

# Analysis of enterprises in the wood, cork and paper sectors

Central Balance Sheet Studies  
January | 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 *Wood, Cork and Paper Sectors*, i.e. enterprises operating in forestry, the manufacture of wood and furniture, cork and paper.

In 2014 the *Wood, Cork and Paper Sectors* accounted for around 7,000 enterprises, i.e. 2 % of total enterprises in Portugal, representing 3 % of turnover and number of employees.

By economic activity segment, 'Wood and furniture' had the highest share of enterprises and employees (58 % and 59 % respectively). 'Paper', however, had the highest share of turnover (44 %). By size class, more than 80 % of enterprises were microenterprises. Nevertheless, large enterprises had the highest share of turnover (50 %).

Head offices were highly concentrated in districts located in the northern coast of Portugal, particularly Aveiro (accounting for 20 % of turnover and employees).

The majority of turnover was generated by enterprises established for more than 20 years (59 %), a share similar to that of the population of enterprises in Portugal (54 %).

Turnover recorded positive developments in the sectors under review from 2006 to 2014. However, the number of enterprises and employees declined.

In 2014, by comparison with 2013, turnover increased by 5 %, 3 p.p. above total enterprises. Operating expenses accompanied developments in turnover, increasing by 6 % in 2014. Cost of Goods Sold and Materials Consumed (CoGS) contributed in particular to these developments (4 p.p.).

The increase in EBITDA was similar to that of turnover (5 %) and more favourable than in the population of enterprises. The share of enterprises with negative EBITDA also stood at 30 %, 5 p.p. below that of total enterprises. The EBITDA margin reached 12 % and the net

margin stood at 5 %, compared with 8 % and 1 % for total enterprises.

Return on equity stood at 9 % in 2014, with favourable developments in 'Paper' (14 %), in contrast to 'Wood and furniture' (0.2 %). In the 2010-14 period, the sectors under review only recorded a return below the average performance of enterprises in Portugal in 2010.

The *Wood, Cork and Paper Sectors* had a capital ratio of 40 %. An average value which, although not representative of most enterprises (half of which recorded a figure below 25 %), was higher than the average value of enterprises in Portugal (30 %).

Interest-bearing debt of enterprises accounted for around 57 % of liabilities, with bank loans (22 %) and debt securities (21 %) being the main sources of funding.

Information provided for the 1st half of 2015, compiled by the Central Credit Register of Banco de Portugal, shows that loans granted to the *Wood, Cork and Paper Sectors* by the resident financial system grew by 7 % compared with the same period in 2014, although declining by 14 %, compared with 2010. The non-performing loans ratio stood at 15.6 %, slightly below that of NFCs (16.3 %).

Liabilities increased by 5 % in 2014, with similar developments in interest expenses (which increased by 8 %), although financial pressure remained relatively stable (14 %) and below that of total enterprises (28 %).

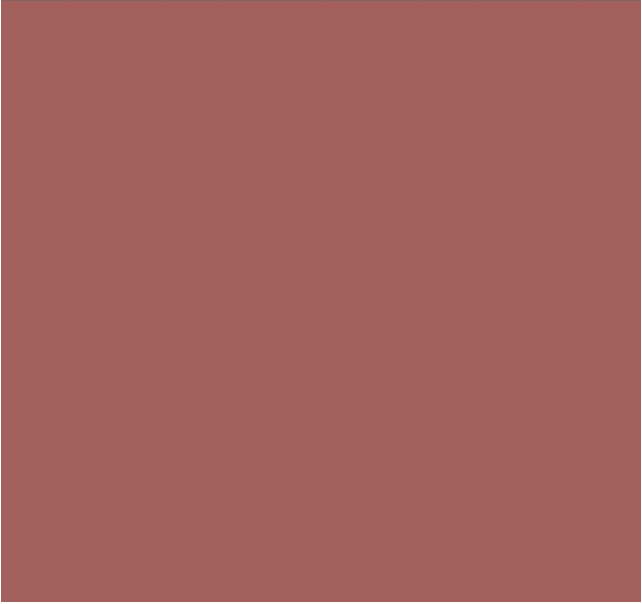
Trade credits accounted for 20 % of liabilities in 2014, but net trade credit financing was negative, in line with developments in most enterprises.

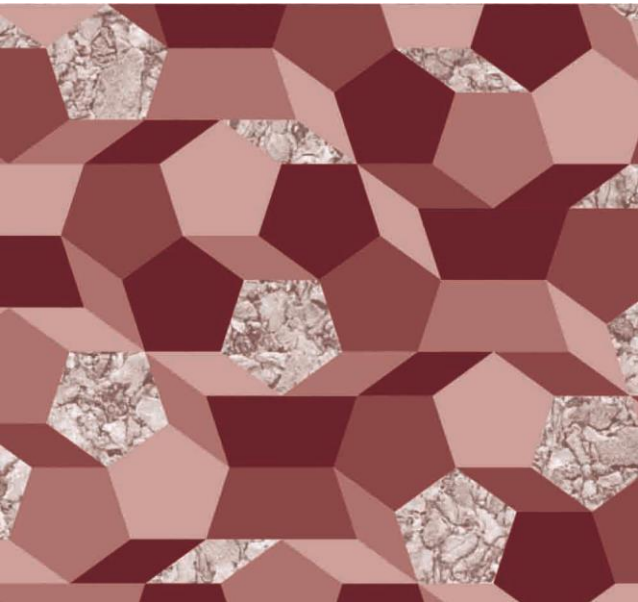




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# Analysis of enterprises in the wood, cork and paper sectors

1. Introduction

2. Structure and dynamics

Box 1 | The relevance of the export sector

3. Economic and financial analysis

Box 2 | Bank loans granted  
by the resident financial system



# 1. Introduction

The study *Analysis of enterprises in the Wood, Cork and Paper Sectors* assesses the economic and financial situation of non-financial corporations (NFCs)<sup>1</sup> belonging to the *Wood, Cork and Paper Sectors* on the basis of information from the Central Balance Sheet Database of Banco de Portugal.<sup>2</sup>

The *Wood, Cork and Paper Sectors* include non-financial corporations operating in forestry, the manufacture of wood, including the manufacture of wood furniture, and the manufacture of cork and paper.

For the purposes of this analysis, the sectors were divided into the following economic activity segments, obtained by aggregating several activities, based on the Portuguese Classification of Economic Activities, Revision 3 (CAE-Rev.3):<sup>3</sup>

- **Forestry:** composed of Division 02 – *Forestry and logging*;
- **Wood and furniture:** composed of Divisions 16 (except the set of Sub-classes considered an integral part of the 'Cork' segment) and 31 – *Manufacture of furniture* (except Sub-classes 31030 – *Manufacture of mattresses*, 31092 – *Manufacture of metal furniture for other purposes* and 31093 – *Manufacture of furniture of other material for other purposes*);
- **Cork:** comprises the Sub-classes 16293 – *Cork industry*, 16294 – *Manufacture of cork* and 16295 – *Manufacture of other articles of cork*; and,
- **Paper:** composed of Division 17 – *Manufacture of paper and paper products*.

The analysis focuses chiefly on the 2010-14 period, on the basis of *Informação Empresarial Simplificada* – IES (Simplified Corporate Information). Nevertheless, 2006 is also used as a reference year for developments in sectors, as well as more recent data on bank loans and non-performing loans for the 1st half of 2015, as complementary information.

This study also characterises the *Wood, Cork and Paper Sectors* for a range of selected indicators as regards the dispersion of results obtained by enterprises<sup>4</sup> in these sectors. For this purpose, results are shown on the distribution of data on enterprises belonging to this aggregate. It is therefore possible to conduct an alternative analysis to the synthetic indicator on the average of the sectors under analysis, avoiding distortions triggered by extreme values. In addition, an analysis is carried out on the contributions of the different economic activity segments and size classes to determining the sectors' aggregate results.

The study starts by characterising the *Wood, Cork and Paper Sectors*, assessing the structure of these sectors, in terms of economic activity, size, geographical location and enterprise maturity. Data on market concentration and corporate dynamics are also presented. Afterwards, it reviews recent turnover developments to determine the extent to which these are reflected in the profitability of non-financial corporations. This involves breaking down the effects that influence this profitability into operating and financial components of corporate business, while providing some information on the solvency capacity of the sectors' 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 can also be found on Banco de Portugal's website (in Excel format).

This publication also compares results for the sectors under review and the NFC aggregate in Portugal. For further details on the NFC sector, please see Central Balance Sheet Study | 23 – *Sectoral analysis of non-financial corporations in Portugal 2010-2015*, November 2015.

## 2. Structure and dynamics

### 2.1. Structure

In 2014 the *Wood, Cork and Paper Sectors* accounted for around 7,000 enterprises, i.e. 2 % of total enterprises in Portugal (Table 1), representing 3 % of turnover and number of employees. Compared with 2006, these

sector's weight in NFCs increased by 0.2 p.p. in terms of turnover, albeit decreasing slightly both in terms of number of enterprises (0.2 p.p.) and number of employees (0.6 p.p.).

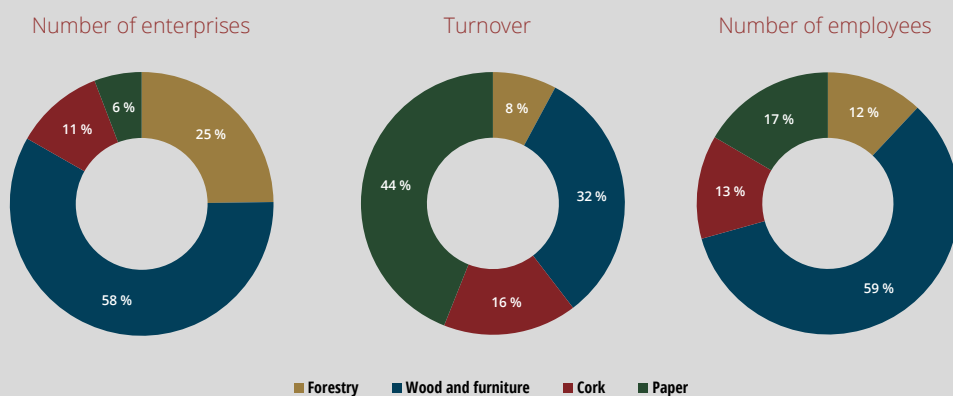
**Table 1 • Share of the Wood, Cork and Paper Sectors in NFCs (2006 and 2014)<sup>5</sup>**

	Number of enterprises		Turnover		Number of employees	
	2006	2014	2006	2014	2006	2014
Wood, Cork and Paper Sectors	2.1 %	1.8 %	2.5 %	2.7 %	3.1 %	2.6 %
Forestry	0.3 %	0.5 %	0.1 %	0.2 %	0.2 %	0.3 %
Wood and furniture	1.4 %	1.1 %	1.0 %	0.8 %	2.1 %	1.5 %
Cork	0.2 %	0.2 %	0.5 %	0.4 %	0.4 %	0.3 %
Paper	0.1 %	0.1 %	0.8 %	1.2 %	0.5 %	0.4 %

In 2014 considering the composition of the *Wood, Cork and Paper Sectors* by **economic activity segment**, the largest share of enterprises and employees belonged to the 'Wood and furniture' segment (58 % and 59 % respectively) (Chart1). However, in terms of turnover, the 'Paper' segment was the most relevant (44 %), followed by 'Wood and furniture' (32 %).

