interest expenses higher than those suggested by the average rate of change.

Interest expenses of microenterprises and large enterprises declined by 16 per cent and 14 per cent respectively, while in SMEs the reduction was less substantial (4 per cent). However, half of the large enterprises posted a fall in interest expenses of more than 29 per cent, by contrast to the class average.

The decline in interest expenses was also broadly based across economic activity segments, partially due to a reduction in interest-bearing debt. The pharmaceutical industry posted the most marked fall in interest expenses (15 per cent). In the wholesale of pharmaceutical goods and the retail sale of pharmaceutical goods, interest expenses decreased by 10 per cent and 7 per cent respectively. The analysis of the distribution median of the various segments shows, however, a negative bias in the average value of the growth rate in interest expenses of the pharmaceutical industry, by contrast to a

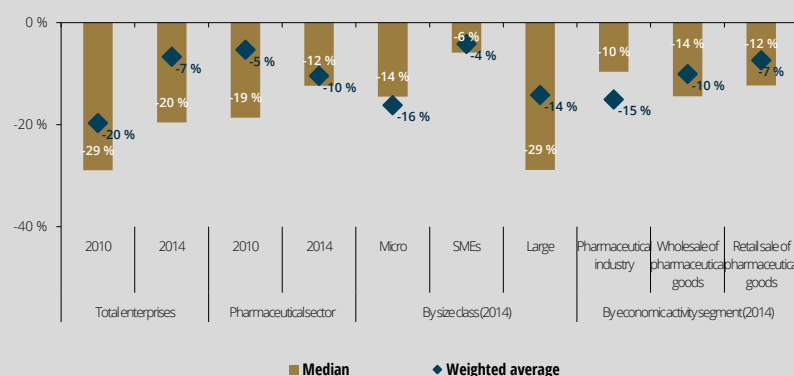
positive bias in the other segments. In the wholesale of pharmaceutical goods, half of the enterprises posted reductions in interest expenses of more than 14 per cent, compared with 12 per cent in the retail sale of pharmaceutical goods and 10 per cent in the pharmaceutical industry.

In 2014 the financial pressure ratio of the pharmaceutical sector, assessed by the weight of interest expenses in the sector's aggregate EBITDA, decreased by 3 p.p. from the previous year, to 13 per cent. Similarly to the entire 2010-14 period, this ratio was higher in total enterprises (28 per cent in 2014) (Chart 32).

The reduction in the pharmaceutical sector's financial pressure was broadly based across size classes and economic activity segments. Although microenterprises and the retail sale of pharmaceutical goods posted the highest declines in 2014 (7 p.p. and 6 p.p. respectively), they had the highest financial pressure levels (18 per cent, in both cases).

Despite the lower financial pressure exerted on the pharmaceutical sector, individual data shows that, in 2014, 20 per cent of enterprises did not generate enough EBITDA to pay interest expenses on their interest-bearing debt, which is still below that seen in total enterprises (34 per cent) (Chart 33). Conversely, financial pressure was below 0.5 for 73 per cent of enterprises in the pharmaceutical sector (61 per cent in total enterprises).

Chart 31 • Interest expenses | Weighted average and median of the annual growth rate



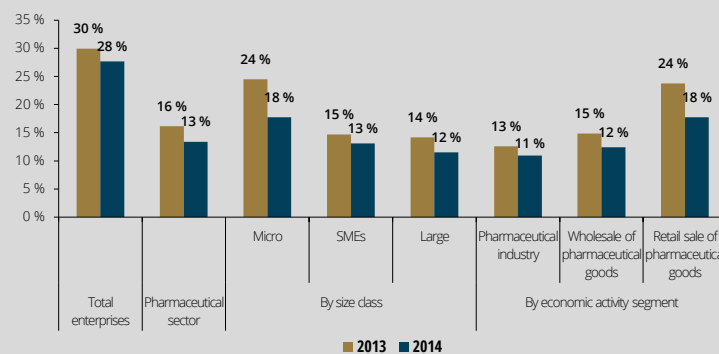


Approximately 88 per cent of large enterprises retained at least half of the available EBITDA after paying their interest expenses (83 per cent in SMES and 70 per cent in microenterprises).