This segmentation is associated with a breakdown by **size class**<sup>6</sup>. At this level, the breakdown of the *Wood, Cork and Paper Sectors* was similar to that of NFCs, with a high share of microenterprises (81 %), although large enterprises accounted for 50 % of turnover (Table 2). In the 'Paper' segment, 77 % of turnover was associated with large enterprises (a situation reflected in this segment's share of turnover). By contrast, in 'Forestry',

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



microenterprises accounted for 47 % of turnover, while in 'Cork' and 'Wood and furniture', small and medium-sized enterprises (SMEs) had a higher relative share in terms of turnover. Finally, SMEs were also particularly relevant in terms of the number of employees. For example, SMEs in 'Wood and furniture'

accounted for 64 % of employees in this segment. Nevertheless, mention should be made to the high number of microenterprises in all economic activity segments, a situation which remained relatively unchanged in the 2006-14 period.

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

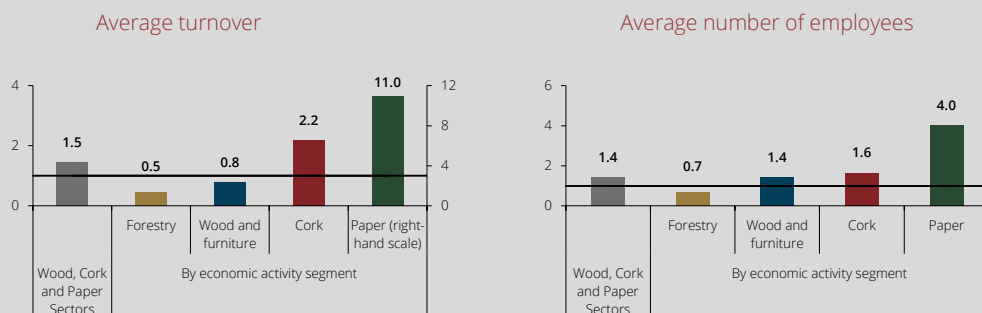
Indicator	Size	NFCs	Wood, Cork and Paper Sectors	Forestry	Wood and furniture	Cork	Paper
Number of enterprises	Microenterprises	89.5 %	80.9 %	91.0 %	78.5 %	81.0 %	62.0 %
	Small and medium-sized enterprises	10.3 %	18.7 %	8.9 %	21.3 %	18.3 %	34.4 %
	Large enterprises	0.3 %	0.4 %	0.1 %	0.1 %	0.6 %	3.6 %
Turnover	Microenterprises	15.4 %	11.1 %	47.4 %	13.8 %	13.4 %	1.8 %
	Small and medium-sized enterprises	41.7 %	39.3 %	44.2 %	60.2 %	45.1 %	21.2 %
	Large enterprises	42.8 %	49.6 %	8.4 %	26.0 %	41.5 %	77.0 %
Number of employees	Microenterprises	27.7 %	23.4 %	49.8 %	23.8 %	17.9 %	7.1 %
	Small and medium-sized enterprises	44.9 %	57.6 %	43.2 %	63.7 %	51.5 %	51.5 %
	Large enterprises	27.4 %	18.9 %	7.0 %	12.5 %	30.6 %	41.4 %

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

In 2014 turnover and number of employees in the *Wood, Cork and Paper Sectors* were, on average, higher than in total NFCs (Chart 2). This situation was associated, to a large extent, with the specific characteristics of the 'Paper' segment, which had an average turnover and an average number of employees which were around 11 times and four times the NFC average respectively. In effect, when taking into account an indicator such as capital intensity

(measured by the ratio of tangible and intangible fixed assets to number of employees), 'Paper' has figures three times those of NFCs. For the *Wood, Cork and Paper Sectors*, this indicator is similar to that recorded by NFCs, to a large extent due to the fact that 'Wood and furniture' and 'Cork' had ratios equivalent to a little over half the figure recorded by NFCs as a whole.

**Chart 2 • Average turnover and average number of employees (2014) | Non-financial corporations = 1**



By **geographical location**,<sup>7</sup> in 2014 the head offices of enterprises in the *Wood, Cork and Paper Sectors* were clearly highly concentrated in the coastal districts, particularly those in the northern coast of Portugal, irrespective of the variable used. The district of Aveiro accounted for more than 20 % of total turnover and number of employees in the sectors under review (Table 3).

In terms of the economic activity segments belonging to these sectors, for 'Cork' the district of Aveiro was the most relevant (around 80 %, taking into account number of enterprises, turnover and number of employees). In 'Wood and furniture', the district of Porto was the

most significant (with 30 % to 40 %, taking into account the same set of indicators), while in 'Paper' Coimbra was the district with the largest share (31 % of turnover, although it only accounted for 3 % of enterprises and 11 % of the number of employees).

Figure 1 assesses the relative share of turnover in the *Wood, Cork and Paper Sectors*, as well as in the economic activity segments comprised in these sectors, in total NFCs.

In 2014 the *Wood, Cork and Paper Sectors* had a higher weight in Coimbra (17 %), Castelo Branco (12 %) and Aveiro (10 %).

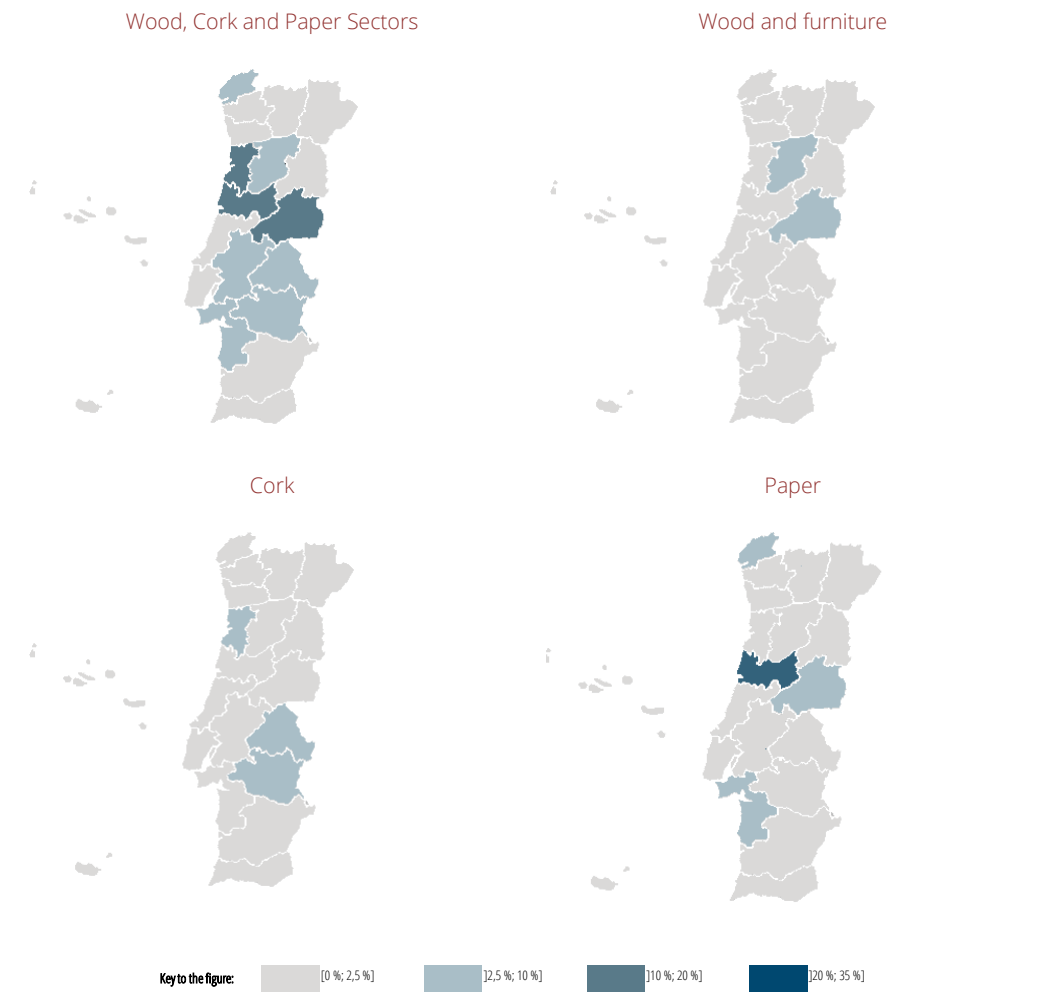
**Table 3 • Geographical location | By economic activity segment (2014)**

	Number of enterprises		Turnover		Number of employees	
	District (Top 3)	% of total	District (Top 3)	% of total	District (Top 3)	% of total
NFCs	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 %
Wood, Cork and Paper Sectors	Porto	22.9 %	Aveiro	22.8 %	Porto	25.7 %
	Aveiro	18.6 %	Coimbra	16.0 %	Aveiro	21.3 %
	Lisbon	8.6 %	Setúbal	12.7 %	Braga	7.1 %
Forestry	Santarém	12.5 %	Setúbal	16.8 %	Setúbal	12.5 %
	Aveiro	10.2 %	Aveiro	12.7 %	Santarém	12.5 %
	Lisbon	10.0 %	Coimbra	11.7 %	Aveiro	10.2 %
Wood and furniture	Porto	34.7 %	Porto	31.5 %	Porto	39.0 %
	Aveiro	10.3 %	Viseu	19.9 %	Aveiro	11.9 %
	Braga	9.5 %	Aveiro	11.8 %	Braga	8.9 %
Cork	Aveiro	80.7 %	Aveiro	78.3 %	Aveiro	77.5 %
	Setúbal	7.2 %	Portalegre	9.3 %	Évora	6.4 %
	Évora	3.8 %	Évora	5.3 %	Portalegre	6.3 %
Paper	Porto	26.0 %	Coimbra	30.7 %	Aveiro	19.2 %
	Aveiro	21.2 %	Setúbal	22.9 %	Lisbon	16.2 %
	Braga	13.9 %	Aveiro	11.8 %	Porto	13.1 %

By economic activity segment, 'Cork' stood out in Portalegre (8 %), Aveiro (6 %) and Évora (3 %), while 'Wood and furniture' was more relevant in the districts of Viseu (8 %) and Castelo Branco (3 %). The 'Paper' segment was

particularly relevant for activities in the districts of Coimbra (14 %), Castelo Branco (7 %), Setúbal and Viana do Castelo (5 %). 'Forestry' had a share below 2.5 % of turnover generated by NFCs in all districts.



**Figure 1 • Geographical location by district | Weight in total NFCs (Turnover - 2014)**

Note: The 'Forestry' segment had a share below 2.5 % of turnover generated by NFCs in all the districts. Consequently, this segment's share is not shown in the figure.

Taking into account the distribution of turnover by **enterprise maturity**<sup>8</sup> in 2014, the sectors under analysis were not significantly different from the population of NFCs. Around 59 % of turnover in the *Wood, Cork and Paper Sectors* was generated by enterprises established for more than 20 years (54 % in NFCs) (Chart 3). 'Cork', 'Wood and furniture' and 'Paper'

contributed to this, as these enterprises held 63 %, 62 % and 61 %, respectively, of turnover in these segments. In turn, 'Forestry' had a maturity structure different from that of the *Wood, Cork, and Paper Sectors*. Enterprises established for less than 20 years accounted for around 80 % of turnover in 'Forestry'.

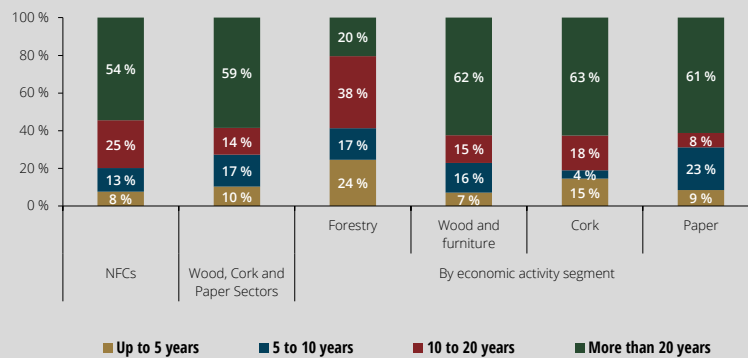
## 2.2. Concentration

In 2014, 86 % of turnover in the *Wood, Cork and Paper Sectors* was concentrated in the largest enterprises (Chart 4). In effect, this level of concentration was in line with total NFCs, where 89 % of turnover was generated by 10 % of the largest enterprises.

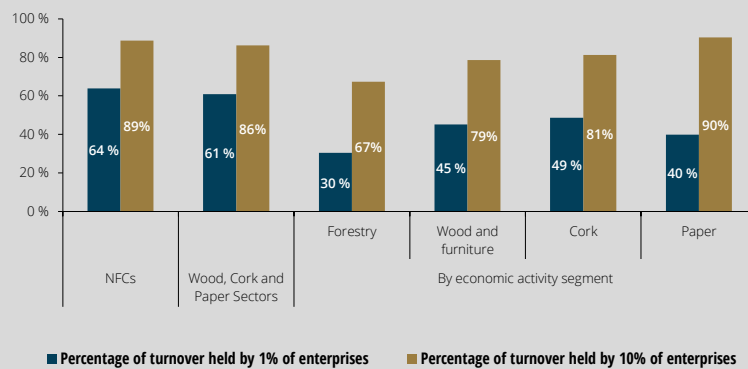
By economic activity segment, there was a lower level of concentration in 'Forestry' (1 % of

the largest enterprises with 30 % of turnover, while 10 % of the largest enterprises held 67 %). This is in contrast with the situation in the 'Paper' segment, where 40 % of turnover was associated with 1 % of the largest enterprises and 90 % of turnover with 10 % of the largest enterprises in this segment.

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



**Chart 4 • Distribution of turnover (2014)**



### 2.3. Dynamics

In 2014 the number of enterprises increased more significantly in the *Wood, Cork and Paper Sectors* (3 %), compared with total NFCs (2 %) (Chart 5). There is therefore a change from the trend seen in the 2010-13 period, where rates of change in the number of active enterprises were consistently below those of NFCs.

The birth/death ratio reflects a similar trend, reaching 1.54 in 2014, compared with the 1.24 ratio seen in NFCs (Chart 6).

By economic activity segment, the birth/death ratios in 'Forestry' were higher than in the sectors under analysis, in the period under review (4.19 in 2014). In turn, 'Wood and furniture' recorded, on average, the smallest birth/death ratio for the period under review as a whole, reaching a peak in 2014 (0.88).

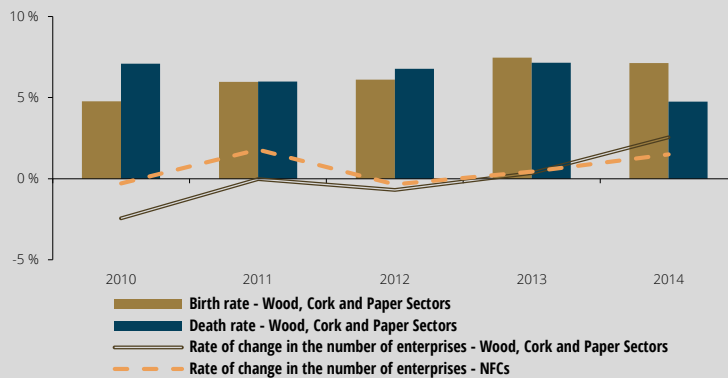
A comparison of 2014 with 2006 shows that developments in turnover in the *Wood, Cork*

*and Paper Sectors* were positive. However, the number of enterprises and employees declined. Although the number of employees in total NFCs also decreased compared with 2006, turnover stagnated and the number of enterprises increased (Chart 7).

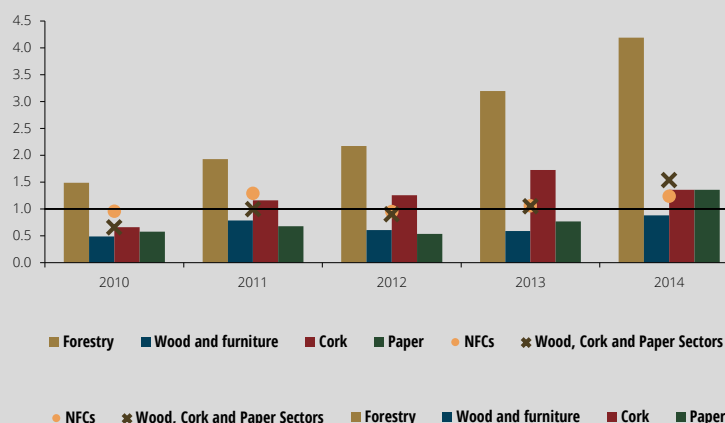
Turnover in 'Forestry' and 'Paper' increased significantly compared with 2006, although only the first segment recorded an increase in the number of enterprises from 2006 to 2014. In 'Wood and furniture' and 'Cork', all indicators under review decreased in this period.

In 2014 around 10 % of enterprises in the *Wood, Cork and Paper Sectors* reached the statute of high-growth enterprises (HGEs)<sup>9</sup> (Chart 8), i.e. recording an average annual growth in turnover of over 20 % during a period of three consecutive years. By comparison, the share of HGEs in the population of NFCs stood at 8 %.

**Chart 5 • Demographic indicators of the Wood, Cork and Paper Sectors**



**Chart 6 • Birth/death ratio**

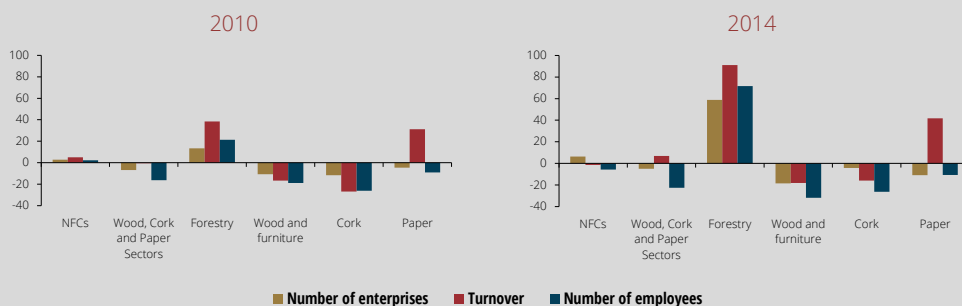


The largest share of HGEs in the sectors under review was, to a large extent, the result of contributions from 'Forestry' and 'Cork', where the share of HGEs reached 15 % and 12 % respectively, in contrast to 'Paper' (6 %). However, this cannot be dissociated from the average size of enterprises in the various segments. Average growth leading to enterprises being classified as HGEs is more easily recorded in enterprises with a smaller size (predominant in 'Forestry' and 'Cork') than

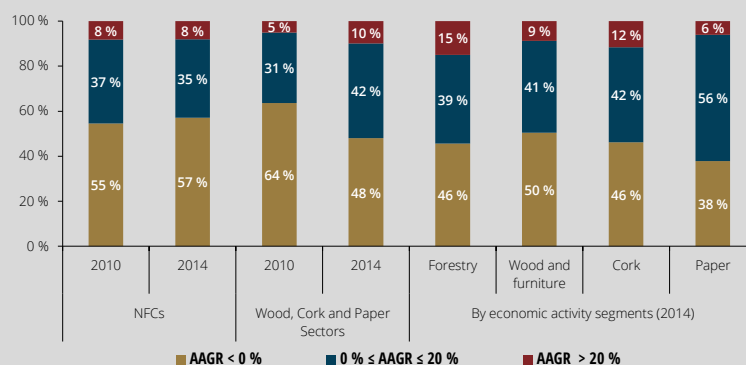
in enterprises with a larger size (more relevant in 'Paper').

From 2010 to 2014, the share of HGEs in the *Wood, Cork and Paper Sectors* increased by 5 p.p., while HGEs remained stable in NFCs as a whole. In turn, the share of enterprises with a negative average annual growth declined in the sectors under review (by -16 p.p., to 48 % in 2014), compared with an increase of 3 p.p. for the NFC aggregate during the same period.

**Chart 7 • Developments in the Wood, Cork and Paper Sectors and in NFCs from 2006 to 2014 | Cumulative change from 2006 (2006=100)**



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



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

In 2014 the export sector<sup>10</sup> comprised 12 % of the number of enterprises, 49 % of the number of employees and 52 % of turnover of the enterprises in the *Wood, Cork and Paper Sectors*, figures above those recorded in NFCs as a whole (6 %, 25 % and 37 % respectively) (Chart 9). The weight of the export sector has not changed significantly compared with 2013, both for total NFCs and for the *Wood, Cork and Paper Sectors*.

Among the enterprises under review, export activities are particularly relevant for larger enterprises. In 2014, 61 % of large enterprises under review were associated with the export sector, accounting for 51 % of turnover and 71 % of the number of employees (Chart 10). By contrast, only 5 % of microenterprises in the *Wood, Cork and Paper Sectors* belonged to the export sector, accounting for 8 % of the number of employees and 13 % of the turnover of microenterprises.

By economic activity segment, the export sector was more important in 'Wood and furniture' and 'Cork', accounting for more than two thirds of turnover in these segments, although 'Paper' was also relevant, with around 39 % of its turnover originating from enterprises in the export sector. By contrast, in 'Forestry', only 6 % of turnover came from enterprises in the export sector (accounting for 3 % of enterprises in this segment and 5 % of the number of employees).

Chart 9 • Share of the export sector (2014)

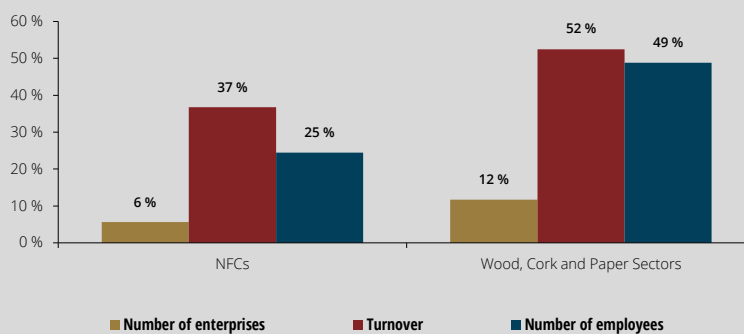
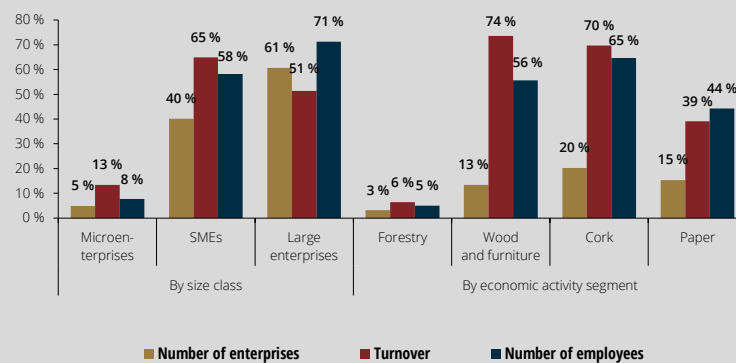


Chart 10 • Share of the export sector | By economic activity segment and size class (2014)



In addition to assessing the relative share of the export sector in total NFCs, in the sectors under review and the size classes and economic activity segments comprised in them, this box also assessed how exporting enterprises are broken down by size class and economic activity segment in the *Wood, Cork and Paper Sectors*. The distribution of the set of enterprises in the export sector is therefore compared with the remaining enterprises in the *Wood, Cork and Paper Sectors*.