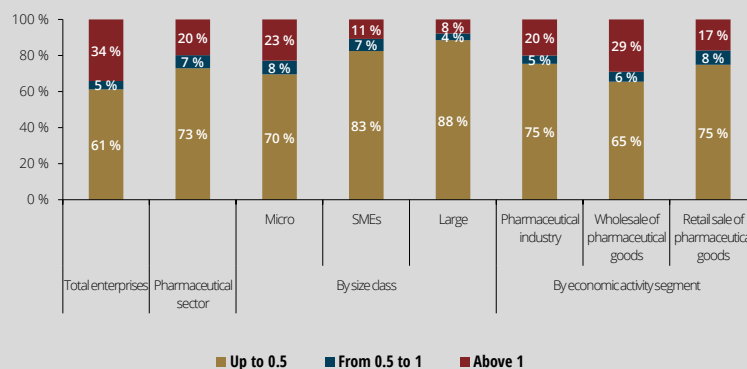
By economic activity segment, the pharmaceutical industry and the retail sale of

pharmaceutical goods were particularly noteworthy, where 75 per cent of enterprises faced financial pressure levels below 0.5. The wholesale of pharmaceutical goods posted the largest share of enterprises whose EBITDA was not enough to pay their interest expenses (29 per cent).

**Chart 32 • Weight of interest in EBITDA | By size class and economic activity segment (2013 and 2014)**



**Chart 33 • Financial pressure | Distribution of enterprises by performance level (2014)**



Note: The class 'Above 1' includes enterprises with negative EBITDA.

### 3.3.3. Trade credit financing

In 2014 trade credit financing accounted for the largest share of liabilities in the pharmaceutical sector (34 per cent, compared with 16 per cent in total enterprises).

Days payable outstanding stood at 77 days in the pharmaceutical sector (similarly to total enterprises), while days sales outstanding stood at 86 days (74 days in total enterprises). On average, the sector's enterprises took nine more days to receive from their customers than to pay their suppliers, conversely to total enterprises, whose days sales outstanding were lower than days payable outstanding. Compared with 2013, days payable outstanding and days sales outstanding in the pharmaceutical sector decreased by four and eight days respectively, more than in total enterprises (two days for both indicators).

The net indicator of trade credit financing relates accounts payable and accounts receivable to turnover, thus helping to understand how this funding is used by enterprises. A positive value implies that the enterprise's accounts payable is above accounts receivable, which means that the enterprise is obtaining financing from suppliers. A negative value in this indicator implies that accounts receivable is above accounts payable, which overall means that the enterprise is financing its customers.

In 2014 trade credit financing of the pharmaceutical sector as a percentage of turnover stood at -6 per cent, which shows that the sector did not obtain financing in net terms through this means. In line with total enterprises (-3 per cent in 2014), this was stable throughout the period under review (Chart 34). However, net trade credit financing of the pharmaceutical sector improved slightly in 2014 compared with 2013 (1.5 p.p.), following the trend seen since 2011 (conversely to the high stability of this indicator in total enterprises).

In 2014 the sector's microenterprises posted a positive balance in this indicator,

corresponding to 8 per cent of turnover. Conversely, SMEs and large enterprises had net trade credit financing of -9 per cent of turnover, thus reflecting, in both cases, an improvement for the third consecutive year. Consequently, SMEs and large enterprises contributed to the improvement in this indicator in the sector as a whole, due to a reduction in its negative balance compared with 2013 (by 2 p.p. and 3 p.p. respectively). Turning to microenterprises, although positive, net trade credit financing decreased from 2013 (2 p.p.).

Taking into account the various economic activity segments, the retail sale of pharmaceutical goods was the only segment that obtained net trade credit financing (8 per cent of turnover). In the other segments, net trade credit financing was negative (11 per cent in the wholesale of pharmaceutical goods and 6 per cent in the pharmaceutical industry). The recovery in the balance of the wholesale of pharmaceutical goods in 2014 (3 p.p.) was a key factor behind sectoral developments compared with 2013, in contrast to negative changes in the other segments (2 p.p. in both cases).