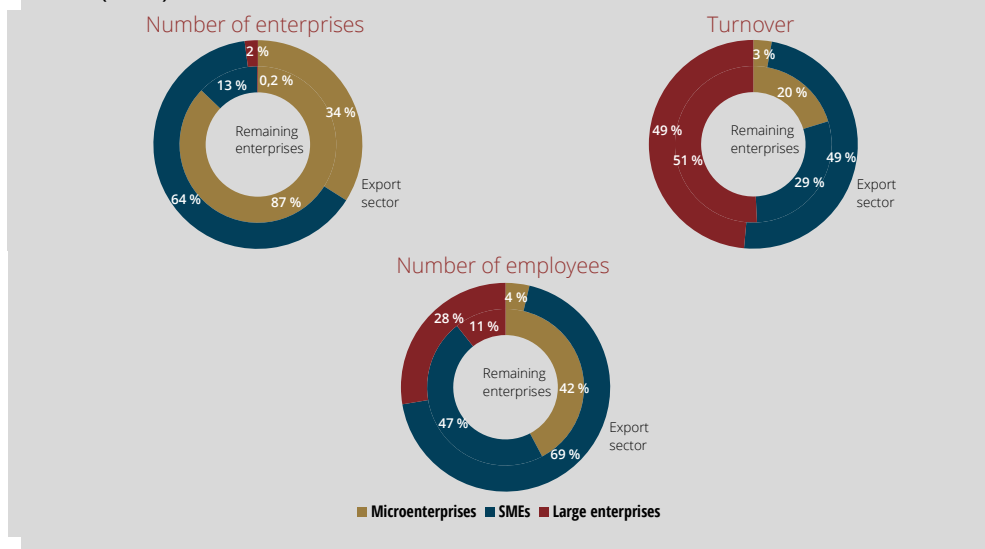
The breakdown by size class of enterprises in the export sector comprised in the *Wood, Cork and Paper Sectors* is different from that of the remaining enterprises in the *Wood, Cork and Paper Sectors*, as microenterprises are less relevant, in contrast to large enterprises and, in particular, SMEs (Chart 11). In 2014 SMEs in the *Wood, Cork and Paper Sectors* accounted for 64 % of exporting enterprises in the sector, with 49 % of turnover and 69 % of the number of employees, compared with 13 %, 29 % and 47 % for the remaining enterprises as a whole in the *Wood, Cork and Paper Sectors*. Nevertheless, large exporting enterprises were also responsible for 49 % of turnover associated with exporting enterprises in the sectors under review.

By economic activity segment, 'Wood and furniture' was more predominant in the set of exporting enterprises belonging to the *Wood, Cork and Paper Sectors* (Chart12), taking into account the three indicators under review (67 % of the number of enterprises, 45 % of turnover and 67 % of the number of employees in the export sector under analysis).

Among exporting enterprises in the *Wood, Cork and Paper Sectors*, the 'Paper' segment was also particularly important, with 33 % of turnover, although it only accounted for 8 % of enterprises and 15 % of the number of employees in exporting enterprises comprised in the sectors under analysis. However, in terms of turnover, the representativeness of the 'Paper' segment in the export sector decreased, compared with the remaining enterprises (56 %), while the 'Wood and furniture' and 'Cork' segments were more relevant in the export sector, compared with their share in the set of the remaining enterprises in the sectors under review (18 % and 10 % respectively).

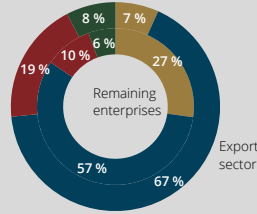
In turn, 'Forestry' had a smaller relative share in total exporting enterprises, when considering the number of enterprises (20 p.p.), turnover (14 p.p.) and the number of employees (21 p.p.) in the *Wood, Cork and Paper Sectors*.

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

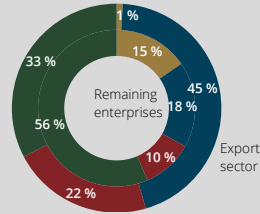


**Chart 12 • Structure considering the inclusion in the export sector | By economic activity segment (2014)**

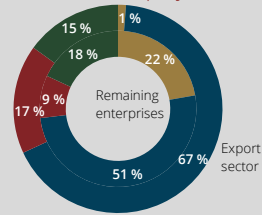
Number of enterprises



Turnover



Number of employees



■ Forestry ■ Wood and furniture ■ Cork ■ Paper

## 3. Economic and financial analysis

### 3.1. Economic environment

In 2014 Portuguese GDP increased by 0.9% in real terms, after dropping by 1.1% in 2013. With the exception of public consumption (which declined by 0.5%), all other components recorded positive developments (Table 4).

Private consumption grew by 2.2 % (after declining by 1.2 % in 2013), as a result of an acceleration in the consumption of non-durable goods and services. Gross fixed capital

formation increased by 2.8 % (after dropping by 5.1 % in 2013), posting a positive change for the first time since 2009. Imports (7.2 %) accelerated compared with 2013 (by 4.7 %), while exports decelerated, despite a positive change of 3.9 % (growth of 7.0 % in 2013).

As regards developments up to the third quarter of 2015, data published by Statistics Portugal point to GDP growth (1.5 %). The main components of GDP grew more than in the same period a year before.<sup>11</sup>

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

	2010	2011	2012	2013	2014 (p)	2015 (3rd quarter) (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 %	2.7 %
Public consumption	-1.3 %	-3.8 %	-3.3 %	-2.0 %	-0.5 %	0.2 %
Gross fixed capital formation	-0.9 %	-12.5 %	-16.6 %	-5.1 %	2.8 %	5.2 %
Exports	9.5 %	7.0 %	3.4 %	7.0 %	3.9 %	6.1 %
Imports	7.8 %	-5.8 %	-6.3 %	4.7 %	7.2 %	8.0 %

Source: INE and Banco de Portugal.

Note: (p) – preliminary data.

### 3.2. Activity and profitability

#### 3.2.1. Turnover

In 2014 turnover in the *Wood, Cork and Paper Sectors* increased by 5 %, above the figure for 2013 (1 %). By comparison with total NFCs (2 %), developments were also more favourable in 2014 (Chart 13).

In effect, throughout the 2010-14 period, the *Wood, Cork and Paper Sectors* always showed more favourable developments than total NFCs, even in 2012, when these sectors recorded a negative change in turnover (2 %),

as NFCs decreased more markedly that year (6 %).

By size class, in 2014, SMEs stood out with the greatest contribution to growth in turnover in the *Wood, Cork and Paper Sectors* (2.5 p.p., associated with growth of 7 %). However, microenterprises and large enterprises also made positive contributions (0.7 p.p. and 1.6 p.p. respectively, associated with growth in turnover of 7 % and 3 %).



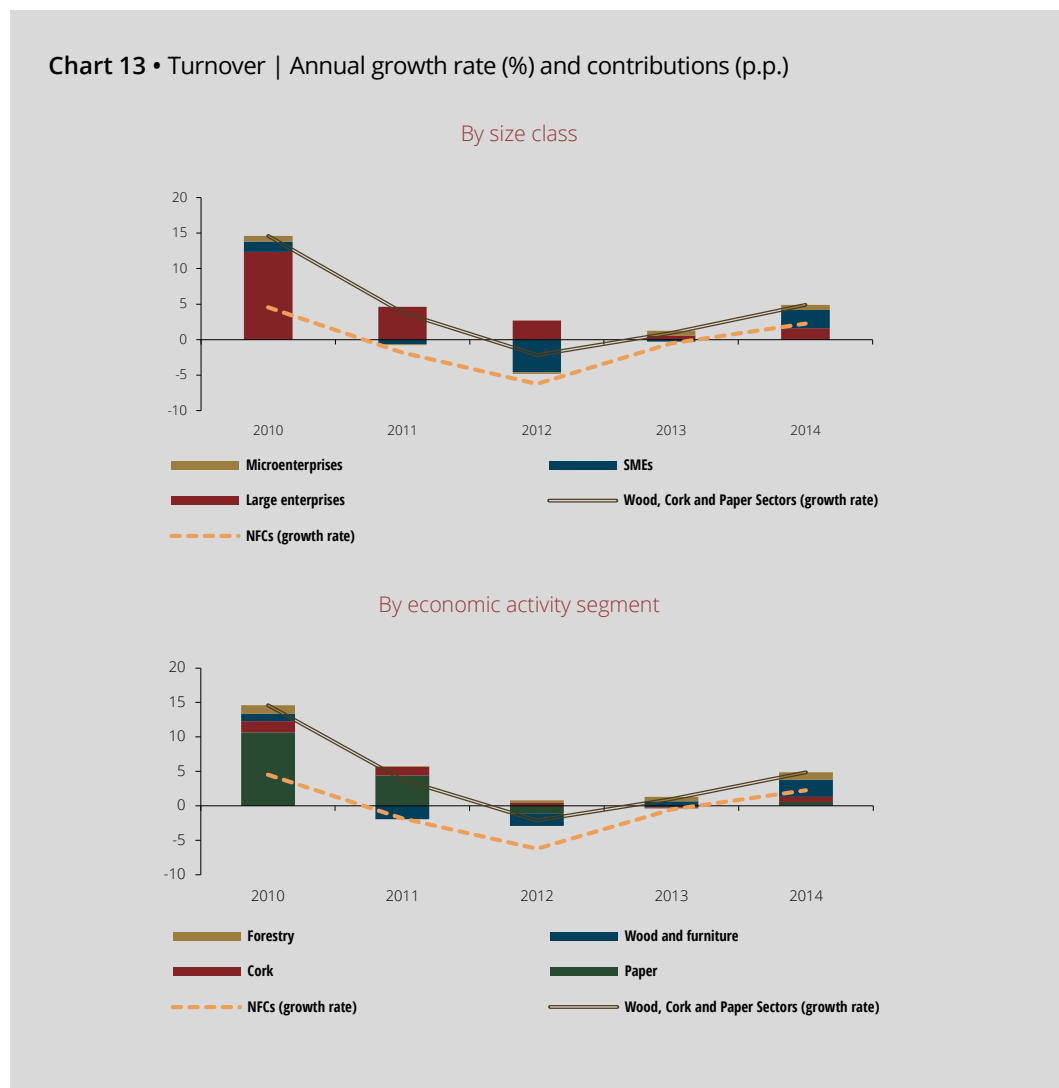
All economic activity segments made positive contributions to developments in turnover, in particular 'Wood and furniture', which grew by 8 % (contribution of 2.5 p.p. to growth in turnover in the *Wood, Cork and Paper Sectors*). Turnover increased more markedly in 'Forestry' (16 %, a contribution of 1 p.p. to developments in the sectors under review). 'Paper' also made a positive contribution (0.5 p.p.), to a much smaller extent than in 2010 and 2011 (11 p.p. and 4 p.p., for growth rates of 15 % and 4 % respectively).

In 2014 the distribution of the turnover growth rate in the *Wood, Cork and Paper Sectors* followed an upward movement (Chart 14), which suggests that turnover growth was broadly-based across most enterprises, similarly to developments in NFCs. The weighted average and the distribution median recorded similar figures, both in 2014 and

2013. However, the differential between these two measures was wider in 'Forestry', a segment where average turnover growth reached 16 % in 2014, in contrast to the fact that half the enterprises recorded changes below 3 %. In 'Paper', the distribution profile remained fairly stable, which contrasts with upward developments in 'Wood and furniture' and 'Cork'.

In 2014 turnover in the *Wood, Cork and Paper Sectors* grew by 5 %, to a large extent due to developments in the domestic market (with a contribution of 3 p.p.) (Chart 15). Nevertheless, the external market also made a positive contribution, similarly to developments in NFCs. After having a negative impact in 2011 and 2012, the external market has, since 2013, made a positive contribution to developments in turnover in the sectors under analysis, which was even more significant than that of NFCs.

Chart 13 • Turnover | Annual growth rate (%) and contributions (p.p.)



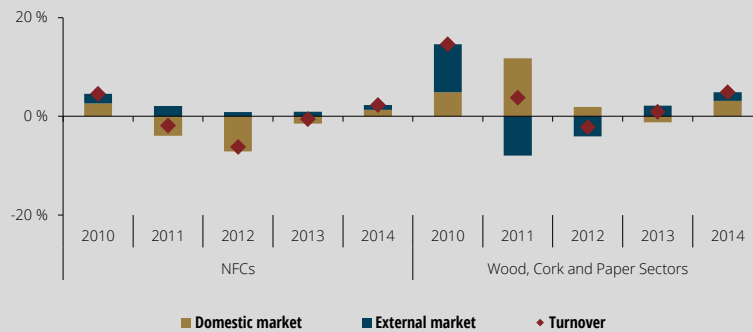
The balance of goods and services transactions with external markets in the *Wood, Cork and Paper Sectors* reached, on average, 20 % of turnover in 2014 (above the 0.2 % of NFCs), in all size classes, with the exception of microenterprises (Chart 16). SMEs, in particular, had a balance corresponding to 23 % of turnover in 2014.

In all economic activity segments in the *Wood, Cork and Paper Sectors*, the balance of transactions with external markets was both positive and higher than that of NFCs as a whole. However, 'Forestry' recorded balances of around 2 % of turnover. At the other end of the spectrum, 'Cork' recorded figures of around 45 % for this indicator, both in 2014 and 2013.

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



**Chart 15 • Turnover | Contributions of the external and domestic markets (p.p.) to the annual growth rate (%)**



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

Operating expenses in the *Wood, Cork and Paper Sectors* were in line with developments in turnover, increasing by 6 % in 2014 (NFCs recorded a change of 2 %) (Chart 17).

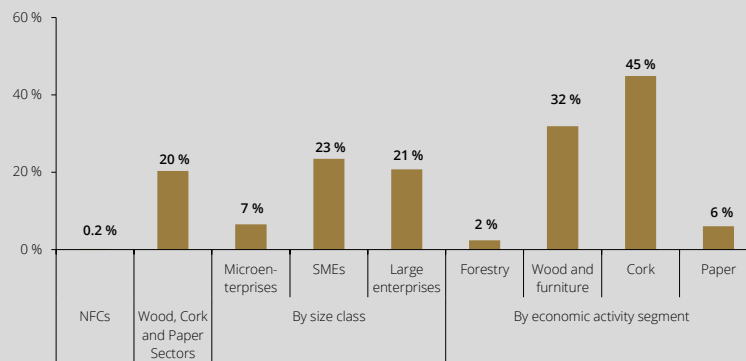
Although all expense components have increased, cost of goods sold and materials consumed (CoGS) made the largest contribution (around 4 p.p.).

In 2014 CoGS accounted for 62 % of total operating expenses in the *Wood, Cork and Paper Sectors*, 3 p.p. above the level recorded by NFCs.

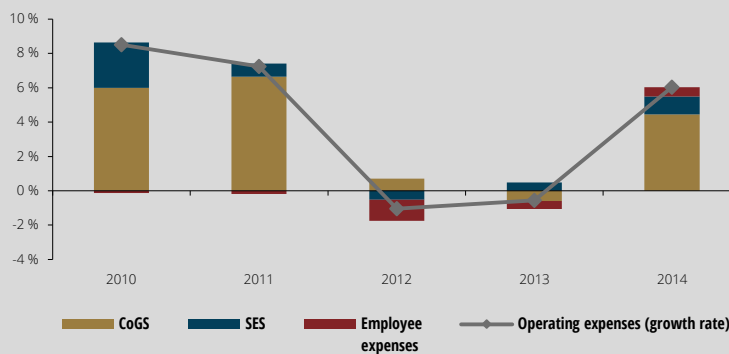
By contrast, supplies and external services (SES) and employee expenses represented 24 % and 13 % of operating expenses respectively (i.e. 26 % and 15 % in total NFCs) (Chart 18).

CoGS was more predominant in 'Cork' (73 %) and 'Paper' (66 %). In turn, the share of SES in 'Forestry' (50 % of operating expenses) was particularly relevant, in contrast to CoGS (35 %), which had a smaller relative share in this segment. Employee expenses had a larger relative share (20 %) in 'Wood and furniture'.

**Chart 16 • Balance of goods and services transactions with external markets | As a percentage of turnover (2014)**



**Chart 17 • Operating expenses | Annual growth rate (%) and contributions (p.p.)**



3.2.3. EBITDA<sup>13</sup>

EBITDA in the *Wood, Cork and Paper Sectors* increased by 5 % in 2014, a growth higher than in 2013 (3 %) and above the variation registered in NFCs as a whole (1 %) (Chart 19).

As in 2013, approximately half the enterprises (54 %) recorded EBITDA growth in 2014, a share similar to that of the NFC aggregate (Table 5).

Large enterprises had the largest share of enterprises with EBITDA growth (63 %), while, by economic activity segment, the share of enterprises with EBITDA growth in 2014 ranged

from 51 % in 'Cork' to 57 % in 'Paper', declining by 7 p.p. in 'Forestry' (to 55 % in 2014).

Compared with total NFCs, the share of enterprises with negative EBITDA was smaller in the *Wood, Cork and Paper Sectors* (30 %, compared with 35 %). In fact, this indicator decreased slightly from 2013 (0.7 p.p.).

In 2014, 33 % of microenterprises recorded a negative EBITDA, in contrast to the situation of SMEs (18 %) and large enterprises (which did not have any enterprises with negative EBITDA). By economic activity segment, 'Wood and furniture' had the largest share of enterprises with negative EBITDA (33 %).

Chart 18 • Operating expenses | Structure (2014)

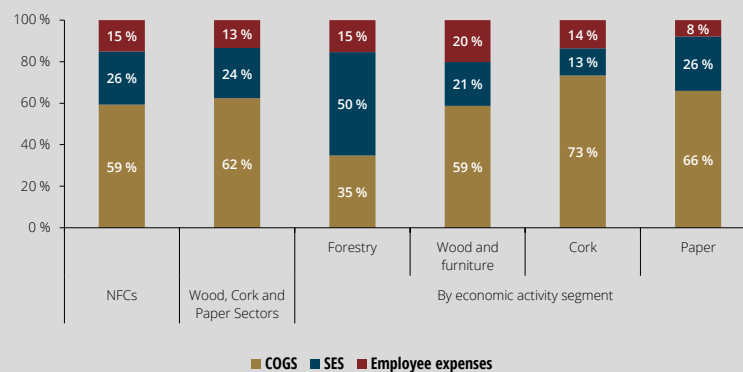
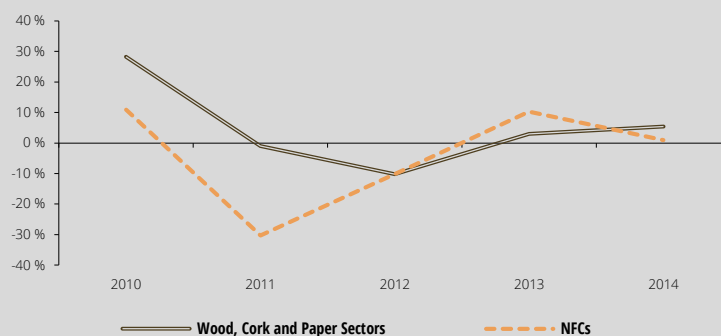


Chart 19 • EBITDA | Annual growth rate



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

		Enterprises with EBITDA growth		Enterprises with negative EBITDA	
		2013	2014	2013	2014
NFCs		53.6 %	53.9 %	36.2 %	35.3 %
Wood, Cork and Paper Sectors		56.6 %	53.7 %	30.4 %	29.6 %
By size class	Microenterprises	56.8 %	54.2 %	33.6 %	32.6 %
	SMEs	56.1 %	52.1 %	16.9 %	17.6 %
	Large enterprises	52.0 %	63.0 %	0.0 %	0.0 %
By economic activity segment	Forestry	62.5 %	55.4 %	23.3 %	24.1 %
	Wood and furniture	55.4 %	53.2 %	35.2 %	33.3 %
	Cork	52.5 %	51.3 %	23.6 %	25.7 %
	Paper	57.2 %	57.3 %	20.6 %	23.5 %

### 3.2.4. Profitability

Return on equity in the *Wood, Cork and Paper Sectors* reached 9 % in 2014, above that of NFCs (3 %) (Chart 20).

Compared with 2013, profitability in these sectors increased by 0.7 p.p., continuing the trend observed since 2012. For the period under review, the performance of the *Wood, Cork and Paper Sectors* only stood below the average performance of NFCs as a whole in 2010.

By economic activity segment, 'Paper' had the highest level in this indicator in 2014 (14 %), followed by 'Cork' (10 %). On the opposite end, the 'Wood and furniture' segment generated positive, albeit marginal, returns for the first time in the period under review.

The quartile distribution of return on equity of enterprises in the *Wood, Cork and Paper Sectors* suggests that return remained relatively stable, accompanied by a greater dispersion of individual returns in 2014, similarly to developments in NFCs (Chart 21). In the *Wood, Cork and Paper Sectors*, the interquartile range (obtained as the difference between the third and first quartiles) increased by 6 p.p. from 2013, standing at 19 p.p. in 2014. In NFCs, this range increased by 4 p.p. over the same time horizon. These changes show a greater

dispersion in the distribution of individual results, particularly in the *Wood, Cork and Paper Sectors*. Nevertheless, the difference between the central distribution value (or median, which reached 4 %) and the weighted average profitability in the sectors under review (9 %) declined by 1 p.p. from 2013 (to 5 p.p.), which suggests that the average was more representative of the individual results of enterprises in the *Wood, Cork and Paper Sectors* in 2014.

By economic activity segment, 'Paper' recorded some disparity between the weighted average (14 %) and the median (6 %), although 'Cork' also had an average profitability (10 %) above the median (6 %). By contrast, in 'Forestry' average profitability (4 %) was lower than profitability generated by half the enterprises in the segment (8 %).