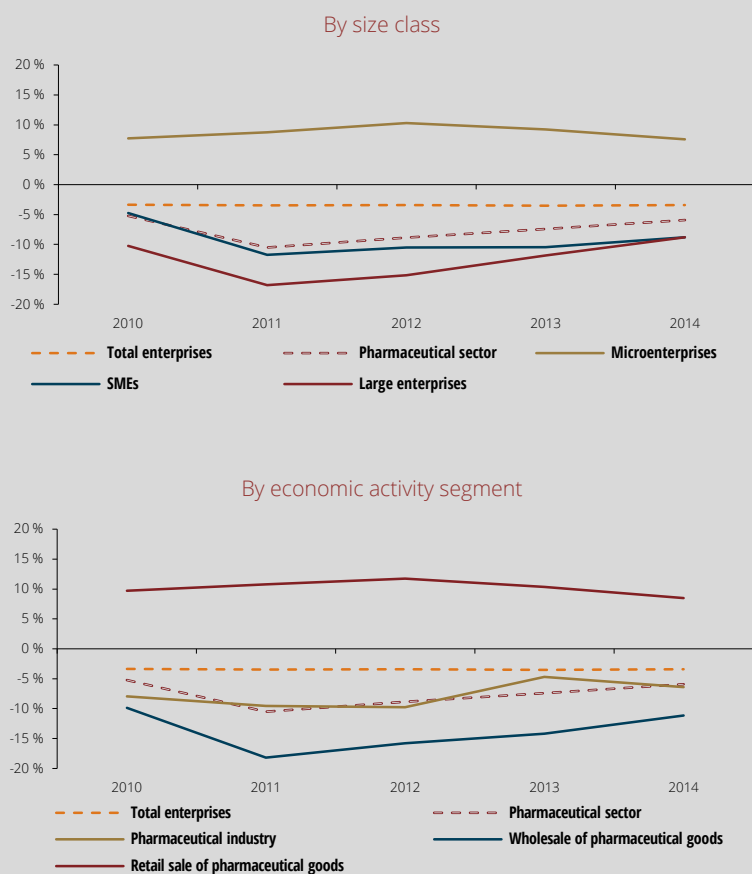
These data are confirmed by the assessment of individual net trade credit financing of pharmaceutical enterprises.

Approximately three-quarters of enterprises in the retail sale of pharmaceutical goods posted positive values in this indicator, accounting for a similar share in the segment's turnover (74 per cent). In the other segments, the opposite was the case, with negative differentials between accounts receivable and accounts payable in 57 per cent of enterprises in the pharmaceutical industry and 61 per cent of enterprises in the wholesale of pharmaceutical goods (these enterprises accounted for 63 per cent and 78 per cent of turnover in each segment, respectively).

The segmentation by the different activities that are comprised within the pharmaceutical sector determined that most of its enterprises (63 per cent) posted positive net trade credit financing. However, the most substantial share

of turnover was associated with the set of enterprises with negative net trade credit financing (64 per cent of the sector's turnover).

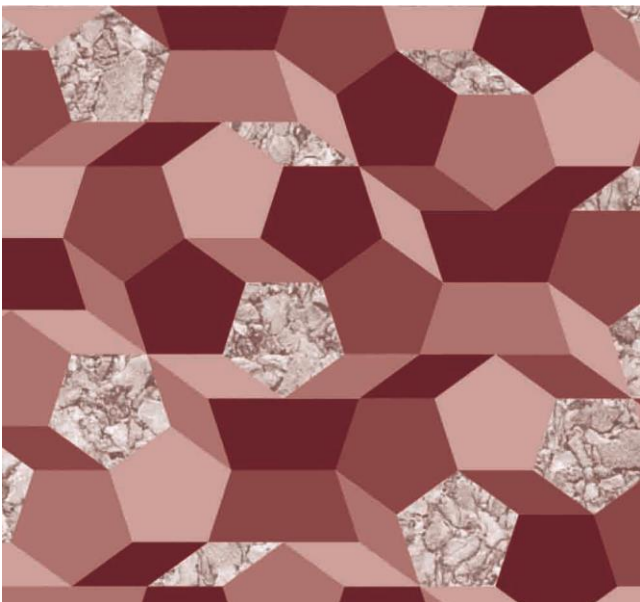
**Chart 34 • Net trade credit financing | As a percentage of turnover**



Note: Net trade credit financing was calculated as the difference between accounts payable (net of advances) and accounts receivable (net of advances and adjustments).

## Notes

1. For the sake of simplicity, this study refers to 'enterprise' and 'corporation' interchangeably. Both refer to enterprises that comprise the institutional non-financial corporations (NFCs) sector. The NFC sector is one of the economy's institutional sectors. The institutional sectorisation of economic agents is carried out in accordance with the 2010 European System of National and Regional Accounts (ESA 2010), approved by Council Regulation (EC) No 549/2013 of 25 May 2013. ESA 2010 is a harmonised reference on the compilation methodology and deadline for release of the national accounts of EU countries, including statistics under Banco de Portugal's responsibility. Underlying the series under analysis (2010-14) is a definition of the ESA 2010 population. Based on the national accounts standard, sole proprietors are included in the households' institutional sector. Hence, all data on the NFC sector throughout this study exclude sole proprietors (in Portugal these represent around two-thirds of the number of enterprises, but only 5 per cent of the respective turnover).
2. The Central Balance Sheet Database of Banco de Portugal is a database with economic and financial information on NFCs in Portugal. Information is based on annual accounting data reported within the scope of Informação Empresarial Simplificada – IES (Simplified Corporate Information) and quarterly accounting data reported by enterprises through the quarterly survey of non-financial corporations. Annual data cover nearly all NFCs and quarterly data cover around 4,000 enterprises, representing 50 per cent of turnover in the sector. For further details on the activities of the Central Balance Sheet Database, see Supplements to the Statistical Bulletin 1/2008 – *Simplified reporting: inclusion of the Simplified Corporate Information in the Statistics on Non-Financial Corporations from the Central Balance Sheet Database*, and 2/2013 – *Statistics on non-financial corporations of the Central Balance Sheet Database: Methodological notes*, as well as the *Central Balance Sheet Study* | 19 – *Sector Tables and Enterprise and Sector Tables: Methodological Notes. Long Time Series 1995-2013* of November 2014.
3. Based on data from the integrated business accounts system (*Sistema de Contas Integradas das Empresas*) of Statistics Portugal, available at [www.ine.pt](http://www.ine.pt).
4. For more details on total enterprises, see *Central Balance Sheet Study* | 23 – *Sectoral analysis of non-financial corporations in Portugal 2010-2015* of November 2015.
5. Some totals in the tables and charts may not add up due to rounding.
6. The definition of size classes used in this study is detailed in the Annex.
7. Geographical location refers to the district where the enterprise's head office is located.
8. The definition of enterprise maturity used in this study is detailed in the Annex.
9. As defined in Eurostat-OECD Manual on Business Demography Statistics, high-growth enterprises are enterprises whose average annual turnover growth is greater than 20 per cent per annum over a three-year period. Turnover is used as a variable for the calculation of the rate. For more information, see *Central Balance Sheet Study* | 12 – *Structure and dynamics of non-financial corporations in Portugal 2006-2012* of November 2013.
10. The definition of export sector is detailed in *Central Balance Sheet Study* | 22 – *Analysis of enterprises in the export sector in Portugal* of June 2015.
11. For more information on economic developments in Portugal, please refer to the *Economic Bulletin* of June 2016, available at [www.bportugal.pt](http://www.bportugal.pt).
12. The 'operating expenses' aggregate is calculated as the sum of the cost of goods sold and materials consumed (CoGS), supplies and external services (SES) and employee expenses.
13. EBITDA means earnings before interest, taxes, depreciation and amortisation.
14. For the sake of simplicity, this study refers to the term 'income' which corresponds to 'total net income', obtained through the sum of turnover, variation in production, capitalised production, operating subsidies, other income and gains, and interest and other similar income.
15. Interest-bearing debt refers to all liabilities with payable interest. See the Annex for a more detailed definition.
16. 'Box 3 | Loans granted by the resident financial system' provides additional information in this source of funding.
17. Information taken from the Central Credit Register, a database managed by Banco de Portugal, which gathers information provided by participating entities (resident institutions) regarding credit granted. For more information, please refer to *Banco de Portugal Booklet No 5, Central de Responsabilidades de Crédito* (Portuguese version only).
18. These include banks, savings banks and mutual agricultural credit banks (generically called 'banks' in this study), as well as factoring companies, credit-purchase financing companies and financial leasing companies. Over 95 per cent of credit granted by resident credit institutions to NFCs in 2015 came from banks.
19. The non-performing loans ratio is based on information on credit granted by resident CIs in Banco de Portugal's Central Credit Register by calculating the ratio of the amount of credit overdue to total credit obtained. Credit is deemed to be overdue when the respective repayments are not paid on the due payment dates. Credit customers may default as regards principal and/or interest and other expenditure. Credit is deemed to be overdue, in the case of principal, once the maximum period of 30 days after maturity has elapsed without settlement and, in the case of interest and other expenses, once the due date for settlement has passed. This information is based on credit balances recorded in the balance sheets of financial institutions, which may refer to closed enterprises, given that part of the debt may yet be repaid, where there are assets and personal guarantees, even after the enterprise has closed. After the enterprise has ceased activities, it very often happens that a significant part of the credit is still recorded as non-performing loans and gradually replaced by loan write-offs. For more information, please refer to the *Economic Bulletin* of May 2015, available at [www.bportugal.pt](http://www.bportugal.pt).