An analysis of profitability in the *Wood, Cork and Paper Sectors* and their economic activity segments may be complemented using the EBITDA margin (EBITDA/Income) and the net margin (Net income/Income)<sup>14</sup> (Chart 22).

In 2014 the EBITDA margin in the *Wood, Cork and Paper Sectors* reached 12 % of income, compared with 8 % for the NFC aggregate. The net margin stood at 5 %, 4 p.p. above that of NFCs.

The 'Paper' segment had an EBITDA margin (17 %) and a net margin (9 %) above those of the remaining segments. The 'Forestry' and 'Cork' segments had an EBITDA margin of 10 %

and a net margin of 4 % and 5 % respectively. 'Wood and furniture' recorded an EBITDA margin of 6 % and a net margin of only 0.1 % in 2014.

Chart 20 • Return on equity

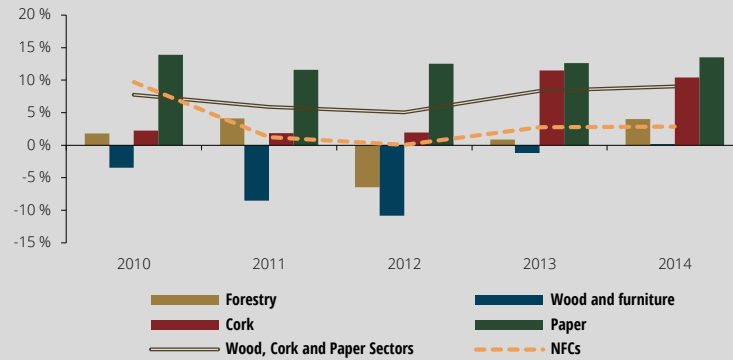
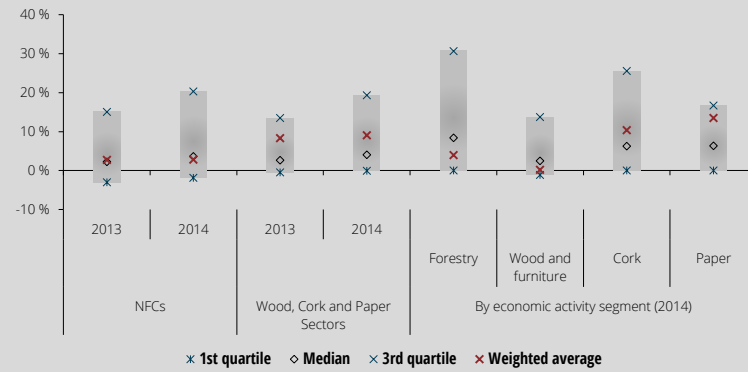


Chart 21 • Return on equity | Quartile distribution and weighted average



### 3.3. Financial situation

#### 3.3.1. Financial structure

In 2014 the *Wood, Cork and Paper Sectors* recorded a capital ratio of 40 %, above the 30 % of NFCs (Chart 23).

Nevertheless, from 2010 to 2014, the capital ratio in these sectors decreased by 2 p.p. (dropping by 1 p.p. in NFCs).

An analysis of individual values shows that the average capital ratio of the *Wood, Cork and Paper Sectors* (40 %) was not representative of most enterprises in the sectors under review, given that the median was significantly lower (25 %).

By size class, large enterprises stood out with a capital ratio of 44 % in 2014 (a median of 43 %), followed by SMEs (37 %) and microenterprises (28 %).

'Forestry' also stood out with a higher average capital ratio (50 %). In turn, 'Wood and furniture' had a capital ratio of 33 % in 2014, standing below the average value recorded in 'Paper' (42 %) and 'Cork' (36 %).

In 2014, high leverage was particularly critical for around 25 % of enterprises in the sectors under review, which recorded negative equity.

Chart 22 • Profit | Weight in income (2014)

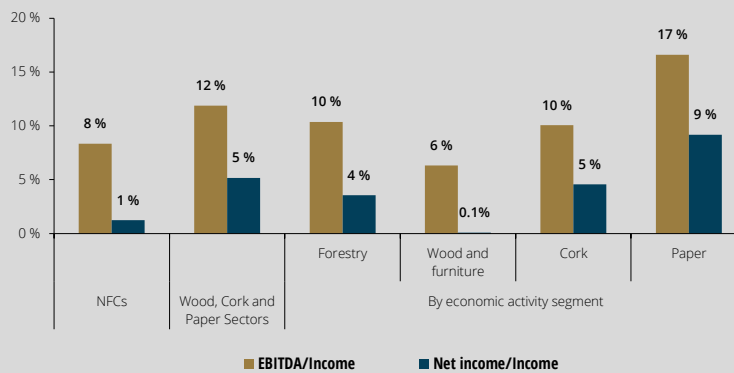
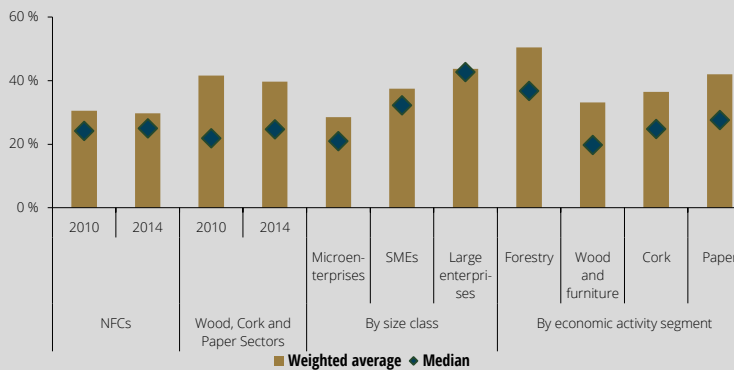


Chart 23 • Capital ratio | Weighted average and distribution median



However, this share has stood below the average of total NFCs (30 %) since 2010 (Table 6). In the 2010-14 period, the number of enterprises with negative equity in the sectors under analysis increased by 2 p.p., although this increase was more considerable in the NFC aggregate (4 p.p.).

By size class, none of the large enterprises posted negative equity. At the other end of the spectrum, 29 % of microenterprises recorded negative equity in 2014.

By economic activity segment, in 'Wood and furniture' the largest share of enterprises with negative equity was observed (29 %). In the remaining segments, the number of enterprises in this situation stood below 22 %.

Debt is therefore relevant for enterprises operating in the *Wood, Cork and Paper Sectors*, justifying a more detailed analysis of the characteristics and recent developments in their sources of funding.

**Table 6 • Capital ratio | Share of enterprises with negative equity**

		2010	2014
NFCs		25.5 %	29.5 %
Wood, Cork and Paper Sectors		23.0 %	25.2 %
By size class	Microenterprises	27.8 %	29.2 %
	SMEs	7.9 %	8.9 %
	Large enterprises	0.0 %	0.0 %
By economic activity segment	Forestry	18.3 %	19.3 %
	Wood and furniture	24.9 %	29.0 %
	Cork	20.6 %	21.8 %
	Paper	21.5 %	18.1 %

In 2014 interest-bearing debt<sup>15</sup> accounted for around 57 % of liabilities in the *Wood, Cork and Paper Sectors*, a share similar to that of NFCs as a whole (Chart 24).

Under this item, bank loans<sup>16</sup> were more relevant (22 % of liabilities), together with debt securities (21 %).

By size class, bank loans were particularly important for SMEs (accounting for 42 % of liabilities), while having a smaller share in microenterprises (20 % of liabilities). In large enterprises, debt securities had the largest share of liabilities (40 %).

By economic activity segment, the share of bank loans was relevant in 'Cork', 'Wood and furniture' and 'Forestry' (35 %, 31 % and 17 % of liabilities respectively). In 'Paper', the main

component of financial debt were debt securities, representing 43 % of liabilities in 2014.

Trade credits accounted for 20 % of liabilities in the *Wood, Cork and Paper Sectors*, compared with 16 % for the NFC aggregate. By economic activity segment, trade credits were more relevant in 'Cork' and 'Wood and furniture' (28 % and 26 % of liabilities respectively).

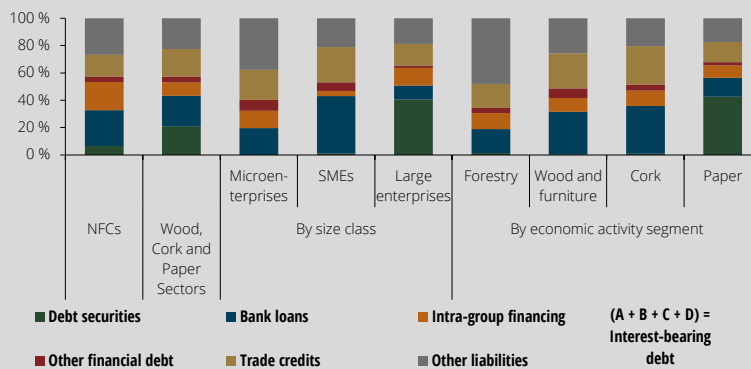
Compared with 2013, liabilities in the sectors under review increased by 5 %, although they decreased in NFCs (2 %) (Table 7). The intra-group financing component contributed to the increase in liabilities in the *Wood, Cork and Paper Sectors*, together with other liabilities (2 p.p.). In fact, the remaining liability components recorded increases, with the exception of other financial debt (-0.05 p.p.).



**Table 7 • Liabilities | Annual growth rate (%) and component contributions (p.p.)**

Year	NFCs	Wood, Cork and Paper Sectors	Components (contributions in p.p.)					
			Debt securities	Bank loans	Intra-group financing	Other financial debt	Trade credits	Other liabilities
2013	-2.3 %	0.3 %	3.1	-0.3	-0.9	-1.0	-0.6	0.0
2014	-1.9 %	5.2 %	1.0	0.5	2.0	0.0	0.0	1.8

**Chart 24 • Liabilities structure (2014)**



## Box 2 | Bank loans granted by the resident financial system<sup>17</sup>

In 2014 bank loans from credit institutions (CIs) accounted for 39 % of financial debt in the *Wood, Cork and Paper Sectors* (22 % of total liabilities). Loans from CIs resident in Portugal were analysed on the basis of information available in Banco de Portugal's Central Credit Register,<sup>18</sup> focusing in particular on more recent information for the end of the 1st half of 2015.

In 2014, 70 % of enterprises in the *Wood, Cork and Paper Sectors* had loans from resident CIs, compared with 57 % for NFCs, a decrease of 6 p.p. and 7 p.p., respectively, compared with 2010.

At the end of the 1st half of 2015, financing granted by the financial sector to enterprises in the *Wood, Cork and Paper Sectors* was distributed across 'Forestry', 'Wood and furniture', 'Cork' and 'Paper' (7 %, 44 %, 24 % and 25 % respectively).

An analysis of developments in loans granted to the *Wood, Cork and Paper Sectors* from 2010 to the 1st half of 2015 (Chart 25) shows that these decreased up to the end of 2012 (totalling €1,668 million), increasing slightly at the end of the 1st half of 2015 to €1,800 million. This behaviour is reflected in the four economic activity segments, with 'Paper' contributing the most to the increase in loans granted to these sectors in 2015, as it was the only segment which recorded an increase in loans granted, compared with the end of 2010 (with €98 million, reaching €454 million). In turn, 'Wood and furniture' and 'Cork' decreased by around a quarter of the value recorded at the end of 2010, posting €794 million and €428 million, respectively, in the 1st half of 2015.