## Annex

Main indicators of the pharmaceutical  
sector

Methodological summary



## ANNEX • Main indicators of the pharmaceutical sector (2014)

	Sector characterisation		Activity		Financing						Profitability	
	Turnover held by large enterprises	Turnover held by the largest enterprises (TOP 10%)	Growth rates		Capital ratio	Growth rates		Net trade credit financing (% of turnover)	Weight of interest in EBITDA	Credit obtained from resident CIs (end of 2015)		Return on equity
			Turnover	EBITDA		Trade credits	Bank loans			% of non-performing enterprises	Non-performing loans ratio	
Total enterprises	43%	89%	2%	1%	30%	-1%	-8%	-3%	28%	29%	16%	3%
Pharmaceutical sector	40%	77%	3%	8%	38%	-1%	-13%	-6%	13%	18%	12%	9%
Pharmaceutical industry	53%	73%	-3%	-2%	42%	-6%	-7%	-6%	11%	12%	1%	12%
Wholesale of pharmaceutical goods	51%	83%	3%	8%	35%	2%	-28%	-11%	12%	23%	12%	8%
Retail sale of pharmaceutical goods	4%	31%	7%	24%	40%	-9%	-7%	8%	18%	16%	16%	7%
Share of the pharmaceutical sector												
	Number of enterprises				Turnover				Number of employees			
	2006		2014		2006		2014		2006		2014	
Total enterprises	0.67%		0.92%		3.03%		3.29%		1.04%		1.31%	

## Methodological summary

**Capital ratio:** Ratio of equity to total assets.

**Economic activity segment:** The enterprises classified in Sections K – *Financial and insurance activities*; O – *Public administration and defence; Compulsory social security*, T – *Activities of households as employers; Undifferentiated goods- and services-producing activities of households for own use* and U – *Activities of extraterritorial organisations and bodies* in CAE-Rev. 3, were excluded from this analysis as they do not fall within the NFC institutional sector.

**Financial pressure:** Ratio of interest expenses to EBITDA.

**Interest-bearing debt:** Interest-bearing debt refers to all liabilities with payable interest, obtained through debt securities issues, loans granted by credit institutions and financial companies, intra-group financing and other loans.

**Maturity:** Enterprise maturity refers to the age of the enterprise as at the analysis reference date. Four maturity classes are considered: up to five years; from five to (but not including) ten years; from ten to (but not including) 20 years; and more than 20 years.