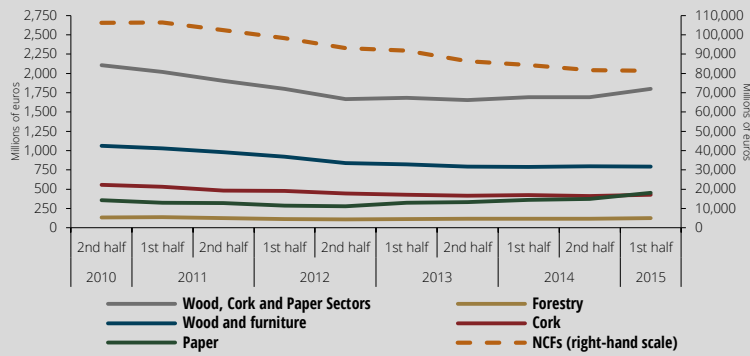
By size class, SMEs were responsible for 66 % of financing from resident CIs at the end of the 1st half of 2015. This share is lower than at the end of 2010, when this group of enterprises accounted for 76 % of financial debt (Chart 26). This decrease was mostly offset by an increase of 7 p.p. in the share of financing obtained by large enterprises (16 % of the total), while the share of financing obtained by microenterprises stood at 18 %.

The non-performing loans ratio<sup>19</sup> in the *Wood, Cork and Paper Sectors* stood at 15.6 % at the end of the 1st half of 2015, below total enterprises (16.3 %) (Chart 27). However, over the period under analysis, this indicator posted higher figures for the sectors under review than for total enterprises (in 2010, 9.8 % in the *Wood, Cork and Paper Sectors*, compared with 4.8 % in total enterprises).

By economic activity segment, 'Paper' has the lowest non-performing loans ratios throughout the period under analysis, standing at 3.9 % at the end of the 1st half of 2015. In turn, 'Cork' posted figures higher than the remaining economic activity segments, standing at 24.9 % at the end of the first half of 2015. Figures recorded in the four segments in the 1st half of 2015 were higher than at the end of 2010, but lower than at the end of 2014.

The *Wood, Cork and Paper Sectors* had a higher percentage of non-performing enterprises in the period under analysis than total enterprises (Chart 28). At the end of the 1st half of 2015, 36.0 % of enterprises in these sectors were non-performing, compared with 30.7 % of total enterprises. This indicator followed an upward trend up to the end of the 1st half of 2013, stabilising since then both for these sectors and total enterprises. The 'Cork' segment has recorded a higher share of non-performing enterprises throughout the series (42.2 % at the end of the 1st half of 2015), while 'Forestry' is the segment with the lowest share of non-performing enterprises, with 22.7 % in the last period under analysis.

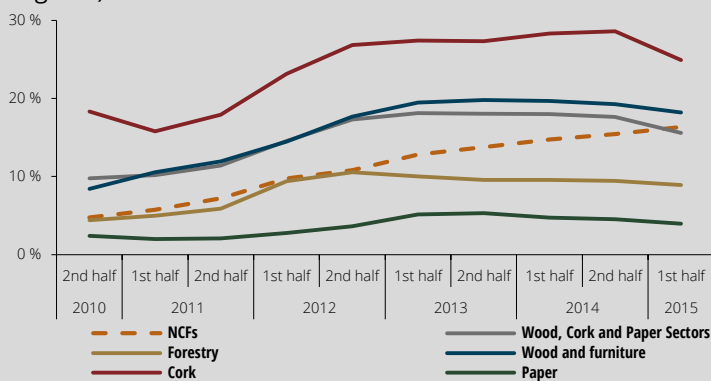
**Chart 25 • Developments in credit from resident CIs (2010 to 2015 – end of the 1st half)**



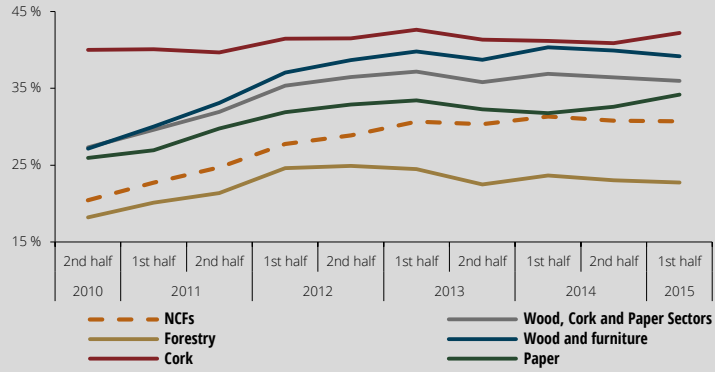
**Chart 26 • Structure of credit obtained by the Wood, Cork and Paper Sectors from resident CIs (2010 and end of the 1st half of 2015)**



**Chart 27 • Non-performing loans ratios by economic activity segment (end-of period figures)**



**Chart 28 • Percentage of non-performing enterprises by economic activity segment (end-of-period figures)**



### 3.3.2. Financial costs and solvency

In 2014, in the *Wood, Cork and Paper Sectors*, the average annual growth rate of interest expenses was 8 %, in contrast to a decline of 7 % in NFCs as a whole (Chart 29). However, the median of the annual growth rate for interest expenses in the sectors under review stood at -13 %, indicating that the increase, in average terms, was not representative of developments in most enterprises in the sectors under review.

In effect, by size class, only large enterprises saw a positive annual growth rate of interest expenses (21 %, in average terms, in 2014, partly associated with growth in interest-bearing debt with the purpose of funding an expansion in operating activities), while microenterprises and SMEs recorded a decrease. By economic activity segment, 'Paper' was crucial to developments in the *Wood, Cork and Paper Sectors*, as interest expenses increased by 20 %, compared with 2013, also partly owing to a change in the stock of interest-bearing debt. By contrast, 'Forestry', 'Wood and furniture' and 'Cork' recorded decreases in interest expenses (from 2 % to 8 %).

The financial pressure ratio, i.e. the weight of interest in EBITDA generated by enterprises in the *Wood, Cork and Paper Sectors*, increased slightly in 2014 (by 0.4 p.p., standing at 14 %),

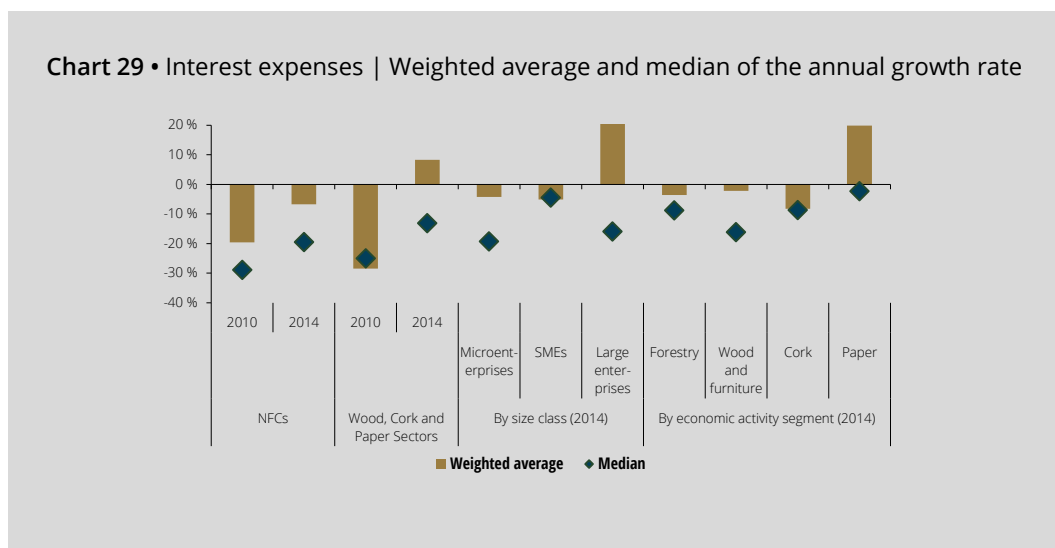
while decreasing by 2 p.p. for NFCs as a whole (Chart 30).

Only large enterprises saw an increase in financial pressure (by 2 p.p. to 12 %), in contrast to decreases in the remaining classes. Nevertheless, large enterprises had the lowest level of financial pressure in the sectors under analysis. In 2014, SMEs recorded the highest level of financial pressure (21 %), followed by microenterprises (14 %).

In 2014, financial pressure only increased in 'Paper' (by 2 p.p., to 13 %). Financial pressure decreased overall in the remaining economic activity segments, particularly in 'Cork', where it declined by 6 p.p. (14 % in 2014). 'Wood and furniture' had the highest level of financial pressure (21 %), although this indicator decreased by 2 p.p. in this segment, compared with 2013.

In around 66 % of enterprises in the *Wood, Cork and Paper Sectors*, interest expenses absorbed less than half of EBITDA, compared with 61 % for NFCs as a whole (Table 8). In turn, 28 % of enterprises in the sectors under analysis had a level of financial pressure above 1, a share below that of NFCs as a whole.

By size, large enterprises stood out, given that enterprises as a whole had a level of financial pressure of up to 0.5 in 2014, while around 20 % of SMEs had a financial pressure ratio above 1, compared with 32 %



for microenterprises. By economic activity segment, 'Forestry' and 'Paper' stood out, as 77 % and 75 % of enterprises, respectively, had a level of financial pressure of up to 0.5. In parallel, enterprises with financial pressure

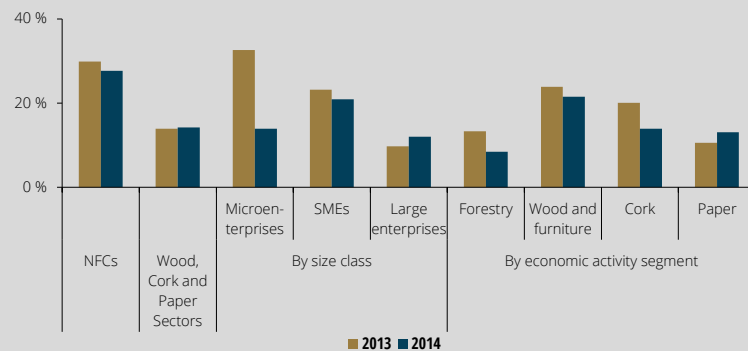
above 1 were less significant in these segments (20 % and 21 % respectively). 'Wood and furniture' and 'Cork' had the highest share of enterprises with financial pressure above 1 (33 % and 25 % respectively).

**Table 8 • Financial pressure | Distribution of enterprises by performance level (2014)**

Financial pressure (Interest/ EBITDA)	NFCs	Wood, Cork and Paper Sectors	By size class			By economic activity segment			
			Micro	SMEs	Large	Forestry	Wood and furniture	Cork	Paper
Up to 0.5	61.3 %	66.5 %	63.2 %	73.6 %	100.0 %	76.9 %	61.8 %	64.8 %	74.8 %
0.5 to 1	4.6 %	5.1 %	4.6 %	6.6 %	0.0 %	2.8 %	5.1 %	10.2 %	4.3 %
Above 1	34.1 %	28.4 %	32.2 %	19.8 %	0.0 %	20.4 %	33.1 %	25.1 %	20.9 %

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

**Chart 30 • Weight of interest in EBITDA | By size class and economic activity segment (2013 and 2014)**



### 3.3.3. Trade credit financing

In 2014, trade credit financing accounted for 20 % of liabilities in the *Wood, Cork and Paper Sectors* (16 % of liabilities in NFCs as a whole).