**Pharmaceutical sector:** For the purposes of this study, the pharmaceutical sector comprises enterprises from division 21 – manufacture of basic pharmaceutical products and pharmaceutical preparations (pharmaceutical industry), subclass 46460 (wholesale of pharmaceutical goods) and subclass 47730 (retail sale of pharmaceutical goods).

**Quartile distribution:** In order to calculate quartiles, the enterprise values for the indicator under analysis are ranked in ascending order. The first quartile corresponds to the value of the enterprise in the position corresponding to 25% of the ordered sample (i.e. where 25% of enterprises show a lower value for that indicator and 75% a higher value). The second quartile (or median) corresponds to 50%, i.e. the indicator value for this enterprise divides the breakdown into two halves, where one half

of the enterprises shows a higher value and the other half a lower value. The third quartile corresponds to the 75% position of the ordered sample (75% of enterprises show a lower value for that indicator, and only 25% show a higher value). The interquartile range (obtained as the difference between the third and first quartiles) provides an indication of distribution dispersion. For further details on the calculation of these statistical measures, please refer to the *Central Balance Sheet Study | 6 – New enterprise and sector tables: adjustment to the Accounting Standards System*, December 2011.

**Return on equity:** Ratio of net income for the year to equity. As both items (numerator and denominator) may be positive or negative, at individual level, the indicator is only calculated in situations where equity is positive.

**Size of the enterprise:** Enterprises were grouped into three classes: microenterprises, small and medium-sized enterprises and large enterprises. The criteria for this classification were taken from the European Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises. According to this Recommendation, microenterprises are defined as enterprises which employ fewer than 10 persons and whose annual turnover and/or balance sheet total does not exceed €2 million. For the purpose of this study, small and medium-sized enterprises (SMEs) exclude microenterprises, employ fewer than 250 and more than 10 persons and have an annual turnover between €2 million and €50 million and/or an annual balance sheet total between €2 million and €43 million. Large enterprises are any enterprises which are not classified above.



## Abbreviations and acronyms

CAE	Portuguese Classification of Economic Activities
CIs	credit institutions
CoGS	cost of goods sold and materials consumed
EBITDA	earnings before interest, taxes, depreciation and amortisation
ESA 2010	European system of national and regional accounts 2010
GDP	gross domestic product
HGEs	high-growth enterprises
IES	<i>Informação Empresarial Simplificada</i> (Simplified Corporate Information)
INE	Instituto Nacional de Estatística (Statistics Portugal)
NFCs	Non-financial corporations
p.p.	percentage points
SES	supplies and external services
SMEs	small and medium-sized enterprises (excluding microenterprises)

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- 1 | Enterprise and sector tables, November 2010
- 2 | Structure and dynamics of non-financial corporations in Portugal, December 2010
- 3 | Sectoral analysis of non-financial corporations in Portugal, September 2011
- 4 | Sectoral analysis of manufacture of food products, November 2011
- 5 | Sectoral analysis of accommodation and food service activities, November 2011
- 6 | New enterprise and sector tables: adjustment to the Accounting Standards System, December 2011
- 7 | Sectoral analysis of non-financial corporations in Portugal 2010/2011, April 2012
- 8 | Sectoral analysis of non-financial corporations in Portugal 2011/2012, November 2012
- 9 | Sectoral analysis of the manufacture of textiles and wearing apparel, November 2012
- 10 | Sectoral analysis of the manufacture of footwear, November 2012
- 11 | Analysis of the agricultural sector, December 2012
- 12 | Structure and dynamics of non-financial corporations in Portugal, 2006-2012, November 2013
- 13 | Sectoral analysis of non-financial corporations in Portugal, 2012/2013, November 2013
- 14 | Analysis of the automobile industry, December 2013
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- 20 | Analysis of the mechanical engineering sector, March 2015
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- 22 | Analysis of enterprises in the export sector in Portugal, June 2015
- 23 | Sectoral analysis of non-financial corporations in Portugal 2010-2015, November 2015
- 24 | Analysis of enterprises in the wood, cork and paper sectors, January 2016
- 25 | Analysis of enterprises in the pharmaceutical sector, July 2016