Days payable outstanding stood at 84 days (77 days in NFCs) and days sales outstanding at 89 days (74 days in NFCs). Enterprises took on average five more days to receive from their customers than pay their suppliers, a situation which was more favourable than in NFCs, which recorded days sales outstanding below days payable outstanding.

In order to complement this analysis and understand how this funding is used by enterprises, a net indicator of trade credit financing is shown. The indicator relating accounts payable and accounts receivable to turnover is used for the purpose. A negative value in this indicator implies that accounts receivable are above accounts payable, which means that, overall, the enterprise is financing its customers, while a positive value implies that accounts payable are above accounts receivable, i.e. the enterprise is obtaining financing from its suppliers.

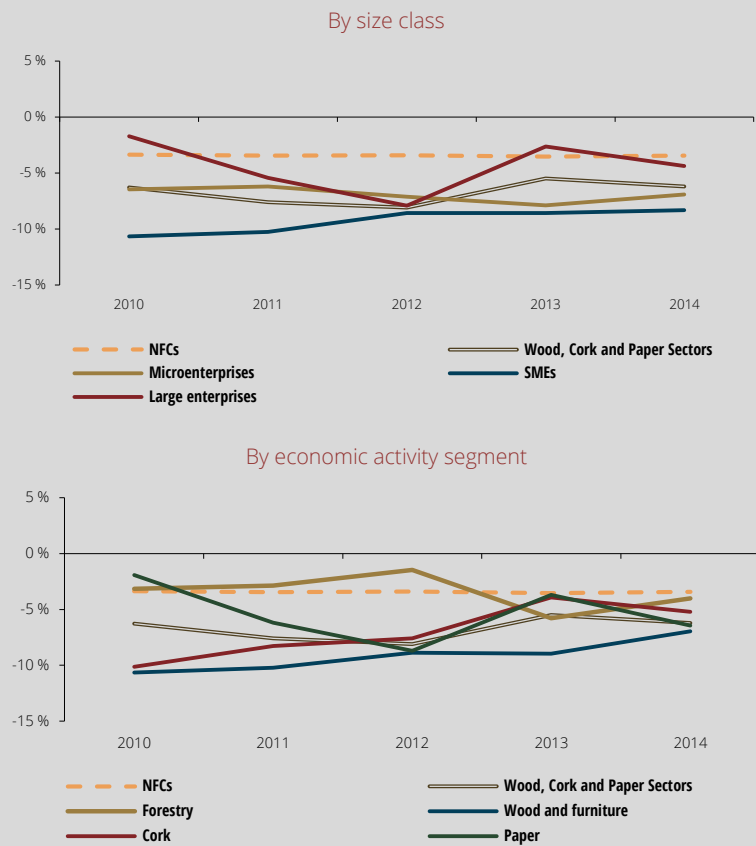
In the case of the *Wood, Cork and Paper Sectors*, in 2014 net trade credit financing stood at -6 %, as a percentage of turnover, which means

these sectors did not obtain financing in net terms through this means, similarly to most NFCs (a negative balance equivalent to 3 % of turnover) (Chart 31).

None of the size classes or economic activity segments associated with the sectors under analysis obtained net trade credit financing. However, net financing was less negative in large enterprises (-4 %, compared with -7 % for microenterprises and -8 % for SMEs). By economic activity segment, 'Forestry' and 'Cork' had levels of net trade credit financing closer to a balanced position in 2014 (-4 % and -5 % respectively), in contrast to 'Wood and furniture' (-7 %).

Developments in 2014 show that net trade credit financing in the *Wood, Cork and Paper Sectors* worsened slightly (0.7 p.p.), with a decline in days sales outstanding accompanied by an even greater decline in days payable outstanding. These developments were to a large extent the result of a worsening balance for large enterprises (-1.8 p.p.), in contrast to the positive changes recorded in the remaining classes. By economic activity segment, only 'Wood and furniture' and 'Forestry' offset this trend, with positive developments in their trade balance (2 p.p. each, compared with 2013).

Chart 31 • Net trade credit financing | As a percentage of turnover

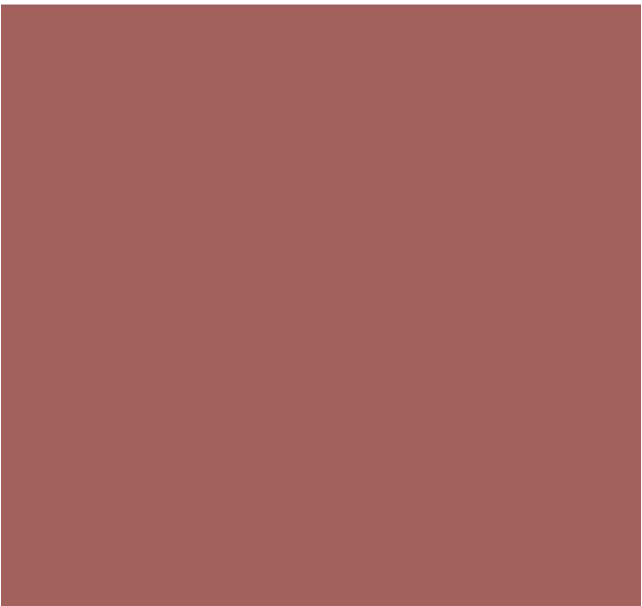


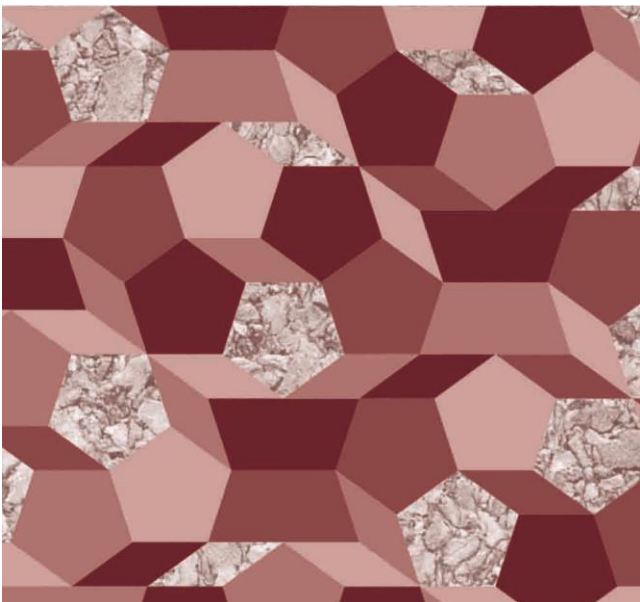
Note: Net trade credit financing was calculated as the difference between accounts payable (net of advances) and accounts receivable (net of advances and adjustments).



## Notes

1. 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 Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013. ESA 2010 is a harmonised benchmark on the compilation methodology and deadline for release of the national accounts of EU countries, including statistics under Banco de Portugal's responsibility. The series under review (2010-14) is based on the ESA 2010 delimitation. Based on this national accounts regulation, sole proprietors are included in the households' institutional sector. Hence, all data on the NFC sector throughout this document exclude sole proprietors (in Portugal these account for around two-thirds of enterprises, but only 5 % of the respective turnover).
2. The Central Balance Sheet Database 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 % 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. The Annex details the CAE-Rev.3 sectors included in the concept of *Wood, Cork and Paper Sector* used in this study.
4. For the sake of simplicity, this study refers to 'enterprise' and corporation' interchangeably when referring to NFCs, as defined in Note 1.
5. Some totals 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 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 No |12 – *Structure and dynamics of non-financial corporations in Portugal 2006-2012*, November 2013.
10. The definition of export sector is detailed in Central Balance Sheet Study No |22 – *Analysis of enterprises in the export sector in Portugal*, June 2015.
11. For more information on economic developments in Portugal, please refer to the *Economic Bulletin* of December 2015, available at [www.bportugal.pt](http://www.bportugal.pt).
12. The 'operating expenses' aggregate is calculated from 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 2 | Bank loans granted by the resident financial system* provides additional information on 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 (generally called 'banks' in this study), as well as factoring companies, credit-purchase financing companies and financial leasing companies. Over 95 % of credit granted by resident credit institutions to NFCs in 2014 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 taken from 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 activity, it is common 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 Wood,  
Cork and Paper Sectors

Methodological summary



## ANNEX • Main indicators of the Wood, Cork and Paper Sectors (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	Loans from resident CIs (1st half of 2015)		Return on equity
			Turnover	EBITDA		Trade credits	Bank loans			% of non-performing enterprises	Non-performing loans ratio	
NFCs	43 %	89 %	2 %	1 %	30 %	-1 %	-8 %	-3 %	28 %	31 %	16 %	3 %
Wood, Cork and Paper Sectors	50 %	86 %	5 %	5 %	40 %	0.2 %	2 %	-6 %	14 %	36 %	16 %	9 %
Forestry	8 %	67 %	16 %	53 %	50 %	17 %	-1 %	-4 %	8 %	23 %	9 %	4 %
Wood and furniture	26 %	79 %	8 %	9 %	33 %	3 %	2 %	-7 %	21 %	39 %	18 %	0.2 %
Cork	42 %	81 %	5 %	33 %	36 %	-5 %	0.1 %	-5 %	14 %	42 %	25 %	10 %
Paper	77 %	90 %	1 %	-3 %	42 %	-2 %	4 %	-6 %	13 %	34 %	4 %	14 %

## Share of the Wood, Cork and Paper Sectors

	Number of enterprises		Turnover		Number of employees	
	2006	2014	2006	2014	2006	2014
NFCs	2.1 %	1.8 %	2.5 %	2.7 %	3.1 %	2.6 %

## Methodological summary

**Capital intensity:** Ratio of tangible and intangible fixed assets to number of employees.

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

**Economic activity sector:** 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.

**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 profit 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.

**Wood, Cork and Paper Sectors:** Table A1 contains additional details on the sub-classes comprising the *Wood, Cork and Paper Sectors* reviewed in this study.

**Table A1 • Breakdown of the Wood, Cork and Paper Sectors**

Economic activity segment	CAE (Rev.3)	Name
Forestry	02	Forestry and logging
	161	Sawmilling and planing of wood
Wood and furniture	1621	Manufacture of veneer sheets and wood-based panels
	1622	Manufacture of assembled parquet floors
	1623	Manufacture of other builders' carpentry and joinery
	1624	Manufacture of wooden containers
	16291	Manufacture of other products of wood
	16292	Manufacture of articles of straw and plaiting materials
	3101	Manufacture of office and shop furniture
	3102	Manufacture of kitchen furniture
	31091	Manufacture of wooden furniture for other purposes
	31094	Completion and finishing of furniture
	Cork	16293
16294		Manufacture of cork
16295		Manufacture of other articles of cork
Paper	17	Manufacture of paper and paper products

## 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
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)
SNC	<i>Sistema de Normalização Contabilística</i> (Accounting Standards System)



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Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (2003/361/EC).

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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
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- 19 | Sector tables and enterprise and sector tables – Methodological Notes (Long Time Series 1995-2013), November 2014
- 20 | Analysis of the mechanical engineering sector, March 2015
- 21 | Analysis of enterprises in the maritime sector, May 2015
- 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